THE UNIVERSITY OF NORTH CAROLINA SYSTEM

EXECUTIVE LEADERSHIP INSTITUTE

Cohort #1 Recognition

Steering Committee

- Dr. Warwick Arden, Executive Vice Chancellor and Provost, NC State University
- Dr. Karrie Dixon, Chancellor, Elizabeth City State University
- Dr. Phil Dubois, Chancellor, UNC Charlotte (retired)
- Dr. David A. Hofmann, Senior Associate Dean for Academic Affairs, Kenan Flagler School of Business, UNC-Chapel Hill
- Dr. Kevin L. James, Dean, College of Business and Economics, North Carolina A&T State University
- Dr. Jose Sartarelli, Chancellor, UNC Wilmington
- Dr. Kimberly van Noort, Senior Vice President for Academic Affairs and Chief Academic Officer, UNC System
- Matthew Brody, Senior Vice President for Human Resources, UNC System *(ex officio)*
- Lynn Duffy, Senior AVP for Leadership Development and Talent Acquisition, UNC System *(ex officio)*

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Module 1: UNC-Chapel Hill

Leadership at the Executive Level

Session 1: Leadership vs Management

Session 2: Self & Other Awareness

Session 3: Inquiry & Advocacy

Highlights:

- Interactive online modules
- Virtual fireside chat with President Hans
- System Office guest speakers

Module 2: North Carolina A&T

Leading Teams

Day 1: Leading Others – Teams & Communication

Day 2: Leading Others – Influence and Change

Highlights:

- Interactive virtual sessions over two days
- Build self-awareness of interpersonal and team dynamics
- Interactive theater experiential learning – "The Perfect Fit"

North Carolina Agricultural and Technical State University

The University of North Carolina System
Executive Leadership Institute

Module 3: UNC Charlotte

Leading the Institution

Day 1: Navigating Context

Day 2: Strategic Communication

Highlights:

- Understand North Carolina, local community, System, and institutional contexts and key issues facing higher education
- Strategies for delivering key messages including communicating during crisis
- Leveraging opportunities for building partnerships
- UNC System leaders as guest speakers

The UNIVERSITY of NORTH CAROLINA at CHARLOTTE

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Team and Individual Coaching

- Executive coaching is offered through out the program in collaboration with The Swain Center for Executive Education & Economic Development at UNC Wilmington
- Participants receive 360 feedback using Center for Creative Leadership Executive Benchmarks
- Individual development plans customized for each participant with manager input

Cohort 1 Participants

- **Afua Arhin**, FSU
- **Bradley Ballou**, UNCW
- **George Battle**, UNC-Chapel Hill
- **J. Lee Brown**, FSU
- **Julie Byerley**, UNC-Chapel Hill
- **Drake Fowler**, The North Carolina Arboretum
- **Alyn Goodson**, ECSU
- **Jim Harper**, NCCU
- **Laura Herndon**, UNCA
- **Jesh Humphrey**, UNCC
- **Esther Leerkes**, UNCG
- **Stephanie Luster-Teasley**, NCA&T
- **Constance Mallette**, WSSU
- **Bethany Meighen**, System Office
- **Anthony Nelson**, NCCU
- **Sherine Obare**, NCA&T
- **Jaime Raynor**, WCU
- **Engle Revels**, UNCP
- **Shun Robertson**, System Office
- **Susan Scott**, PBS NC
- **Julie Smith**, NCSU
- **Jennifer Troyer**, UNCC
- **Jeff Whitworth**, UNCG

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Afua Arhin

Interim Dean
College of Health, Science and Technology

Fayetteville State University

FAYETTEVILLE STATE UNIVERSITY

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Bradley Ballou

Chief of Staff

University of North Carolina at Wilmington

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George Battle III

Vice Chancellor for Institutional Integrity and Risk Management

University of North Carolina at Chapel Hill

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J. Lee Brown III

Interim Provost
and Vice Chancellor
for Student Affairs

Fayetteville State University

FAYETTEVILLE
STATE UNIVERSITY

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NORTH CAROLINA SYSTEM
EXECUTIVE LEADERSHIP INSTITUTE

THE UNIVERSITY *of* NORTH CAROLINA *at* CHAPEL HILL

Julie Byerley

Vice Dean
for Academic Affairs
and Chief Education Officer.

Currently serving as Interim Dean of the UNC Adams School of Dentistry

University of North Carolina at Chapel Hill

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Drake Fowler

Deputy Executive Director

The North Carolina Arboretum

The North Carolina Arboretum

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Alyn Goodson

Vice Chancellor
for Operations
and General Counsel

Elizabeth City State University

ECSU
ELIZABETH CITY STATE UNIVERSITY
FOUNDED 1891

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Jim C. Harper II

Chair
Department of History

North Carolina
Central University

NORTH CAROLINA CENTRAL UNIVERSITY
FOUNDED 1910

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UNIVERSITY of NORTH CAROLINA
ASHEVILLE

Laura Herndon

Associate Vice Chancellor for External and University Relations

University of North Carolina at Asheville

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APPENDIX A

Jesh Humphrey

Vice Chancellor
for Institutional Integrity
and General Counsel

University of North Carolina
at Charlotte

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Esther Leerkes

Associate Dean for Research, Health and Human Sciences

University of North Carolina at Greensboro

UNC GREENSBORO

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EXECUTIVE LEADERSHIP INSTITUTE

Stephanie Luster-Teasley

Vice Provost for Undergraduate Education

North Carolina A&T State University

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Constance Mallette

Vice Chancellor
and Chief Financial Officer

Winston-Salem
State University

WINSTON-SALEM STATE UNIVERSITY

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Bethany Meighen

Vice President for Student Affairs

UNC System Office

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Anthony Nelson

Dean,
School of Business

North Carolina
Central University

NORTH CAROLINA CENTRAL UNIVERSITY
FOUNDED 1910

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EXECUTIVE LEADERSHIP INSTITUTE

Sherine Obare

Dean,
Joint School of Nanoscience and Nanoengineering

North Carolina A&T State University
University of North Carolina at Greensboro

UNC GREENSBORO

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EXECUTIVE LEADERSHIP INSTITUTE

Jamie Raynor

Interim Vice Chancellor for Advancement

Western Carolina University

Western Carolina University

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Engle Revels

Director of Admissions

University of North Carolina at Pembroke

Shun Robertson

Senior Associate Vice President for P20 Policy and Programs

UNC System Office

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Susan Scott

Chief Growth Officer

PBS North Carolina

PBS NC

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NC STATE UNIVERSITY

Julie Smith

Assistant Vice Chancellor for External Affairs, Partnerships and Economic Development

North Carolina State University

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Jennifer Troyer

Dean and Professor,
Belk College of Business

University of North Carolina at Charlotte

UNC CHARLOTTE

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EXECUTIVE LEADERSHIP INSTITUTE

UNC GREENSBORO

Jeff Whitworth

Associate Vice Chancellor for Enterprise Infrastructure and Chief Technology Officer

University of North Carolina at Greensboro

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Cohort #1 Experience Descriptors

Cohort #2

- Cohort #2 named in May
- Orientation: June 15, 2021

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THE UNIVERSITY OF NORTH CAROLINA SYSTEM

President's Report
May 27, 2021

When I left high school in western North Carolina, which was a little while ago now, many of my classmates went directly into the working world. They had every expectation of finding and keeping a good job that could sustain a family. In manufacturing, textiles, agriculture, and a host of other industries, you could take an entry-level job with a solid company and expect to stay there for decades.

That is less true today. It's much harder for North Carolinians with a high school diploma or less to build the kind of lives they want, with the kind of income and stability that makes it possible to raise a family and give back to the community. It's not *impossible*, and I know there are good jobs out there that don't require a four-year degree. But almost all of them require some kind of specialized training, some kind of technical expertise, that isn't easy to acquire. This is one reason I'm so passionate about community colleges.

I've been thinking a lot about that over the past few months as the economic recovery from the pandemic gathers steam. It's an odd moment, when the overall rate of growth is accelerating faster than we've seen in generations and yet millions of Americans are out of work. That is a disconnect.

We're not going back to the same economy we had in February of 2020, much less 2010 or 2000. The trends I mentioned above, most especially the rise of automation and artificial intelligence, will accelerate fundamental changes in the American economy.

What that means for our public universities is simple yet daunting: a lot more people are going to need a second chance at higher education, the opportunity for a meaningful college experience in the middle of their lives and careers instead of at the beginning. We need a new, expanded vision of who our colleges and universities are meant to serve.

For almost 150 years, American higher education has counted on a steady increase in the number of young people ready and eager to step through our doors. That's been especially true in the half-century of the UNC System's rise, when our growing state and modernizing economy meant huge demand for educating recent high school grads in everything from biochemical engineering to arts and design.

With the unwavering support of our state's leaders, in both parties, we've met that demand. North Carolina created one of the strongest, most diverse, most affordable systems of higher education in the country. Each of our institutions was purpose-built to serve particular regions and particular sectors of the state and with particular goals in mind.

Our best moments have come because we listened to the needs of a changing world, and we responded.

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I believe another of those moments is at hand. There are hundreds of thousands of North Carolinians who could benefit from higher education but didn't get the opportunity when they were 18 or 19 years old. Maybe they already had a job, maybe they were already starting a family, maybe they just weren't ready yet. All the answers to life's questions aren't necessarily known at the age of 18.

Last week, I joined many of our chancellors and a number of our Board members for a discussion with Nathan Grawe, an economist who studies labor markets and higher education. He walked us through the demographic trends that will make business as usual impossible for traditional colleges and universities in the years ahead.

Our traditional focus has been on 18-24 year-olds and that commitment will continue. But Dr. Grawe also spoke about the tremendous potential for institutions that embrace the need for change, that learn encouraging lessons from the adaptation and agility that we've seen during the pandemic. His findings and others like it, have many in education concerned, though.

One news summary put it like this, "there are indications that the depth of their predicament is also finally prompting colleges and universities to make structural changes that critics contend are long overdue, which could flatten or lower students costs, reduce dropout rates, better connect academic offerings to workplace demand, make it easier to transfer and adapt to the needs of older adults and other untapped markets."

It sounds similar to the to-do list we've discussed. I believe strong institutions like ours can use this moment to redefine our value to adult learners.

When you survey working adults about where they would look for retraining or career transitions, very few of them name higher education. They know we're not really built to educate people with jobs and families and full lives, and they look elsewhere. More than sixty thousand adult learners in North Carolina are taking classes from out-of-state providers, mostly online, because we didn't reach them or they didn't find our offerings flexible enough to meet their needs.

That must change. It's no longer enough to tinker at the margins of our business model, or run a few small-scale programs designed to help working adults. Making sure that all North Carolinians have real opportunity, at any stage of life, is a great challenge of our university right now.

In the months ahead, we're going to make a significant effort to turn this vision into a reality — to build our capacity to translate the extraordinary value of a UNC education into a form that working adults can access. I want to see us reduce student costs even more than we have; build much greater flexibility into our degree programs; embrace the potential of improved and enhanced digital instruction that we've seen over the last year; and show North Carolinians looking for a second chance that there's a clear path between a UNC degree or a community college credential and a high-quality job.

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We can fundamentally change our appeal to adult learners, and doing it on a statewide scale. I believe the future of our institutions and the prosperity of our people depends on it.

Much more to come, but my thanks to all of you who have been engaged in this conversation and eager to embrace this work.

The UNC Policy Manual
600.1.1
Adopted 11/14/97
Amended 06/08/01
Amended 06/14/13
Amended 05/22/19
Amended 11/19/20
Amended 05/27/21

Policy on Design, Construction, and Financing of Capital Improvement Projects

I. Authority. G.S. 143C-8-12 provides the Board of Governors with authority to approve certain expenditures for capital improvement projects that will be funded and operated entirely from non-General Fund money, including expenditures to plan, construct, and change the scope of such projects.

Additionally, G.S. 116-31.11 delegates to the Board of Governors the authority for the administration of design, construction, or renovation of buildings, utilities, and other property developments requiring the estimated expenditure of public money of $2,000,000 or less. The Board is also authorized to delegate that authority to constituent institutions and affiliated entities of the University of North Carolina if an institution or affiliated entity is qualified under guidelines developed in consultation with the director of the budget and the State Building Commission. Pursuant to this authority, guidelines entitled “The University of North Carolina Design and Construction Guidelines” were implemented to provide assistance to the constituent institutions in the administration of the design and construction of capital improvement projects. Copies of the guidelines may be obtained at the UNC System Office.

Pursuant to and consistent with its authority under the North Carolina General Statutes, including G.S. 116-11(13), the Board of Governors adopts the following policy regarding authority of the president and boards of trustees to approve and administer certain capital improvement projects.

II. Approval of Certain Capital Improvement Projects

A. General Delegations of Authority to the President and Boards of Trustees for Approval of Certain Capital Improvement Projects.

1. The Board of Governors delegates to the president and the boards of trustees the power to approve capital improvement projects that are funded entirely with non-General Fund money that are projected to cost less than $750,000.[1] The president’s authority may be exercised on behalf of the UNC System Office, affiliated entities, or the constituent institutions in the president’s discretion.

2. The Board of Governors delegates to the president and the boards of trustees authority to approve advance planning of capital improvement projects, where the advance planning effort is to be funded entirely with non-General Fund money.[2]

3. The Board of Governors delegates to the president the authority to approve an increase of up to 10 percent of the cumulative value of an originally-awarded construction contract for a System Office, affiliated entity, or constituent institution capital improvement project previously authorized by the Board of Governors.

4. After the long-term financing of a capital improvement project has been approved in accordance with statutory requirements, the president may approve interim financing or bank loans as a means of short-term financing. The president shall report any such actions to the Committee on Budget and Finance at its next meeting.

B. Additional Delegations of Authority to the President and Boards of Trustees for Approval of Capital Improvement Projects.

1. The Board of Governors may delegate to the president additional authority to approve capital improvement projects funded entirely with non-General Fund money that are projected to cost less than $1,000,000.[3]

2. Upon request by the board of trustees of a constituent institution or affiliated entity and with the recommendation of the president, the Board of Governors may delegate to the board of trustees of a constituent institution or affiliated entity additional authority to approve capital improvement projects funded entirely with non-General Fund money that are projected to cost less than $1,000,000.[4]

3. Should the Board of Governors delegate additional authority to one or more boards of trustees or affiliated entities consistent with paragraph 2., above, the president shall automatically receive authority to approve capital improvement projects at a level equal to the highest level of authority delegated to a board of trustees or affiliated entity. The president's authority may be exercised on behalf of the UNC System Office, affiliated entities, or the constituent institutions in the president's discretion.

4. The senior vice president for finance and administration, in consultation with the senior vice president and general counsel, shall establish the process by which a constituent institution may request and maintain delegated authority consistent with G.S. 143C-8-12 and other relevant state law. The minimum criteria a constituent institution must meet to receive and maintain authorization from the Board of Governors shall include, but not be limited to, performance of a written, comprehensive self-assessment that demonstrates:

a. The constituent institution has performed a written, comprehensive self-assessment that demonstrates it has the administrative, technical, and support resources necessary to properly carry out the delegated authority.

b. The chancellor has certified in writing that the constituent institution has the administrative, technical, and support resources necessary to properly carry out the delegated authority.

c. The constituent institution has a properly constituted and active campus capital project review committee comprised of individuals with sufficient technical expertise, strategic perspective and executive authority to perform the duties required herein.

d. The constituent institution has an individual on staff with substantial experience in managing capital improvement projects and the chancellor has designated that individual as the campus capital project coordinator.

e. The constituent institution has appropriate and sufficient technical and professional staff with demonstrated capability in the planning, financing, and oversight of capital improvement projects.

f. An assessment team, assembled and led by the senior vice president for finance, has reviewed the constituent institution's self-assessment, has performed an on-site capabilities appraisal that confirms the institution's self-assessment, and has recommended delegation to the president.

Constituent institutions will be reviewed for re-authorization under this section on a periodic basis, to be established by the senior vice president for finance and administration.

5. Upon review in response to a request for re-authorization or in response to a report of noncompliance with this policy or its associated regulations, for good cause, and consistent with G.S. 143C-8-12 and other relevant state law, the president may revoke or suspend the authority of a constituent institution or take other remedial action as the president deems necessary and appropriate. Once authority has been revoked or suspended pursuant to this policy, all future capital improvement projects for the institution involved shall be completed in accordance with the General Statutes of North Carolina and the general delegations of authority provided for in section II of this policy.

III. Administration of Design and Construction of Certain Capital Improvement Projects. Delegations of the Board of Governors authority for the administration of design and construction of capital improvement projects requiring the estimated expenditure of public money of $2,000,000 or less shall be in accordance with G.S. 116-31.11 and "The University of North Carolina Design and Construction Guidelines."

IV. Procedures and Reporting Requirements. The senior vice president for finance and administration shall have general authority to establish such procedures and reporting requirements for constituent institutions and affiliated entities as may be prudent to enable implementation of this policy and associated regulations.

V. Other Matters

A. Effective Date. The requirements of this policy shall be effective on July 1, 2019.

B. Relation to Other Laws. This policy is designed to supplement, and does not purport in any way to supplant or modify, those statutory enactments and rights which may govern capital improvement projects in the State of North Carolina.

C. Regulations and Guidelines. This policy shall be implemented and applied in accordance with such regulations and guidelines as may be adopted by the president.

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[1]This delegation of authority shall be interpreted consistent with G.S. 143C-8-12. See also Appendix 1 to *The Code* and Section 200.6 of the UNC Policy Manual.
[2]Unless otherwise indicated by the Board of Governors, this delegation of authority to boards of trustees to approve advance planning efforts shall not be further delegated.
[3] See endnote 1, above.
[4] See endnote, 1, above.

APPENDIX D

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

Report on FY 2020 UNC System Debt Capacity Study

May 26, 2020

Table of Contents

FY 2019-20 Debt Capacity Study

Purpose of the Study

The Current Operations and Capital Improvements Appropriations Act of 2015, which was signed into law on September 18, 2015, added a new Article 5 to Chapter 116D of the General Statutes of North Carolina (the "***Act***"), requiring each constituent institution (collectively, the "***Institutions***") of The University of North Carolina (the "***University***") to provide the Board of Governors of the University (the "***Board***") with an annual report on its current and anticipated debt levels. The Act requires that the University, in turn, submit to the Office of State Budget and Management, the Joint Legislative Commission on Governmental Operations, the State Treasurer and The University of North Carolina System (the "***UNC System Office***") an annual study incorporating each Institution report.

This report (the "***Study***") has been developed to address the Act's mandate to advise stakeholders "on the estimated debt capacity of The University of North Carolina for the upcoming five fiscal years" and establish "guidelines for evaluating the University's debt burden."

The Act also requires the Board to submit a uniform report from each institution regarding its debt burden and anticipated debt levels, in addition to other data and information relating to each institution's fiscal management. Those Institution Reports are attached to the Study as **Appendix D**.

Methodology Used

Since the Act defines "debt" for the purposes of the Study to exclude debt serviced with "funds appropriated from the General Fund of the State," the Study primarily focuses on special obligation bonds issued under Article 3 of Chapter 116D ("***special obligation bonds***" or "***general revenue bonds***"), millennial campus bonds issued under Article 21B of Chapter 116, and other long-term debt issued on behalf of each institution to finance various capital facilities, including housing and other enterprise projects.

N.C. General Statute § 116D-26(a) prohibits using the obligated resources of one institution to secure the debt of another institution, meaning the University has no debt capacity independent of its constituent Institutions' individual ability to issue debt. The Study does not, therefore, aggregate each institution's individual debt levels and obligated resources to derive a University-wide debt capacity metric. Instead, the Study offers a comprehensive review of each institution's debt capacity using the guidelines presented in the Act, which the System has presented in detail in the Institution Reports included as part of **Appendix D**.

The Act expressly requires the University to establish guidelines for two ratios—**debt to obligated resources** and a **five-year payout ratio**. The Study also includes two additional ratios that are more widely used to measure a public university's debt burden—**expendable resources to debt** and **debt service to operating expenses**. For more details on the ratios, see the information under the caption "Description of Ratios" on the following page.

The Study is based on a financial model that has been developed to measure four ratios on a pro forma basis over the next five years (the "***Study Period***"). Recognizing the wide diversity in enrollment, funding sources and missions across each institution, the UNC System has worked with each institution to establish tailored and meaningful target policies for its respective ratios.

While an institution's ultimate debt capacity is affected by numerous quantitative and qualitative factors, for the purposes of the Study, "*estimated debt capacity*" is defined as the maximum amount of debt each institution

could issue without exceeding its ceiling ratio for debt to obligated resources in any single year of the study period.

Description of Ratios

The model considers the following four ratios:

Statutory Ratios

Ratio	Explanation	Commentary
Debt to Obligated Resources	Compares each institution's outstanding debt to the funds legally available to service its debt	• Provides a general indication of an institution's ability to repay debt from wealth that can be accessed over time • Tied to the statutory framework for institution debt, so ratio is not used outside the State
Five-Year Payout	Measures the percentage of each institution's debt to be retired within the subsequent five year period	• Indicates how rapidly an institution's debt is amortizing and how much additional debt capacity may be created in the near term • Five year horizon is not widely used

Supplementary Ratios

Ratio	Explanation	Commentary
Debt Service to Operations	Measures debt service burden as a percentage of each institution's total operating expenses	• Indicates an institution's operating flexibility to finance existing requirements and new initiatives • Uses expenses rather than revenues because expenses tend to be more stable year-over-year • Permits comparison to peers outside the State
Expendable Resources to Debt	Measures the number of times each institution's liquid and expendable net assets covers its aggregate debt	• Provides a general indication of an institution's ability to repay debt from wealth that can be accessed over time • Permits comparison to peers outside the State

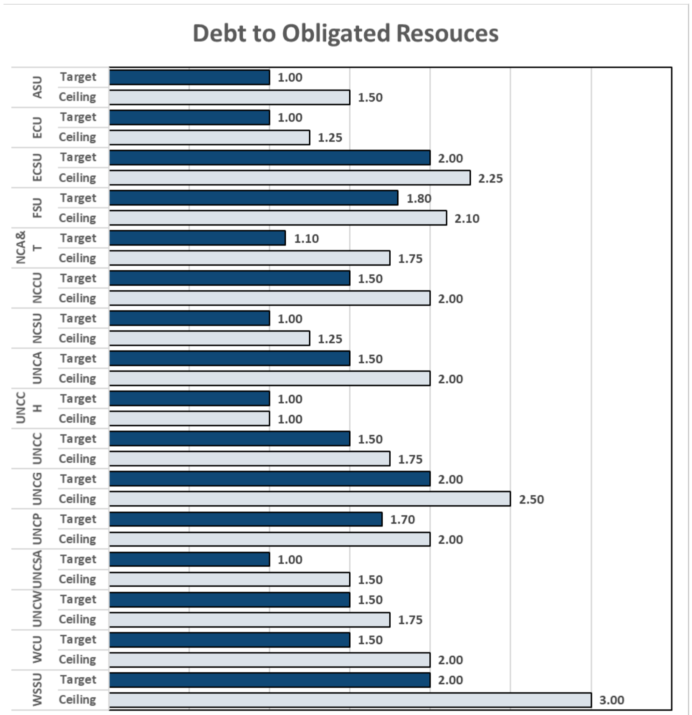
The first two ratios—**debt to obligated resources** and **five-year payout**—are mandated by the Act. While the ratios provide useful snapshots of each institution's debt profile and fiscal condition, the two ratios are not used outside of North Carolina. To provide additional data points and peer comparisons, the Study tracks two additional ratios—**debt service to operations** and **expendable resources to debt**.

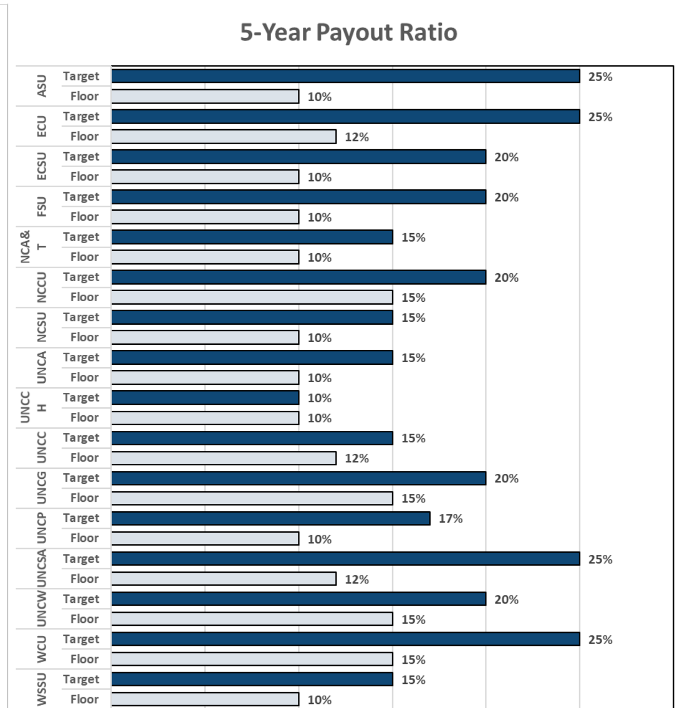
Note that the Study uses each institution's "Available Funds" as a proxy for its obligated resources. "Available Funds" is reported publicly by each institution with outstanding general revenue bond debt and reflects how Article 3's "obligated resources" concept has been translated into the bond documentation governing each institution's general revenue bonds. The two concepts are identical for most institutions, but to the extent there is any discrepancy, "Available Funds" will produce a lower, more conservative figure.

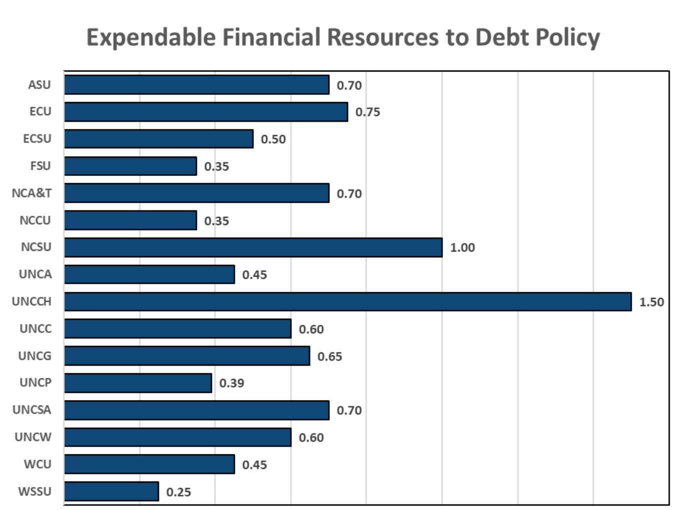
See **Appendix A** for more information on the ratios and the definitions for related terms.

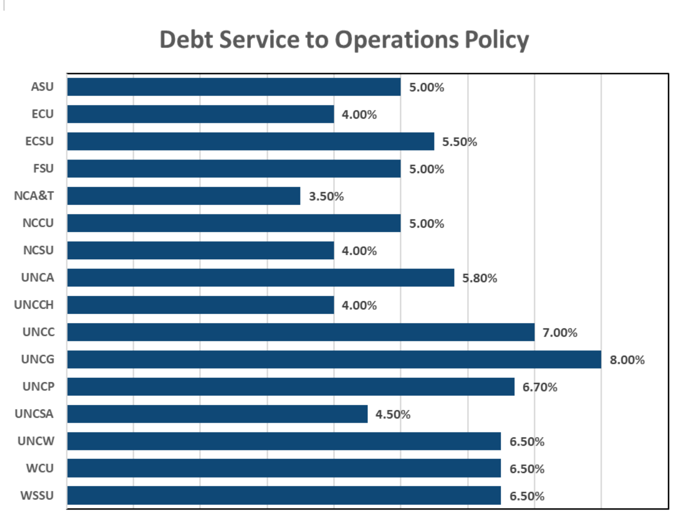
Overview of Target and Policy Ratios

For the two statutorily-required ratios—**debt to obligated resources** and **the five-year payout ratio**—each institution has set both a target ratio and a floor or ceiling policy, as applicable. The target and policy ratios are summarized below. See **Appendix C** for more information on the methodology each institution used in setting its target and policy ratios.





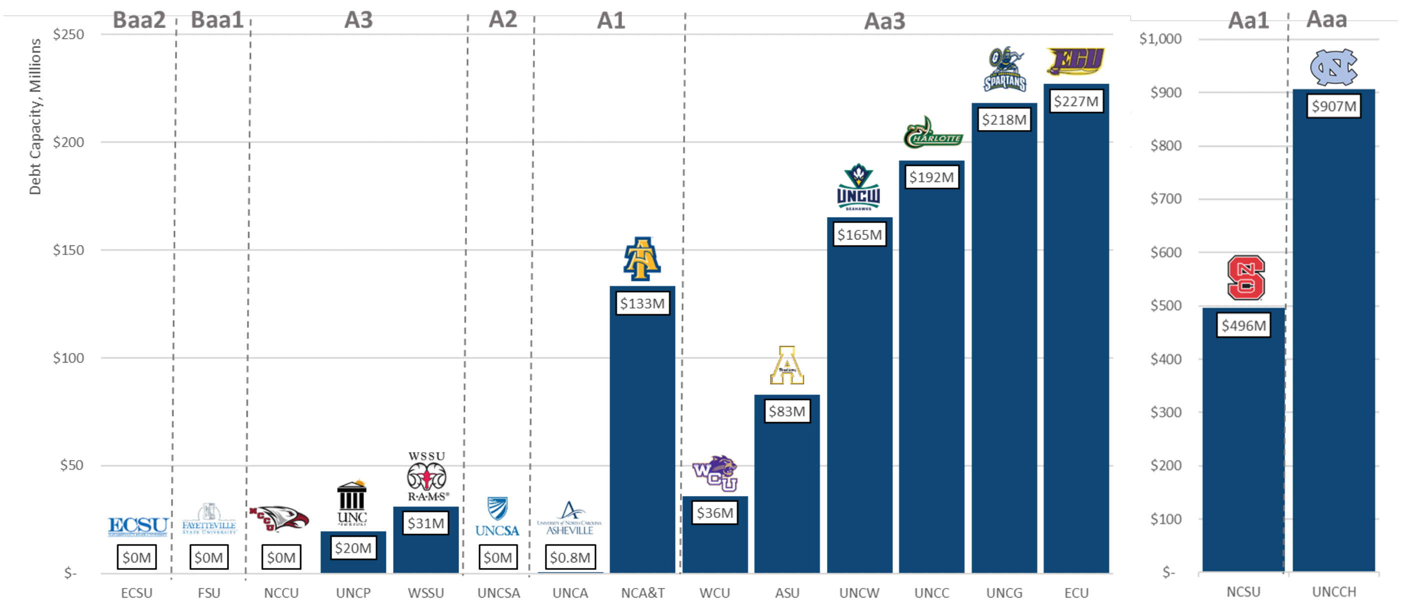




Conclusions

The following table summarizes the **current debt capacity** of each institution as defined for the purposes of the Study. The numbers in the table reflect **the maximum amount of debt each institution could issue in fiscal year 2021** without exceeding its ceiling ratio for **debt to obligated resources** during any year of the Study Period, after taking into account any approved future projects. The approved future projects for each institution, if any, are detailed in its report included as part of **Appendix D.**

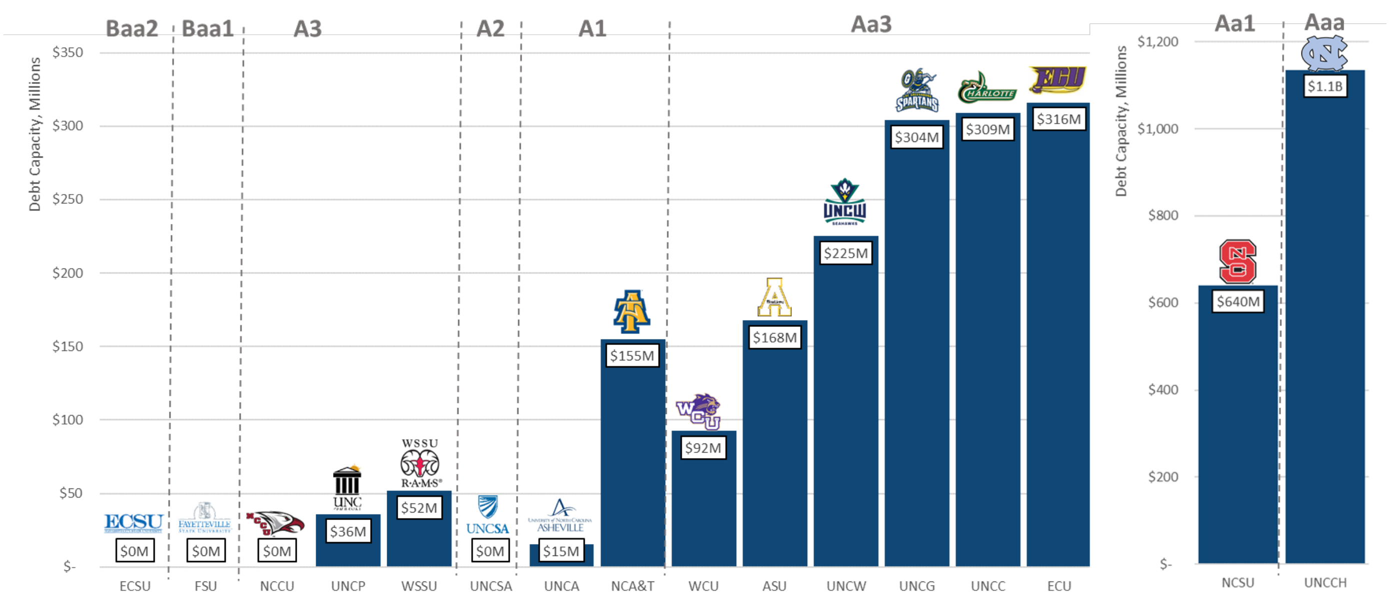
Current Debt Capacity Across the System (2021)



*The debt capacity figures for NCSU and UNCCH have been presented in a separate chart using a compressed scale to make the debt capacity figures for the other institutions easier to interpret. Institutions showing no debt capacity have a debt to obligated resources ratio that is higher than the institution's target policy.
**FSU and UNCP are not currently rated by Moody's. FSU and UNCP have been grouped based on their corresponding ratings from either Standard and Poor's or Fitch.

Generally, debt capacity for each institution will grow over the course of the Study Period. The table below summarizes each institution's **projected debt capacity for fiscal year 2025,** assuming it issued no debt (other than debt to finance any approved future projects) until the last year of the Study Period.

Projected Debt Capacity Across the System (2025)



*The debt capacity figures for NCSU and UNCCH have been presented in a separate chart using a compressed scale to make the debt capacity figures for the other institutions easier to interpret. Institutions showing no debt capacity have a debt to obligated resources ratio that is higher than the institution's target policy.
**FSU and UNCP are not currently rated by Moody's. FSU and UNCP have been grouped based on their corresponding ratings from either Standard and Poor's or Fitch.

The credit ratings in the graphs on the previous page represent the Moody's rating or assumed Moody's rating as of June 30, 2020. Since the end of the Study Period, Moody's confirmed Appalachian State's Aa3 credit rating and upgraded the outlook from negative to stable in 2021.

The range of capacities reflects the diversity among the institutions, each with its own strengths, challenges and mission. The Study reflects the general health and proactive management of each institution's balance sheet, much of which is attributable to the State's history of strong support for the University and its institutions. The general growth in capacity over the course of the Study Period indicates relatively rapid amortization rates for most institutions.

The limited debt capacity shown for Elizabeth City State University, University of North Carolina at Asheville, University of North Carolina School of the Arts, and Fayetteville State University reflect recent or future financings that have already been approved by the Board and the General Assembly and are already factored into the debt-related ratios for those institutions. It is anticipated those institutions will have limited additional borrowing needs during the study period.

A small handful of institutions are facing significant headwinds in terms of enrollment and revenue growth, which is reflected in their debt capacity results. For those institutions, improving debt capacity alone may not be a priority; instead, their debt capacity will improve as they continue to work with the UNC System to implement new strategies and policies to meet their unique challenges. Due to the uncertainty of COVID-19, the growth rate assumptions were revised from the previous year's study. The growth rate assumption uses year-over-year growth to estimate the growth for FY 2020-21. If the financial impacts are less than assumed, the debt capacity of East Carolina University, ECSU, FSU, North Carolina Central University, University of North Carolina at Chapel Hill, UNCSA, and Western Carolina University will be higher than those shown on the chart on the previous page. More information about the method for these adjustments can be found in **Appendix C**.

While the Study provides useful insight into the overall fiscal position and capital needs of each institution, policymakers and other stakeholders identify trends and challenges facing each institution and the University over time, the Study also underscores the unique nature of public higher education debt and the value of the UNC System's centralized support and oversight. **The Study's emphasis on aggregate debt and asset levels is valuable, but the current approval process, which is predicated on a collaborative, project-by-project analysis of tailored cost estimates and project-specific sources of repayment, should continue to drive decision-making with respect to any proposed project.**

Recommendations

Recommended Use of the Study

Since the Study is framed broadly to accommodate the complexity and diversity of each institution's mission, business model, size and infrastructure needs, the Study should be used as a general assessment of each institution's overall fiscal position and to help Institutions, policymakers, and other stakeholders identify trends and challenges facing each institution and the UNC System. Like any other management tool, the Study is not intended as a substitute for the considered judgment of institutional leadership, the UNC System, the Board, or the General Assembly. An institution may be better served, for example, foregoing a project when it has significant debt capacity even if doing so would cause the institution to exceed one of its stated target ratios.

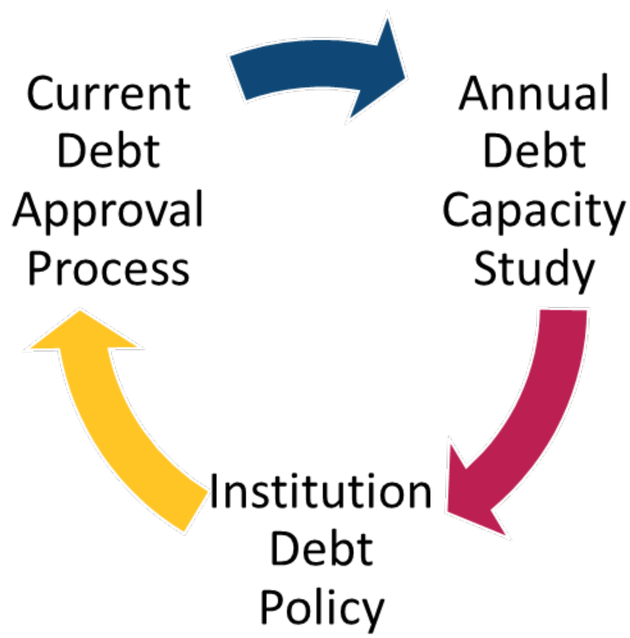
While the Study will help policymakers and stakeholders determine when additional scrutiny for a project may be warranted, institutional debt policies and the University's debt approval process — which is predicated on a project-by-project analysis of tailored cost estimates and identified sources of repayment — should continue to drive decision-making with respect to any proposed financing.

The graphic below summarizes how the Study is intended to be integrated into a comprehensive debt management framework that includes each institution's debt policy and the University's debt approval process.

Annual Debt Capacity Study
- Provides a snapshot of each institution's current estimated debt capacity
- May indicate when a proposed project requires heightened scrutiny
- Updated annually to reflect newly approved debt and the institution's latest financial results and projects

Institution Debt Policy
- Clarifies each institution's strategic approach to debt and its capital investment needs
- Establishes criteria for evaluating projects and approving debt, including benchmarks to measure prudent debt levels

Current Debt Approval Process
- Evaluates each proposed project's affordability based on identified sources of repayment and projected impact on student cost
- Uses estimated debt capacity results to assess strategic value of proposed projects in light of an institution's overall debt burden, mission, and needs



Use and Impact of Project-Based Financing Structures

Project-based financing structures — i.e., debt obligations payable solely or primarily from the financed project's revenues (collectively, "**Project Financings**") — have been used effectively throughout the state for many years. Institutions have structured their Project Financings using both their affiliate support organizations (collectively, "**Foundation Financings**") and unaffiliated, tax-exempt organizations (collectively, "**Privatized Financings**"). Many Project Financings have been structured with the support of master lease arrangements with the institutions (collectively, "**University-Supported Project Financings**"), while others have been structured so that the institutions have no obligation to repay any associated debt (collectively, "**Nonrecourse Project Financings**").

Since project revenues in Nonrecourse Project Financings accrue to the project owner and not the institution, Nonrecourse Project Financings are not payable from the obligated resources of an institution and have therefore been **excluded** from the Study's debt capacity calculations. By contrast, State-Supported Project Financings, which are supported by the institution's obligated resources, **are included** in the Study's debt capacity calculations.

Over the past couple years, several institutions have entered into (or have obtained approval to enter into) large-scale Project Financings for new, on-campus housing facilities. Each of those transactions has been structured as Nonrecourse Project Financings, so those debt instruments are **not** included in the Study's debt capacity calculations. The rating agencies have made it clear recently, however, that they will be more likely to include Nonrecourse Project Financings in their institution leverage metrics for on-campus housing, even if the institution has no legal obligation to repay the debt. Thus, the use of Nonrecourse Project Financing structures may reduce the debt capacity of an institution in the eyes of the rating agencies.

The UNC System Office has developed guidelines for the prudent use of Project Financing structures and will continue to work with the institutions and other stakeholders in state government to ensure Project Financing structures are used strategically and in keeping with the UNC System's mandate to provide access to the benefits of the University at the lowest practicable cost.

CARES Act, Other Federal Relief Legislation, and COVID-19 Operational Impact

The federal relief funds provided through the Coronavirus Aid, Relief, and Economic Security (CARES) Act, Coronavirus Response and Relief Supplemental Appropriations Act, and American Rescue Plan Act (ARPA) have provided significant financial relief to the constituent institutions. The federal legislation provided funds to the institutions for both direct aid to students and institutional funds to offset the costs of the pandemic. The universities have significant latitude in determining how to use their allotment of institutional funds. The federal relief funds will have a positive stabilizing effect on university finances for the next several years because the universities have 365 days from receiving the Grant Award Notification to spend their institutional funds and can request a one-time extension as well.

COVID-19 related costs and losses not offset by relief fund allocations are being addressed through operational budget reductions, expense restrictions, the implementation of hiring and salary freezes, the postponement of capital and renovation expenditures, with the remaining amounts absorbed by institutional fund reserve balances. In response to COVID-19, on May 20, 2020, the UNC Board of Governors voted not to raise tuition or mandatory fees for the 2020-21 academic year at any UNC institution. Revenues from auxiliary operations were negatively impacted in the spring 2020 semester and for the 2020-21 academic year due to the cessation and disruption of auxiliary services and the de-densification of residence halls.

The CARES Act was the only federal relief bill that passed during the study period. The UNC System Office allowed the institutions to determine how to account for the funds. ECSU, North Carolina A&T State University, and UNCA took distributions from their CARES Act allocations and recorded those funds as unrestricted for accounting purposes so the funds are included in their calculations of available funds. The remaining institutions either took no distributions before June 30 or recorded the distributions as restricted.

As a general matter, the continued spread of COVID-19 has impacted and will continue to impact global financial markets and national, state, and local economies. The UNC System cannot predict the duration and ultimate effects of the outbreak on the finances of the Universities including enrollment, demand for housing, dining, auxiliary services, available funds, and the value of the University's investments.

Moody's and S&P Credit Ratings' Changes Due To COVID-19 Impact

The COVID-19 pandemic caused widespread uncertainty in the financial health of public universities. In April 2020, S&P Global issued revised credit rating outlooks for the higher education sector in response to the COVID-19 impacts for US higher education. Prior to the revision, only 9.2 percent of S&P's rated institutions (approximately 40 out of 438 private and public institutions) carried negative outlooks. After the April 2020 assessment, 38 percent (or 166 institutions) had negative outlooks. Recently, credit ratings for FSU, UNC Pembroke, and Winston-Salem State University received negative outlooks due to risks of state funding cuts and risks to associated entities linked to certain debt issuances by these universities.

However, the situation is improving. In March 2021, Moody's revised its outlook for the higher education sector from negative to stable. Moody's had assigned the higher education sector a negative outlook since December 2017. Moody's cites four key reasons for the improved outlook.

1. "Improving prospects for return to campus in fall 2021 will bolster tuition and auxiliary revenue.
2. Federal government relief funds provide additional direct aid to higher education, offsetting pandemic-related revenue losses and expense increases.
3. Risk of material funding cuts for public universities decreases as state economies recover.
4. Economic growth prospects and financial market strength supports philanthropy and endowments."

Appendix A: Key Definitions

Debt: Debt incurred under Chapter 116D or Article 21B of Chapter 116 of the North Carolina General Statutes or any other debt that will be serviced with funds available to the institutions from gifts, grants, receipts, Medicare reimbursements for education costs, hospital receipts from patient care, or other funds, or any combination of these funds, but not including debt that will be serviced with funds from the General Fund of the state. “Debt” does not include project-based financing structures that are nonrecourse to the institutions.

Obligated Resources: Any sources of income or receipts of the Board of Governors or the institution at which a special obligation bond project is or will be located that are designated by the Board as the security and source of payment for bonds issued under this Article to finance a special obligation bond project, including, without limitation, any of the following:

a. Rents, charges, or fees to be derived by the Board of Governors or the institution from any activities conducted at the institution.

b. Earnings on the investment of the endowment fund of the institution at which a special obligation project will be located, to the extent that the use of the earnings will not violate any lawful condition placed by the donor upon the part of the endowment fund that generates the investment earnings.

c. Funds to be received under a contract or a grant agreement, including "overhead costs reimbursement" under a grant agreement, entered into by the Board of Governors or the institution to the extent the use of the funds is not restricted by the terms of the contract or grant agreement or the use of the funds as provided in this Article does not violate the restriction.

d. Funds appropriated from the General Fund to the Board of Governors on behalf of a constituent institution for utilities of the institution that constitute energy savings as that term is defined in G.S. 143-64.17.

Generally, obligated resources do not include funds appropriated to the Board of Governors or the institution from the General Fund by the General Assembly from funds derived from general tax and other revenues of the state, and obligated resources do not include tuition payment by students.

5-Year Payout Ratio: Percentage of each institution’s long-term debt scheduled to be retired during the succeeding five-year period.

Debt Service to Operations: Ratio that measures an institution’s debt service burden as a percentage of its total expenses. Ratio uses aggregate operating expenses as opposed to operating revenues because expenses are generally more stable. Operating Expenses also include an adjustment for any noncash charge relating to the implementation of GASB 68 and 75.

Debt Service to Operations = (Annual Debt Service) / (Total Operating Expenses)

Expendable Resources to Debt:

Ratio that measures the number of times an institution's liquid and expendable net assets covers the institution's aggregate funded debt. In calculating the ratio, the institution's Unrestricted Net Assets has been adjusted to add any non-cash charges for the period (such as adjustments required by GASB 68 and 75).

Expendable Resources to Debt = (Adjusted Unrestricted Net Assets + Restricted Expendable Net Assets) / (Debt)

Appendix B: Overview of UNC System Debt

Most debt within the scope of the Study is comprised of special obligation bonds issued by the Board on behalf of each institution in accordance with Article 3 of Chapter 116D of the General Statutes of North Carolina, as amended ("***Article 3***"). Institutions may use special obligation bonds (or "***general revenue bonds***," as they are commonly called) to finance any capital facility located at the campus that supports the institution's mission, but only if the Board has specifically designated the project as a "special obligation bond project" in accordance with Article 3.

Article 3 contains procedural safeguards to ensure the thoughtful use of special obligation bonds. For example, before any general revenue bonds are issued, Article 3 requires the approval of the Institution's board of trustees, the Board of Governors, the General Assembly and the Director of the Budget (in consultation, if necessary, with the Joint Legislative Commission on Governmental Operations).

As part of its approval, the Board of Governors must (1) designate the proposed project as a "special obligation bond project" and the obligated resources that will serve as the source of repayment for the proposed bonds and (2) establish that sufficient obligated resources are reasonably expected to be available to service the proposed bonds. In its report to the General Assembly seeking approval for a proposed Article 3 project, the Board must provide details regarding the project need, expected project costs, expected increases in operating costs following completion (including any contemplated impact on student costs), estimated debt service and the sources and amounts of obligated resources to be used to repay the debt.

Although Article 3 focuses on an institution's obligated resources in the aggregate, as a practical matter, the plan of finance for each proposed project is evaluated on a standalone basis. **If an institution is unable to demonstrate that existing or future revenues associated with a project are sufficient to service the proposed debt, then the financing will generally not move forward unless the project is redesigned to a sustainable and appropriate scale**. Those project-specific revenues may take the form of enterprise system revenues (such as dormitory or dining system revenues) or other dedicated revenue sources (such as capital campaign donations or student fees). Institutional debt issued under other legislative authority, including student housing revenue bonds under Article 19 of Chapter 116D, is also subject to procedural safeguards and are evaluated on a project-by-project basis.

This slight disconnect between the statutory framework for evaluating debt capacity — **with its focus on affordability relative to each institution's aggregate obligated resources** — and the practical manner in which projects are evaluated and approved — **with its focus on an individual project's affordability based on a specific source of repayment** — means that the Study presents an inherently conservative picture of each institution's debt capacity. While the model's inherent conservatism encourages prudent planning, the Study's limitations in evaluating the affordability of any single campus project should be noted.

Unlike the State of North Carolina's debt capacity study, for example, where future debt service is paid out of well-defined and relatively predictable revenue streams, campus projects may be financed through a variety of revenue sources, none of which is easily modeled on a pro forma basis at the aggregate obligated resources level. In addition, the Act establishes a target ratio that compares aggregate debt (which will increase immediately by the full amount of the debt once issued) to obligated resources (which will increase incrementally over time). This means that any new financing will generally reduce the institution's debt capacity as reflected in the Study, even if the new project would be entirely supported by new revenues that would not exist but for the project.

None of the institutional debt included in the Study affects the State of North Carolina's debt capacity or credit rating. Such obligations are payable only from the applicable institution's obligated resources (or other pledged revenues) and do not constitute a debt or liability of the State or a pledge of the State's full faith and credit.

Appendix C: Study Methodology and Background

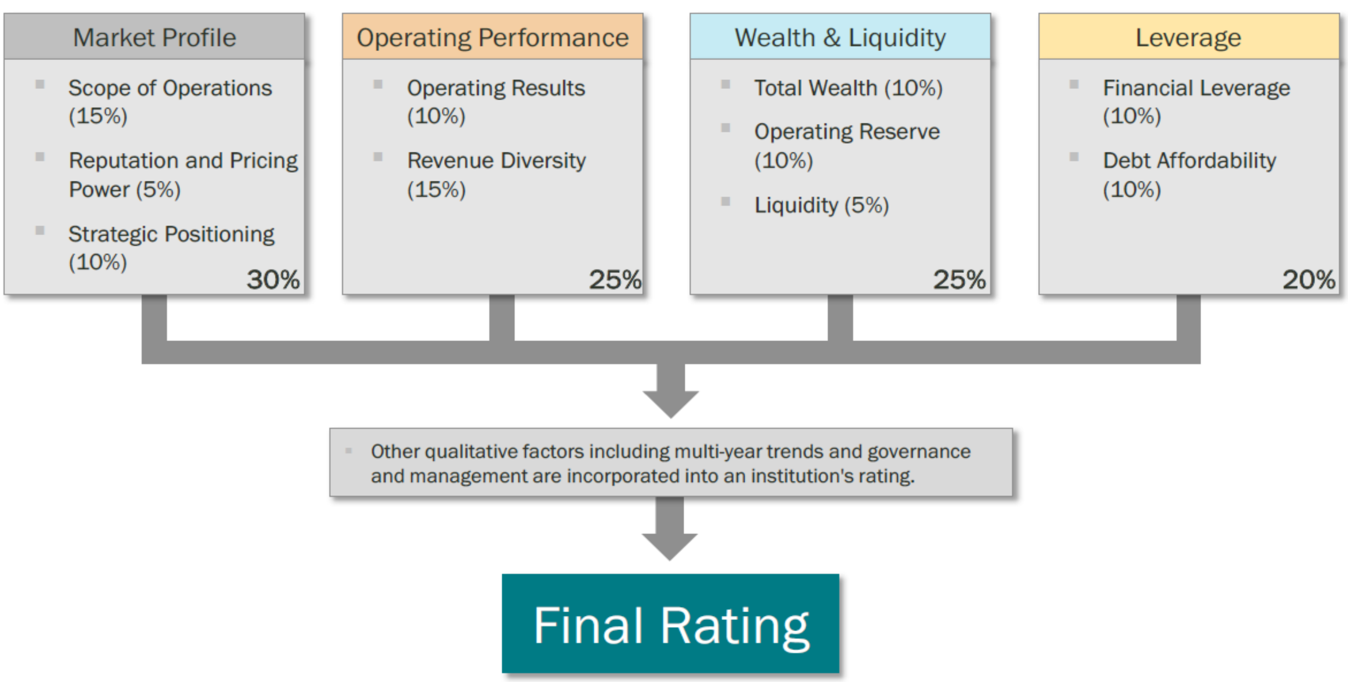
Overview of Strategic Debt Management and Credit Assessment

The prudent use of debt, in service of each institution's mission, provides several strategic benefits:

- **Achieving intergenerational equity** – Most capital projects will benefit students for decades. Financing a portion of each institution's planned capital investments enables each institution to better align the benefits and financial burdens across multiple generations.
- **Enhancing effectiveness** – An institution may use debt to invest in transformative projects on an accelerated schedule, permitting the institution to leverage its resources to better scale its programs, serve its stakeholders and meet its mandated mission.
- **Imposing discipline** – Debt can be used to clarify priorities and reduce other spending that may crowd-out investments necessary for the institution's long-term health.

Burdensome debt levels, however, can undermine an institution's effectiveness and viability. Debt may diminish the future operational flexibility of an institution and may limit its ability to adapt to future developments and trends in the marketplace. In the worst instances, debt levels may hasten the decline of an institution, creating a downward spiral that exerts ever-increasing pressure on its balance sheet.

Each institution's credit rating (for those with rated debt) serves as a general barometer of how the rating agencies view the institution's financial strength and its debt management practices, which, in turn, informs the institution's reputation in the capital markets. In assessing a public university's creditworthiness, rating agencies generally consider three or four broad categories of factors. The table below summarizes the factors that Moody's Investors Service ("***Moody's***") considers as part of its "scorecard," which guides its credit profile analysis in the higher education sector:



*The Study focuses on Moody's methodology, as it rates nearly all of the Institutions.

As part of their criteria, the rating agencies give significant weight to various qualitative factors, such as the strength of the institution's leadership, the quality and responsiveness of its long-range planning and the role of any centralized oversight. In a rating report issued in February of 2016 in connection with an institution bond offering, for example, Moody's noted that the institution "**benefits from being part of the UNC system, which has a demonstrated history of strong oversight of member institutions**" and listed the institution's "**generous operating and capital support from the State of North Carolina**" as a primary credit strength.

<u>**For several reasons, the Study has not attempted to tie "debt capacity" to the predicted impact any new debt may have on an institution's credit rating**</u>. First, each institution's mission and strategic planning should drive its debt management decisions, not the rating agencies' outside assessment of the institution's credit profile. Managing an institution's operations solely to achieve a certain credit rating may distort strategic objectives and lead to unintended consequences. As Moody's states in its current Rating Methodology for Global Higher Education (dated November 23, 2015):

> "Strategic positioning depends on effective short- and long-range planning, consistent self-assessment and benchmarking, and ongoing monitoring and accountability. ... Determining the appropriate level of investment is a significant challenge, as too little investment can result in a gradual loss of student demand, research funding, or philanthropy if donors feel that the university is in decline. Overinvesting can saddle a college with an unsustainable business model, with revenue unable to support high fixed costs, including debt service."

Second, projecting the exact amount of debt an institution could issue during the study period without negatively impacting its credit rating is difficult. Any single financial ratio makes up only a fraction of the overall credit analysis, and weak ratios may be ignored or deemphasized in a particular situation based on multi-year trends, projections and other qualitative factors. Further, while the financial performance of its institutions has no impact on the State's credit rating, each institution's credit rating has historically benefitted from the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category, making comparisons to median ratios challenging. Finally, because median ratios are not perfectly correlated to rating outcomes, a model that attempts to draw a linear relationship between any single ratio and a projected rating outcome would have limited predictive value.

In this context, **it is important to distinguish "debt capacity" from "debt affordability."** Debt capacity provides a general indication of each institution's ability to absorb debt on its balance sheet during the study period. Debt affordability, on the other hand, evaluates the merits of a specific financing (or a specific amount of debt), taking into account a number of quantitative and qualitative factors relating to the projects under consideration, including project revenues and expenses, cost of funds, competing strategic priorities and the "hidden" costs of foregoing the projects entirely.

Development of the Financial Model

To support the Study, a financial model has been developed to analyze four financial ratios for each institution on a pro forma basis over the course of the study period. Since Article 3 does not permit the institutions to pool their obligated resources to form a common source of funds to support all institutional project financings, the Study focuses on the individual institution's data and does not attempt to aggregate each institution's capacity to derive a University-wide measure of "debt capacity." The other components of the model are designed to assist each institution in establishing guidelines for maintaining prudent debt levels and for evaluating capital investment priorities in light of fiscal constraints.

Each institution's debt capacity reflects the amount of debt each institution could issue during the Study period without exceeding its ceiling ratio for **debt to obligated resources**. Each institution has developed its own target policy for each ratio in consultation with the UNC System to ensure the ratio is tailored and meaningful for that institution's size, mission, resources, and average age of plant.

Methodology for Setting Target Ratios

Since there are differences in each institution's mission, enrollment, resources, and capital needs, imposing a single set of target policies across all institutions would distort the information produced by the Study — either by generating too much capacity for the larger institutions or by holding smaller institutions to unrealistic benchmarks. To produce a more meaningful model for each institution, the Institutions, in consultation with the UNC System, have set their own target policies for the model ratios.

In setting its target policies, each institution considered many quantitative and qualitative factors, including comparisons to its designated peer institutions, its strategic initiatives, its historical results, its average age of plant, its recent and projected growth and any existing debt policies. As discussed above, the credit ratings of the Institutions are bolstered by several favorable qualitative factors, including, most importantly, the State's long history of support. Since the institutions benefit from those qualitative factors, it follows that many quantitative measures are weaker than the median ratios for their assigned rating category. Institutions were not forced, therefore, to set their target ratios directly in line with those median ratios, as that approach would invite quantitative comparisons to larger, wealthier peers. Institutions used median ratios as an important benchmark in setting their policy ratios.

Other Assumptions and Factors Affecting the Model

The financial model is based on each institution's financial results as of **June 30, 2020**—the most recent period for which audited financials are available. The model includes debt issued to finance new projects since June 30, 2020, but the model excludes any refinancing, redemption or other debt payments that have occurred during the current fiscal year, building an additional element of conservatism into the model.

The financial model also takes into account any legislatively approved project that an institution plans to finance during the study period. Interest rate assumptions for any pro forma debt are based on conservative, fixed rate projections and are adjusted to account for each institution's credit rating and the expected term of the financing.

The financial model adds back to each institution's unrestricted and restricted expendable net assets any noncash charge taken in connection with the implementation of Governmental Accounting Standards Board (GASB) 68 and GASB 75 and will make similar adjustments for the implementation of related accounting policies in the future. While GASB 68 impacts an institution's unrestricted net assets and not restricted expendable net assets, GASB 75 impacts both figures. This is relevant as the calculation of Available Funds incorporates unrestricted net assets but not restricted expendable net assets, while the calculation of Expendable Financial Resources includes both figures. Therefore, the GASB 75 adjustment made to Available Funds and Expendable Financial Resources will not match.

The financial model's growth assumption is different for FY 2020-21 and the four following years. To account for the financial impacts of the COVID-19 pandemic, if a university had negative growth for available funds, operating expenses, or expendable resources from FY 2018-19 to FY2019-20, then the growth rate is the prior year's negative growth multiplied by two. The negative growth is multiplied by two to account for two semesters of pandemic restrictions since the pandemic began in the Spring semester of FY 2019-20. Negative growth is capped at -12.00 percent as that was the largest negative growth rate for a constituent institution during the Great Recession. If a university had positive growth for available funds, operating expenses, or expendable resources from FY 2018-19 to FY2019-20, then the growth rate is set to the Consumer Price Index (CPI) for October 2020 of 1.30 percent. The four subsequent years use the CPI for the growth rate as well. Each institution was given the option, however, to adjust the growth factor for each of the model components based on its reasonable expectations for its performance over the study period. Any such adjustment, along with the factors considered in making the adjustment, is described in the individual institution reports attached as **Appendix D**.

Appendix D: Reports from Constituent Institutions

May 26, 2021

The University of North Carolina System
Debt Capacity Study – Fiscal Year 2020

Appalachian State University

Institution Report

Appalachian State University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), Appalachian State University ("***Appalachian***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. Appalachian has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, Appalachian, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—Appalachian has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, Appalachian's debt capacity reflects the amount of debt Appalachian could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that Appalachian intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- Appalachian's current debt profile, including project descriptions financed with, and the sources of repayment for, Appalachian's outstanding debt;
- Appalachian's current credit profile, along with recommendations for maintaining or improving Appalachian's credit rating; and
- A copy of any Appalachian debt management policy currently in effect.

Overview of Appalachian

For the fall 2019 semester, Appalachian had a headcount student population of approximately 19,280 including 17,518 undergraduate students and 1,762 graduate students. During the 2019-20 academic year, Appalachian employed approximately 1,182 full-time, part-time, and temporary instructional faculty. Over the past five years, Appalachian's enrollment has increased approximately 7.5%.

Appalachian's average age of plant is 15.62 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

Appalachian anticipates incurring $6.5M in additional debt during the Study period, as summarized in **Section 3** below. Appalachian has made no changes to the financial model's growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on Appalachian's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to Appalachian by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt Appalachian expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below overstates Appalachian's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	186,032,430	16,955,500	-		202,987,930
2017	205,017,229	19,229,751	-	10.47%	224,246,980
2018	(247,807,774)	23,248,893	456,629,959	3.49%	232,071,078
2019	(227,971,336)	26,094,254	435,923,401	0.85%	234,046,319
2020	(219,442,065)	39,020,569	415,847,211	0.59%	235,425,715
2021	238,486,249	-	-	1.30%	238,486,249
2022	241,586,571	-	-	1.30%	241,586,571
2023	244,727,196	-	-	1.30%	244,727,196
2024	247,908,650	-	-	1.30%	247,908,650
2025	251,131,462	-	-	1.30%	251,131,462

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	367,993,253	5,331,612	-		373,324,865
2017	394,708,091	(2,248,908)	-	5.13%	392,459,183
2018	403,462,561	(4,006,763)	3,288,040	2.62%	402,743,838
2019	417,888,768	(2,827,682)	20,712,838	8.20%	435,773,924
2020	426,271,117	(12,926,396)	20,069,769	-0.54%	433,414,490
2021	428,721,172	-	-	-1.08%	428,721,172
2022	434,294,547	-	-	1.30%	434,294,547
2023	439,940,376	-	-	1.30%	439,940,376
2024	445,659,601	-	-	1.30%	445,659,601
2025	451,453,176	-	-	1.30%	451,453,176

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	15,825,443	10,066,388	25,891,830	268,208,403
2022	15,587,104	9,423,694	25,010,798	252,621,298
2023	16,362,209	8,819,795	25,182,003	236,259,089
2024	16,920,727	8,171,969	25,092,696	219,338,362
2025	15,670,662	7,517,992	23,188,654	203,667,700
2026	16,386,696	6,877,630	23,264,326	187,281,004
2027	15,098,851	6,264,611	21,363,462	172,182,153
2028	14,902,151	5,730,302	20,632,453	157,280,002
2029	11,964,999	5,206,377	17,171,376	145,315,003
2030	12,485,000	4,767,300	17,252,300	132,830,003
2031	13,035,000	4,302,515	17,337,515	119,795,003
2032	11,730,000	3,863,556	15,593,556	108,065,003
2033	10,729,999	3,508,314	14,238,313	97,335,004
2034	11,160,000	3,183,295	14,343,295	86,175,004
2035	9,525,000	2,873,758	12,398,758	76,650,004
2036	8,970,002	2,573,896	11,543,898	67,680,002
2037	8,340,002	2,295,496	10,635,498	59,340,000
2038	4,835,000	2,100,781	6,935,781	54,505,000
2039	5,090,000	1,957,725	7,047,725	49,415,000
2040	5,355,000	1,804,881	7,159,881	44,060,000
2041	5,060,000	1,640,319	6,700,319	39,000,000
2042	4,270,000	1,478,941	5,748,941	34,730,000
2043	4,565,000	1,305,481	5,870,481	30,165,000
2044	4,875,000	1,119,188	5,994,188	25,290,000
2045	5,210,000	919,328	6,129,328	20,080,000
2046	5,535,000	727,822	6,262,822	14,545,000
2047	5,880,000	519,025	6,399,025	8,665,000
2048	4,200,000	329,200	4,529,200	4,465,000
2049	4,465,000	160,500	4,625,500	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	51,645,922	10,542,418	27,253,336	49,717,522	2,970,575	16,955,500	153,144,123	
2017	52,779,465	13,688,945	29,425,315	54,589,623	3,676,733	19,229,751	166,036,366	8.42%
2018	(398,051,847)	19,916,307	31,519,826	69,117,568	7,423,476	479,878,852	194,957,230	17.42%
2019	(377,001,181)	25,082,685	34,172,348	67,754,453	11,792,293	462,017,655	200,233,667	2.71%
2020	(356,215,418)	91,026,978	21,637,567	-	12,477,301	453,667,665	197,639,491	-1.30%
2021	94,927,115	88,668,334	21,076,906	-	12,153,996	-	192,518,359	-2.59%
2022	96,161,167	89,821,022	21,350,905	-	12,311,998	-	195,021,097	1.30%
2023	97,411,262	90,988,696	21,628,467	-	12,472,054	-	197,556,372	1.30%
2024	98,677,609	92,171,549	21,909,637	-	12,634,190	-	200,124,605	1.30%
2025	99,960,418	93,369,779	22,194,462	-	12,798,435	-	202,726,224	1.30%

3. Proposed Debt Financings

The table below summarizes any legislatively approved projects that Appalachian expects to finance during the Study Period. Using the assumptions outlined in the table below, the model has developed a tailored, but conservative, debt service schedule for each proposed financing and incorporated each pro forma debt service schedule into its calculations of the financial ratios as detailed in **Section 4** on the following page.

Appalachain Proposed Debt Financings

Year	Use of Funds	Borrowing Amount	Term	Source of Repayment
2020	Utility System Revenue Bonds	6,500,000	20	Electric Utility Revenues
Total		6,500,000		

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** Appalachian's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

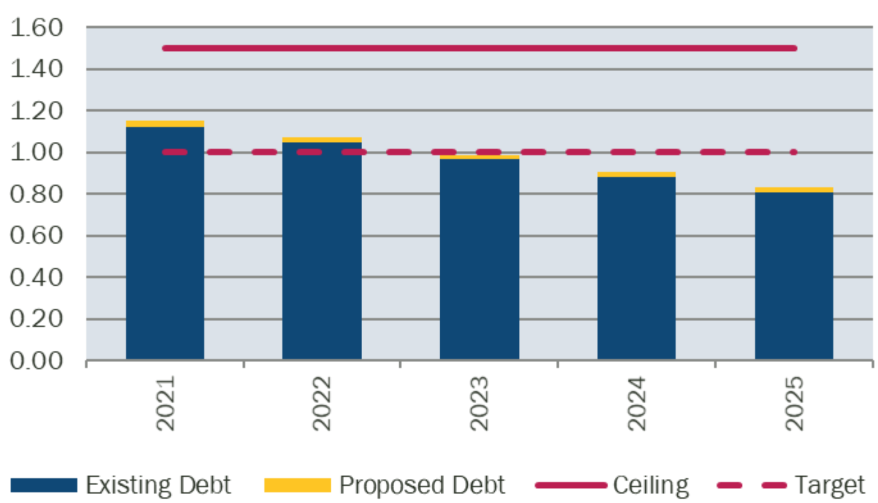
- Target Ratio: 1.00
- Ceiling Ratio: Not to exceed 1.50
- Projected 2021 Ratio: 1.12
- Highest Study Period Ratio: 1.12 (2021)

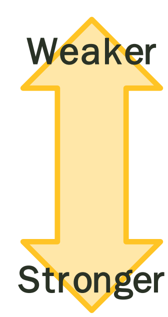
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	238,486,249	1.30%	268,208,403	6,500,000	1.12	0.03	1.15
2022	241,586,571	1.30%	252,621,298	6,226,842	1.05	0.03	1.07
2023	244,727,196	1.30%	236,259,089	5,948,794	0.97	0.02	0.99
2024	247,908,650	1.30%	219,338,362	5,665,769	0.88	0.02	0.91
2025	251,131,462	1.30%	203,667,700	5,377,678	0.81	0.02	0.83

Debt to Obligated Resources





5-Year Payout Ratio Overview

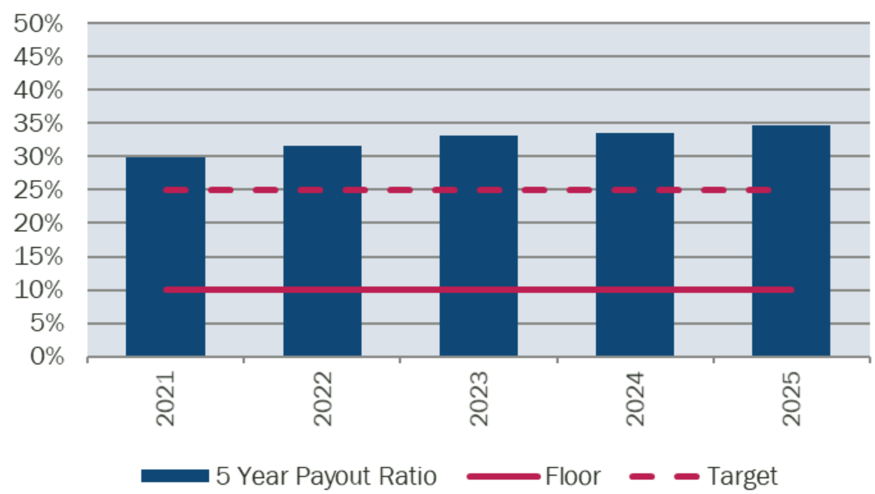
- **What does it measure?** The percentage of Appalachian's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

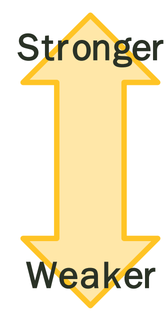
- Target Ratio: 25%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 30%
- Lowest Study Period Ratio: 30% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	274,708,403	30%
2022	258,848,140	32%
2023	242,207,883	33%
2024	225,004,131	34%
2025	209,045,378	35%

5-Year Payout Ratio





Expendable Resources to Debt

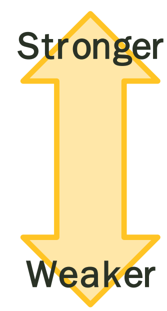
- **What does it measure?** The number of times Appalachian's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.70x
- Projected 2021 Ratio: 0.72x
- Lowest Study Period Ratio: 0.72x (2022)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	192,518,359	-2.59%	268,208,403	6,500,000	0.72	0.70
2022	195,021,097	1.30%	252,621,298	6,226,842	0.77	0.75
2023	197,556,372	1.30%	236,259,089	5,948,794	0.84	0.82
2024	200,124,605	1.30%	219,338,362	5,665,769	0.91	0.89
2025	202,726,224	1.30%	203,667,700	5,377,678	1.00	0.97

Expendable Resources to Debt



Debt Service to Operating Expenses

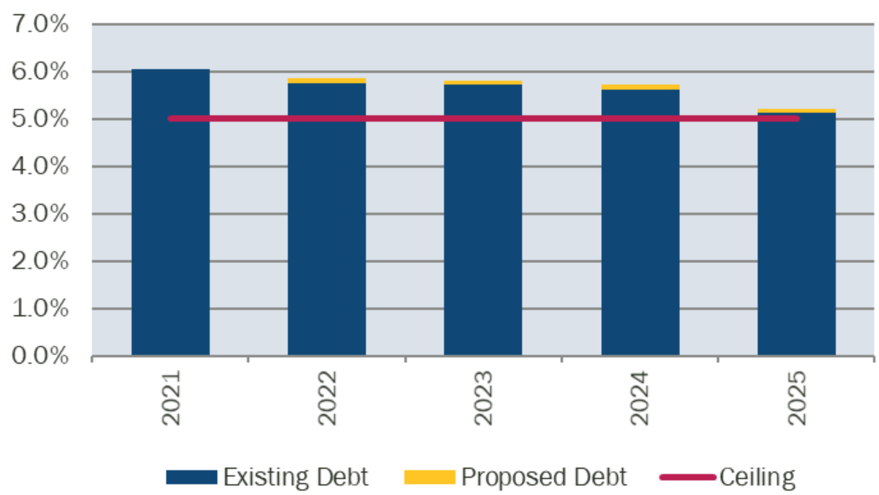
- **What does it measure?** Appalachian's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

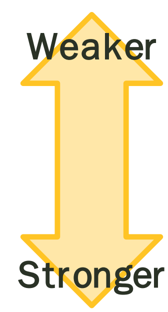
- Policy Ratio: Not to exceed 5.00%
- Projected 2021 Ratio: 6.04%
- Highest Study Period Ratio: 6.04% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	428,721,172	-1.08%	25,891,830	-	6.04%	n/a	6.04%
2022	434,410,897	1.30%	25,010,798	389,508	5.76%	0.09%	5.85%
2023	440,051,836	1.30%	25,182,003	389,508	5.72%	0.09%	5.81%
2024	445,766,084	1.30%	25,092,696	389,508	5.63%	0.09%	5.72%
2025	451,554,593	1.30%	23,188,654	389,508	5.14%	0.09%	5.22%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, Appalachian's debt capacity is based on the amount of debt Appalachian could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources.**
- As presented below, **the lowest constraint on Appalachian's debt capacity** in any single year during the Study Period occurs in 2021.
- Based solely on the **debt to obligated resources** ratio, Appalachian's current estimated debt capacity is **$83,020,971.** After taking into account any legislatively approved projects detailed in **Section 3** above, if Appalachian issued no additional debt until the last year of the Study Period, then Appalachian's debt capacity for 2025 is projected to increase to **$167,651,815.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.15	1.50	83,020,971
2022	1.07	1.50	103,531,716
2023	0.99	1.50	124,882,911
2024	0.91	1.50	146,858,843
2025	0.83	1.50	167,651,815

Limitations on Debt Capacity, Credit Rating Implications, and Comment from Appalachian

- The debt capacity calculation shown above provides a general indication of Appalachian's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If Appalachian were to use all of its calculated debt capacity during the Study Period, Appalachian's credit ratings may face significant downward pressure**.
- The debt capacity calculation shown above provides a general indication of Appalachian's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount Appalachian could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.

- **The State's Impact**
  - Historically, each Institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
  - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its institution to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

- Appalachian provided the following comment on the financial ratios that are outside of the target range.
  - "The University has established policy ratios to align with the Aa3 peer group with the goal of also maintaining flexibility to issue debt for capital needs. The 2020 median Debt Service to Operating Expenses ratio for the Aa3 group is 4.5%. The University's policy ratio is set at 5.0%. The 2020 actual was 5.8% and 2021 was 6.04%. In comparison the ratios for the 2020 Aa3 peer institutions referenced in the report were 9.5% and 6.6%.
  - The University expects its overall debt service obligations to decrease while experiencing moderate increases in operating expenses due to growth of the institution and normal inflationary changes. The combination of these two trends are projected lower the ratio toward the target despite the addition of proposed debt. Historically the University has structured debt to be paid down at a faster rate leading to decreases in debt service requirements over time relative to the growth in operating expenses. As debt service requirements decrease and the University maintains modest operational growth this ratio should continue to move toward the target even if additional capital needs arise that require the issuance of new debt."

6. Debt Profile

Appalachian's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2011	General Revenue Bonds	3,930,000	10/1/2021	Addition to Student Union		Debt Service Fee
				Honors Residence Hall		Housing Revenues
				Student Leadership Annex		Debt Service Fee
				Steam Utility System		Steam Utility Revenues
Series 2011	ASU Utility System Revenue Bonds	405,000	12/20/2021	Electric Utility Infrastructure		Electric Utility Revenues
Series 2012	General Revenue Refunding Bonds	18,350,000	5/1/2028	Housing	2002	Housing Revenues
				Housing	2005	Housing Revenues
				Student Recreation Center	2003A	Debt Service Fee
				Athletic Facilities	2005	Athletic Revenues
Series 2014A	General Revenue Refunding Bonds	18,895,000	7/15/2039	Belk Residence Hall Renovation		Housing Revenues
				Anne Belk Hall Renovation (Academic)		Debt Service Fee
				Athletic Facilities		Athletic Revenues
				Residence Halls	2005	Housing Revenues
				Athletic Facilities	2005	Athletic Revenues
				Athletic Facilities		Debt Service Fee
				Parking	2005	Parking Revenues
Series 2014B	Taxable General Revenue Refunding Bonds	8,940,000	7/15/2025	Residence Halls	2005	Housing Revenues
				Athletic Facilities	2005	Athletic Revenues
				Athletic Facilities		Debt Service Fee
				Parking	2005	Parking Revenues
Series 2014C	General Revenue Refunding Bonds	17,500,000	10/1/2031	Housing	2006A	Housing Revenues
				Dining	2006A	Debt Service Fee
Series 2016A	General Revenue Refunding Bonds	22,780,000	10/1/2033	Steam Utility System	2008A	Steam Utility Revenues
				Cannon Residence Hall Renovation	2008A	Housing Revenues
				Parking Improvements	2008A	Parking Revenues
				Athletic Facilities	2008A	Athletic Revenues
				Athletic Facilities		Debt Service Fee
Series 2016	ASU Utility System Revenue Bonds	2,190,000	5/5/2026	Electric Utility Infrastructure		Electric Utility Revenues
Series 2016B	General Revenue Refunding Bonds	3,950,000	10/1/2026	Doughton Residence Hall Renovation	2006A	Housing Revenues
				New Dining Hall	2006A	Dining Revenues
				Hoey Residence Hall Renovation	2006A	Housing Revenues
				Student Recreation Center	2006A	Debt Service Fee
				Broyhill Inn	2006A	Debt Service Fee
Series 2016C	General Revenue Bonds	25,645,000	10/1/2046	Winkler Hall		Housing Revenues
Series 2016D	General Revenue Refunding Bonds	10,895,000	10/1/2034	Frank Residence Hall Renovation	2009B	Housing Revenues
				Athletic Facilities	2009B	Athletic Revenues

Series 2017A	General Revenue Refunding Bonds	56,390,000	10/1/2036	Cone Residence Hall Renovation	2010B-1	Housing Revenues
				Athletic Facilities	2010B-1	Athletic Revenues
				Athletic Facilities	2010B-1	Debt Service Fee
				Bookstore	2010B-1	Bookstore Revenues
				Addition to Student Union	2011	Debt Service Fee
				Honors Residence Hall	2011	Housing Revenues
				Student Leadership Annex	2011	Debt Service Fee
				Steam Utility System	2011	Steam Utility Revenues
Series 2018A	ASU General Revenue Refunding Bond	7,520,000	10/1/2018	Refunding 2008A Athletics Facilities and refinance power plant	2008A	Steam Utility Revenues Housing Revenues Parking Revenues Athletic Revenues
Series 2018	Millienial Campus Revenue Bonds	39,865,000	5/1/2049	Athletic and Dining Facilities		Athletic and Auxiliary Services Revenues
Series 2019	General Revenue Bonds	16,235,000	10/1/2048	Sanford Hall Renovation (Academic)		Debt Service Fee
Series 2020	Millienial Campus Revenue Bonds	2,552,000	5/1/2030	Replace Stadium Field Turf		Athletics revenues
Series 2020	General Revenue Refunding Bonds	2,259,000	10/1/2025	Refunding 2010B-1 Housing and Athletics	2010B-1	Housing Revenues Athletic Revenues Debt Service Fee Bookstore Revenues
	Note Payable	15,475,000	7/1/2040	Direct Borrowing for purchase of former Watauga High School Property		Endowment funds - net proceeds from electric utility sales
Total		273,776,000				

7. Credit Profile

The following page provides a snapshot of Appalachian's current credit ratings, along with (1) a summary of various credit factors identified in Appalachian's most recent rating report and (2) recommendations for maintaining and improving Appalachian's credit ratings in the future.

Appalachian STATE UNIVERSITY

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Aa3 rating on Appalachian's general revenue bonds. The outlook is negative.
- In Spring 2021, Moody's affirmed Appalachian's Aa3 rating and revised the University's outlook from "negative" back to "stable."

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Healthy support for operations and capital projects from the Aaa-rated State of North Carolina
- Well-established market presence and strong regional brand name as a moderate-sized public university with increasing demand
- Enrollment growth approaching its total student headcount goal of 20,000

Credit Challenges

- Higher financial leverage and narrow liquidity relative to operating expenses is below the Aa3 median
- Operating margins have thinned by higher operating expenses
- Limited prospects to increase financial reserves given investments in capital and program growth
- Growth in spendable cash and investments to operating expenses unlikely to keep pace with peers or additional debt-financed capital plans

Recommendations & Observations

- Pursue strategies, working within the existing statutory framework relating to reversions, to increase liquidity through growth in cash reserves.
- Strengthen debt to cash flow ratio to be more in line with median Aa3 peers.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	Appalachian State University	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		**Miami University**	**Western Michigan University**	**Bowling Green State University**	**Western Washington University**		
Fiscal Year	**2020**	**2020**	**2020**	**2019**	**2019**		**2019**
Most Senior Rating	**Aa3**	**Aa3**	**Aa3**	**A1**	**A1**		**Aa3**
Total Long-Term Debt ($, in millions)	290	580	422	284	90		437
Total Cash & Investments ($, in millions)	281	1228	735	416	208		735
Operating Revenue ($, in millions)	419	663	530	360	309		691
Operating Expenses ($, in millions)	412	605	515	373	322		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	-0.8%	-3.9%	-7.3%	-0.7%	4.9%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	9.4%	23.0%	11.2%	9.1%	5.1%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.7	2.0	1.4	1.1	0.6		1.0
Total Debt to Operating Expenses (x)	0.7	1.0	0.8	0.8	0.3		0.5
Monthly Days Cash on Hand (x)	101	493	214	224	105		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.0	2.1	1.7	1.5	2.3		1.6
Debt Service to Operating Expenses (%)	5.8%	9.5%	6.6%	4.6%	2.9%		4.5%
Total Debt-to-Cash Flow (x)	7.3	3.8	7.1	8.7	5.7		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

Appalachian's current debt policy is included in the following pages.

Debt Management Policy

Appalachian State University

Table of Contents

1. Introduction

Appalachian State University ("ASU") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of ASU's strategic vision to prepare its students to lead purposeful lives as engaged global citizens who understand their responsibilities in creating a sustainable future for all. ASU recognizes the important role that debt-related strategies may play as it makes the necessary investments in its infrastructure in order to become and remain the destination institution for dedicated students seeking challenging academic programs, engaged faculty and a vibrant campus culture.

This Policy has been developed to assist ASU's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with ASU's stated policies, objectives and core values. Like other limited resources, ASU's debt capacity should be used and allocated strategically and equitably.

Specifically, the objective of this Policy is to provide a framework that will enable ASU's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within ASU's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating ASU's financial health, debt affordability and debt capacity;

(iv) Manage and protect ASU's credit profile in order to maintain ASU's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure ASU remains in compliance with all of its post-issuance obligations and requirements.

This Policy is intended solely for ASU's internal planning purposes. The Vice Chancellor for Business Affairs will review this Policy annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Policy are subject to the Board's approval.

2. Authorization and Oversight

ASU's Vice Chancellor for Business Affairs is responsible for the day-to-day management of ASU's financial affairs in accordance with the terms of this Policy and for all of ASU's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of ASU will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be jointly approved by the Vice Chancellor for University Advancement and the Vice Chancellor for Business Affairs before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, ASU takes into account both its debt affordability and its debt capacity. Debt affordability focuses on ASU's cash flows and measures ASU's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between ASU's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including ASU's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, ASU's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

ASU believes, however, that it is important to consider and monitor objective metrics when evaluating ASU's financial health and its ability to incur additional debt. To that end, ASU has identified three key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Expendable Resources to Debt

(iii) Debt Service to Operating Expenses

Note that the selected financial ratios are also monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which ASU believes will promote clarity and consistency in ASU's debt management and planning efforts.

ASU has established for each ratio a floor or ceiling target, as the case may be, with the expectation that ASU will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Policy should align with the ratios used in the report ASU submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve ASU's financial health and operating flexibility and to ensure ASU is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Policy.

ASU recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of ASU's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, ASU has developed as part of this Policy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when ASU has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Policy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to ASU or would negatively impact ASU's credit rating.

At no point, however, should ASU intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure? ASU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes

Why is it tracked? The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of ASU's ability to absorb debt on its balance sheet and is the primary ratio used to calculate ASU's "debt capacity" under the methodology used in the UNC Debt Capacity Study

How is it calculated? Aggregate debt divided by obligated resources*

Policy Ratio: Not to exceed 1.50x (UNC Debt Capacity Study Target Ratio = 1.00x)

*Available Funds, which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of ASU's obligated resources.

Ratio 2 – Expendable Resources to Debt

What does it measure? The number of times ASU's liquid and expendable net assets covers its aggregate debt

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses ASU's ability to settle its debt obligations using only its available net assets as of a particular date

How is it calculated? The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

Policy Ratio: Not less than 0.70x

Ratio 3 – Debt Service to Operating Expenses

What does it measure? ASU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates ASU's relative cost of borrowing to its overall expenditures and provides a measure of ASU's budgetary flexibility

How is it calculated? Annual debt service divided by annual operating expenses

Policy Ratio: Not to exceed 5.00%

Reporting

The Vice Chancellor for Business Affairs will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board substantially in the form of **Appendix A** detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business Affairs within the context of this Policy and the overall portfolio to ensure that any financial product or structure is consistent with ASU's stated objectives. As part of effective debt management, ASU must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

ASU will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves ASU's strategic plan and financing objectives. In making that determination, ASU will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect ASU's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce ASU's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates ASU's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, ASU should structure its debt to provide for level annual payments of debt service, though ASU may elect alternative structures when the Vice Chancellor for Business Affairs determines it to be in ASU's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

ASU will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

ASU recognizes that a degree of exposure to variable interest rates within ASU's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from ASU's assets. ASU's debt portfolio should be managed to ensure that no more than 20% of ASU's total debt bears interest at an unhedged variable rate.

ASU's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. ASU may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. ASU may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Public Private Partnerships

To address ASU's anticipated capital needs as efficiently and prudently as possible, ASU may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements"). Because rating agencies will generally treat a P3 Arrangement as University debt if the project is located on ASU's campus or if the facility is to be used for an essential University function, the structure and terms of any P3 Arrangement for a university-related facility to be located on land owned by the State, ASU or a ASU affiliate must be reviewed in advance by the Vice Chancellor for Business Affairs.

P3 Arrangements may be pursued in accordance with applicable State law when (1) the Chancellor has determined that the P3 Arrangement serves a compelling strategic interest and (2) the Vice Chancellor for Business Affairs, in consultation with ASU's advisors, has determined that ASU has sufficient debt capacity to undertake its obligations under the P3 Arrangement after taking into account the P3 Arrangement's likely impact on ASU's debt-related metrics and credit profile.

Refunding Considerations

ASU will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, ASU should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of ASU ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve ASU of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Derivative Products

ASU recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit ASU to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. ASU will use derivatives only to manage and mitigate risk; ASU will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, ASU's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Business Affairs must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that ASU's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

ASU will use derivatives only when the Vice Chancellor for Business Affairs determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing ASU's strategic objectives without imposing inappropriate risks on ASU.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

East Carolina University
Institution Report

East Carolina University

Table of Contents

1. Executive Summary

Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), East Carolina University ("***ECU***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. ECU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, ECU, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—ECU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, ECU's debt capacity reflects the amount of debt ECU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that ECU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- ECU's current debt profile, including project descriptions financed with, and the sources of repayment for, ECU's outstanding debt;
- ECU's current credit profile, along with recommendations for maintaining or improving ECU's credit rating; and
- A copy of any ECU debt management policy currently in effect.

Overview of ECU

For the fall 2019 semester, ECU had a headcount student population of 28,651, including 23,081 undergraduate students and 5,570 graduate students. During the 2019-20 academic year, ECU employed 1,777 full-time, part-time, and temporary instructional faculty. Over the past five years, ECU's enrollment has increased approximately 1.3%.

ECU's average age of plant is 12.83 years, which is lower than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

ECU anticipates incurring no additional debt during the Study period, as summarized in **Section 3** below. ECU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on ECU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to ECU by the federal government (discounted by an assumed 5.9% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt ECU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate ECU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	446,816,116	41,698,354	-		488,514,470
2017	536,354,777	45,890,059	-	19.19%	582,244,836
2018	(552,661,813)	54,243,494	1,101,751,866	3.62%	603,333,547
2019	(554,898,565)	61,244,665	1,052,064,598	-7.45%	558,410,698
2020	(557,215,737)	85,613,917	1,000,055,689	-5.36%	528,453,869
2021	471,754,374	-	-	-10.73%	471,754,374
2022	477,887,181	-	-	1.30%	477,887,181
2023	484,099,715	-	-	1.30%	484,099,715
2024	490,393,011	-	-	1.30%	490,393,011
2025	496,768,120	-	-	1.30%	496,768,120

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	825,342,729	12,329,211	-		837,671,940
2017	883,542,900	(4,164,008)	-	4.98%	879,378,892
2018	908,643,029	(8,352,415)	11,868,636	3.73%	912,159,250
2019	909,413,839	(7,001,171)	50,259,886	4.44%	952,672,554
2020	914,039,155	24,369,252	(51,421,893)	-6.89%	886,986,514
2021	780,548,132	-	-	-12.00%	780,548,132
2022	790,695,258	-	-	1.30%	790,695,258
2023	800,974,296	-	-	1.30%	800,974,296
2024	811,386,962	-	-	1.30%	811,386,962
2025	821,934,992	-	-	1.30%	821,934,992

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	14,270,000	14,054,291	28,324,291	362,745,000
2022	14,650,000	13,414,547	28,064,547	348,095,000
2023	14,225,000	12,863,403	27,088,403	333,870,000
2024	14,795,000	12,275,095	27,070,095	319,075,000
2025	14,285,000	11,649,870	25,934,870	304,790,000
2026	14,985,000	11,019,627	26,004,627	289,805,000
2027	14,400,000	10,438,712	24,838,712	275,405,000
2028	15,200,000	9,862,343	25,062,343	260,205,000
2029	15,805,000	9,237,539	25,042,539	244,400,000
2030	16,470,000	8,592,583	25,062,583	227,930,000
2031	15,070,000	7,961,432	23,031,432	212,860,000
2032	14,835,000	7,413,641	22,248,641	198,025,000
2033	15,330,000	6,908,832	22,238,832	182,695,000
2034	15,850,000	6,383,319	22,233,319	166,845,000
2035	14,415,000	5,876,122	20,291,122	152,430,000
2036	12,555,000	5,425,723	17,980,723	139,875,000
2037	11,915,000	5,008,050	16,923,050	127,960,000
2038	12,350,000	4,577,988	16,927,988	115,610,000
2039	12,810,000	4,119,759	16,929,759	102,800,000
2040	13,300,000	3,636,234	16,936,234	89,500,000
2041	13,800,000	3,123,359	16,923,359	75,700,000
2042	14,140,000	2,579,325	16,719,325	61,560,000
2043	14,690,000	2,025,500	16,715,500	46,870,000
2044	15,250,000	1,469,013	16,719,013	31,620,000
2045	12,330,000	948,325	13,278,325	19,290,000
2046	11,085,000	499,150	11,584,150	8,205,000
2047	4,030,000	216,650	4,246,650	4,175,000
2048	4,175,000	73,063	4,248,063	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	205,681,490	55,828,890	13,501,383	42,092,018	25,363,152	41,698,354	333,438,982	
2017	209,652,685	68,538,857	15,936,544	49,450,966	33,750,247	45,890,059	355,718,863	6.68%
2018	(890,248,645)	81,647,325	16,077,765	57,392,237	36,379,132	1,153,186,432	381,675,982	7.30%
2019	(896,818,997)	85,403,450	17,774,306	58,134,228	40,873,716	1,109,927,717	333,546,988	-12.61%
2020	(864,529,806)	72,286,284	19,095,873	53,496,493	32,490,414	1,082,875,076	330,733,506	-0.84%
2021	214,661,767	71,066,809	18,773,724	52,594,003	31,942,298	-	325,154,005	-1.69%
2022	217,452,370	71,990,677	19,017,782	53,277,725	32,357,548	-	329,381,007	1.30%
2023	220,279,251	72,926,556	19,265,014	53,970,335	32,778,196	-	333,662,960	1.30%
2024	223,142,881	73,874,601	19,515,459	54,671,950	33,204,313	-	338,000,578	1.30%
2025	226,043,739	74,834,971	19,769,160	55,382,685	33,635,969	-	342,394,586	1.30%

3. Proposed Debt Financings

While ECU evaluates its capital investment needs on a regular basis, ECU currently has no legislatively approved projects that it anticipates financing during the Study Period. ECU is planning to refund $16.8M in debt for the Tyler Residence Hall and Olympic Sports Facility with new General Revenue Refunding Bonds.

4. Financial Ratios

Debt to Obligated Resources

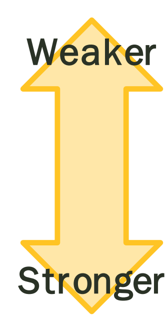
- **What does it measure?** ECU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

- Target Ratio: 1.00
- Ceiling Ratio: Not to exceed 1.25
- Projected 2021 Ratio: 0.77
- Highest Study Period Ratio: 0.77 (2021)

*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	471,754,374	-10.73%	362,745,000	-	0.77	n/a	0.77
2022	477,887,181	1.30%	348,095,000	-	0.73	n/a	0.73
2023	484,099,715	1.30%	333,870,000	-	0.69	n/a	0.69
2024	490,393,011	1.30%	319,075,000	-	0.65	n/a	0.65
2025	496,768,120	1.30%	304,790,000	-	0.61	n/a	0.61



5-Year Payout Ratio Overview

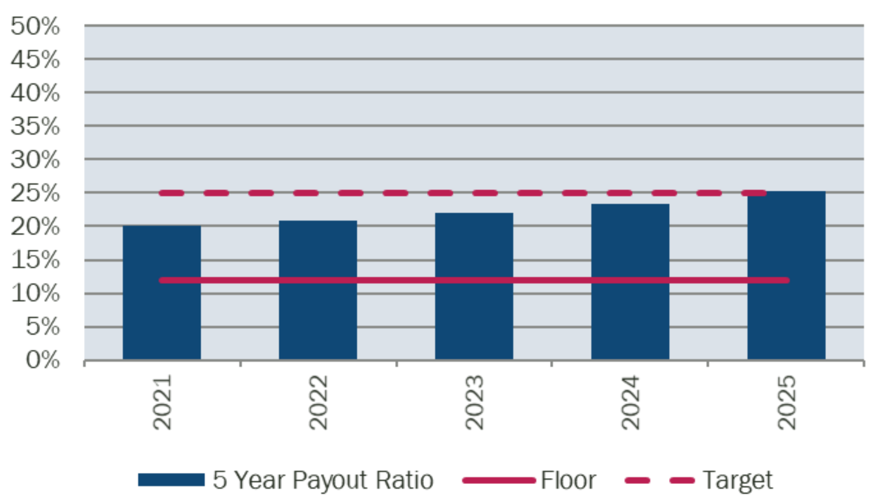
- **What does it measure?** The percentage of ECU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

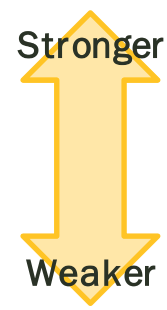
- Target Ratio: 25%
- Floor Ratio: Not less than 12%
- Projected 2021 Ratio: 20%
- Lowest Study Period Ratio: 20% (2021)

5-Year Payout Ratio

	5 Year Payout Ratio	
Fiscal Year	Principal Balance	Ratio
2021	362,745,000	20%
2022	348,095,000	21%
2023	333,870,000	22%
2024	319,075,000	23%
2025	304,790,000	25%

5-Year Payout Ratio





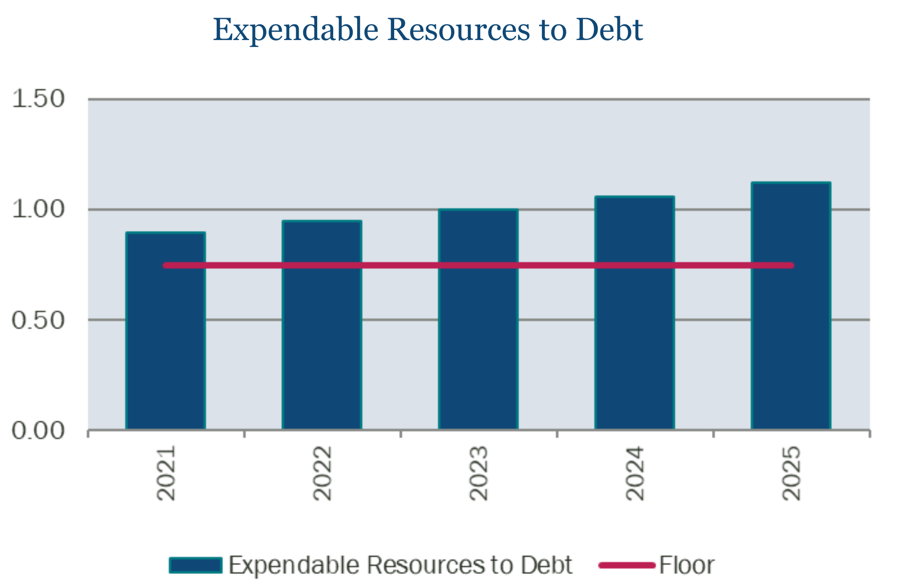
Expendable Resources to Debt

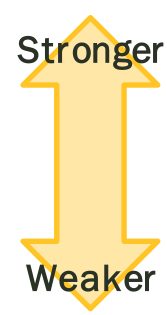
- **What does it measure?** The number of times ECU's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.75x
- Projected 2021 Ratio: 0.90x
- Lowest Study Period Ratio: 0.90x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	325,154,005	-1.69%	362,745,000	-	0.90	0.90
2022	329,381,007	1.30%	348,095,000	-	0.95	0.95
2023	333,662,960	1.30%	333,870,000	-	1.00	1.00
2024	338,000,578	1.30%	319,075,000	-	1.06	1.06
2025	342,394,586	1.30%	304,790,000	-	1.12	1.12





Debt Service to Operating Expenses

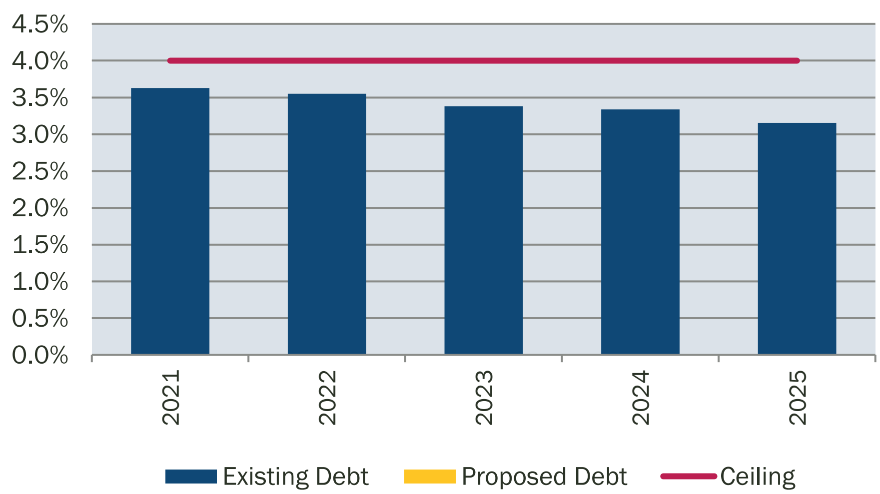
- **What does it measure?** ECU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

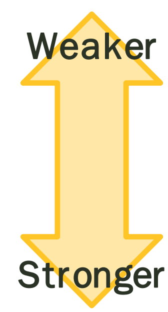
- Policy Ratio: Not to exceed 4.00%
- Projected 2021 Ratio: 3.63%
- Highest Study Period Ratio: 3.63% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	780,548,132	-12.00%	28,324,291	-	3.63%	n/a	3.63%
2022	790,695,258	1.30%	28,064,547	-	3.55%	n/a	3.55%
2023	800,974,296	1.30%	27,088,403	-	3.38%	n/a	3.38%
2024	811,386,962	1.30%	27,070,095	-	3.34%	n/a	3.34%
2025	821,934,992	1.30%	25,934,870	-	3.16%	n/a	3.16%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, ECU's debt capacity is based on the amount of debt ECU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, ECU's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, ECU's current estimated debt capacity is **$226,947,968,** After taking into account any legislatively approved projects detailed in **Section 3** above, if ECU issued no additional debt until the last year of the Study Period, then ECU's debt capacity for 2025 is projected to increase to **$316,170,150.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	0.77	1.25	226,947,968
2022	0.73	1.25	249,263,977
2023	0.69	1.25	271,254,643
2024	0.65	1.25	293,916,264
2025	0.61	1.25	316,170,150

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of ECU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If ECU were to use all of its calculated debt capacity during the Study Period, ECU's credit ratings may face significant downward pressure**.
- Projecting the exact amount ECU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **Use of Multiple Factors**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **The State's Impact**
    - Historically, each Institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
    - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its institution to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

ECU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2010A	UNC System Pool Revenue Bonds	1,880,000	10/1/2021	College Hill Residence Hall	2004C	Housing Receipts
Series 2010B	Taxable General Revenue Bonds (BABs)	20,055,000	10/1/2035	Tyler Residence Hall		Housing Receipts
				Wright Place Dining Renovations		Dining Receipts
				Olympic Sports Facility		Student Fee
Series 2011A	UNC System Pool Revenue Bonds	1,925,000	5/1/2023	West End Dining	2003A	Dining Receipts
				College Hill Residence Hall	2004C	Housing Receipts
Series 2013A	General Revenue Refunding Bonds	10,905,000	10/1/2033	College Hill Residence Hall	2004C	Housing Receipts
Series 2014A	General Revenue Bonds	49,615,000	10/1/2043	Gateway East and West Residence Halls		Housing Receipts
Series 2015A	General Revenue Bonds	62,290,000	10/1/2044	West Campus Student Union		Student Fee
				Croatan Dining Project	2009A	Dining Receipts
				Scott Residence Hall	2009A	Housing Receipts
				Softball Field Project	2009A	Student Fee
				College Hill Residence Hall	2006A	Housing Receipts
Series 2015B	Taxable General Revenue Bonds	1,970,000	10/1/2021	Jones Residence Hall	2006A	Housing Receipts
				Galley Dining	2006A	Dining Receipts
Series 2016A	General Revenue Bonds	133,125,000	10/1/2045	East Campus Student Union		Student Fee
				Parking		Parking Receipts
				Dining		Dining Receipts
				White Residence Hall Renovation		Housing Receipts
				Clement Residence Hall Renovation		Housing Receipts
				Greene Residence Hall Renovation		Housing Receipts
Series 2017A	General Revenue Bonds	12,155,000	10/1/2029	East End Zone	2010A	Athletic Receipts
Series 2017B	General Revenue Bonds	7,970,000	10/1/2026	West End Dining	2012	Dining Receipts
				College Hill Residence Hall		Housing Receipts
Series 2018A	General Revenue Bonds	75,125,000	10/1/2047	Dowdy-Ficklen Stadium		Athletic Receipts
				Greene Residence Hall Renovation		Housing Receipts
Total		377,015,000				

7. Credit Profile

The following page provides a snapshot of ECU's current credit ratings, along with (1) a summary of various credit factors identified in ECU's most recent rating report and (2) recommendations for maintaining and improving ECU's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- In January 2020, Moody's downgraded ECU to Aa3 on it's general revenue bonds. The outlook is stable.
- Standard and Poor's maintains a AA- rating on ECU's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Healthy support from the Aaa-rated State
- Strong management of university finances and graduate-level enrollment translates into stable operating results
- Revenue diversity, including patient care revenue, student charges, and state support, helps insulate ECU from pressure on any one revenue source
- During COVID, operating costs and auxiliary staffing have been reduced

Credit Challenges

- Thin operating performance and weak liquidity contributes to weaker debt affordability
- Debt to cash flow is significantly higher than Aa3 median peers
- Modest wealth compared to relative Aa3-rated peers
- Debt has increased faster than cash flow from operations or balance sheet reserve growth over the past 5 years

Recommendations & Observations

- Pursue strategies, working within the existing statutory framework relating to reversions, to increase liquidity through growth in cash reserves.
- Seek strategies to limit new debt in the near term while addressing critical infrastructure needs, in accordance ECU's existing debt policy and in service of ECU's other strategic initiatives.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	East Carolina University	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Western Michigan University	Central Michigan University	Ohio University	Washington State University		
Fiscal Year	2020	2020	2019	2019	2019		2019
Most Senior Rating	Aa3	Aa3	A1	Aa3	Aa3		Aa3
Total Long-Term Debt ($, in millions)	381	422	142	594	607		437
Total Cash & Investments ($, in millions)	520	735	436	1082	1340		735
Operating Revenue ($, in millions)	916	530	437	748	1118		691
Operating Expenses ($, in millions)	904	515	436	718	1108		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	0.9%	-7.3%	-3.2%	0.6%	6.9%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	6.8%	11.2%	7.6%	15.3%	12.7%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.6	1.4	1.0	1.5	1.2		1.0
Total Debt to Operating Expenses (x)	0.4	0.8	0.3	0.8	0.5		0.5
Monthly Days Cash on Hand (x)	102	214	269	259	97		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.4	1.7	3.1	1.8	2.2		1.6
Debt Service to Operating Expenses (%)	3.4%	6.6%	2.7%	6.2%	4.9%		4.5%
Total Debt-to-Cash Flow (x)	6.2	7.1	4.3	5.2	4.3		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

ECU's current debt policy is included in the following pages.

East Carolina University

Debt Management Guidelines

1907-2007
CENTENNIAL

Last Revised: 3-31-2011

East Carolina University
East Fifth St
Greenville, NC 27858-4353
252.328.6131

East Carolina University
Debt Management Guidelines

Table of Contents

East Carolina University
Debt Management Guidelines

I. Introduction

Purpose

To fulfill its mission, East Carolina University will need to make ongoing strategic capital investments for additional academic, student life, medical, athletic, and other plant facilities using an appropriate mix of funding sources including State bonds and appropriations, University bonds, internal reserves, and private giving.

The purpose of this debt policy is to ensure the appropriate mix of funding sources is used and to provide guidance on the strategic use of debt as a funding source. Debt is a valuable source of capital project financing and its use should be limited to projects that relate to the mission and strategic objectives of the University. The amount of debt incurred affects the financial health of the University and its credit rating. Debt provides a limited low cost source of funding for capital projects and, together with other limited resources, should be used and allocated appropriately and strategically.

This policy provides a discipline and framework that will be used by management to evaluate the appropriate use of debt in capital financing plans.

Objectives of the Debt Policy

The objectives stated below provide the framework by which decisions will be made regarding the use and management of debt. The debt policy and objectives are subject to re-evaluation and change over time.

This Debt Policy is set forth to:

1. Outline a process for identifying and prioritizing capital projects considered eligible for debt financing and assuring that debt-financed projects have a feasible plan of repayment. Projects that relate to the core mission and that have associated revenues will generally be given higher priority for debt financing.

2. Define the quantitative tests that will be used to evaluate the University's overall financial health and present and future debt capacity.

3. Define project specific quantitative tests, as appropriate, that will be used to determine the financial feasibility of an individual project.

4. Manage the University's debt to maintain an acceptable credit rating. The University, consistent with the capital objectives, will limit its overall debt to a level that will maintain an acceptable credit rating with bond rating agencies. Maintaining an acceptable credit rating will permit the University to continue to issue debt and finance capital

projects at favorable interest rates, although the attainment or maintenance of a specific rating is not an objective of this policy.

5. Establish guidelines to limit the risk of the University's debt portfolio. The University will manage debt on a portfolio basis, rather than on a transactional or project specific basis, and will use an appropriate mix of fixed and variable rate debt to achieve the lowest cost of capital while limiting exposure to market interest rate shifts. Various types of debt structures and instruments will be considered, monitored, and managed within the framework established in this policy and according to internal management procedures. Debt instruments covered by this policy include not only bonds, but obligations of the university, such as special obligations, lease purchases, installment purchases, commercial paper, limited obligations, notes, etc.

6. Assign responsibilities for the implementation and management of the University's Debt Policy.

II. Process for Identifying and Prioritizing Capital Projects Requiring Debt

At the current credit rating the University has adequate but limited debt capacity. Additionally, the State of North Carolina adheres to limits on debt issuance provided in its adopted debt affordability policy and the University must compete with all other state agencies for capital projects bonding authority. Therefore it is essential that the University appropriately prioritize capital projects requiring debt.

Management will allocate the use of debt financing within the University to include prioritization of debt resources among all uses, including academic and student life projects, plant and equipment financing, and projects with University-wide impact.

The debt allocation matrix below depicts an approach to prioritizing capital projects requiring debt.

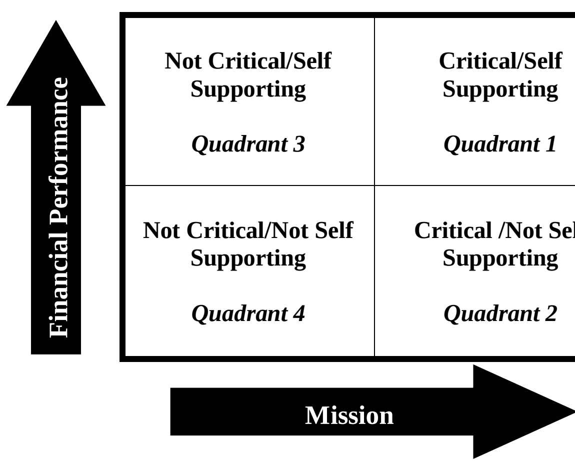


Figure 1 Debt Allocation Matrix

Explanation of debt allocation matrix

Quadrant 1:

Project is critical to the core missions of research, service or instruction **and** has its own funding source (i.e., non-general fund supported).

Quadrant 2

Project is critical to the core missions of research, service or instruction **but does not** have its own funding source (i.e., will require-general fund support).

Quadrant 3

Project is not critical to the core missions of research, service or instruction **but** has its own funding source (i.e., non-general fund supported).

Quadrant 4

Project is not critical to the core missions of research, service or instruction **and does not have** its own funding source (i.e., will require general fund support).

Note that approval of projects in Quadrant 3 and 4 will reduce the ability to issue debt for the mission critical projects identified in Quadrants 1 and 2.

Guidelines for Prioritizing Capital Projects Requiring Debt

Management will use the following guidelines when prioritizing capital projects and making decisions about financing options and use of debt:

1. Only projects related to the mission of the University, directly or indirectly, will be eligible for debt financing.

2. State funding and philanthropy are expected to remain major sources of financing for the University's capital projects. In assessing the possible use of debt, all other financing and revenue sources will be considered. State appropriations and bonds, philanthropy, project-generating revenues, research facilities and administration cost reimbursement, expendable reserves, and other sources are expected to finance a portion of the cost of a project. Debt is to be used conservatively and strategically.

3. The University will consider other funding opportunities (e.g., joint ventures, real estate development, etc.) when appropriate and advantageous to the University. Opportunities and financing sources will be evaluated within the context of the Debt Policy.

4. Federal research projects will receive priority consideration for debt financing due to partial reimbursement of operating expenses (including the interest component of applicable debt service) of research facilities.

5. Every project considered for financing must have a defined, supportable plan of costs (construction and incremental operating) approved by management. A project that has a related revenue stream or can create budgetary savings will receive priority consideration. However, projects may not receive a higher priority simply because they are self-supporting. For example, a project that mitigates life safety issues may be given preferences over a self supporting project.

III. Debt Ratios

The University will establish guidelines for overall debt management using a select number of ratios that are specific to the ability to issue debt and are key determinants used by the rating agencies in rating the University's bonds. The Moody's Investors Service annual Public University Median Report will be used as a guide and the University will review and contrast performance measures that are viewed with more emphasis, including but not limited to: unrestricted resources to debt, expendable resources to debt, and debt burden. The ratios will be calculated and reported annually and when new debt is issued, and revised periodically to reflect any changes in accounting standards. A goal is to measure the total amount of outstanding debt compared to University balance-sheet resources and the annual operating budget. These ratios can be derived from the financial statements and are based on current GAAP requirements, including the GASB 34/35 reporting format and are consistent with ratios used in the higher education industry to permit benchmarking. Furthermore, in light of GASB implemented changes to GAAP accounting rules, any changes made by the rating analysts to ratio methodology will be incorporated accordingly.

IV. Project Specific Quantitative Tests

Consideration of the performance ratios will determine the ability and/or advisability of issuing additional debt from a University-wide perspective. Determination of the prioritization of individual projects to be allocated a portion of available debt capacity is a separate, internal decision that must be made before a project is initiated.

Many factors will influence this internal decision process. First and foremost will be how the project is prioritized with regard to mission criticality as described by the debt allocation matrix (four quadrant model) above. Although debt will be structured to meet the University's comprehensive long-term objectives, each project being financed will be required to provide a sound business plan, including the source of repayment for the debt and appropriate and realistic repayment terms. Among other things, the repayment terms will require that the loan term is no greater than the expected useful life of the asset financed. Additionally, every project considered for debt financing must have a management approved plan of project costs, including incremental operating expenses and revenues. Incremental revenues include revenue increases directly associated with the project (e.g., usage fees) that can only be realized if the project is undertaken. Similarly, incremental expenses include any increase in expected operating costs associated with the project. Revenues and cost savings should be estimated conservatively, especially for high-risk projects.

V. General Debt Management Guidelines

Methods of Sale

The University will use the method of sale that will achieve the lowest cost of capital considering the complexity of the transaction. This can be achieved by using either a competitive or negotiated sale method for the placement of bond offerings. For transactions using new or non-traditional pledges of University revenues, or those involving greater complexity, a negotiated method of sale will be considered, and legislative approval requested, on an individual transaction basis. Bonds may also be sold through a private or limited placement, but only if it is determined that a public offering through either a competitive or negotiated sale is not in the best interests of the university.

Selection of Financial Advisors, Underwriters and Bond Counsel

The University will use a request for proposal process to select Financial Advisors, Underwriters and Bond Counsel. Firms providing financial advisory and bond counsel services are generally selected for a specific period of time rather than for individual transactions. Underwriting firms will be selected on individual transactions and will be selected based upon expertise related to the specific transaction. Additionally, the University may use the Financial Advisors, Underwriters and Bond Counsel selected by General Administration through its own similar competitive process.

Structure and Maturity

Generally, debt should be structured on a level debt basis, i.e., so that the annual debt service repayments will, as nearly as practicable, be the same in each year. A deviation from these preferences is permissible if it can be demonstrated to be in the university's best interest, such as restructuring debt to avoid a default. On projects that are designed to be self sufficient, the debt service may be structured to match future anticipated receipts.

The University will issue bonds to finance capital projects under the provisions of trust indentures approved by the Board of Trustees.

Debt in the form of capitalized lease obligations will be approved by the Board of Trustees and issued on behalf of the University by the ECU Real Estate Foundation, and other financing entities.

The University will employ maturity structures that correspond with the life of the facilities financed, generally not to exceed 30 years. Equipment will be financed for a period up to 120% of its useful life. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

A degree of exposure to variable interest rates within the University's debt portfolio may be desirable in order to:

(i) take advantage of repayment/restructuring flexibility; and

(ii) benefit from historically lower average interest costs; and

(iii) diversify the debt portfolio; and,

(iv) provide a hedge to short-term working capital balances.

Management will monitor overall interest rate exposure, analyze and quantify potential risks, and coordinate appropriate fixed/variable allocation strategies.

Recognizing the desire to manage interest rate risk, the amount of variable rate debt outstanding shall not exceed 20% of the University's outstanding debt. This limit is based on (i) the University's desire to limit annual variances in its debt portfolio, (ii) provide sufficient structuring flexibility to management, (iii) keep the University's variable rate allocation within acceptable external parameters, and (iv) use variable rate debt (and/or swaps) to optimize debt portfolio allocation and minimize costs.

$$\frac{\textbf{VARIABLE RATE AND LIQUIDITY EXPOSURE}}{\textbf{TOTAL LONG-TERM DEBT OUTSTANDING}} \quad \mathbf{< 20\%}$$

Budgetary controls for variable rate debt: To avoid a situation in which debt service on variable rate bonds exceeds the annual amount budgeted; the following guidelines should be followed in establishing a variable rate debt service budget:

i) A principal amortization schedule should be established, with provision made for payment of amortization installments in each respective annual budget;

ii) Provide for payment of interest for each budget year using an assumed budgetary interest rate that allows for fluctuations in interest rates on the bonds without exceeding the amount budgeted. The budgetary interest rate may be established by:
(1) using an artificially high interest rate given current market conditions; or (2) setting the rate based on the last 12 months actual rates of an appropriate index plus a 200 basis point cushion or spread to anticipate interest rate fluctuations during the budget year. The spread should be determined by considering the historical volatility of short-term interest rates, the dollar effect on the budget and current economic conditions and forecasts; or, (3) any other reasonable method determined by the university

iii) The amount of debt service incurred in each budget year should be monitored monthly by the university to detect any significant deviations from the annual budgeted debt service. Any deviations in interest rates that might lead to a budgetary problem should be addressed immediately; and

iv) As part of the effort to monitor actual variable rate debt service in relation to the budgeted amounts and external benchmarks, the university should establish a system to monitor the performance of any service provider whose role it is to periodically reset the interest rates on the debt, i.e., the remarketing agent or auction agent.

Liquidity: One of the features typical of variable rate debt instruments is the bondholder's right to require the issuer to repurchase the debt at various times and under certain conditions. This, in theory, could force the issuer to repurchase large amounts of its variable rate debt on short notice, requiring access to large amounts of liquid assets. Issuers that do not have large amounts of liquid assets may establish a liquidity facility with a financial institution that will provide the money needed to satisfy the repurchase. The liquidity provider should have a rating of A1/P1 or higher. The liquidity agreement does not typically run for the life of long-term debt. Accordingly, there is a risk that the provider will not renew the agreement or that it could be renewed only at substantially higher cost. Similar issues may arise if the liquidity provider encounters credit problems or an event occurs that results in early termination of the liquidity arrangement; in either case the issuer must arrange for a replacement liquidity facility.

Swaps: Should the University participate in the use of Swaps, it must do so in agreement with the Board of Governors of the University of North Carolina "Swap Policy for Constituent Institutions", as shown in Appendix A.

Taxable Debt (without Federal subsidies)

While all the University's capital projects may not qualify for tax-exempt debt, taxable debt should be used only in appropriate cases as it generally represents a more expensive source of capital relative to tax-exempt issuance. Issuing taxable debt reduces the University's overall debt affordability due to higher associated interest expense. When utilized, taxable debt will be structured to provide maximum repayment flexibility and rapid principal amortization.

Capitalized Interest

Capitalized interest from bond proceeds is used to pay debt service until a revenue producing project is completed or to manage cash flows for debt service in special circumstances. Because the use of capitalized interest increases the cost of the financing, it should only be used when necessary for the financial feasibility of the project. In revenue-producing transactions, the University will attempt to structure debt service payments to match the revenue structure in order to minimize the use of capitalized interest.

Credit Ratings

The University will maintain ongoing communication and interaction with bond rating agencies, striving to educate the agencies about the general credit structure and financial performance of the University in order to attain the highest credit rating possible.

Refunding Targets

Generally, refunding bonds are issued to achieve debt service savings by redeeming high interest rate debt with lower interest rate debt. Refunding bonds may also be issued to restructure debt or modify covenants contained in the bond documents. Current tax law limits to one time the issuance of tax-exempt advance refunding bonds to refinance bonds issued after 1986. There is no similar limitation for tax-exempt current refunding bonds. The University will continuously monitor its outstanding tax-exempt debt portfolio for refunding and/or restructuring opportunities. The following guidelines should apply to the issuance of refunding bonds, unless circumstances warrant a deviation there from:

a) Refunding bonds should generally be structured to achieve level annual debt service savings.

b) The life of the refunding bonds should not exceed the remaining life of the bonds being refunded.

c) Advance refunding bonds issued to achieve debt service savings should have a minimum target savings level measured on a present value basis equal to 2-3% of the par amount of the bonds being advance refunded. The 2-3% minimum target savings level for advance refundings should be used as a general guide to guard against prematurely using the one advance refunding opportunity for post-1986 bond issues. However, because of the numerous considerations involved in the sale of advance refunding bonds, the target should not prohibit advance refundings when the circumstances justify a deviation from the guideline.

d) Refunding bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling university interest.

For current refundings, the University will consider transactions that, in general, produce present value savings (based on refunded bonds). A refunding will also be considered if it relieves the University of certain limitations, covenants, payment obligations or reserve requirements that reduce flexibility. The University will also consider refinancing certain obligations within a new money offering even if savings levels are minimal in order to consolidate debt into a general revenue pledge, and/or reduce the administrative burden and cost of managing many small outstanding obligations.

VI. Disclosure

Primary Disclosure

The University shall use best practices in preparing disclosure documents in connection with the public offer and sale of debt so that accurate and complete financial and operating information needed by the markets to assess the credit quality and risks of each particular debt issue is provided.

The disclosure recommendations of the Government Finance Officers Association's "Disclosure for State and Local Governments Securities," and the National Federation of Municipal Analysts' "Recommended Best Practices in Disclosure for Private Colleges and Universities" should be followed to the extent practicable, specifically including the recommendation that financial statements be prepared and presented according to generally accepted accounting principles.

Secondary Disclosure

The University will continue to meet its ongoing disclosure requirements as required under Rule 15c2-12 of the Securities and Exchange Commission. The University will submit financial reports, statistical data, and any other material events as required under outstanding bond indentures.

VII. Tax-Exempt Debt - Post Issuance Considerations

Bond Proceeds Investment

The University will invest bond-funded construction funds, capitalized interest funds, and costs of issuance funds appropriately to achieve the highest return available under arbitrage limitations. When sizing bond transactions, the University will consider funding on either a net or gross basis.

Arbitrage

The University will comply with federal arbitrage requirements on invested tax-exempt bond proceeds, causing arbitrage rebate calculations to be performed annually and rebate payments to be remitted to the IRS periodically as required.

Private Use and Gifts

The University will monitor all arrangements with third parties to use bond-financed property, including the federal government and other colleges and universities, in order to ensure the tax-exempt status of the related debt. The University will monitor any sales of bond-financed property, and any lease management contracts, research arrangements and naming rights agreements to the extent such arrangements impact bond-financed property, and will work closely with bond counsel in determining events/actions that may cause a bond issue to become taxable. The University will also work with the bond counsel to train University personnel in these matters. In order to track arrangements that could potentially result in a loss of tax-exempt status of University debt, a record of financed facilities, including facilities financed by the State will be maintained.

The University will track gifts which are restricted to facilities financed, or to be financed with tax-exempt debt and will work with bond counsel to ensure that such gifts are used in a manner that complies with federal tax law limitations.

VIII. Responsibility

Assignment of Responsibilities

The Vice Chancellor for Administration and Finance is directly responsible for overseeing capital debt management and adhering to advice and guidelines adopted by the Board of Trustees.

Facilities Planning and Facilities Management

The Associate Vice Chancellor for Campus Operations will take the lead role in estimating and defining project costs and in maintaining a list of projects that are being considered. The Associate Vice Chancellor for Campus Operations will take the lead role in developing capital planning documents for the current year, current biennium and the capital plan.

Treasury Management

The Financial Director will maintain a schedule of current and forecasted debt and associated payment of principal, interest and fees. The Associate Vice Chancellor for Financial Services is responsible for the administration of all aspects of debt financing, including accounting, and contracting with financial advisors, underwriters and bond counsel to issue new debt or refinance existing debt.

Management

A Debt/Capital Committee will be established by the Vice Chancellor of Administration and Finance. The committee will consist of no more than 12 individuals from various areas of the University including, but not necessarily limited to: Financial Services, Campus Operations, Academic Affairs, Health Sciences, Research and Graduate Studies, Student Life, and Athletics. The Debt/Capital Committee will meet on a regular basis to review projects being considered and the various financing options available. They will make recommendations to the Vice Chancellor for Administration and Finance who will present the recommendations of this group to the Executive Council and the Chancellor, for further discussion and prioritization.

Board of Trustees

The Board of Trustees will consider for approval each special obligation project of the University, in accordance with State law. The Board of Trustees will consider and approve this Debt Policy and any proposed changes to it.

Review of Debt Policy/Oversight

This debt policy is a living document. The Executive Council will review this policy at least annually and change as needed to reflect changing conditions and practices. However, it is noted that consistent application of the University's debt policy provides evidence of debt management discipline over the long term. This review process is necessary to ensure that the policy remains consistent with the University's objectives/debt philosophy and responsive to evolving practices. In addition, the Debt/Capital Committee will hold periodic meetings in order to review short and intermediate term financing needs, market opportunities, and financial performance. This periodic review will help the University determine appropriate financial decisions as well as review capital investments and the timing of financing plans responsive to market conditions.

Glossary

Annual debt service – the principal and interest due on long-term debt in a fiscal year.

Bridge financing – any type of financing used to "bridge" a period of time. For universities, it generally refers to financings that provide funding in advance of a long-term bond issue or the receipt of gift funding.

Capital project – physical facilities or equipment or software that may be capitalized.

GAAP – Generally Accepted Accounting Principles.

GASB 34/35 – Government Accounting Standards Board Statement Nos. 34 and 35.

Leverage – long-term debt as a component of the total assets of the University. "High leverage" indicates an institution that has a considerable portion of its assets that are debt financed.

Competitive sale – A sale of municipal securities by an issuer in which underwriters or syndicates of underwriters submit sealed bids to purchase the securities. The securities are won and purchased by the underwriter or syndicate of underwriters who submit the best bid according to guidelines in the notice of sale.

Negotiated sale – In a negotiated underwriting the sale of bonds is by negotiation and agreement with an underwriter or underwriting syndicate selected by the issuer before the moment of sale. This is in contrast to a competitive or an advertised sale.

Advance refunding – A financing structure under which new bonds are issued to repay an outstanding bond issue more than ninety (90) days from the date of issuance of the new issue. Generally, the proceeds of the new issue are invested in government securities, which are placed in escrow. The interest and principal repayments on these securities are then used to repay the old issue, usually on the first call date. Advance refundings are done to save interest, extend the maturity of the debt or change existing restrictive covenants.

Current refunding – Sale of a new issue, the proceeds of which are to be used, within ninety (90) days, to retire an outstanding issue by, essentially, replacing the outstanding issues with the new issue. Current refundings are done to save interest cost, extend the maturity of the debt, or change existing restrictive covenants.

Primary disclosure – SEC Rule 15c2-12 obligates underwriters participating in primary (new) offerings of municipal securities (of $1,000,000 or more; are sold to more than 35 people; and have a maturity greater than 9 months) to obtain, review, and distribute to investors copies of the issuer's official statement. While previously exempt, as of December 1, 2010, all new Variable Rate Demand Obligations will also be subject to Rule 15c2-12.

Secondary disclosure - At the time bonds are offered, the issuer must outline the type of Annual Financial Information it will provide annually and the terms of its continuing disclosure agreement. Issuers are also required to provide notice of certain events to each NRMSIR or Municipal Securities Rulemaking Board within 10 business days after the occurrence of the event. Certain events require an events notice to be filed, ***regardless of materiality*** as follows:

1. Failure to pay principal and interest;
2. Unscheduled draws on debt service reserves;
3. Unscheduled draws on credit enhancement;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Adverse tax opinions or events affecting the tax-exempt status of the security;
6. Defeasances;
7. Rating changes;
8. Issuance by IRS of proposed or final determination of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the securities;
9. Tender offers; and,
10. Bankruptcy, insolvency, receivership or similar proceeding.

For other events, an events notice only needs to be filed if ***deemed material.***

1. Non-payment related defaults;
2. Modifications to rights of security holders;
3. Bond calls;
4. Release, substitution, or sale of property securing repayment of the securities;
5. Mergers, consolidations, acquisitions the sale of all or substantially all of the assets of the obligated person or their termination; and,
6. Appointment of a successor or additional trustee or the change of the name of a trustee.

East Carolina University
Financing Schedule
Example

Date **[Actual Dates to Be Inserted]**	**Event**	**Responsibility**
Month 1	Develop/Review financial projections for available revenues to repay debt service	ECU/FA
Month 1	Schedule conference call with UNC-GA staff to discuss the proposed financing and schedule	ECU/FA
Month 1	Select underwriting team	ECU/FA
Month 2	Organizational conference call with the working group to review the plan of finance and the financing schedule	WG
Month 2	Board of Trustees approval	ECU
Month 2	Underwriters Counsel and Bond Counsel receive disclosure/due diligence information from ECU	ECU
Month 2	Distribute Preliminary Official Statement and legal documents to working group	BC/UC
Month 3	Document review meeting/conference call	WG
Month 3	Distribute 2nd draft of legal documents and POS	BC/UC
Month 3	Board of Governors resolution to General Administration	BC
Month 3	Conference call to review 2nd draft of documents	WG
Month 3	Distribute information package to Rating Agencies/ Bond Insurers	FA; U
Month 4	Board of Governors Finance Committee approval	S
Month 4	Board of Governors approval	S
Month 4	Rating Agency/Insurer visits or conference calls	ECU, FA; U
Month 4	Receive Bond Insurance bids and select Bond Insurer	ECU, FA, U
Month 5	Receive Ratings	ECU, FA, U
Month 5	Distribute Preliminary Official Statement	UC
Month 5	Bond Sale	ECU, FA, U
Month 5	Sign Bond Purchase Agreement	U, ECU
Month 5	Distribute Final Official Statement	U; UC
Month 5	Pre-closing	WG
Month 5	Closing	WG

Key	Working Group Participants
ECU	University staff
WG	Working Group
FA	Financial Advisor
BC	Bond Counsel
S	UNC System
U	Underwriter
UC	Underwriter Counsel
WG	Working Group

Appendix A

BOARD OF GOVERNORS OF THE UNIVERSITY OF NORTH CAROLINA

SWAP POLICY FOR CONSTITUENT INSTITUTIONS

This policy will govern the use by the constituent institutions of the University of North Carolina System of Swap Agreements.

DEFINITIONS

"Chief Financial Officer" means the person from time to time serving as the responsible financial person for a Constituent Institution.

"Constituent Institution" means one of the constituent institutions of the University of North Carolina System listed in Section 116-4 of the North Carolina General Statutes, as amended.

"Swap Agreement" mean a written contract entered into in connection with the debt issued or to be issued by or on behalf of a Constituent Institution in the form of a rate swap agreement, basis swap agreement, forward rate agreement, interest rate option agreement, rate cap agreement, rate floor agreement, rate collar agreement, or other similar agreement, including any option to enter into or terminate any of the foregoing or any combination of such agreements.

THE CONDITIONS UNDER WHICH SWAP AGREEMENTS MAY BE ENTERED INTO

Purposes

A Constituent Institution may use a Swap Agreement for the following purposes only:

(a) To achieve significant savings as compared to a product available in the debt market.

(b) To enhance investment returns within prudent risk guidelines.

(c) To prudently hedge risk in the context of a particular financing or the overall asset/liability management of the Constituent Institution.

(d) To incur variable rate exposure, such as selling interest rate caps or entering into a swap in which the Constituent Institution's payment obligation is floating rate.

(e) To achieve more flexibility in meeting the Constituent Institution's overall financial objectives than can be achieved in conventional markets.

Legality. The Board must receive an opinion acceptable to the market from a nationally recognized bond counsel law firm acceptable to the Chief Financial Officer of the Constituent Institution that the Swap Agreement is a legal, valid and binding obligation of the Board and entering into the transaction complies with applicable law.

SPECULATION

A Constituent Institution may not use a Swap Agreement for speculative purposes. Associated risks will be prudent risks that are appropriate for the Constituent Institution to take.

ASPECTS OF RISK EXPOSURE ASSOCIATED WITH A SWAP AGREEMENT

Before entering into a Swap Agreement, the Constituent Institution shall evaluate all the risks inherent in the transaction. These risks to be evaluated could include counterparty risk, termination risk, rollover risk, basis risk, tax event risk and amortization risk.

The Constituent Institution shall endeavor to diversify its exposure to counterparties. To that end, before entering into a transaction, it should determine its exposure to the relevant counterparty or counterparties and determine how the proposed transaction would affect the exposure. The exposure should not be measured solely in terms of notional amount, but rather how changes in interest rates would affect the Constituent Institution's exposure.

COUNTERPARTY SELECTION CRITERIA

The Constituent Institution may enter into a Swap Agreement if the counterparty has at least two long term unsecured credit ratings in the double A category from Fitch Ratings, Moody's, or S&P and the counterparty has demonstrated experience in successfully executing a Swap Agreement. The Constituent Institution may enter into a Swap Agreement if the counterparty has at least two long term unsecured credit ratings in the single A category or better from Fitch Ratings, Moody's, or S&P only if (a) the counterparty either provides a guarantor or assigns the agreement to a party meeting the rating criteria in the preceding sentence or (b) the counterparty (or guarantor) collateralizes the Swap Agreement in accordance with the criteria set forth in this Policy and the transaction documents.

If the rating of the counterparty, or if secured, the entity unconditionally guaranteeing its payment obligations not satisfy the requirements of the Counterparty Selection Criteria, then the obligations of the counterparty must be fully and continuously collateralized by direct obligations of, or obligations the principal and interest on which are guaranteed by, the United States of America and such collateral must be deposited with financial institution serving as a custodial agent for the Constituent Institution.

METHODS BY WHICH A SWAP AGREEMENT IS TO BE PROCURED

Negotiated Method. A Constituent Institution may procure a Swap Agreement by a negotiated method under any of the following conditions:

(a) (1) If the Chief Financial Officer of the Constituent Institution makes a determination that, due to the size or complexity of a particular swap, a negotiated transaction would result in the most favorable pricing and terms; or

(2) If a derivative embedded within a refunding issue is proposed and meets the Constituent Institution's savings target; and

(b) If the Constituent Institution receives a certification from an independent financial institution or financial advisor that the terms and conditions of the Swap Agreement provides the Constituent Institution a fair market value as of the date of its execution in light of the facts and circumstances.

Competitive Method. A Constituent Institution may also procure a Swap Agreement by competitive bidding. The competitive bid can limit the number of firms solicited to no fewer than three. The Constituent Institution may determine which parties it will allow to participate in a competitive transaction. In situations in which the Constituent Institution would like to achieve diversification of counterparty exposure, the Constituent Institution may allow a firm or firms not submitting the bid that produces the lowest cost to match the lowest bid. The parameters for the bid must be disclosed in writing to all potential bidders.

LONG-TERM IMPLICATIONS

In evaluating a particular transaction involving the use of Swap Agreement, the Constituent Institution shall review long-term implications associated with entering into the Swap Agreement, including costs of borrowing, historical interest rate trends, variable rate capacity, credit enhancement capacity, opportunities to refund related debt obligations and other similar considerations.

May 26, 2021

The University of North Carolina System
Debt Capacity Study – Fiscal Year 2020

Elizabeth City State University

Institution Report

Elizabeth City State University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), Elizabeth City State University ("***ECSU***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. ECSU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, ECSU, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—ECSU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, ECSU's debt capacity reflects the amount of debt ECSU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that ECSU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- ECSU's current debt profile, including project descriptions financed with, and the sources of repayment for, ECSU's outstanding debt;
- ECSU's current credit profile, along with recommendations for maintaining or improving ECSU's credit rating; and
- A copy of any ECSU debt management policy currently in effect.

Overview of ECSU

For the fall 2019 semester, ECSU had a headcount student population of approximately 1,769, including 1,692 undergraduate students and 77 graduate students. ECSU employs approximately 123 full-time, part-time, and temporary instructional faculty. ECSU's enrollment has increased 11.6% over the previous five years.

ECSU's average age of plant is 17.29 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

ECSU does not anticipate incurring any additional debt during the Study period.

ECSU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on ECSU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to ECSU by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt ECSU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate ECSU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	6,861,024	5,538,864	-		12,399,888
2017	6,113,968	5,179,254	-	-8.92%	11,293,222
2018	(48,531,378)	4,843,755	53,437,332	-13.67%	9,749,709
2019	(45,810,694)	4,428,382	50,606,572	-5.39%	9,224,260
2020	(50,772,602)	3,025,265	53,797,866	-34.41%	6,050,529
2021	5,324,466	-	-	-12.00%	5,324,466
2022	5,393,684	-	-	1.30%	5,393,684
2023	5,463,802	-	-	1.30%	5,463,802
2024	5,534,831	-	-	1.30%	5,534,831
2025	5,606,784	-	-	1.30%	5,606,784

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	57,754,471	1,696,041	-		59,450,512
2017	55,896,903	361,648	-	-5.37%	56,258,550
2018	60,193,391	337,227	694,773	8.83%	61,225,391
2019	61,327,611	420,817	2,859,309	5.52%	64,607,737
2020	65,233,176	2,107,171	2,816,580	8.59%	70,156,927
2021	71,068,967	-	-	1.30%	71,068,967
2022	71,992,864	-	-	1.30%	71,992,864
2023	72,928,771	-	-	1.30%	72,928,771
2024	73,876,845	-	-	1.30%	73,876,845
2025	74,837,244	-	-	1.30%	74,837,244

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	145,000	660,725	805,725	14,345,000
2022	75,000	655,550	730,550	14,270,000
2023	140,000	651,425	791,425	14,130,000
2024	645,000	645,225	1,290,225	13,485,000
2025	680,000	612,550	1,292,550	12,805,000
2026	715,000	578,100	1,293,100	12,090,000
2027	745,000	541,875	1,286,875	11,345,000
2028	675,000	504,125	1,179,125	10,670,000
2029	715,000	470,375	1,185,375	9,955,000
2030	745,000	434,625	1,179,625	9,210,000
2031	785,000	397,375	1,182,375	8,425,000
2032	805,000	374,806	1,179,806	7,620,000
2033	825,000	350,656	1,175,656	6,795,000
2034	850,000	324,875	1,174,875	5,945,000
2035	880,000	297,250	1,177,250	5,065,000
2036	920,000	253,250	1,173,250	4,145,000
2037	965,000	207,250	1,172,250	3,180,000
2038	1,010,000	159,000	1,169,000	2,170,000
2039	1,060,000	108,500	1,168,500	1,110,000
2040	1,110,000	55,500	1,165,500	-
2041			-	-
2042			-	-
2043			-	-
2044			-	-

Notes

- Expendable Resources equals Unrestricted Net Assets plus Restricted, Expendable Net Assets plus Foundation Unrestricted Net Assets plus Foundation Temporarily Restricted Net Assets minus Restricted, Expendable Net Assets Restricted for Capital Projects.
- Unrestricted Net Assets has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	2,012,754	6,265,855	460,796	5,213,018	1,837,413	5,538,864	17,653,874	
2017	1,294,199	6,094,783	561,276	5,792,893	1,888,982	5,179,254	17,033,424	-3.51%
2018	(54,410,648)	7,546,198	371,195	5,516,174	2,853,137	58,281,087	14,450,870	-15.16%
2019	(53,869,796)	9,331,269	111,459	3,058,617	4,368,544	55,034,954	9,297,958	-35.66%
2020	(50,772,602)	13,157,331	(172,554)	3,838,282	7,104,658	56,823,131	15,768,931	69.60%
2021	6,129,187	13,328,376	(174,797)	3,888,180	7,197,018	-	15,973,927	1.30%
2022	6,208,866	13,501,645	(177,070)	3,938,726	7,290,579	-	16,181,588	1.30%
2023	6,289,581	13,677,166	(179,371)	3,989,929	7,385,357	-	16,391,949	1.30%
2024	6,371,346	13,854,969	(181,703)	4,041,799	7,481,366	-	16,605,044	1.30%
2025	6,454,173	14,035,084	(184,065)	4,094,342	7,578,624	-	16,820,910	1.30%

3. Proposed Debt Financings

ECSU does not anticipate incurring any additional debt during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** ECSU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

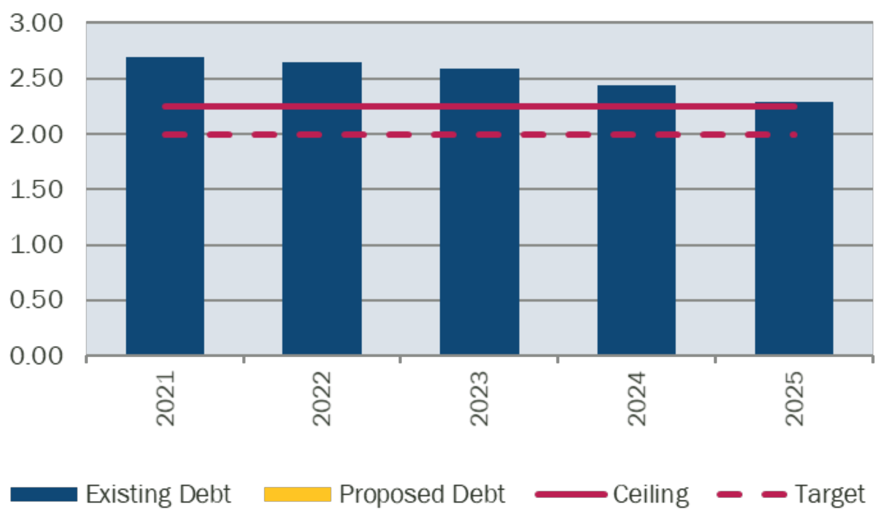
- Target Ratio: 2.00
- Ceiling Ratio: Not to exceed 2.25
- Projected 2021 Ratio: 2.69
- Highest Study Period Ratio: 2.69 (2021)

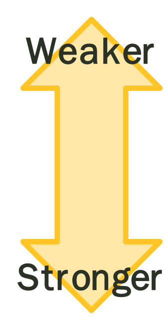
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	5,324,466	-12.00%	14,345,000	-	2.69	n/a	2.69
2022	5,393,684	1.30%	14,270,000	-	2.65	n/a	2.65
2023	5,463,802	1.30%	14,130,000	-	2.59	n/a	2.59
2024	5,534,831	1.30%	13,485,000	-	2.44	n/a	2.44
2025	5,606,784	1.30%	12,805,000	-	2.28	n/a	2.28

Debt to Obligated Resources





5-Year Payout Ratio Overview

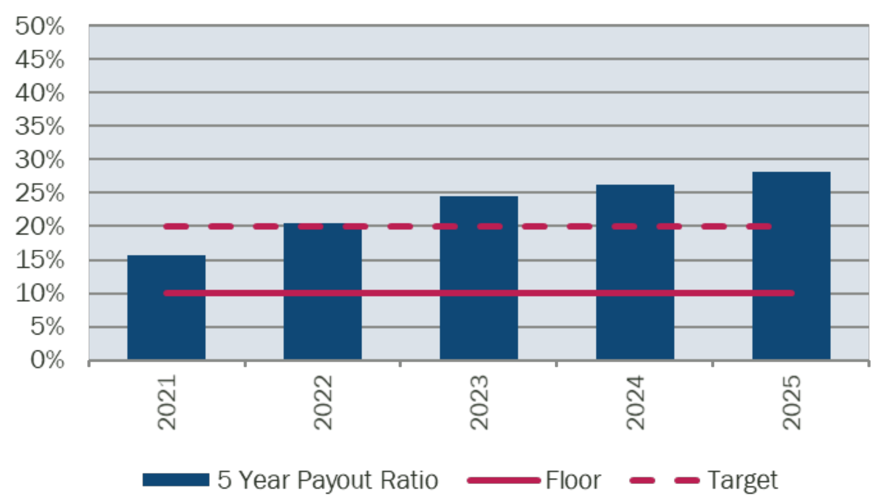
- **What does it measure?** The percentage of ECSU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

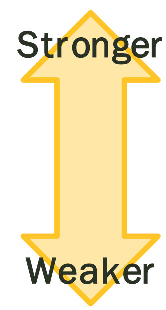
- Target Ratio: 20%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 16%
- Lowest Study Period Ratio: 16% (2021)

5-Year Payout Ratio

	5 Year Payout Ratio	
Fiscal Year	Principal Balance	Ratio
2021	14,345,000	16%
2022	14,270,000	20%
2023	14,130,000	24%
2024	13,485,000	26%
2025	12,805,000	28%

5-Year Payout Ratio





Expendable Resources to Debt

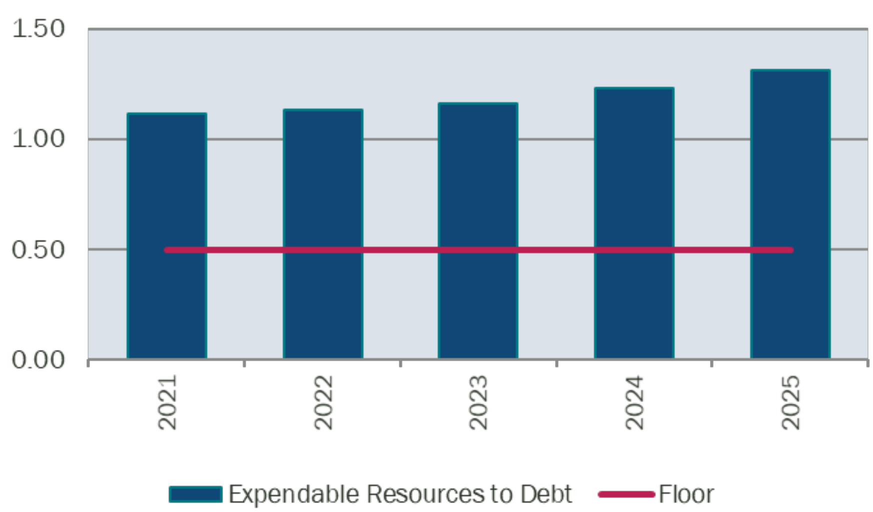
- **What does it measure?** The number of times ECSU's liquid and expendable net assets covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

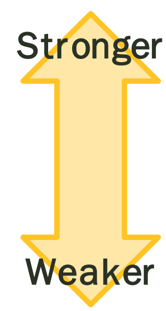
- Floor Ratio: Not less than 0.50x
- Projected 2021 Ratio: 1.11x
- Lowest Study Period Ratio: 1.11x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	15,973,927	1.30%	14,345,000	-	1.11	1.11
2022	16,181,588	1.30%	14,270,000	-	1.13	1.13
2023	16,391,949	1.30%	14,130,000	-	1.16	1.16
2024	16,605,044	1.30%	13,485,000	-	1.23	1.23
2025	16,820,910	1.30%	12,805,000	-	1.31	1.31

Expendable Resources to Debt





Debt Service to Operating Expenses

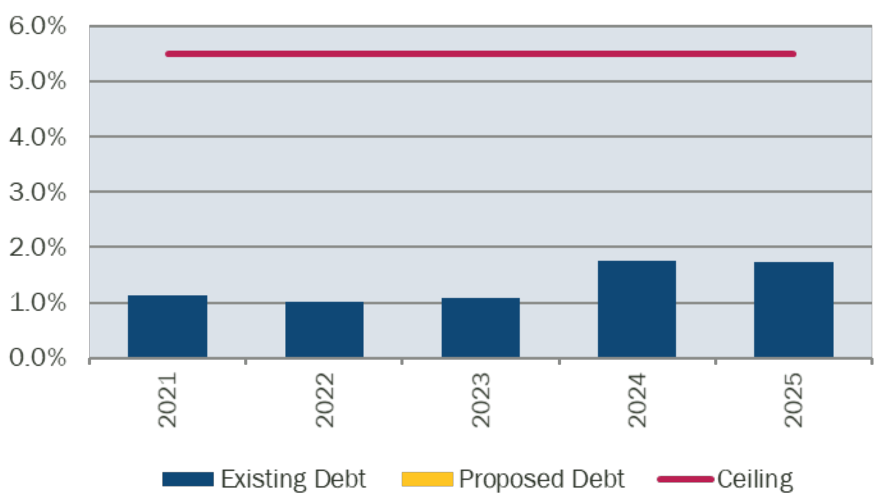
- **What does it measure?** ECSU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

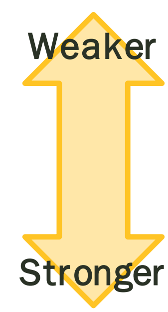
- Policy Ratio: Not to exceed 5.50%
- Projected 2021 Ratio: 1.13%
- Highest Study Period Ratio: 1.75% (2024)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	71,068,967	1.30%	805,725	-	1.13%	n/a	1.13%
2022	71,992,864	1.30%	730,550	-	1.01%	n/a	1.01%
2023	72,928,771	1.30%	791,425	-	1.09%	n/a	1.09%
2024	73,876,845	1.30%	1,290,225	-	1.75%	n/a	1.75%
2025	74,837,244	1.30%	1,292,550	-	1.73%	n/a	1.73%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, ECSU's debt capacity is based on the amount of debt ECSU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, ECSU's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, ECSU will not have any estimated debt capacity during the study period.

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	2.69	2.25	(2,364,952)
2022	2.65	2.25	(2,134,211)
2023	2.59	2.25	(1,836,446)
2024	2.44	2.25	(1,031,630)
2025	2.28	2.25	(189,736)

Limitations on Debt Capacity, Credit Rating Implications, and Comment from ECSU

- The debt capacity calculation shown above provides a general indication of ECSU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount ECSU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **The State's Impact**
        - Historically, each Institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
        - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
    - **Factor Interdependence**
        - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
        - For example, a university's "**strategic positioning**" score, which accounts for 10% of its

overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.

- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

- ECSU provided the following comment on the financial ratios that are outside of the target range.
  - "The ratios above the target ratio resulted from enrollment challenges due to a change in mandated admission requirements, which has impacted our obligated resources. The University is in an upward trend and operational net assets have remained positive throughout this period. We continue to see result of increased enrollment and corresponding increases in state funding from the NC Promise program and is expected to continue to increase over time. Through these times, ECSU plans to carefully managed its resources, continue to grow its endowment and strategically grow its enrollment."

6. Debt Profile

ECSU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 1981B	Dormitory System Revenue Bonds	70,000	10/1/2020	Wamack Hall		Housing Revenues
				Mitchell-Lewis Hall		Housing Revenues
Series 2010A	General Revenue Bonds	600,000	4/1/2027	Housing and Dining Facilities	2002B	Housing Revenues
Series 2019	General Revenue Refunding Bonds	13,820,000	4/1/2040	Viking Tower	2010B	Housing Revenues
Total		14,490,000				

7. Credit Profile

The following page provides a snapshot of ECSU's current credit ratings, along with (1) a summary of various credit factors identified in ECSU's most recent rating report and (2) recommendations for maintaining and improving ECSU's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Baa2 rating on ECSU's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Very strong financial support from the Aaa-rated state
- Significant enrollment increases will provide increased operating appropriations from the state and more auxiliary revenue
- Since launch of NC Promise Program in Fall 2017, trend of enrollment growth has been improving

Credit Challenges

- High dependence on state appropriations which account for 63% of revenues (FY2019)
- Given limited financial resources, reliance on COVID financial aid support is an essential to stabilize impacts to the virus
- Operating performance remains weak and improvements in FY2020 will be dependent on easing of lockdown measures
- High dependence on availability of federal financial aid, serving a high proportion of Pell-eligible students

Recommendations & Observations

- Develop a formal debt policy to prioritize capital improvement needs in light of limited resources, including specific criteria for approving new debt financings when key financial ratios may indicate limited debt capacity.
- As enrollment continues to grow, concentrated efforts to improve liquidity, monthly days cash on hand and other cash flow metrics will help improve the credit profile.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	Elizabeth City State University	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Lincoln University	Alabama State University	Illinois State University	New Jersey City University		
Fiscal Year	2019	2020	2019	2019	2019		2019
Most Senior Rating	Baa2	N/A	Ba2	Baa2	Baa3		Baa2
Total Long-Term Debt ($, in millions)	28	40	205	152	206		107
Total Cash & Investments ($, in millions)	26	66	102	473	31		53
Operating Revenue ($, in millions)	60	67	126	506	148		72
Operating Expenses ($, in millions)	65	71	127	480	163		75
Market Performance Ratios							
Annual Change in Operating Revenue (%)	7.7%	2.6%	-2.7%	-17.2%	-1.0%		3.4%
Operating Ratios							
Operating Cash Flow Margin (%)	4.3%	13.4%	14.7%	11.6%	1.4%		6.4%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.4	0.9	0.8	1.0	0.2		0.6
Total Debt to Operating Expenses (x)	0.4	0.6	1.6	0.3	1.3		1.4
Monthly Days Cash on Hand (x)	30	103	26	239	33		115
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	0.9	1.6	0.5	3.1	0.1		0.4
Debt Service to Operating Expenses (%)	6.3%	3.7%	15.0%	3.1%	10.0%		6.4%
Total Debt-to-Cash Flow (x)	11.0	4.5	11.1	2.6	99.1		42.2

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

ECSU’s debt management policy is included in the following pages.

April 1, 2020

Debt Management Manual

Elizabeth City State University

Table of Contents

1. Introduction

Elizabeth City State University ("ECSU") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of ECSU's strategic vision to attract and retain a diverse and highly qualified faculty that will educate and lead our students to become productive members of a global and increasingly interdependent society. ECSU will continue to be a leading partner in enhancing educational and cultural opportunities and improving the economic strength in the region. ECSU recognizes the important role that debt-related strategies may play as it makes the necessary investments in its infrastructure in order to become and by maintaining a rigorous focus on academic excellence for dedicated students within their academic programs, engaged faculty and a nurturing campus environment.

This Manual has been developed to assist ECSU's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with ECSU's stated policies, objectives and core values. Like other limited resources, ECSU's debt capacity should be used and allocated strategically and equitably.

Specifically, the objective of this Manual is to provide a framework that will enable ECSU's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within ECSU's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating ECSU's financial health, debt affordability and debt capacity;

(iv) Manage and protect ECSU's credit profile in order to improve and maintain ECSU's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure ECSU remains in compliance with all of its post-issuance obligations and requirements.

This Manual is intended solely for ECSU's internal planning purposes. The Vice Chancellor for Business and Finance and/or the Controller will review this Manual annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Manual are subject to the Chancellor's approval.

2. Authorization and Oversight

ECSU's Vice Chancellor for Business and Finance is responsible for the day-to-day management of ECSU's financial affairs in accordance with the terms of this Manual and for all of ECSU's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of ECSU will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be approved by the Vice Chancellor for Business and Finance before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, ECSU considers both its debt affordability and its debt capacity. Debt affordability focuses on ECSU's cash flows and measures ECSU's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between ECSU's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by several factors, including ECSU's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, ECSU's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

ECSU believes, however, that it is important to consider and monitor objective metrics when evaluating ECSU's financial health and its ability to incur additional debt. To that end, ECSU has identified three key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Expendable Resources to Debt

(iii) Debt Service to Operating Expenses

Note that the selected financial ratios are also monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which ECSU believes will promote clarity and consistency in ECSU's debt management and planning efforts.

ECSU has established for each ratio a floor or ceiling target, as the case may be, with the expectation that ECSU will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Manual should align with the ratios used in the report ECSU submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve ECSU's financial health and operating flexibility and to ensure ECSU is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Manual.

ECSU recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of ECSU's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study, ECSU has developed as part of this Manual specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when ECSU has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Manual. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to ECSU or would negatively impact ECSU's credit rating.

At no point, however, should ECSU intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure? ECSU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes

Why is it tracked? The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of ECSU's ability to absorb debt on its balance sheet and is the primary ratio used to calculate ECSU's "debt capacity" under the methodology used in the UNC Debt Capacity Study

How is it calculated? Aggregate debt divided by obligated resources*

Policy Ratio: Not to exceed 2.25x (UNC Debt Capacity Study Target Ratio = 2.00x)

*Available Funds, which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though

Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of ECSU's obligated resources.

Ratio 2 – Expendable Resources to Debt

What does it measure?	The number of times ECSU's liquid and expendable net assets covers its aggregate debt
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses ECSU's ability to settle its debt obligations using only its available net assets as of a particular date
How is it calculated?	The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt
Policy Ratio:	0.50x

Ratio 3 – Debt Service to Operating Expenses

What does it measure?	ECSU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates ECSU's relative cost of borrowing to its overall expenditures and provides a measure of ECSU's budgetary flexibility
How is it calculated?	Annual debt service divided by annual operating expenses
Policy Ratio:	Not to exceed 5.50%

Reporting

The Vice Chancellor for Business and Finance will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board substantially in the form of **Appendix B** detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business and Finance within the context of this Manual and the overall portfolio to ensure that any financial product or structure is consistent with ECSU's stated objectives. As part of effective debt management, ECSU must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

ECSU will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves ECSU's strategic plan and financing objectives. In making that determination, ECSU will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect ECSU's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce ECSU's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates ECSU's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, ECSU should structure its debt to provide for level annual payments of debt service, though ECSU may elect alternative structures when the Vice Chancellor for Business and Finance determines it to be in ECSU's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

ECSU will use maturity structures that correspond with the life of the facilities financed, not to exceed [30] years. Equipment should be financed for a period not to exceed [120]% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

ECSU recognizes that a degree of exposure to variable interest rates within ECSU's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from ECSU's assets. ECSU's debt portfolio should be managed to ensure that no more than [20%] of ECSU's total debt bears interest at an unhedged variable rate.

ECSU's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. ECSU may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. ECSU may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

[Public Private Partnerships]

To address ECSU's anticipated capital needs as efficiently and prudently as possible, ECSU may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

Due to their higher perceived risk and increased complexity, and because the cash flows for the project must satisfy the private partner's expected risk-adjusted rate of return, the financing and initial transaction costs for projects acquired through P3 Arrangements are generally higher than projects financed with proceeds of traditional debt instruments. P3 Arrangements should therefore be pursued only when ECSU has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with ECSU's core mission).

Absent a compelling strategic reason to the contrary, P3 Arrangements should not be considered if the Vice Chancellor for business and Finance determines, in consultation with ECSU's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by ECSU's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider ECSU's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on ECSU's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, ECSU or a ECSU affiliate must be approved in advance by the Chancellor.

Refunding Considerations

ECSU will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, ECSU should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of ECSU ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least [3]% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve ECSU of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Derivative Products

ECSU recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit ECSU to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. ECSU will use derivatives only to manage and mitigate risk; ECSU will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, ECSU's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Business and Finance must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that ECSU's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

ECSU will use derivatives only when the Vice Chancellor for Business and Finance determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing ECSU's strategic objectives without imposing inappropriate risks on ECSU.

7. Post-Issuance Compliance Matters

On their adoption, the Vice Chancellor for Business and Finance will attach as **Appendix A** to this Strategy any policies relating to post-issuance compliance.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

Fayetteville State University

Institution Report

[Type here]

Fayetteville State University

Table of Contents

1. Executive Summary

<u>Overview of the Institution Report</u>

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), Fayetteville State University ("***FSU***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. FSU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, FSU, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—FSU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, FSU's debt capacity reflects the amount of debt FSU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that FSU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- FSU's current debt profile, including project descriptions financed with, and the sources of repayment for, FSU's outstanding debt;
- FSU's current credit profile, along with recommendations for maintaining or improving FSU's credit rating; and
- A copy of any FSU debt management policy currently in effect.

<u>Overview of FSU</u>

For the fall 2019 semester, FSU had a headcount student population of approximately 6,551, including 5,644 undergraduate students and 907 graduate students. FSU employed approximately 314 full-time, part-time, and temporary instructional faculty for the 2019-20 academic year. Over the past five years, FSU's enrollment has increased 7.3%.

FSU's average age of plant is 15.14 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

FSU does not anticipate significant additional borrowings during the Study period.

FSU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on FSU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to FSU by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt FSU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate FSU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	19,158,471	6,384,292	-		25,542,762
2017	22,679,002	6,308,260	-	13.49%	28,987,262
2018	(96,161,998)	7,522,665	119,850,968	7.67%	31,211,635
2019	(102,038,811)	8,621,417	115,635,037	-28.82%	22,217,643
2020	(108,071,516)	12,533,723	111,658,047	-27.44%	16,120,253
2021	14,185,823	-	-	-12.00%	14,185,823
2022	14,370,239	-	-	1.30%	14,370,239
2023	14,557,052	-	-	1.30%	14,557,052
2024	14,746,293	-	-	1.30%	14,746,293
2025	14,937,995	-	-	1.30%	14,937,995

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	106,847,885	2,245,747	-		109,093,632
2017	114,019,260	242,346	-	4.74%	114,261,606
2018	118,979,737	(907,886)	668,689	3.92%	118,740,540
2019	119,814,058	(1,095,127)	4,216,602	3.53%	122,935,533
2020	119,110,192	(3,912,306)	3,907,543	-3.12%	119,105,429
2021	111,683,876	-	-	-6.23%	111,683,876
2022	113,135,767	-	-	1.30%	113,135,767
2023	114,606,532	-	-	1.30%	114,606,532
2024	116,096,417	-	-	1.30%	116,096,417
2025	117,605,670	-	-	1.30%	117,605,670

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	1,609,000	2,185,326	3,794,326	47,293,000
2022	1,681,000	2,130,883	3,811,883	45,612,000
2023	1,663,000	2,073,543	3,736,543	43,949,000
2024	1,531,000	2,015,339	3,546,339	42,418,000
2025	1,608,000	1,959,481	3,567,481	40,810,000
2026	1,695,000	1,899,967	3,594,967	39,115,000
2027	1,778,000	1,836,298	3,614,298	37,337,000
2028	1,866,000	1,768,330	3,634,330	35,471,000
2029	1,960,000	1,692,338	3,652,338	33,511,000
2030	2,064,000	1,607,719	3,671,719	31,447,000
2031	2,184,000	1,518,225	3,702,225	29,263,000
2032	2,300,000	1,423,182	3,723,182	26,963,000
2033	2,426,000	1,322,475	3,748,475	24,537,000
2034	2,557,000	1,215,955	3,772,955	21,980,000
2035	1,890,000	1,114,563	3,004,563	20,090,000
2036	2,015,000	1,018,781	3,033,781	18,075,000
2037	2,145,000	916,644	3,061,644	15,930,000
2038	2,275,000	807,906	3,082,906	13,655,000
2039	2,415,000	692,563	3,107,563	11,240,000
2040	2,570,000	570,106	3,140,106	8,670,000
2041	2,725,000	439,775	3,164,775	5,945,000
2042	2,885,000	301,569	3,186,569	3,060,000
2043	3,060,000	155,231	3,215,231	-
2044			-	-

*FSU has reviewed and changed the manner in which it calculates Available Funds, which resulted in the decline in Available Funds from fiscal year 2015 to 2017.

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projected period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	1,647,554	12,895,520	-	-	1,389,090	6,384,292	19,538,275	
2017	2,295,945	12,948,068	-	-	1,551,978	6,308,260	20,000,294	2.36%
2018	(120,376,947)	21,308,599	-	-	7,635,600	127,040,663	20,336,715	1.68%
2019	(123,130,955)	22,937,907			8,249,707	124,256,454	15,813,699	-22.24%
2020	(119,357,874)	19,844,216			6,899,091	124,191,769	17,779,020	12.43%
2021	4,896,736	20,102,191	-	-	6,988,779	-	18,010,148	1.30%
2022	4,960,394	20,363,519	-	-	7,079,633	-	18,244,280	1.30%
2023	5,024,879	20,628,245	-	-	7,171,669	-	18,481,455	1.30%
2024	5,090,202	20,896,412	-	-	7,264,900	-	18,721,714	1.30%
2025	5,156,375	21,168,066	-	-	7,359,344	-	18,965,097	1.30%

3. Proposed Debt Financings

While FSU evaluates its capital investment needs on a regular basis, FSU currently has no legislatively approved projects that it anticipates financing during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** FSU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

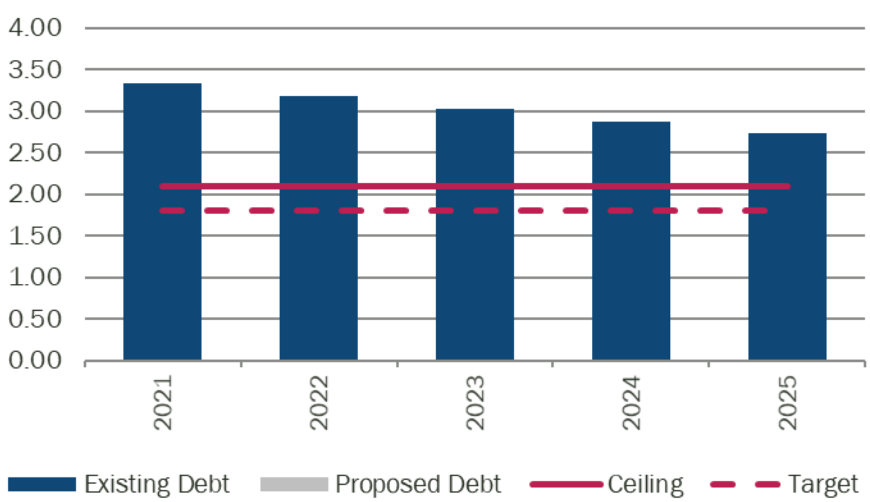
- Target Ratio: 1.80
- Ceiling Ratio: Not to exceed 2.10
- Projected 2021 Ratio: 3.33
- Highest Study Period Ratio: 3.33 (2021)

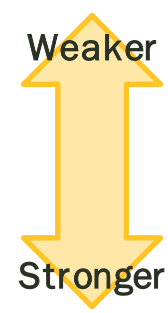
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	14,185,823	-12.00%	47,293,000	-	3.33	n/a	3.33
2022	14,370,239	1.30%	45,612,000	-	3.17	n/a	3.17
2023	14,557,052	1.30%	43,949,000	-	3.02	n/a	3.02
2024	14,746,293	1.30%	42,418,000	-	2.88	n/a	2.88
2025	14,937,995	1.30%	40,810,000	-	2.73	n/a	2.73

Debt to Obligated Resources





5-Year Payout Ratio Overview

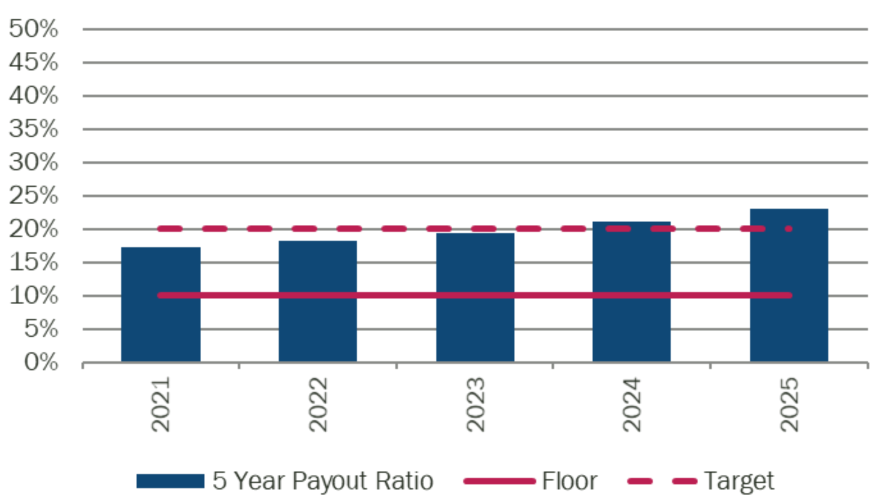
- **What does it measure?** The percentage of FSU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

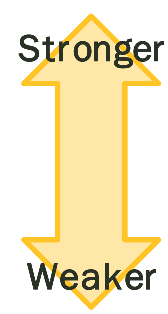
- Target Ratio: 20%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 17%
- Lowest Study Period Ratio: 17% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	47,293,000	17%
2022	45,612,000	18%
2023	43,949,000	19%
2024	42,418,000	21%
2025	40,810,000	23%

5-Year Payout Ratio





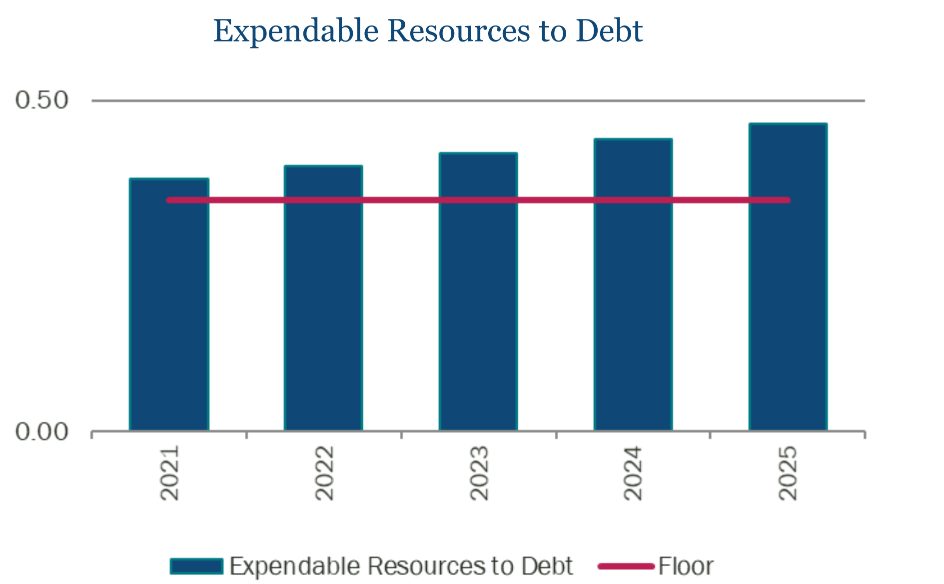
Expendable Resources to Debt

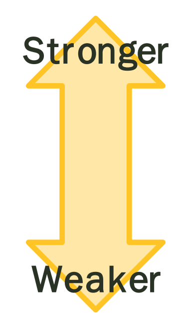
- **What does it measure?** The number of times FSU's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.35x
- Projected 2021 Ratio: 0.38x
- Lowest Study Period Ratio: 0.38x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Bal.	Proposed Bal.	Existing Debt	Existing & Proposed Debt
2021	18,010,148	1.30%	47,293,000	-	0.38	0.38
2022	18,244,280	1.30%	45,612,000	-	0.40	0.40
2023	18,481,455	1.30%	43,949,000	-	0.42	0.42
2024	18,721,714	1.30%	42,418,000	-	0.44	0.44
2025	18,965,097	1.30%	40,810,000	-	0.46	0.46





Debt Service to Operating Expenses

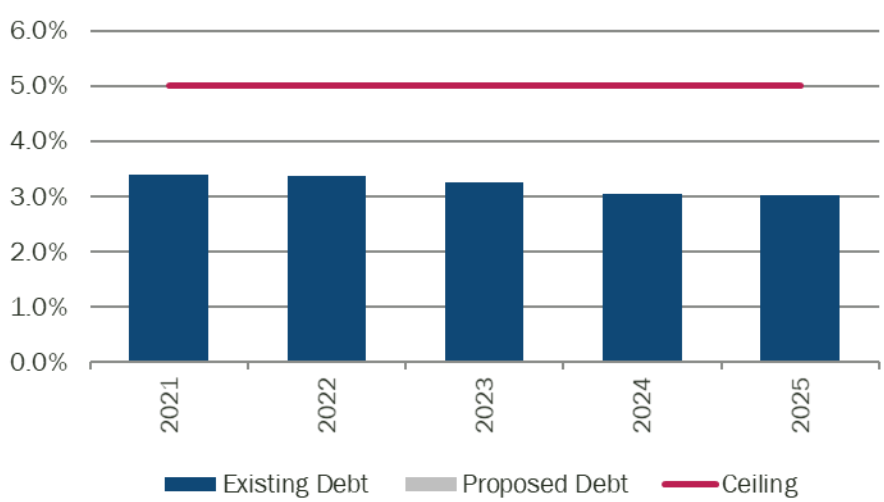
- **What does it measure?** FSU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

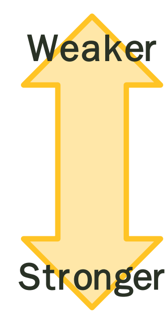
- Policy Ratio: Not to exceed 5.00%
- Projected 2021 Ratio: 3.40%
- Highest Study Period Ratio: 3.40% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing DS	Proposed DS	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	111,683,876	-6.23%	3,794,326	-	3.40%	n/a	3.40%
2022	113,135,767	1.30%	3,811,883	-	3.37%	n/a	3.37%
2023	114,606,532	1.30%	3,736,543	-	3.26%	n/a	3.26%
2024	116,096,417	1.30%	3,546,339	-	3.05%	n/a	3.05%
2025	117,605,670	1.30%	3,567,481	-	3.03%	n/a	3.03%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, FSU's debt capacity is based on the amount of debt FSU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, FSU's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, FSU will not have any estimated debt capacity during the study period

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	3.33	2.10	(17,502,772)
2022	3.17	2.10	(15,434,499)
2023	3.02	2.10	(13,379,191)
2024	2.88	2.10	(11,450,784)
2025	2.73	2.10	(9,440,210)

Limitations on Debt Capacity, Credit Rating Implications, and Comment from FSU

- The debt capacity calculation shown above provides a general indication of FSU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If FSU were to use all of its calculated debt capacity during the Study Period, FSU's credit ratings may face significant downward pressure**.
- Projecting the exact amount FSU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **The State's Impact**
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.

- Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
- If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

- FSU provided the following comment on the financial ratios that are outside of the target ranges.
  - "During fiscal year 2020, revenues included in the available funds (obligated resources) model, declined by approximately $2.5 due to the pandemic. Notably, these revenues were realized through reimbursements of lost revenues funded through the CARES act, but are not counted in the available funds calculation due to the reimbursement being sourced from grant funding. Additionally, the available funds (obligated resources) calculation base consists of the prior year's ending unrestricted fund balances. The University's unrestricted fund balance increased by $3.7 million from FY 2020 to FY 2021, which will help to narrow the gap between the University's ratio versus the ceiling ratio in future reports. Prospectively, the use of HEERF funds will distort the calculation of available funds. Operating revenues will continue to trend down, but pandemic-related lost revenue will be fully reimbursed. Additionally, emergency financial aid awards provided with HEERF funding will inflate the University's tuition discount, which will serve to decrease operating revenues until HEERF funds are exhausted."

6. Debt Profile

FSU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2011	Limited Obligation Bonds	18,230,000	4/1/2043	Renaissance Hall Student Housing Project		Housing Revenues
Series 2013A	General Revenue Bonds	20,670,000	4/1/2043	Rudolph Jones Student Center Renovation		Debt Service Fee
Series 2013B	Taxable General Revenue Bonds	285,000	4/1/2021	Rudolph Jones Student Center Renovation		Debt Service Fee
Series 2015	Taxable General Revenue Refunding Bond	600,000	4/1/2023	Dining Facilities Renovation	2005	Meal Plan Fee
Series 2017	Student Housing Facilities Revenue Refunding Bond	9,117,000	11/1/2033	University Place Apartments	2001	Housing Revenues
Total		48,902,000				

7. Credit Profile

The following page provides a snapshot of FSU's current credit ratings, along with (1) a summary of various credit factors identified in FSU's most recent rating report and (2) recommendations for maintaining and improving FSU's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Standard and Poor's downgraded FSU's rating to BBB+. The outlook is negative.
- Fitch downgraded FSU's rating to A Issuer Default Rating (IDR) on it's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Substantial operating and capital support from the state of North Carolina
- Despite COVID, stabilized full-time enrollment given the success of the strategic initiatives and slight growth in headcount

Credit Challenges

- Off-campus competition for housing, with three alternatives in close proximity to campus
- Slim financial reserves and cash flow margins make debt affordability more difficult; Declining pledged revenues including student fees put greater reliance on fund balances and housing/ dining to meet debt service

Recommendations & Observations

- Continue to develop and implement strategies and policies to meet FSU's unique challenges, including strategies to stabilize and improve enrollment, operating revenue and financial reserves.
- Failure to generate growing available funds which are pledged to FSU's debt will continue to put pressure on FSU's credit outlook.

8. Peer Comparison

Standard and Poor's Key Credit Ratios	Fayetteville State University	Most Recent Peer Institution Data			Standard and Poor's Public Higher Education Medians
Peer Insitutition		Alabama State University	Western Kentucky University	Longwood University	
Fiscal Year	2019	2019	2019	2019	2019
Most Senior Rating	BBB+	B-	BBB+	BBB+	BBB+
Outstanding Debt ($, in millions)	60	221	157	277	85
Total Cash & Investments ($, in millions)	44	37	92	12	35
Operating Revenue ($, in millions)	133	157	394	138	135
Operating Expenses ($, in millions)	138	155	392	146	141
Operating Ratios					
Net Operating Income to Operating Expenses (%)	-4.08%	1.33%	0.59%	-5.43%	-3.47%
Wealth & Liquidity Ratios					
Total Cash & Investments to Operating Expenses (x)	0.32	0.24	0.23	0.08	0.25
Total Debt to Operating Expenses (x)	0.43	1.43	0.40	1.90	0.60
Leverage Ratios					
Total Cash & Investments to Total Debt (x)	0.73	0.17	0.59	0.04	0.41
Debt Service to Operating Expenses (%)	3.5%	12.8%	4.9%	3.2%	3.8%

*Note: Peers chosen from BOG approved peers if rated by Standard and Poor’s. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

FSU's current debt policy is included in the following pages.

Debt Management Policy

Fayetteville State University

Table of Contents

1. Introduction

Fayetteville State University ("FSU") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of FSU's strategic vision to be a leading institution of opportunity and diversity committed to developing learned and responsible global citizens. FSU recognizes the important role that debt-related strategies may play as it makes the necessary investments in its infrastructure in order to become and remain the destination institution for dedicated students seeking challenging academic programs, engaged faculty and a vibrant campus culture.

This Policy has been developed to assist FSU's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with FSU's stated policies, objectives and core values. Like other limited resources, FSU's debt capacity should be used and allocated strategically and equitably.

Specifically, the objective of this Policy is to provide a framework that will enable FSU's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within FSU's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating FSU's financial health, debt affordability and debt capacity;

(iv) Manage and protect FSU's credit profile in order to maintain FSU's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure FSU remains in compliance with all of its post-issuance obligations and requirements.

This Policy is intended solely for FSU's internal planning purposes. The Vice Chancellor for Business and Finance will review this Policy annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Policy are subject to the Board's approval.

2. Authorization and Oversight

FSU's Vice Chancellor for Business and Finance is responsible for the day-to-day management of FSU's financial affairs in accordance with the terms of this Policy and for all of FSU's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of FSU will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be jointly approved by the Vice Chancellor for Business and Finance and the Foundation Assistant before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, FSU takes into account both its debt affordability and its debt capacity. Debt affordability focuses on FSU's cash flows and measures FSU's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between FSU's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including FSU's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, FSU's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

FSU believes, however, that it is important to consider and monitor objective metrics when evaluating FSU's financial health and its ability to incur additional debt. To that end, FSU has identified three key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Expendable Resources to Debt

(iii) Debt Service to Operating Expenses

Note that the selected financial ratios are also monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which FSU believes will promote clarity and consistency in FSU's debt management and planning efforts.

FSU has established for each ratio a floor or ceiling target, as the case may be, with the expectation that FSU will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Policy should align with the ratios used in the report FSU submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve FSU's financial health and operating flexibility and to ensure FSU is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Policy.

FSU recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of FSU's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, FSU has developed as part of this Policy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when FSU has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Policy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to FSU or would negatively impact FSU's credit rating.

At no point, however, should FSU intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure? FSU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes

Why is it tracked? The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of FSU's ability to absorb debt on its balance sheet and is the primary ratio used to calculate FSU's "debt capacity" under the methodology used in the UNC Debt Capacity Study

How is it calculated? Aggregate debt divided by obligated resources*

Policy Ratio: Not to exceed 2.10x (UNC Debt Capacity Study Target Ratio = 1.80x)

*Available Funds, which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though

Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of FSU's obligated resources.

Ratio 2 – Expendable Resources to Debt

What does it measure? The number of times FSU's liquid and expendable net assets covers its aggregate debt

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses FSU's ability to settle its debt obligations using only its available net assets as of a particular date

How is it calculated? The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

Policy Ratio: Not less than 0.35x

Ratio 3 – Debt Service to Operating Expenses

What does it measure? FSU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates FSU's relative cost of borrowing to its overall expenditures and provides a measure of FSU's budgetary flexibility

How is it calculated? Annual debt service divided by annual operating expenses

Policy Ratio: Not to exceed 5.00%

Reporting

The Vice Chancellor for Business and Finance will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board substantially in the form of **Appendix A** detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business and Finance within the context of this Policy and the overall portfolio to ensure that any financial product or structure is consistent with FSU's stated objectives. As part of effective debt management, FSU must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

FSU will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves FSU's strategic plan and financing objectives. In making that determination, FSU will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect FSU's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce FSU's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates FSU's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, FSU should structure its debt to provide for level annual payments of debt service, though FSU may elect alternative structures when the Vice Chancellor for Business and Finance determines it to be in FSU's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

FSU will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

FSU recognizes that a degree of exposure to variable interest rates within FSU's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from FSU's assets. FSU's debt portfolio should be managed to ensure that no more than 20% of FSU's total debt bears interest at an unhedged variable rate.

FSU's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. FSU may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. FSU may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Refunding Considerations

FSU will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, FSU should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of FSU ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve FSU of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Derivative Products

FSU recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit FSU to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. FSU will use derivatives only to manage and mitigate risk; FSU will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, FSU's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Business and Finance must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that FSU's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

FSU will use derivatives only when the Vice Chancellor for Business and Finance determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing FSU's strategic objectives without imposing inappropriate risks on FSU.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

North Carolina A&T State University

Institution Report

North Carolina A&T State University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), North Carolina A&T State University ("***N.C. A&T***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. N.C. A&T has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, N.C. A&T, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—N.C. A&T has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, N.C. A&T's debt capacity reflects the amount of debt N.C. A&T could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that N.C. A&T intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- N.C. A&T's current debt profile, including project descriptions financed with, and the sources of repayment for, N.C. A&T's outstanding debt;
- N.C. A&T's current credit profile, along with recommendations for maintaining or improving N.C. A&T's credit rating; and
- A copy of any N.C. A&T debt management policy currently in effect.

Overview of N.C. A&T

For the fall 2019 semester, N.C. A&T had a headcount student population of 12,556, including 11,039 undergraduate students and 1,517 graduate students. During the 2019-20 academic year, N.C. A&T employed approximately 727 full-time, part-time, and temporary instructional faculty. Over the past five years, N.C. A&T's enrollment has increased approximately 15.7%.

N.C. A&T's average age of plant is 14.01 years, which is lower than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

N.C. A&T does not anticipate significant additional borrowings during the Study period. N.C. A&T has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on N.C. A&T's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to N.C. A&T by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt N.C. A&T expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate N.C. A&T's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	71,623,591	11,902,719	-		83,526,310
2017	71,816,337	12,649,799	-	1.13%	84,466,136
2018	(179,880,407)	14,329,939	261,855,241	14.02%	96,304,773
2019	(163,988,895)	16,138,225	249,520,134	5.57%	101,669,464
2020	(135,052,538)	23,726,054	236,896,849	23.51%	125,570,365
2021	127,202,780	-	-	1.30%	127,202,780
2022	128,856,416	-	-	1.30%	128,856,416
2023	130,531,549	-	-	1.30%	130,531,549
2024	132,228,459	-	-	1.30%	132,228,459
2025	133,947,429	-	-	1.30%	133,947,429

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	251,810,865	4,345,564	-		256,156,429
2017	268,914,553	(725,974)	-	4.70%	268,188,579
2018	283,882,359	(1,659,280)	3,210,079	6.43%	285,433,158
2019	292,782,302	(1,793,901)	12,477,212	6.32%	303,465,613
2020	305,148,378	(7,587,829)	12,485,997	2.17%	310,046,546
2021	314,077,151	-	-	1.30%	314,077,151
2022	318,160,154	-	-	1.30%	318,160,154
2023	322,296,236	-	-	1.30%	322,296,236
2024	326,486,087	-	-	1.30%	326,486,087
2025	330,730,406	-	-	1.30%	330,730,406

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	2,955,000	3,883,742	6,838,742	89,390,000
2022	2,390,000	3,809,234	6,199,234	87,000,000
2023	2,465,000	3,735,725	6,200,725	84,535,000
2024	2,550,000	3,648,238	6,198,238	81,985,000
2025	2,675,000	3,533,213	6,208,213	79,310,000
2026	2,795,000	3,405,375	6,200,375	76,515,000
2027	2,925,000	3,274,384	6,199,384	73,590,000
2028	3,215,000	3,132,256	6,347,256	70,375,000
2029	3,345,000	3,005,631	6,350,631	67,030,000
2030	3,445,000	2,899,009	6,344,009	63,585,000
2031	3,560,000	2,785,469	6,345,469	60,025,000
2032	3,710,000	2,634,688	6,344,688	56,315,000
2033	3,670,000	2,450,750	6,120,750	52,645,000
2034	3,830,000	2,287,850	6,117,850	48,815,000
2035	3,505,000	2,129,075	5,634,075	45,310,000
2036	3,685,000	1,949,325	5,634,325	41,625,000
2037	3,870,000	1,760,450	5,630,450	37,755,000
2038	4,075,000	1,561,825	5,636,825	33,680,000
2039	3,570,000	1,370,700	4,940,700	30,110,000
2040	3,755,000	1,187,575	4,942,575	26,355,000
2041	3,950,000	994,950	4,944,950	22,405,000
2042	4,130,000	813,600	4,943,600	18,275,000
2043	4,300,000	645,000	4,945,000	13,975,000
2044	4,475,000	469,500	4,944,500	9,500,000
2045	4,655,000	286,900	4,941,900	4,845,000
2046	4,845,000	96,900	4,941,900	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	40,014,805	20,412,598	6,227,054	7,623,956	1,479,633	11,902,719	84,701,499	
2017	42,875,015	27,948,695	9,059,976	9,783,118	3,609,538	12,649,799	98,707,065	16.54%
2018	(214,666,438)	31,740,392	11,076,143	11,098,918	3,806,272	276,185,180	111,627,922	13.09%
2019	(204,003,373)	34,813,912	13,027,031	15,585,093	3,281,564	265,658,359	121,799,458	9.11%
2020	(184,345,832)	33,749,391	15,811,385	17,470,544	694,122	260,622,903	142,614,269	17.09%
2021	77,268,673	34,188,133	16,016,933	17,697,661	703,146	-	144,468,254	1.30%
2022	78,273,166	34,632,579	16,225,153	17,927,731	712,286	-	146,346,342	1.30%
2023	79,290,717	35,082,802	16,436,080	18,160,791	721,546	-	148,248,844	1.30%
2024	80,321,496	35,538,879	16,649,749	18,396,881	730,926	-	150,176,079	1.30%
2025	81,365,676	36,000,884	16,866,196	18,636,041	740,428	-	152,128,368	1.30%

3. Proposed Debt Financings

While N.C. A&T evaluates its capital investment needs on a regular basis, N.C. A&T currently has no legislatively approved projects that it anticipates financing during the Study period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** N.C. A&T's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt <u>divided by</u> obligated resources*

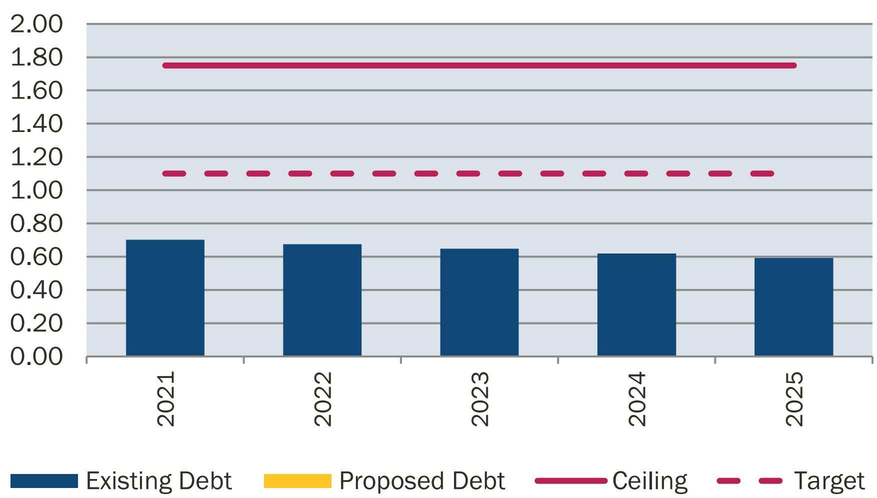
- Target Ratio: 1.10
- Ceiling Ratio: Not to exceed 1.75
- Projected 2021 Ratio: 0.70
- Highest Study Period Ratio: 0.70 (2021)

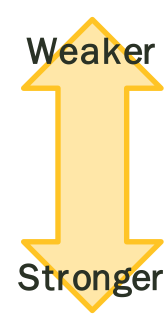
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	127,202,780	1.30%	89,390,000	-	0.70	n/a	0.70
2022	128,856,416	1.30%	87,000,000	-	0.68	n/a	0.68
2023	130,531,549	1.30%	84,535,000	-	0.65	n/a	0.65
2024	132,228,459	1.30%	81,985,000	-	0.62	n/a	0.62
2025	133,947,429	1.30%	79,310,000	-	0.59	n/a	0.59

Debt to Obligated Resources





5-Year Payout Ratio Overview

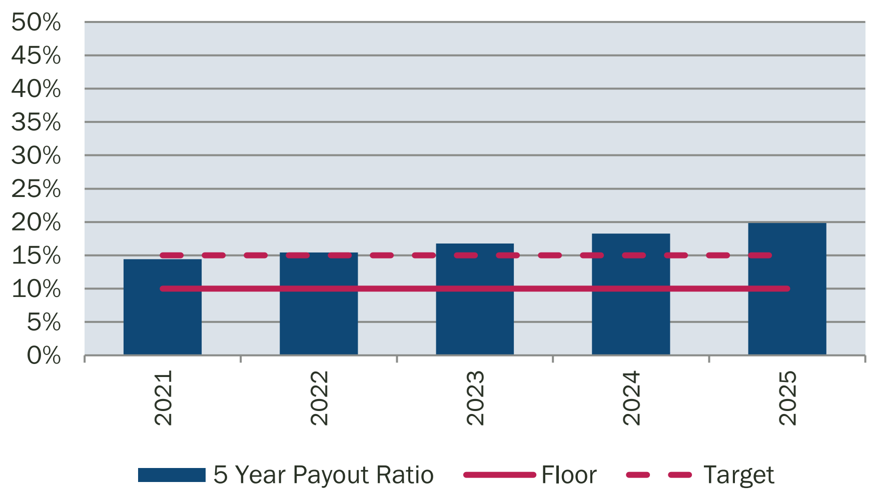
- **What does it measure?** The percentage of N.C. A&T's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

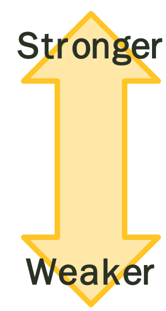
- Target Ratio: 15%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 14%
- Lowest Study Period Ratio: 14% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	89,390,000	14%
2022	87,000,000	15%
2023	84,535,000	17%
2024	81,985,000	18%
2025	79,310,000	20%

5-Year Payout Ratio





Expendable Resources to Debt

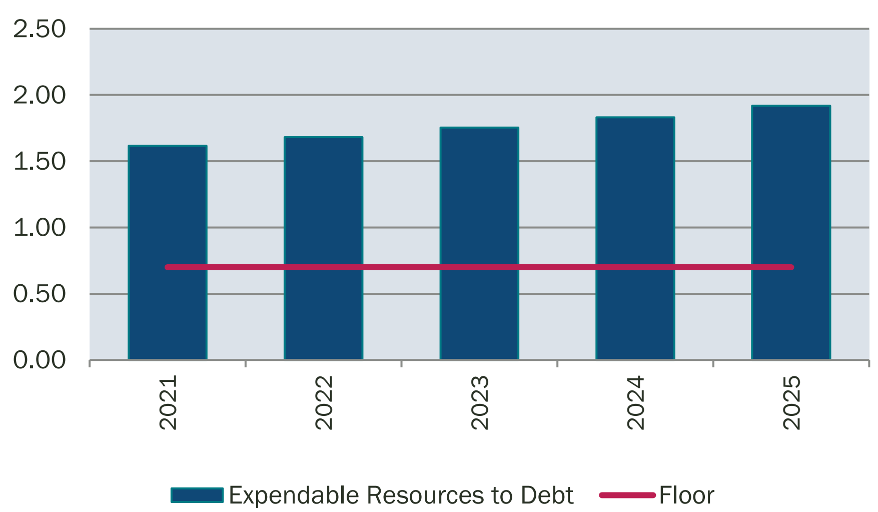
- **What does it measure?** The number of times N.C. A&T's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

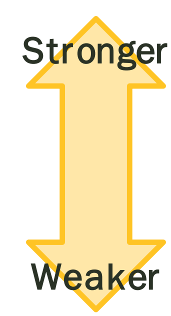
- Floor Ratio: Not less than 0.70x
- Projected 2021 Ratio: 1.62x
- Lowest Study Period Ratio: 1.62x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	144,468,254	1.30%	89,390,000	-	1.62	1.62
2022	146,346,342	1.30%	87,000,000	-	1.68	1.68
2023	148,248,844	1.30%	84,535,000	-	1.75	1.75
2024	150,176,079	1.30%	81,985,000	-	1.83	1.83
2025	152,128,368	1.30%	79,310,000	-	1.92	1.92

Expendable Resources to Debt





Debt Service to Operating Expenses

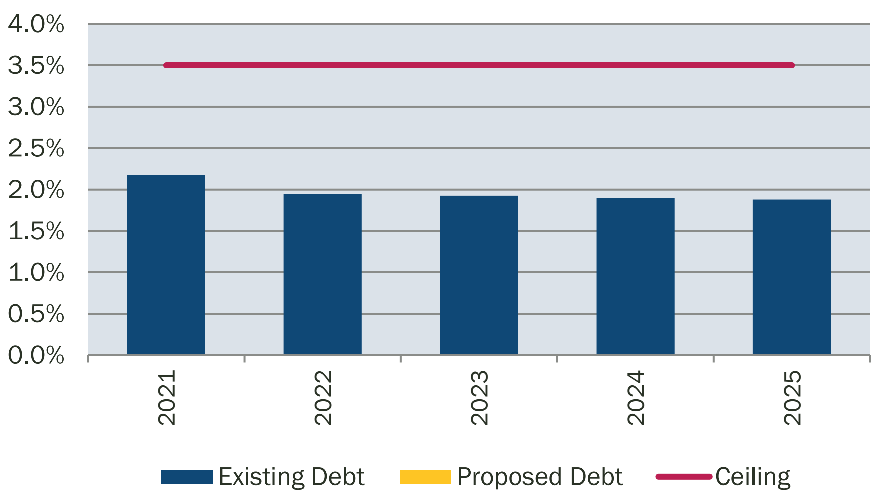
- **What does it measure?** N.C. A&T's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

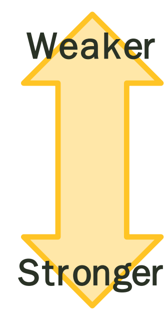
- Policy Ratio: Not to exceed 3.50%
- Projected 2021 Ratio: 2.18%
- Highest Study Period Ratio: 2.18% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	314,077,151	1.30%	6,838,742	-	2.18%	n/a	2.18%
2022	318,160,154	1.30%	6,199,234	-	1.95%	n/a	1.95%
2023	322,296,236	1.30%	6,200,725	-	1.92%	n/a	1.92%
2024	326,486,087	1.30%	6,198,238	-	1.90%	n/a	1.90%
2025	330,730,406	1.30%	6,208,213	-	1.88%	n/a	1.88%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, NCAT's debt capacity is based on the amount of debt NCAT could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, NCAT's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, NCAT's current estimated debt capacity is **$133,214,865**. After taking into account any legislatively approved projects detailed in **Section 3** above, if NCAT issued no additional debt until the last year of the Study Period, then NCAT's debt capacity for 2025 is projected to increase to **$155,098,001.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	0.70	1.75	133,214,865
2022	0.68	1.75	138,498,728
2023	0.65	1.75	143,895,211
2024	0.62	1.75	149,414,804
2025	0.59	1.75	155,098,001

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of NCAT's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount NCAT could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **Use of Multiple Factors**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **The State's Impact**

    - In assessing each institutions' credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.
    - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
    - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
    - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
    - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
    - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
    - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

N.C. A&T's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2011C	UNC System Pool Revenue Bonds	2,445,000	10/1/2031	Stadium Press Bonx		Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
Series 2013	General Revenue Bonds	9,095,000	10/1/2037	Student Health Center		Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
Series 2015A	General Revenue Bonds	76,835,000	10/1/2045	Student Center		Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
Series 2015B	Taxable General Revenue Bonds	7,635,000	10/1/2022	Student Center		Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
				Parking Deck	2006B	Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
Series 2017	General Revenue Refunding Bond	2,010,000	10/1/2020	Parking Deck	2006B	Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
				Improve and Enlarge Dining Facility	2006B	Unrestricted Auxiliary funds Allocations from Campus Enterprise operations Athletic ticket sales, press box rental receipts, and advertising Unrestricted gift income Unrestricted investment income
Total		98,020,000				

7. Credit Profile

The following page provides a snapshot of N.C. A&T's current credit ratings, along with (1) a summary of various credit factors identified in N.C. A&T's most recent rating report and (2) recommendations for maintaining and improving N.C. A&T's credit ratings in the future.

Credit Profile of the University – (General Revenue)

North Carolina Agricultural and Technical State University

Overview

- Moody's maintains an A1 rating on N.C. A&T's general revenue bonds. The outlook is stable.
- Fitch upgraded N.C. A&T's rating to AA-. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	**AA-**
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Market niche as a STEM focused HBCU (Historically black colleges and universities) attracting students from many states
- Total cash and investments have increased 68% since FY 2015 but is below median A peers
- Positive operating performance and strengthening fundraising should continue to support financial reserves
- Enrollment growth and net tuition revenue are expected to continue growing

Credit Challenges

- Absolute wealth relatively low compared to A1-rated public university median
- Low liquidity and elevated leverage compared to similarly rated peers
- Operating appropriations from the state have remained relatively flat despite enrollment growth over the past five years

Recommendations & Observations

- Pursue strategies, working within the existing statutory framework relating to reversions, to increase liquidity through growth in cash reserves.
- COVID financial aid and state appropriations has been a stabilizing element during the pandemic. During COVID, reducing operating expenses, managing enrollment and maintaining auxiliary revenues will be key considerations for the credit outlook.

8. Peer Comparison

Moody's Key Credit Ratios	N.C. Agricultural & Technical State University	Most Recent Peer Institution Data				Moody's Public Higher Education Medians
Peer Institution		North Dakota State University	Wichita State University	Montana State University	New Mexico State University	
Fiscal Year	2019	2019	2019	2019	2019	2019
Most Senior Rating	A1	Aa3	Aa3	Aa3	A1	A1
Total Long-Term Debt ($, in millions)	162	145	127	210	147	113
Total Cash & Investments ($, in millions)	186	484	438	550	390	219
Operating Revenue ($, in millions)	293	403	338	573	480	250
Operating Expenses ($, in millions)	288	399	333	567	485	240
Market Performance Ratios						
Annual Change in Operating Revenue (%)	4.8%	-0.9%	14.3%	4.4%	3.5%	2.7%
Operating Ratios						
Operating Cash Flow Margin (%)	7.4%	8.4%	7.7%	8.9%	7.3%	11.9%
Wealth & Liquidity Ratios						
Total Cash & Investments to Operating Expenses (x)	0.6	1.2	1.3	1.0	0.8	1.0
Total Debt to Operating Expenses (x)	0.6	0.4	0.4	0.4	0.3	0.5
Monthly Days Cash on Hand (x)	102	147	82	150	128	155
Leverage Ratios						
Total Cash & Investments to Total Debt (x)	1.1	3.3	3.5	2.6	2.7	1.9
Debt Service to Operating Expenses (%)	2.5%	2.7%	2.7%	3.4%	3.0%	4.9%
Total Debt-to-Cash Flow (x)	7.5	4.3	4.9	4.1	4.2	4.9

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

A draft of N.C. A&T's Strategic Debt Management Policy (pending approval) is included on the following pages.

NEW POLICY: Sets out the general limitations under which A&T will issue debt.

NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY

SEC. VI —FINANCE 1.0

Debt Management

UNIVERSITY POLICY

I. INTRODUCTION

North Carolina Agricultural and Technical State University ("A&T") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of A&T's strategic vision to provide its students a quality environment of exemplary teaching and learning, scholarly and creative research, and effective community engagement and public service within a diverse and inclusive community, while preserving the operational flexibility and resources necessary to support A&T's current and future programming. A&T recognizes the important role that the responsible stewardship of its financial resources will play as A&T seeks to invest in its campus and related infrastructure in a manner that is economically, socially, and environmentally sustainable.

This Policy has been developed to assist A&T's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with A&T's capital improvement plan, stated policies, objectives and core values. Like other limited resources, A&T's debt capacity should be used and allocated strategically and equitably, taking into account the benefits and burdens for both current and future students.

Specifically, the objective of this Policy is to provide a framework that will enable A&T's Board of Trustees (the "Board") and finance staff to:

- Identify and prioritize projects eligible for debt financing;

- Limit and manage risk within A&T's debt portfolio;

- Establish debt management guidelines and quantitative parameters for evaluating A&T's financial health, debt affordability and debt capacity;

- Manage and protect A&T's credit profile in order to maintain A&T's credit rating at a strategically optimized level and maintain access to the capital markets; and

- Ensure A&T remains in compliance with all of its post-issuance obligations and requirements.

This Policy is intended solely for A&T's internal planning purposes. The Vice Chancellor for Business and Finance, in consultation with the Chancellor, will review this Policy annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Policy are subject to the Board's approval.

II. Authorization and Oversight

A&T's Vice Chancellor for Business and Finance, in consultation with the Chancellor, is responsible for all of A&T's debt financing activities. A&T's Vice Chancellor for Business and Finance is responsible for the day-to-day management of A&T's financial affairs in accordance with the terms of this Policy. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

A. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of A&T will be considered for debt financing.

1. Self-Liquidating Projects_– A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

2. Energy Conservation Projects_– Each energy conservation

project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

3. Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be jointly approved by the Vice Chancellor for University Advancement and the Vice Chancellor for Business and Finance before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

B. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, A&T takes into account both its debt affordability and its debt capacity. Debt affordability focuses on A&T's cash flows and measures A&T's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between A&T's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including A&T's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, A&T's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

A&T believes, however, that it is important to consider and monitor objective metrics when evaluating A&T's financial health and its ability to incur additional debt. To that end, A&T has identified four key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

Note that the selected financial ratios are the same benchmarks monitored as part of the debt capacity study for The University of North Carolina delivered each year under

Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which A&T believes will promote clarity and consistency in A&T's debt management and planning efforts.

A&T has established for each ratio a floor or ceiling target, as the case may be, with the expectation that A&T will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this policy should align with the ratios used in the report A&T submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve A&T's financial health and operating flexibility and to ensure A&T is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this policy.

A&T recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of A&T's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, A&T has developed as part of this policy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when A&T has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this policy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

- The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

- The proposed project would be financed entirely with private donations based on pledges already in hand.

- The proposed project is essential to the implementation of one of the Board's strategic priorities.

- The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

- Foregoing or delaying the proposed project would result in significant additional costs to A&T or would negatively impact A&T's credit rating.

At no point, however, should A&T intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure?	A&T's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service

its debt under the General Revenue Bond Statutes

Why is it tracked?	The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of A&T's ability to absorb debt on its balance sheet and is the primary ratio used to calculate A&T's "debt capacity" under the methodology used in the UNC Debt Capacity Study
How is it calculated?	Aggregate debt* divided by obligated resources**
Policy Ratio:	Not to exceed 1.75x (UNC Debt Capacity Study Target Ratio = 1.50x)

* As used throughout this Policy, "aggregate debt" includes A&T's energy savings contracts, which, in accordance with State law, are excluded from the UNC Debt Capacity Study.

* "Available Funds," which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for "obligated resources." The two concepts are generally identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of A&T's obligated resources.

Ratio 2 – Five-Year Payout Ratio Overview

What does it measure?	The percentage of A&T's debt scheduled to be retired in the next five years
Why is it tracked?	The ratio measures how aggressively A&T is amortizing its debt and is a ratio that is monitored in the UNC Debt Capacity
How is it calculated?	Aggregate principal to be paid in the next five years divided by aggregate debt
Policy Ratio:	Not less than 10% (UNC Debt Capacity Study Target Ratio = 15%)

Ratio 3 – Expendable Resources to Debt

What does it measure?	The number of times A&T's liquid and expendable net assets covers its aggregate debt
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses A&T's ability to settle its debt obligations using only its available net assets as of a particular date

How is it calculated?	The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt
Policy Ratio:	Not less than 0.70x

Ratio 4 – Debt Service to Operating Expenses

What does it measure?	A&T's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates A&T's relative cost of borrowing to its overall expenditures and provides a measure of A&T's budgetary flexibility
How is it calculated?	Annual debt service divided by annual operating expenses
Policy Ratio:	Not to exceed 3.50%

The Vice Chancellor for Business and Finance will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

C. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business and Finance, in conjunction with the Chancellor, within the context of this Policy and the overall portfolio to ensure that any financial product or structure is consistent with A&T's stated objectives. As part of effective debt management, A&T must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

A&T will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves A&T's strategic plan and financing objectives. In making that determination, A&T will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect A&T's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce A&T's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates A&T's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, A&T should structure its debt to provide for level annual payments of debt service, though A&T may elect alternative structures when the Vice Chancellor for Business and Finance, in consultation with the Chancellor, determine it to be in A&T's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

A&T will use maturity structures that correspond with the life of the facilities financed, not to exceed the maximum term authorized under applicable State law (currently 30 years). Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

A&T recognizes that a degree of exposure to variable interest rates within A&T's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from A&T's assets. A&T's debt portfolio should be managed to ensure that no more than 20% of A&T's total debt bears interest at an unhedged variable rate.

A&T's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. A&T may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. A&T may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Debt Related to Public Private Partnerships

To address A&T's anticipated capital needs as efficiently and prudently as possible, A&T may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

A&T will pursue P3 Arrangements only when A&T has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with A&T's core mission).

P3 Arrangements will receive increased scrutiny if the Vice Chancellor for Business and Finance determines, in consultation with A&T's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by A&T's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider A&T's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on A&T's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, A&T or an A&T affiliate must be approved in advance by the Vice Chancellor for Business and Finance, in consultation with the Chancellor.

Refunding Considerations

A&T will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, A&T should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of A&T ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.
(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.
(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve A&T of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

Financing Team Professionals

A&T will generally select its financial advisors, underwriters, lenders and bond counsel through a request for proposal process. Firms providing financial advisory and bond counsel services are generally selected for a specific period of time rather than for individual transactions, while underwriters and lenders will be selected on a transaction-by-transaction basis. Additionally, A&T may use the financial advisors, underwriters and bond counsel selected by General Administration through its own similar competitive process.

D. Derivative Products

A&T recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit A&T to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. A&T will use derivatives only to manage and mitigate risk; A&T will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, A&T's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Business and Finance must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that A&T's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

A&T will use derivatives only when the Vice Chancellor for Business and Finance, in consultation with the Chancellor, determine based on the foregoing analysis, that the instrument provides the most effective method for accomplishing A&T's strategic objectives without imposing inappropriate risks on A&T.

E. Post-Issuance Compliance Matters

To the extent A&T adopts any formal policies relating to post-issuance compliance matters after the effective date of this Policy, the Vice Chancellor for Business and Business & Finance will attach each such policy as Appendix A to this Policy.

Appendix A – Post-Issuance Compliance Policies

TBD

Approved by the Board of Trustees
First approved: February 16, 2018
Revised:

_____________________________ ____________________
Harold L. Martin, Sr. date signed for final posting
Chancellor

______________________________ _____________________
Robert Pompey, Jr. date signed for final posting
Vice Chancellor for Business and Finance

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

North Carolina Central University
Institution Report

North Carolina Central University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), North Carolina Central University ("***NCCU***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. NCCU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, NCCU, in consultation with the UNC System Office, agreed to certain ceilings and floors for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—NCCU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, NCCU's debt capacity reflects the amount of debt NCCU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that NCCU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- NCCU's current debt profile, including project descriptions financed with, and the sources of repayment for, NCCU's outstanding debt;
- NCCU's current credit profile, along with recommendations for maintaining or improving NCCU's credit rating; and
- A copy of any NCCU debt management policy currently in effect.

Overview of NCCU

For the fall 2019 semester, NCCU had a headcount student population of approximately 8,011, including 6,101 undergraduate students and 1,910 graduate students. During the 2019-20 academic year, NCCU employed approximately 482 full-time, part-time, and temporary instructional faculty. Over the past five years, NCCU's enrollment has remained consistent.

NCCU's average age of plant is 19.31 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

NCCU anticipates incurring no additional debt during the Study period, as summarized in **Section 3** below. NCCU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on NCCU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to NCCU by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt NCCU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate NCCU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	31,935,836	12,196,575	-		44,132,411
2017	39,374,420	12,964,067	-	18.59%	52,338,487
2018	(165,505,248)	14,403,896	207,700,625	8.14%	56,599,273
2019	(116,724,596)	15,171,277	196,949,449	68.55%	95,396,130
2020	(163,068,927)	19,786,874	185,848,251	-55.38%	42,566,198
2021	37,458,254	-	-	-12.00%	37,458,254
2022	37,945,212	-	-	1.30%	37,945,212
2023	38,438,499	-	-	1.30%	38,438,499
2024	38,938,200	-	-	1.30%	38,938,200
2025	39,444,396	-	-	1.30%	39,444,396

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	182,259,189	3,714,462	-		185,973,651
2017	197,510,330	(896,553)	-	5.72%	196,613,777
2018	203,072,724	(1,590,787)	1,608,466	3.29%	203,090,403
2019	207,205,680	(767,381)	10,196,949	6.67%	216,635,248
2020	213,283,407	(4,615,597)	11,101,198	1.45%	219,769,008
2021	222,626,005	-	-	1.30%	222,626,005
2022	225,520,143	-	-	1.30%	225,520,143
2023	228,451,905	-	-	1.30%	228,451,905
2024	231,421,780	-	-	1.30%	231,421,780
2025	234,430,263	-	-	1.30%	234,430,263

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	3,860,000	4,319,534	8,179,534	102,658,200
2022	4,050,000	4,150,981	8,200,981	98,608,200
2023	4,260,000	3,960,666	8,220,666	94,348,200
2024	4,470,000	3,760,771	8,230,771	89,878,200
2025	4,710,000	3,550,729	8,260,729	85,168,200
2026	4,945,000	3,329,846	8,274,846	80,223,200
2027	5,210,000	3,097,681	8,307,681	75,013,200
2028	5,480,000	2,853,291	8,333,291	69,533,200
2029	5,570,000	2,618,884	8,188,884	63,963,200
2030	5,820,000	2,395,866	8,215,866	58,143,200
2031	6,065,000	2,182,371	8,247,371	52,078,200
2032	6,295,000	1,979,514	8,274,514	45,783,200
2033	6,540,000	1,768,701	8,308,701	39,243,200
2034	6,743,200	1,550,091	8,293,291	32,500,000
2035	5,645,000	1,341,800	6,986,800	26,855,000
2036	1,395,000	1,210,750	2,605,750	25,460,000
2037	1,460,000	1,141,000	2,601,000	24,000,000
2038	1,535,000	1,068,000	2,603,000	22,465,000
2039	1,610,000	991,250	2,601,250	20,855,000
2040	1,675,000	926,850	2,601,850	19,180,000
2041	1,760,000	843,100	2,603,100	17,420,000
2042	1,850,000	755,100	2,605,100	15,570,000
2043	1,940,000	662,600	2,602,600	13,630,000
2044	2,040,000	565,600	2,605,600	11,590,000
2045	2,140,000	463,600	2,603,600	9,450,000
2046	2,225,000	378,000	2,603,000	7,225,000
2047	2,315,000	289,000	2,604,000	4,910,000
2048	2,405,000	196,400	2,601,400	2,505,000
2049	2,505,000	100,200	2,605,200	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	(6,559,192)	17,937,369	694,973	4,380,437	2,138,848	12,196,575	26,511,314	
2017	583,504	23,832,344	838,797	4,680,905	4,748,276	12,964,067	38,151,341	43.91%
2018	(205,135,176)	29,373,939	1,000,140	6,808,002	7,545,786	221,550,294	46,051,413	20.71%
2019	(206,906,399)	35,180,658	1,345,893	6,454,056	14,205,745	212,120,276	33,988,739	-26.19%
2020	(189,337,581)	26,644,018	1,580,634	23,130,378	6,305,066	205,635,125	61,347,508	80.49%
2021	16,509,412	26,990,390	1,601,182	23,431,073	6,387,032	-	62,145,026	1.30%
2022	16,724,034	27,341,265	1,621,998	23,735,677	6,470,063	-	62,952,911	1.30%
2023	16,941,447	27,696,702	1,643,084	24,044,241	6,554,174	-	63,771,299	1.30%
2024	17,161,686	28,056,759	1,664,444	24,356,816	6,639,378	-	64,600,326	1.30%
2025	17,384,788	28,421,497	1,686,081	24,673,454	6,725,690	-	65,440,130	1.30%

3. Proposed Debt Financings

While NCCU evaluates its capital investment needs on a regular basis, NCCU has no legislatively approved projects that it anticipates financing during the study period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** NCCU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt <u>divided by</u> obligated resources*

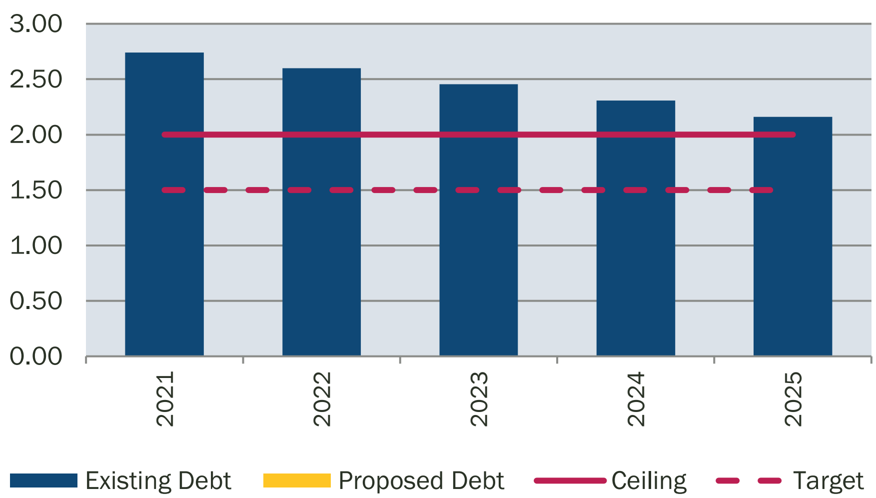
- Target Ratio: 1.50
- Ceiling Ratio: Not to exceed 2.00
- Projected 2021 Ratio: 2.74
- Highest Study Period Ratio: 2.74 (2021)

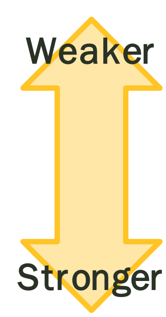
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	37,458,254	-12.00%	102,658,200	-	2.74	n/a	2.74
2022	37,945,212	1.30%	98,608,200	-	2.60	n/a	2.60
2023	38,438,499	1.30%	94,348,200	-	2.45	n/a	2.45
2024	38,938,200	1.30%	89,878,200	-	2.31	n/a	2.31
2025	39,444,396	1.30%	85,168,200	-	2.16	n/a	2.16

Debt to Obligated Resources





5-Year Payout Ratio Overview

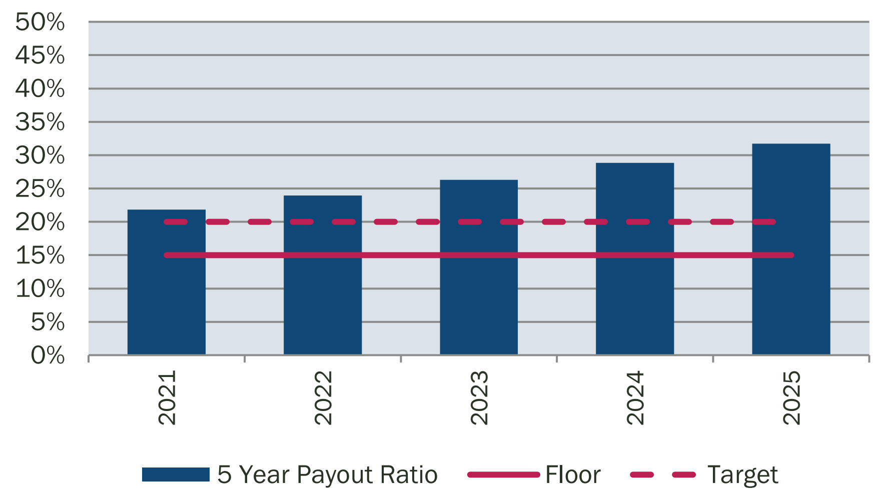
- **What does it measure?** The percentage of NCCU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

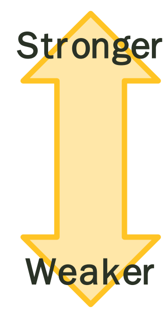
- Target Ratio: 20%
- Floor Ratio: Not less than 15%
- Projected 2021 Ratio: 22%
- Lowest Study Period Ratio: 22% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	102,658,200	22%
2022	98,608,200	24%
2023	94,348,200	26%
2024	89,878,200	29%
2025	85,168,200	32%

5-Year Payout Ratio





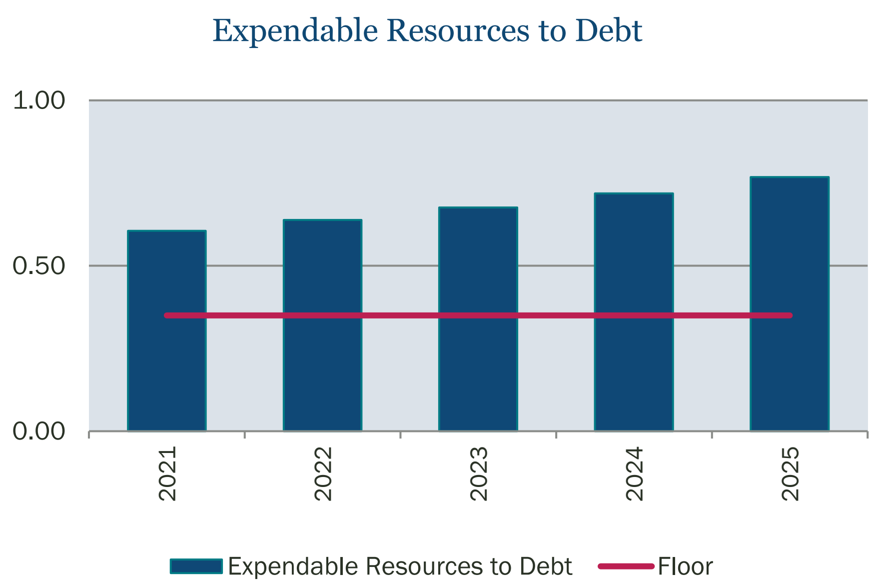
Expendable Resources to Debt

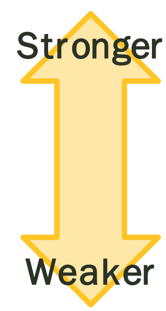
- **What does it measure?** The number of times NCCU's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.35x
- Projected 2021 Ratio: 0.61x
- Lowest Study Period Ratio: 0.61x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	62,145,026	1.30%	102,658,200	-	0.61	0.61
2022	62,952,911	1.30%	98,608,200	-	0.64	0.64
2023	63,771,299	1.30%	94,348,200	-	0.68	0.68
2024	64,600,326	1.30%	89,878,200	-	0.72	0.72
2025	65,440,130	1.30%	85,168,200	-	0.77	0.77





Debt Service to Operating Expenses

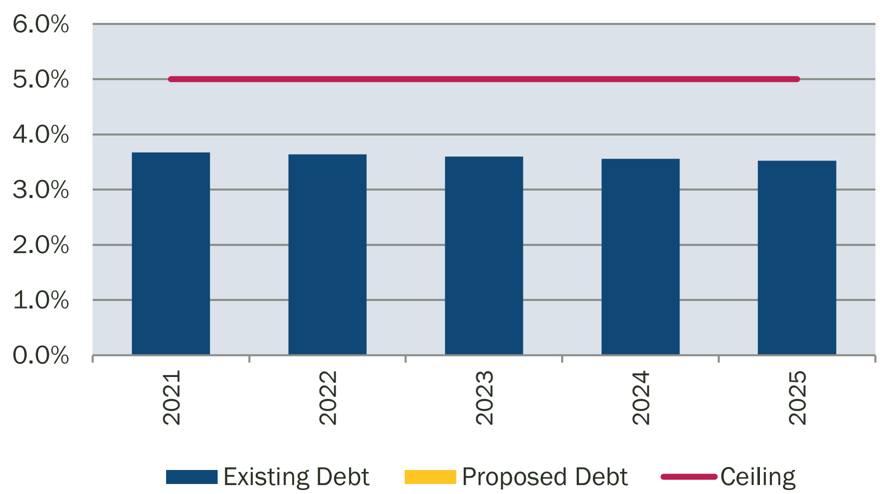
- **What does it measure?** NCCU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

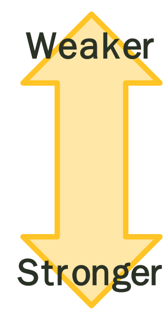
- Policy Ratio: Not to exceed 5.00%
- Projected 2021 Ratio: 3.67%
- Highest Study Period Ratio: 3.67% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	222,626,005	1.30%	8,179,534	-	3.67%	n/a	3.67%
2022	225,520,143	1.30%	8,200,981	-	3.64%	n/a	3.64%
2023	228,451,905	1.30%	8,220,666	-	3.60%	n/a	3.60%
2024	231,421,780	1.30%	8,230,771	-	3.56%	n/a	3.56%
2025	234,430,263	1.30%	8,260,729	-	3.52%	n/a	3.52%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, NCCU's debt capacity is based on the amount of debt NCCU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, NCCU's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, NCCU does not have any estimated debt capacity during the study period.

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	2.74	2.00	(27,741,692)
2022	2.60	2.00	(22,717,777)
2023	2.45	2.00	(17,471,201)
2024	2.31	2.00	(12,001,800)
2025	2.16	2.00	(6,279,407)

Limitations on Debt Capacity, Credit Rating Implications, and Comment from NCCU

- The debt capacity calculation shown above provides a general indication of NCCU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" <u>does not</u> necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount NCCU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **<u>Use of Multiple Factors</u>**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **<u>The State's Impact</u>**
    - In assessing each Institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.
    - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
    - If "debt capacity" were linked to those national median ratios, many institutions would

have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

- NCCU provided the following comment on their financial ratios outside of the target range.
  - "NCCU refinanced our debt issues (2009C refunded 2016 and 2003A refunded 2019) over the last few years for a lower interest rate or to secure a fixed rate without changing the payment period. Our principal payments have increased on the refinanced debt but the debt service has remained approximately the same. Our debt is due to be paid off in FY2035 except for the Student Union debt which is thirty year debt that was entered into in 2019. This is reflected in the 5 year pay-out ratio in that our ratio exceeds the target of 20% due to all except for the Student Union debt becoming due before FY2035 and that our debt service to operating expenses is well below 5%."

6. Debt Profile

NCCU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2019	Student Housing Facilities Revenue Bonds	13,478,200	10/1/2034	Eagle Landing	2003A	Housing Revenues
Series 2014	Revenue Refunding Bonds (PNC Bank)	1,772,000	4/1/2023	Chidley Hall	2004B	Housing Revenues
Series 2016	General Revenue Refunding Bonds	51,720,000	10/1/2034	Deferred Maintenance		Housing Revenues
				Latham Parking Deck	2009C	Parking and Vehicle Registration Revenues
				Chidley Hall	2009C	Housing Revenues
				Richmond Hall	2009C	Housing Revenues
				Residence Hall 2	2009C	Housing Revenues
				Walker Sports Complex	2009C	Debt Service Fee
Series 2019	General Revenue Bonds	41,320,000	4/1/2049	Student Union		Student Debt fees
Total		108,290,200				

7. Credit Profile

The following page provides a snapshot of NCCU's current credit ratings, along with (1) a summary of various credit factors identified in NCCU's most recent rating report and (2) recommendations for maintaining and improving NCCU's credit ratings in the future.

NCCentral UNIVERSITY

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains an A3 rating on NCCU's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Very strong funding from the Aaa-rated State of North Carolina which has increased 6% since FY 2014
- Wealth and liquidity have improved dramatically since FY 2014
- Enrollment growth that has supported growth in net tuition and fee revenue
- Enrollment, net tuition revenue, and state appropriations expected to continue increasing

Credit Challenges

- Debt will stress the university's financial leverage relative to peers
- Need to increase cash from operations to service the debt obligations
- Relative to A3 median peers, NCCU's ability to control expenses will be important to improve thin operating margins
- Competitive niche as one of five historically black colleges and universities (HBCUs) in the UNC system

Recommendations & Observations

- Continue to develop and implement strategies and policies to meet NCCU's unique challenges, including strategies to stabilize and improve enrollment and retention.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.
- Credit outlook expectations assume continued enrollment growth, increases to operating revenues and controlling expenses to better service NCCU's debt obligations.

8. Peer Comparison

Moody's Key Credit Ratios	North Carolina Central University	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		New Jersey City University	Alabama State University	Morgan State University	University of North Florida		
Fiscal Year	2019	2019	2019	2019	2019		2019
Most Senior Rating	A3	Baa3	Ba2	A1	A2		A3
Total Long-Term Debt ($, in millions)	120	206	205	45	151		34
Total Cash & Investments ($, in millions)	109	31	102	152	239		52
Operating Revenue ($, in millions)	201	148	126	222	268		58
Operating Expenses ($, in millions)	207	163	127	230	264		55
Market Performance Ratios							
Annual Change in Operating Revenue (%)	3.6%	-1.0%	-2.7%	1.6%	4.4%		-2.4%
Operating Ratios							
Operating Cash Flow Margin (%)	4.2%	1.4%	14.7%	6.7%	11.8%		11.0%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.5	0.2	0.8	0.7	0.9		0.7
Total Debt to Operating Expenses (x)	0.6	1.3	1.6	0.2	0.6		0.6
Monthly Days Cash on Hand (x)	66	33	26	183	178		136
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	0.9	0.1	0.5	3.4	1.6		1.5
Debt Service to Operating Expenses (%)	4.7%	10.0%	15.0%	3.4%	4.9%		5.1%
Total Debt-to-Cash Flow (x)	14.2	99.1	11.1	3.0	4.8		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

NCCU’s current debt policy is included in the following pages.

North Carolina Central University
Debt Policy

Executive Summary:
This Policy outlines the University philosophy on debt, establishes the framework for approving, managing, and reporting debt and provides debt management guidelines.

I. Policy Statement

The mission of North Carolina Central University (University) is supported by the development and implementation of the long-term strategic plan. The strategic plan establishes University-wide priorities and programmatic objectives. The University develops a master plan to support these priorities and objectives.

The University's use of debt must be appropriate in support of the master plan. The University will consider its financial resources, debt affordability and capacity, cost of capital, debt mix, and credit rating when determining the need for capital funding.

This Debt Policy is intended to be a fluid document that will evolve over time to meet the changing needs of the University.

A. Scope

This Debt Policy applies to the University and affiliated entities and covers all forms of debt including long-term, short-term, fixed-rate, and variable-rate debt. It also covers other forms of financing including both on-balance sheet and off-balance sheet structures, such as leases, and other structured products used with the intent of funding capital projects.

B. Objectives

The objectives of this policy are to:

i. Guidelines for the User of Debt
ii. Establish a control framework for approving and managing debt
iii. Establish debt management guidelines
iv. Approval Process

i. Overall Guidelines for the Use of Debt

Debt is a limited resource that must be managed strategically in order to best support University priorities. Under this policy, the University will manage its debt based on the following overall principles:

a. The University will use debt to maximize the resources available to maintain and enhance the campus physical plant and infrastructure; and to invest in transformative capital improvement projects that advance the University's strategic mission.

b. The University will target key financial ratios as mandated by Article 5 of Chapter 116D of the North Carolina General Statutes, as well as supplemental financial ratios that are widely used by rating agencies, to measure its debt burden and guide future debt issuance decisions.

c. The University's decision to issue debt will be guided primarily by its ability to support all of the incremental costs (i.e., principal, interest payments, and annual operating costs of new or expanded space) within the University's operating budget. Generally, the University will not pursue the issuance of new debt without first identifying a new or increased fee to support incremental debt service cost.

d. The University will maintain the highest acceptable credit worthiness in order to finance capital improvement projects at favorable cost of capital and borrowing terms. While the University's decision to issue additional debt will be primarily focused on the strategic importance of the new capital improvement project, the potential impact of a change in credit rating will be thoroughly reviewed.

e. The University will manage its debt mix (i.e., short-term and long-term debt, fixed rate versus variable rate debt) to maintain an acceptable balance between interest rate risk and the long-term cost of capital.

f. The University will manage the structure and maturity profile of its debt to meet liquidity objectives and make funds available to support future capital projects and strategic initiatives;

g. The University will coordinate debt management decisions with asset management decisions to optimize overall funding and portfolio management strategies.

ii. Control Framework

Roles and Responsibilities; Compliance

The Office of the Vice Chancellor for Administration and Finance ("VCAF") is responsible for implementing this policy and for all debt financing activities. The policy and any subsequent, material changes to the policy must be approved by the Chancellor after consultation with the University's Board of Trustees ("BOT".) The approved policy provides the framework under which debt management decisions are made.

The exposure limits listed in the policy are monitored on a regular basis by the VCAF. The office of the VCAF reports regularly to the Chancellor and the BOT on the University's debt position and plans.

Debt Affordability and Capacity

In assessing its current debt levels and planning for additional debt, the University takes into account both its debt affordability and debt capacity. Debt affordability focuses on the University's ability to service its debt through its operating budget and identified revenue streams and is driven by strength in income and cash flows. Debt capacity focuses on the University's financial leverage in terms of debt funding as a percentage of the University's total capital.

The University considers many factors in assessing its debt affordability and debt capacity including its strategic plan, market position, and alternative sources of funding. The University uses four key quantitative ratios to inform its assessments with respect to debt affordability and debt capacity.

The ratios described below are not intended to track a specific rating, but rather to help the University maintain a competitive financial profile and funding for facilities needs and reserves.

1. Debt Affordability Measures

a. Debt Burden Percentage

This ratio measures the University's debt service burden as a percentage of total university expenses. The target for this ratio is intended to maintain the University's long-term operating flexibility to finance existing requirements and new initiatives.

$$\frac{\text{ANNUAL DEBT SERVICE}}{\text{TOTAL OPERATING EXPENSES}} \leq 5.0\%$$

The measure is based on aggregate operating expenses as opposed to operating revenues because expenses typically are more stable (e.g. revenues may be subject to one-time operating gifts, investment return fluctuations, variability of State funding, etc.) and better reflect the operating base of the University. This ratio is adjusted to reflect any non-amortizing or non-traditional debt structures that could result in significant single year fluctuations including the effect of debt refundings.

b. Debt to Obligated Resources Ratio

This ratio measures the University's ability to cover debt with funds that are legally available to service debt. The target established is intended to ensure that debt does not become too unwieldy and over-consumes available resources.

$$\frac{\text{AGGREGATED DEBT}}{\text{OBLIGATED RESOURCES}} \leq 2.00\%$$

This ratio is adjusted to reflect any non-amortizing or non-traditional debt structures that could result in significant single year fluctuations including the effect of debt refundings.

2. Debt Capacity Measures

a. Viability Ratio (Expendable Resources to Debt)

This ratio indicates one of the most basic determinants of financial health by measuring the availability of liquid and expendable net assets to the aggregate debt. The ratio measures the medium to long-term health of the University's balance sheet and debt capacity and is a critical consideration of universities with the highest credit quality.

Many factors influence the viability ratio, affecting both the assets (e.g., investment performance, philanthropy) and liabilities (e.g., timing of bond issues), and therefore the ratio is best examined in the context of changing market conditions so that it accurately reflects relative financial strength.

$$\frac{\text{ADJUSTED UNRESTRICTED NET ASSETS + RESTRICTED EXPENDABLE NET ASSETS}}{\text{AGGREGATE DEBT}} \geq .35\text{x}$$

b. 5-Year Payout Ratio

This ratio measures the percentage of University's debt scheduled to be retired in the next five years. A more aggressive rate of payment is a better indication for debt capacity.

$$\frac{\text{AGGREGATE PRINCIPAL TO BE PAID IN THE NEXT FIVE YEARS}}{\text{AGGREGATE DEBT}} \geq 15.0\%$$

Both the Viability and Debt Capitalization Ratios should include any component unit (University-related foundation) balances as disclosed in the University's financial statements.

Financing Sources

The University recognizes that there are numerous types of financing structures and funding sources available, each with specific benefits, risks, and costs. All potential funding sources are reviewed by management within the context of this Debt Policy and the overall portfolio to ensure that any financial product or structure is consistent with the University's objectives. Regardless of what financing structure(s) is (are) utilized, due-diligence review must be performed for each transaction, including (i) quantification of potential risks and benefits; and (ii) analysis of the impact on University creditworthiness and debt affordability and capacity.

1. Tax-Exempt Debt

The University recognizes that tax-exempt debt is a significant component of the University's capitalization due in part to its substantial cost benefits; therefore, tax-exempt debt is managed as a portfolio of obligations designed to meet long-term financial objectives rather than as a series of discrete financings tied to specific projects. The University manages the debt portfolio to maximize its utilization of tax-exempt debt relative to taxable debt whenever possible. In all circumstances, however, individual projects continue to be identified and tracked to ensure compliance with all tax and reimbursement regulations.

For tax-exempt debt, the University considers maximizing the external maturity of any tax-exempt bond issue, subject to prevailing market conditions and opportunities and other considerations, including applicable regulations.

2. Taxable Debt

In instances where certain of the University's capital projects do not qualify for tax-exempt debt, the use of taxable debt may be considered. The taxable debt market offers certain advantages in terms of liquidity and marketing efficiency; such advantages will be considered when evaluating the costs and benefits of a taxable debt issuance.

3. Commercial Paper

Commercial paper provides the University with interim financing for projects in anticipation of philanthropy or planned issuance of long-term debt. The use of commercial paper also provides greater flexibility on the timing and structuring of individual bond transactions. This flexibility also makes commercial paper appropriate for financing equipment and short-term operating needs.

4. University-issued vs. State-Issued Debt

In determining the most cost effective means of issuing debt, the University evaluates the merits of issuing debt directly vs. participating in debt pools through the UNC System Board of Governors. Periodically, the University performs a cost/benefit analysis between these two options and takes into consideration the comparative funding costs, flexibility in market timing, and bond ratings of each alternative. The University also takes into consideration the future administrative flexibility of each issue such as the ability to call and/or refund issues at a later date, as well as the administrative flexibility to structure and manage the debt in a manner that the University believes to be appropriate and in the University's best interest.

5. Other Financing Sources

Given limited debt capacity and substantial capital needs, opportunities for alternative and non-traditional transaction structures may be considered. The University recognizes these types of transactions often can be more expensive than traditional University debt structures; therefore, the benefits of any potential transaction must outweigh any potential costs.

All structures may be considered only when the economic benefit and the likely impact on the University's debt capacity and credit have been determined. Specifically, for any third-party or developer-based financing, management ensures the full credit impact of the structure is evaluated and quantified.

iii. Portfolio Management of Debt

The University considers its debt portfolio holistically to optimize the portfolio of debt for the entire University rather than on a project-by-project basis while taking into account the University's cash and investment portfolio. Therefore, management makes decisions regarding project prioritization, debt portfolio optimization, and financing structures within the context of the overall needs and circumstances of the University.

1. Variable-Rate Debt

The University recognizes that a degree of exposure to variable interest rates within the University's debt portfolio might be desirable in order to:

a. take advantage of repayment/restructuring flexibility;
b. benefit from historically lower average interest costs;
c. provide a "match" between debt service requirements and the projected cash flows from the University's assets; and
d. diversify its pool of potential investors.

Management monitors overall interest rate exposure, analyzes and quantifies potential risks, including interest rate, liquidity and rollover risks, and coordinates appropriate fixed/variable allocation strategies. The portfolio allocation to variable-rate debt may be managed or adjusted through (i) the issuance or redemption of debt in the conventional debt market (e.g. new issues and refundings) and (ii) the use of interest rate derivative products including swaps.

The amount of variable-rate debt outstanding (adjusted for any derivatives) shall not exceed 25% of the University's outstanding debt. This limit is based on the University's desire to: (i) limit annual variances in its interest payments; (ii) provide sufficient structuring flexibility to management; (iii) keep the University's variable-rate allocation within acceptable external parameters; and (iv) utilize variable-rate debt (including derivatives) to optimize debt portfolio allocation and minimize costs.

$$\frac{\text{VARIABLE RATE DEBT}}{\text{AGGREGATE DEBT}} \leq 25.0\%$$

2. Refinancing Outstanding Debt

The University monitors its debt portfolio on a continual basis to assure portfolio management objectives are being met and to identify opportunities to lower its cost of funding, primarily through refinancing outstanding debt. The University of North Carolina General Administration prefers a savings of 2% for refinancing current outstanding debt. Savings requirements in excess of 2% may be required from time to time by the Vice Chancellor for Administration and Finance.

The University monitors the prices and yields of its outstanding debt and attempts to identify potential refunding candidates by examining refunding rates and calculating the net present value of any refunding savings after taking into account all transaction costs. The University may choose to pursue refundings for economic and/or legal reasons. The University reserves the right to not partially refund an issue.

3. Liquidity Requirements

If the University's portfolio includes variable-rate debt and commercial paper, liquidity support is required in the event of the bonds or paper being put back to the University by investors. Generally, the University can purchase liquidity support externally from a bank in the form of a standby bond purchase agreement or line of credit. In addition, the University may consider using its own capital in lieu of or to supplement external liquidity facilities. Alternatively, it may utilize variable-rate structures that do not require liquidity support (e.g. auction-rate products.)

Just as the University manages its debt on a portfolio basis, it also manages its liquidity needs by considering its entire asset and debt portfolio, rather than managing liquidity solely on an issue-specific basis. This approach permits institution-wide evaluation of desired liquidity requirements and exposure, minimizes administrative burden, and reduces total liquidity costs.

A balanced approach may be used to provide liquidity support to enhance credit for variable-rate debt, through a combination of external bank liquidity, auction market or derivative structures. Using a variety of approaches limits dependence on an individual type or source of credit; it also allows for exposure to different types of investors. The University must balance liquidity requirements with its investment objectives and its cost and renewal risk of third-party liquidity providers.

Further, a portfolio-approach to liquidity can enhance investment flexibility, reduce administrative requirements, lower total interest costs, and reduce the need for external bank liquidity.

4. Overall Exposure

The University recognizes that it may be exposed to interest rate, third-party credit, and other potential risks in areas other than direct University debt (e.g., counterparty exposure in the investment portfolio, etc.) and, therefore, exposures are considered on a comprehensive University-wide basis.

Debt Administration and Other Matters

The issuance of tax-exempt debt generally requires the aid and assistance of several outside parties:

- Use of a financial advisor is recommended with a competitive selection process at least once every five years.
- Bond counsel appointments are competitively determined at least once every five years.

- The selection of underwriters is recommended for each debt issuance using a competitive process. Co-managers are recommended for issuances of $30 million or more and will be selected from the same group of underwriters responding to the competitive bid process.

Debt issuance can be "sized" to include capitalized interest and borrowing costs up to 5% of the debt issuance.

Reimbursement resolutions will be prepared for each debt issuance.

iv. Approval Process

All debt issued is by the authority granted to the UNC System Board of Governors under N.C.G.S. § 116D, Article 3. All debt issue is approved by the NCCU Board of Trustees and then by the UNC System Board of Governors.

When the University participates in bond programs that are administered by the State, including State tax-supported debt, such bonds are issued by the State Treasurer, who also possesses the authority to price such bonds.

Revision History:
Initially Approved:

Authority: Chancellor

Responsible Office: Administration and Finance

Related Resources:

- N.C.G.S. § 116D, Article 3

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

North Carolina State University
Institution Report

North Carolina State University

Table of Contents

1. Executive Summary

<u>Overview of the Institution Report</u>

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), North Carolina State University ("***NC State***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. NC State has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, NC State, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—NC State has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, NC State's debt capacity reflects the amount of debt NC State could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that NC State intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- NC State's current debt profile, including project descriptions financed with, and the sources of repayment for, NC State's outstanding debt;
- NC State's current credit profile, along with recommendations for maintaining or improving NC State's credit rating; and
- A copy of any NC State debt management policy currently in effect.

<u>Overview of NC State</u>

For the fall 2019 semester, NC State had a headcount student population of approximately 36,304, including 25,973 undergraduate students and 10,331 graduate students. During the 2019-20 academic year, NC State employed approximately 2,822 full-time, part-time, and temporary instructional faculty. Over the past 5 years, NC State's enrollment has increased approximately 6.7%.

NC State's average age of plant is 11.54 year, which is lower than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

NC State anticipates incurring $92 million in additional debt during the Study Period, as summarized in Section 3. NC State has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on NC State's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to NC State by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt NC State expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate NC State's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	666,654,687	65,062,173	-		731,716,860
2017	715,431,524	72,917,024	-	7.74%	788,348,548
2018	(953,664,116)	86,679,123	1,681,501,505	3.32%	814,516,512
2019	(947,107,122)	96,731,363	1,614,131,687	-6.23%	763,755,928
2020	(888,254,099)	136,957,024	1,542,143,008	3.55%	790,845,933
2021	801,126,930	-	-	1.30%	801,126,930
2022	811,541,580	-	-	1.30%	811,541,580
2023	822,091,621	-	-	1.30%	822,091,621
2024	832,778,812	-	-	1.30%	832,778,812
2025	843,604,936	-	-	1.30%	843,604,936

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	1,401,497,846	19,972,396	-		1,421,470,242
2017	1,494,274,269	(8,085,244)	-	4.55%	1,486,189,025
2018	1,531,778,945	(14,037,421)	11,899,327	2.92%	1,529,640,851
2019	1,556,533,507	(10,354,015)	18,686,599	2.30%	1,564,866,091
2020	1,600,435,802	(40,591,263)	22,269,252	1.10%	1,582,113,791
2021	1,602,681,270	-	-	1.30%	1,602,681,270
2022	1,623,516,127	-	-	1.30%	1,623,516,127
2023	1,644,621,836	-	-	1.30%	1,644,621,836
2024	1,666,001,920	-	-	1.30%	1,666,001,920
2025	1,687,659,945	-	-	1.30%	1,687,659,945

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	18,086,318	17,727,039	35,813,357	413,422,510
2022	18,823,612	16,979,158	35,802,770	394,598,898
2023	19,583,840	16,213,956	35,797,796	375,015,058
2024	19,364,012	15,439,655	34,803,667	355,651,046
2025	20,169,944	14,637,576	34,807,520	335,481,102
2026	20,883,417	13,790,662	34,674,079	314,597,685
2027	20,862,845	12,873,692	33,736,537	293,734,840
2028	21,867,608	11,890,477	33,758,085	271,867,232
2029	23,214,065	10,851,012	34,065,077	248,653,167
2030	24,469,176	9,742,075	34,211,251	224,183,991
2031	28,973,912	8,607,363	37,581,275	195,210,079
2032	14,740,079	7,797,160	22,537,239	180,470,000
2033	13,060,000	7,303,089	20,363,089	167,410,000
2034	13,660,000	6,759,985	20,419,985	153,750,000
2035	14,310,000	6,175,473	20,485,473	139,440,000
2036	14,960,000	5,588,501	20,548,501	124,480,000
2037	15,645,000	4,937,375	20,582,375	108,835,000
2038	16,355,000	4,227,375	20,582,375	92,480,000
2039	17,040,000	3,543,450	20,583,450	75,440,000
2040	17,720,000	2,864,000	20,584,000	57,720,000
2041	18,445,000	2,140,700	20,585,700	39,275,000
2042	19,195,000	1,387,900	20,582,900	20,080,000
2043	20,080,000	502,000	20,582,000	-
2044			-	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projected period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	240,432,645	217,731,322	99,148,472	299,417,619	59,319,171	65,062,173	862,473,060	
2017	236,448,718	271,092,872	102,657,931	345,282,225	84,923,854	72,917,024	943,474,916	9.39%
2018	(1,465,833,681)	325,436,076	105,858,476	422,775,236	81,951,663	1,768,180,628	1,074,465,072	13.88%
2019	(1,379,966,310)	329,816,454	119,518,156	450,028,326	62,627,594	1,710,863,050	1,167,632,082	8.67%
2020	(1,352,030,048)	347,050,005	102,061,772	433,380,162	83,740,799	1,679,100,032	1,125,821,124	-3.58%
2021	303,646,322	322,195,441	94,752,448	402,342,920	77,743,562	-	1,045,193,569	-7.16%
2022	307,593,725	326,383,982	95,984,230	407,573,378	78,754,229	-	1,058,781,086	1.30%
2023	311,592,443	330,626,973	97,232,025	412,871,832	79,778,034	-	1,072,545,240	1.30%
2024	315,643,145	334,925,124	98,496,041	418,239,166	80,815,148	-	1,086,488,328	1.30%
2025	319,746,506	339,279,151	99,776,490	423,676,275	81,865,745	-	1,100,612,676	1.30%

3. Proposed Debt Financings

The table below summarizes any legislatively approved projects that NC State expects to finance during the Study Period. Using the assumptions outlined in the table below, the model has developed a tailored, but conservative, debt service schedule for each proposed financing and incorporated each pro forma debt service schedule into its calculations of the financial ratios as detailed in Section 4 below.

Year	Use of Funds	Borrowing Amount	Term	Source of Repayment
2021	Carmichael Recreation	40,000,000	24	Student Fees
2021	Fitts-Woolard Hall and Plant Science Building	52,000,000	22	Gifts
Total		92,000,000		

In July 2020, NC State refunded $174.8 million in bonds from 2010 and 2013 with new General Revenue Bonds for a net present value (NPV) savings of $26.3M. Due to the timing of the refundings, these savings will be reflected in next year's study.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** NC State's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt <u>divided by</u> obligated resources*

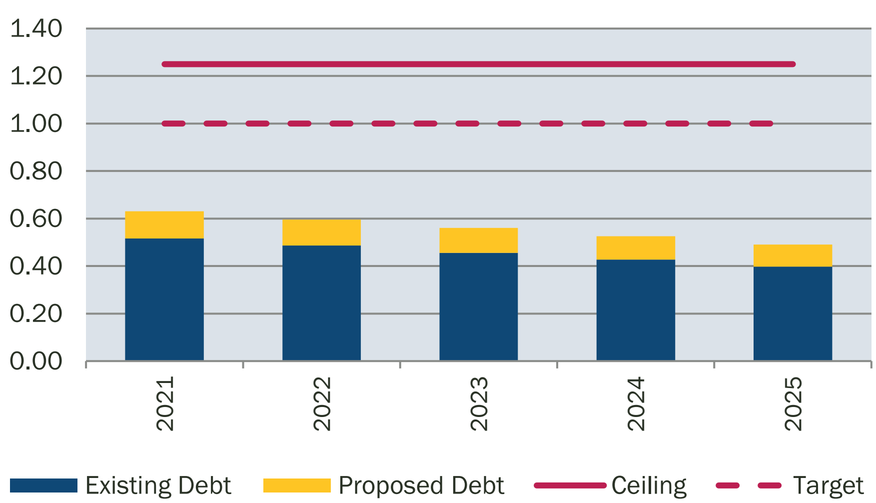
- Target Ratio: 1.00
- Ceiling Ratio: Not to exceed 1.25
- Projected 2021 Ratio: 0.52
- Highest Study Period Ratio: 0.52 (2021)

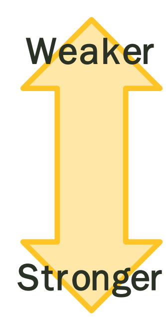
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	801,126,930	1.30%	413,422,510	92,000,000	0.52	0.11	0.63
2022	811,541,580	1.30%	394,598,898	88,827,534	0.49	0.11	0.60
2023	822,091,621	1.30%	375,015,058	85,587,337	0.46	0.10	0.56
2024	832,778,812	1.30%	355,651,046	82,277,948	0.43	0.10	0.53
2025	843,604,936	1.30%	335,481,102	78,897,874	0.40	0.09	0.49

Debt to Obligated Resources





5-Year Payout Ratio Overview

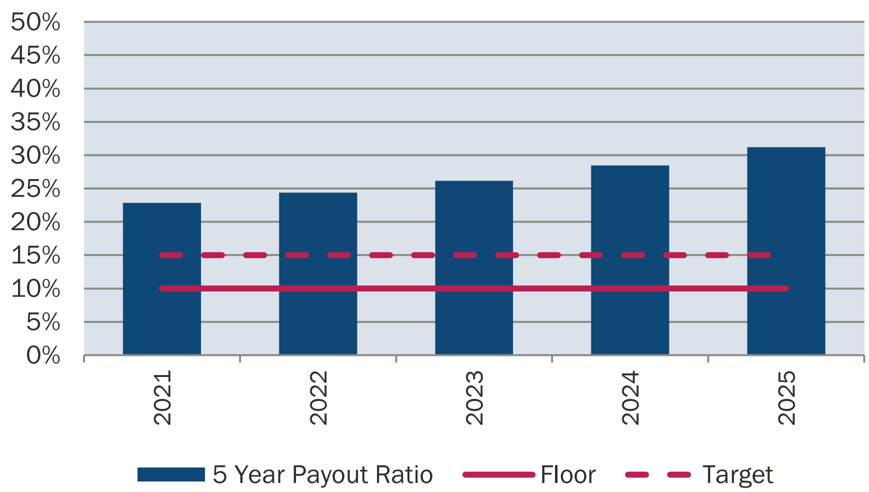
- **What does it measure?** The percentage of NC State's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

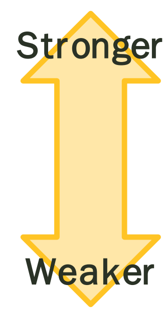
- Target Ratio: 15%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 23%
- Lowest Study Period Ratio: 23% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	505,422,510	23%
2022	483,426,432	24%
2023	460,602,395	26%
2024	437,928,994	28%
2025	414,378,976	31%

5-Year Payout Ratio





Expendable Resources to Debt

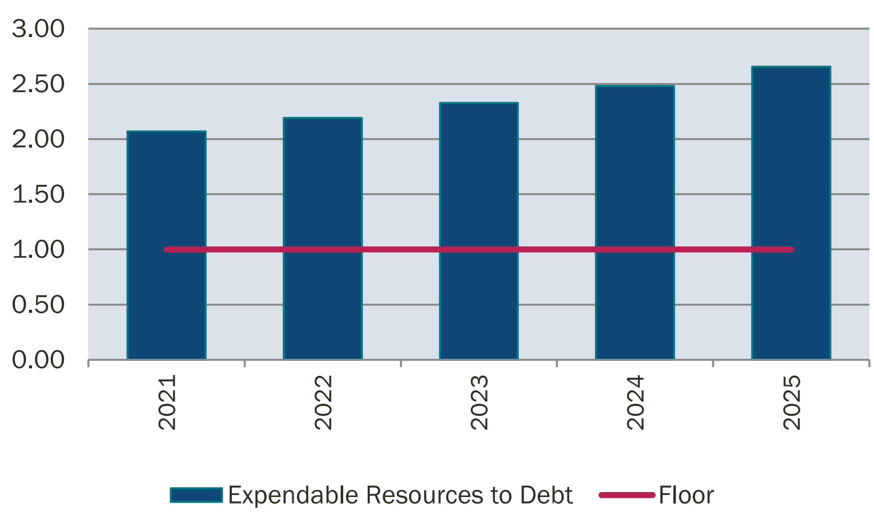
- **What does it measure?** The number of times NC State's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

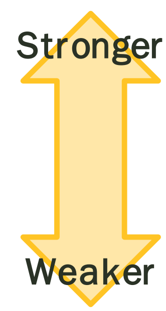
- Floor Ratio: Not less than 1.00x
- Projected 2021 Ratio: 2.53x
- Lowest Study Period Ratio: 2.53x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	1,045,193,569	-7.16%	413,422,510	92,000,000	2.53	2.07
2022	1,058,781,086	1.30%	394,598,898	88,827,534	2.68	2.19
2023	1,072,545,240	1.30%	375,015,058	85,587,337	2.86	2.33
2024	1,086,488,328	1.30%	355,651,046	82,277,948	3.05	2.48
2025	1,100,612,676	1.30%	335,481,102	78,897,874	3.28	2.66

Expendable Resources to Debt





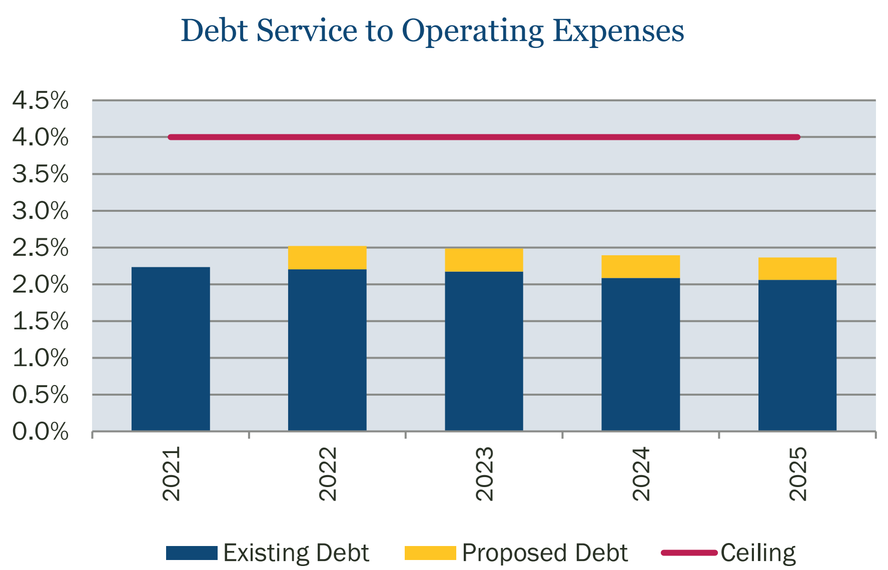
Debt Service to Operating Expenses

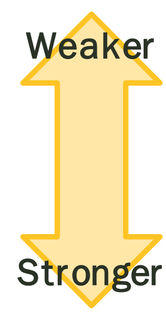
- **What does it measure?** NC State's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

- Policy Ratio: Not to exceed 4.00%
- Projected 2021 Ratio: 2.23%
- Highest Study Period Ratio: 2.23% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	1,602,681,270	1.30%	35,813,357	-	2.23%	n/a	2.23%
2022	1,625,474,527	1.30%	35,802,770	5,130,866	2.20%	0.32%	2.52%
2023	1,646,512,506	1.30%	35,797,796	5,130,866	2.17%	0.31%	2.49%
2024	1,667,823,398	1.30%	34,803,667	5,130,866	2.09%	0.31%	2.39%
2025	1,689,410,738	1.30%	34,807,520	5,130,866	2.06%	0.30%	2.36%





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, NC State's debt capacity is based on the amount of debt NC State could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, NC State's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, NC State's current estimated debt capacity is **$495,986,153.** After taking into account any legislatively approved projects detailed in **Section 3** above, if NC State issued no additional debt until the last year of the Study Period, then NC State's debt capacity for 2025 is projected to increase to **$640,127,194.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	0.63	1.25	495,986,153
2022	0.60	1.25	531,000,544
2023	0.56	1.25	567,012,131
2024	0.53	1.25	603,044,521
2025	0.49	1.25	640,127,194

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of NC State's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If NC State were to use all of its calculated debt capacity during the Study Period, NC State's credit ratings may face significant downward pressure**.
- Projecting the exact amount NC State could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **Use of Multiple Factors**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **The State's Impact**
    - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.
    - Historically, each institution's credit rating has been bolstered by the State's strong

support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
    - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
    - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
    - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
    - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
    - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

NC State's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2010A	General Revenue Bonds	4,870,000	10/1/2022	Centennial Campus Projects	1999A	Centennial Campus Receipts
				Terry Companion Animal Hospital		Gifts
				Student Health Addition		Student Fees
				West Lot Parking Deck		Transportation Receipts
				Atrium Renovation		Dining Receipts
				Athletic Facilities Renovations		Student Fees
Series 2010B	Taxable General Revenue Bonds (BABs)	59,565,000	10/1/2035	Terry Companion Animal Hospital		Gifts
				Student Health Addition		Student Fees
				West Lot Parking Deck		Transportation Receipts
				Atrium Renovation		Dining Receipts
				Athletic Facilities Renovations		Student Fees
				Carmichael Complex Improvements		Student Fees
Series 2013A	General Revenue Bonds	123,485,000	10/1/2042	Wolf Ridge Residence Halls		Housing Revenues
Series 2013B	Taxable General Revenue Bonds	129,785,000	10/1/2041	Talley Student Union		S & Dining/Bookstore Receipts
Series 2017	General Revenue Bond	37,713,828	10/1/2031	Phytotron		Energy Savings
				Carmicheal		Student Fees
				Reynolds Renovation		Gifts
Series 2018	General Revenue Refunding Bonds	76,090,000	10/1/2028	Wolf Village Residence Halls	2003B	Housing Revenues
				Doak Baseball and Tennis Complex	2003B	Athletics Revenues
				Greek Housing Renovations	2003B	Housing Revenues
				Centennial Campus Infrastructure	2015	Centennial Campus Receipts
				Derr Track Soccer Softball Complex	2015	Student Fees
				Carmichael Addition	2015	Student Fees
				Thompson Theater	2015	Student Fees
				Gold, Welch, Syme Res Halls, First Year College Building	2015	Housing Revenues
				North End Zone - CF Stadium	2015	Athletics Revenues
				Western Manor	2015	Housing Revenues
				Carter Finley Concrete Repairs	2015	Student Fees
Total		431,508,828				

7. Credit Profile

The following page provides a snapshot of NC State's current credit ratings, along with (1) a summary of various credit factors identified in NC State's most recent rating report and (2) recommendations for maintaining and improving NC State's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Aa1 rating on NC State's general revenue bonds. The outlook is stable.
- Standard and Poor's maintains a AA rating on NC State's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Excellent student market position as land-grant university with diverse degree programs
- Solid support from Aaa-rated state for operations and capital
- Sizeable and growing financial reserves provide a resource cushion
- Strong philanthropic support
- Manageable financial leverage
- Good financial management as evidenced by a history of strong operating performance

Credit Challenges

- Ongoing capital needs will lead to increased debt over time
- Political limits on pricing power for in-state undergraduate students restrain prospects for revenue growth
- Lower total gift revenue relative to similarly rated peers.

Recommendations & Observations

- NC State sees strategic value in maintaining its current rating levels.
- NC State will continue to seek strategies to limit new debt in the near term while addressing the critical infrastructure needs of a growing campus, in accordance with NC State's existing debt policy and in service of NC State's other strategic initiatives.
- Ongoing fundraising program will further strengthen NCSU's financial reserves and debt affordability related to future capital funding.

8. Peer Comparison

Moody's Key Credit Ratios	North Carolina State University	Most Recent Peer Institution Data				
Peer Institution		Michigan State University	Virginia Tech University	University of Arizona	Georgia Institute of Technology	Moody's Public Higher Education Medians
Fiscal Year	2020	2019	2020	2019	2020	2019
Most Senior Rating	Aa1	Aa2	Aa1	Aa2	Aa3	Aa1
Total Long-Term Debt ($, in millions)	538	1916	742	1472	987	1493
Total Cash & Investments ($, in millions)	2289	3976	1904	1974	2706	4608
Operating Revenue ($, in millions)	1614	2583	1606	2120	1925	4513
Operating Expenses ($, in millions)	1579	2605	1538	2133	1860	4253
Market Performance Ratios						
Annual Change in Operating Revenue (%)	-1.5%	2.8%	5.4%	2.4%	3.5%	4.9%
Operating Ratios						
Operating Cash Flow Margin (%)	10.1%	8.5%	12.0%	8.8%	10.3%	12.6%
Wealth & Liquidity Ratios						
Total Cash & Investments to Operating Expenses (x)	1.4	1.5	1.2	0.9	1.5	1.3
Total Debt to Operating Expenses (x)	0.3	0.7	0.5	0.7	0.5	0.4
Monthly Days Cash on Hand (x)	207	261	114	151	79	285
Leverage Ratios						
Total Cash & Investments to Total Debt (x)	4.3	2.1	2.6	1.3	2.7	2.9
Debt Service to Operating Expenses (%)	2.4%	3.6%	3.3%	5.7%	2.6%	2.9%
Total Debt-to-Cash Flow (x)	3.3	8.8	3.8	7.9	5.0	2.7

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

NC State's current debt policy is attached.

North Carolina State University
Debt Management Guidelines
Revised June 2018

Summary

Debt financing, especially tax-exempt debt, provides a low-cost source of capital for the University to fund capital investments to achieve its mission and strategic objectives. As the economic landscape continues to evolve and change, the use of debt will become an increasingly important tool that enables our institution to move its strategy forward. In this environment, appropriate financial leverage plays a key role and is considered a long-term component of the University's balance sheet. Given that the University has limited debt repayment resources, the allocation and management of debt is a limited resource. The guidelines provided in this document are the framework by which decisions will be made regarding the issuance of debt to finance particular capital improvements.

Authority

North Carolina General Statutes Chapter 116D Article 3 authorize the Board of Governors of the University of North Carolina (the Board) to issue special obligation bonds for improvements to the facilities of the University of North Carolina System.

Prior to a bond issue, the Board designates the capital improvements financed as "special obligation bond projects" and the University's Board of Trustees approves the issuance of special obligation bonds for those projects.

The State Energy Conservation Finance Act, Article 8 of Chapter 142 of the North Carolina General Statutes authorizes the Board to solicit and, through G.S. 143-64.17A , finance guaranteed energy conservation measures. These financing agreements must have the approval of the Office of State Budget and Management, the State Treasurer, and Counsel of State prior to closing.

Criteria

The University's debt capacity is a limited resource. Only projects that directly or indirectly relate to the mission of the University will be considered for debt financing. In general, projects that will be approved are broader in scope than college, or unit-based, projects. However, certain mission-critical school-based projects can also receive approval. Before beginning the planning-for-fundraising process for any project which might require debt financing, the approval of the Vice Chancellor for Finance and Administration and the Vice Chancellor for University Advancement is required.

Projects financed through a bonding program will have received approval through the NC State Legislature annual non-appropriated capital improvements bill and will have been designated as "special obligation projects" by the North Carolina Board of Governors. Energy conservation measures will have received state agency approval as required.

A project that has a related revenue stream (self-liquidating project) will receive priority consideration. All of these projects must be self-funding, and the use of debt must be supported by an achievable financial plan that includes servicing the debt(including interest expense), financing related infrastructure and utilities, meeting any new or increased operating costs (including security applications), and providing for appropriate replacement and renovation costs. Any bonded project must have a minimum debt-coverage ratio of 1.25X cash flow-to-debt service (debt service being the annual sum of required minimum principal and interest payments). Energy conservation measures must show that savings will be adequate to service the debt and all annual monitoring costs. Other projects funded by budgetary savings, gifts, and grants will be considered on a case-by-case basis. Any projects that will require gift financing, or include a gift financing component, must be jointly approved by the Vice Chancellor for University Advancement and the Vice Chancellor for Finance and Administration before approaching any prospective donors about gifts to the project. Because of the ancillary costs of projects, the amount of gifts raised must also include an associated endowment for any projects that are to be 100% gift financed. In all cases, institutional strategy and not donor capacity must drive the decision to build a project.

Maintenance of Credit Rating

Maintaining a high credit rating will permit the University to continue to issue debt and finance capital projects at favorable interest rates while meeting its strategic objectives. The University's decision to issue additional debt will be focused on both the strategic importance of the new capital improvement(s) and the change in the overall debt portfolio and any associated impact on the credit rating. The University recognizes that external economic, natural, or other unanticipated events may from time to time affect the creditworthiness of its debt. Nevertheless, the University is committed to ensuring that the overall debt portfolio is prudently managed and all stakeholder interests are balanced. Management will provide the rating agencies with full and timely access to required information.

Methods of Sale

The standard methods of sale are competitive, negotiated, and private placement. University management will evaluate each method of sale and determine the best type for each bond issue.

Financing Team Professionals

Selection of financing team professionals will be accomplished based on guidance from UNC General Administration. Bond Counsel, Financial Advisor, and Underwriter pool will be selected using the RFP (request for proposals) method.

General Revenue Pledge

The University will utilize general revenue secured debt (available funds pledge) for all financing needs, unless for energy conservation measures or other certain projects where management desires to structure specific revenue pledges independent of general revenue projects. The general revenue pledge provides a strong, flexible security that captures the strengths of not only auxiliary and student related revenues, but also of the

University's research programs. General revenue bonds price better than corresponding auxiliary or facilities and administrative cost recovery bonds. Historically, general revenue debt has been subject to fewer operating or financial covenants and lower coverage levels imposed by the market and external constituents.

Refunding

Refunding and/or restructuring opportunities will be evaluated on a regular basis. Costs incurred by the refunding activity will be taken into consideration with a general target of 3% present value savings, but other factors will also be considered, including the impact on the University's overall risk profile, credit ratings, and future debt capacity. The University will also consider refinancing for other strategic reasons including the elimination of certain limitations, covenants, payment obligations, or reserve requirements that reduce flexibility.

Types of Instruments

Tax-exempt debt – The University recognizes the benefits associated with tax-exempt debt, and will manage the tax-exempt portfolio to maximize the use of it subject to changing market conditions and tax laws.

Taxable debt – The University will manage its debt portfolio to implement taxable strategies based primarily on private use considerations, and secondarily on tax laws and current market conditions. Taxable debt is likely to be a perpetual component of the University's liabilities, and will be utilized to fund projects ineligible for tax-exempt financing.

Commercial paper – The University recognizes that a commercial paper (CP) program can provide low-cost working capital and provide bridge financing for projects. However, as with other debt structures, the level of CP outstanding impacts the University's overall debt capacity. The University retains the right to reduce the amount of CP available in the event it needs to increase its tax-exempt and taxable debt capacity.

Variable rate debt – Variable rate debt is a desirable component of a debt portfolio in declining-rate environments, as it provides typically lower rates. The use of variable rate debt does expose the debt portfolio to interest rate fluctuations and often comes with liquidity needs. Therefore, the University will balance the mix of variable and fixed rate debt so that variable is between 0-30% of the total debt portfolio and will include variable interest rate instruments and products when advantageous.

Derivatives –The use of derivative products can be appropriate and advantageous for the purposes of limiting interest rate exposure and reducing debt-service costs. The use of swaps will be employed primarily to enhance the University's financial strategy by managing its variable-rate exposure. Derivative products can help the University lock-in a favorable cost of capital for a future project or to ensure a specific level of cash flow savings for a refinancing. The University's strategic objectives and outlook on the interest-rate environment would determine the appropriate approach.

The University will evaluate potential derivative instruments through evaluation of its variable rate allocation, market and interest rate conditions, and the compensation for undertaking counterparty exposure. The University will evaluate each transaction relative to counterparty, basis, and termination risk. No derivative transaction will be undertaken that is not fully understood by the University or that imposes inappropriate risk on the University.

Public Private Partnerships - Given limited debt capacity and substantial capital needs, opportunities for alternative and non-traditional transaction structures may be considered, including off- balance sheet financings. These transactions are generally more expensive than traditional debt structures because investors view them as inherently riskier transactions, and can come with a cost of capital and transaction and structuring costs that are higher than traditional University debt. Chief considerations in deciding whether to pursue a Public Private Partnership are whether a third party financing model can produce results that are: (1) faster; (2) better; or (3) cheaper. Non-traditional structures can be considered when the economic benefit and likely impact on the University's debt capacity and credit have been determined to be accretive to the mission, the benefits of the potential transaction outweigh the costs, or the transaction best aligns with the long-term vision and strategic plan of the University. If it is determined that the use of third party financing or public private partnerships is closer to University debt than predicted, or if it is perceived to be University debt by University auditors, we will endeavor to use traditional financing methods. For this reason, any public private partnership projects that occur on University-or Endowment-owned land must include the involvement of the University Treasurer. Our debt guidelines anticipate that rating agencies will consider any debt that is built on state-owned or university-owned land for purposes similar to that which is typically financed by special obligation debt to be virtually the same as debt of the University. Economic interest and control drive whether a project is considered to be debt of the University. If the university has an economic interest (i.e. gains the net operating income or participates in the income or losses) and control, then the project is considered by most financing professionals to be materially tied to the University. Ultimately, pursuing this type of financing is also a function of regulations—a project may be feasible but may not be allowed under existing regulations.

Maturity and Debt Service

The useful life of the capital project financed will be taken into consideration when determining the length of financing. No capital project will be financed more than 120% of its useful life. Call features should be structured to provide the highest degree of flexibility relative to cost. Structure of debt service will take into consideration existing debt and future capital plans. In addition, the University's amortization of debt service may be spread along the full yield curve depending on market conditions.

Disclosures and Compliance

The University will review compliance with covenants and requirements under outstanding bond indentures on an annual basis. The University will continue to meet its ongoing disclosure requirements in accordance with SEC rule 15c2-12. The University will submit financial reports, statistical data, and any other material events as required under outstanding bond indentures. The University will comply with arbitrage requirements on invested bond funds. The University will comply with Internal Revenue Service rules related to private use and use of proceeds on tax-exempt debt.

Use of Benchmarks and Debt Ratios

In order to maintain an understanding of the University's standing in comparison to other like institutions, analysis using standard ratios and benchmarks must be made comparing the University to others in its peer group. This analysis can be used as an ongoing tool in determining trends, weaknesses, and target strengths relating to the debt portfolio, its credit rating, and the health of the institution. On a regular basis, the University will review its ratios and compare them to published benchmarks from the rating agencies and others in its peer group.

The University uses the following key ratios to provide a quantitative assessment of debt affordability and debt capacity. ***Current guidelines, which will be updated annually per the Moody's updated report, establish internal covenant levels that are 15% above the Median level for Aa1 rated peers. A transaction or series of transactions that violate the covenant levels without returning to compliance within 2 years following the transaction will require additional approval and diligence within the long-term (10 year) University plan.***

1. **Financial Leverage (Spendable Cash & Investments to Total Debt):** This ratio highlights the ability of the University to repay bondholders from wealth that can be accessed over time or for a specific purpose. **Internal covenant level = 1.9X.**

Cash and Investments (University and Affiliated Foundations) + Funds Held in Trust by Others + Pledges Receivable Reported in Permanently Restricted Net Assets – Permanently Restricted Net Assets

Total Debt

2. **Debt Affordability (Total Debt to Cash Flow):** Measures the ability of the University to repay its debt from the profitability of its current operations, as opposed to financial reserves, and is a measure of debt affordability. **Internal covenant level = 3.8X**

Total Debt

Operating Income + Depreciation + Amortization + Interest + Other Non-Cash Expenses

3. **Total Debt to Operating Revenue:** Measures the University's debt load relative to the scope of its current operations, economies of scale, and brand recognition. **Internal covenant level = 0.45X.**

Total Debt

Operating Revenue

Indirect Debt

The University understands that debt issued by affiliated foundations can have an effect on the University's bond rating. University management will take steps to be aware of and participate in debt discussions and new borrowings undertaken by those affiliated entities. As per Operating Guidelines for Associated Entities, all debt that exceeds $500K for major associated entities and $100K for minor associated entities must be approved by the Vice Chancellor for Finance and Administration.

Centralized Lending and Blended Portfolio

The University has adopted a central loan program under which it provides funding for projects under the guidance of the Vice Chancellor for Finance and Administration and the University Treasurer. The benefits of this program include: (i) structuring of transactions on an aggregate basis, rather than by project; (ii) continual access to capital for borrowers; (iii) predictable financial terms for borrowers; (iv) minimizing interest rate volatility; (v) permitting prepayment of loans at any time without penalty; and (vi) equity for borrowers through a blended rate.

The University charges a blended rate to its borrowers based on its cost of funding. This interest rate may change periodically to reflect changes in the University's average aggregate expected long-term cost of borrowing. The blended rate may also include a reserve for interest rate stabilization or other purposes.

Each borrower is responsible for the repayment of all funds borrowed from the central loan program, plus interest, regardless of the internal or external source of funds. The University provides for flexible financing terms in order to accommodate individual entities as determined by the project scope and repayment source. The Director of Strategic Debt Management is the primary contact for divisional and auxiliary loans.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

University of North Carolina at Asheville

Institution Report

University of North Carolina at Asheville

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "*Act*"), University of North Carolina at Asheville ("*UNC Asheville*") has submitted this report (this "*Institution Report*") as part of the annual debt capacity study (the "*Study*") undertaken by The University of North Carolina (the "*University*") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNC Asheville has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNC Asheville, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNC Asheville has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNC Asheville's debt capacity reflects the amount of debt UNC Asheville could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNC Asheville intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNC Asheville's current debt profile, including project descriptions financed with, and the sources of repayment for, UNC Asheville's outstanding debt;
- UNC Asheville's current credit profile, along with recommendations for maintaining or improving UNC Asheville's credit rating; and
- A copy of any UNC Asheville debt management policy currently in effect.

Overview of UNC Asheville

For the fall 2018 semester, UNC Asheville had a headcount student population of approximately 3,600, including 3,587 undergraduate students and 13 graduate students. During the 2019-20 academic year, UNC Asheville employed approximately 243 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNC Asheville's enrollment has declined by 7.5%.

UNC Asheville's average age of plant is 16.03 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNC Asheville does not anticipate significant additional borrowings during the Study Period. UNC Asheville changed the financial model's standard growth assumptions based upon updated student billing data.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- **Because UNC Asheville refunded debt after June 30, 2020**, outstanding debt service is based on UNC Asheville's outstanding debt **as of June 30, 2020 per the current debt amortization schedules**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNC Asheville by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNC Asheville expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	35,706,875	3,180,561	-		38,887,436
2017	35,636,978	3,634,302	-	0.99%	39,271,280
2018	(74,574,924)	4,534,689	108,613,930	-1.78%	38,573,695
2019	(69,981,912)	5,400,597	104,773,274	4.20%	40,191,959
2020	(69,590,526)	7,335,361	100,424,226	-5.03%	38,169,061
2021	37,596,525	-	-	-1.50%	37,596,525
2022	38,085,280	-	-	1.30%	38,085,280
2023	38,580,389	-	-	1.30%	38,580,389
2024	39,081,934	-	-	1.30%	39,081,934
2025	39,589,999	-	-	1.30%	39,589,999

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	90,880,057	1,017,561	-		91,897,618
2017	93,853,144	(529,585)	-	1.55%	93,323,559
2018	95,203,105	(1,015,668)	(102,672)	0.82%	94,084,765
2019	93,829,883	(909,519)	3,865,342	2.87%	96,785,706
2020	96,046,868	(2,067,095)	4,226,475	1.47%	98,206,247
2021	98,206,247	-	-	0.00%	98,206,247
2022	99,482,929	-	-	1.30%	99,482,929
2023	100,776,207	-	-	1.30%	100,776,207
2024	102,086,297	-	-	1.30%	102,086,297
2025	103,413,419	-	-	1.30%	103,413,419

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	2,132,700	3,219,397	5,352,097	74,360,900
2022	2,257,500	3,147,204	5,404,704	72,103,400
2023	2,385,700	3,069,565	5,455,265	69,717,700
2024	2,852,500	2,989,417	5,841,917	66,865,200
2025	3,028,800	2,865,131	5,893,931	63,836,400
2026	3,234,600	2,740,537	5,975,137	60,601,800
2027	3,357,800	2,608,261	5,966,061	57,244,000
2028	2,763,000	2,470,441	5,233,441	54,481,000
2029	2,857,000	2,371,880	5,228,880	51,624,000
2030	2,879,000	2,266,012	5,145,012	48,745,000
2031	2,645,000	2,147,000	4,792,000	46,100,000
2032	2,760,000	2,030,450	4,790,450	43,340,000
2033	2,875,000	1,908,800	4,783,800	40,465,000
2034	3,020,000	1,765,050	4,785,050	37,445,000
2035	3,170,000	1,614,050	4,784,050	34,275,000
2036	3,295,000	1,487,250	4,782,250	30,980,000
2037	3,425,000	1,355,450	4,780,450	27,555,000
2038	3,555,000	1,218,450	4,773,450	24,000,000
2039	3,725,000	1,055,200	4,780,200	20,275,000
2040	3,885,000	884,100	4,769,100	16,390,000
2041	2,435,000	705,500	3,140,500	13,955,000
2042	2,555,000	583,750	3,138,750	11,400,000
2043	2,685,000	456,000	3,141,000	8,715,000
2044	2,795,000	348,600	3,143,600	5,920,000
2045	2,900,000	236,800	3,136,800	3,020,000
2046	3,020,000	120,800	3,140,800	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Net Assets Without Donor Restrictions plus Foundation Net Assets Subject to Expenditure for a Specified Purpose minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	10,154,248	7,495,210	2,076,993	11,701,883	1,403,347	3,180,561	33,205,548	
2017	9,854,826	10,300,824	2,545,266	12,386,441	2,918,590	3,634,302	35,803,069	7.82%
2018	(99,472,480)	13,368,171	2,817,730	14,603,294	5,178,039	113,148,619	39,287,295	9.73%
2019	(99,113,603)	20,695,906	2,707,180	15,711,816	9,343,277	110,173,871	40,831,893	3.93%
2020	(97,667,762)	14,822,262	2,894,420	38,945,698	934,109	107,759,587	65,820,096	61.20%
2021	10,223,019	15,014,952	2,932,047	39,451,992	946,252	-	66,675,757	1.30%
2022	10,355,918	15,210,146	2,970,164	39,964,867	958,553	-	67,542,542	1.30%
2023	10,490,545	15,407,878	3,008,776	40,484,411	971,015	-	68,420,595	1.30%
2024	10,626,922	15,608,180	3,047,890	41,010,708	983,638	-	69,310,063	1.30%
2025	10,765,072	15,811,087	3,087,512	41,543,847	996,425	-	70,211,093	1.30%

3. Proposed Debt Financings

While UNC Asheville evaluates its capital investment needs on a regular basis, UNC Asheville currently has no legislatively approved projects that it anticipates financing during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNC Asheville's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

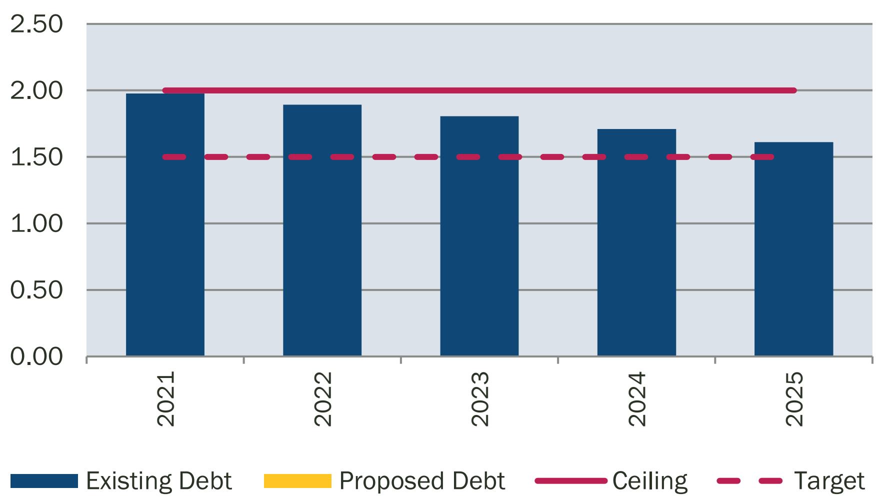
- Target Ratio: 1.50
- Ceiling Ratio: Not to exceed 2.00
- Projected 2021 Ratio: 1.98
- Highest Study Period Ratio: 1.98 (2021)

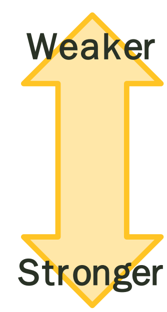
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	37,596,525	-1.50%	74,360,900	-	1.98	n/a	1.98
2022	38,085,280	1.30%	72,103,400	-	1.89	n/a	1.89
2023	38,580,389	1.30%	69,717,700	-	1.81	n/a	1.81
2024	39,081,934	1.30%	66,865,200	-	1.71	n/a	1.71
2025	39,589,999	1.30%	63,836,400	-	1.61	n/a	1.61

Debt to Obligated Resources





5-Year Payout Ratio Overview

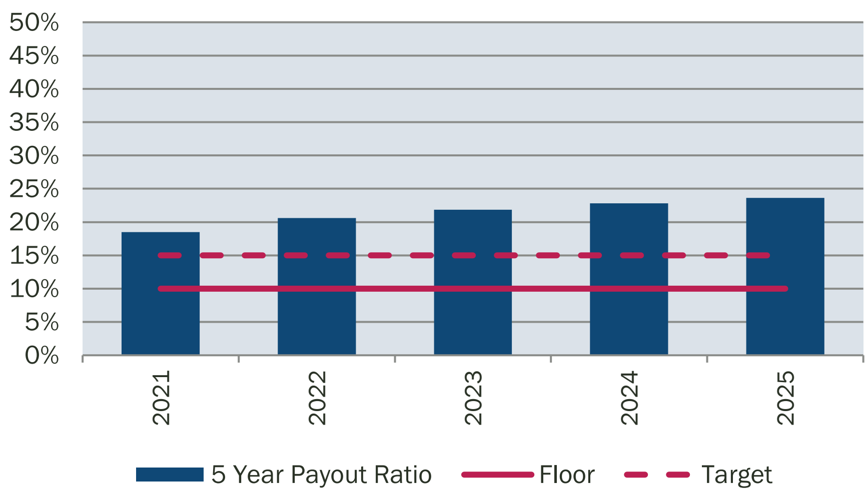
- **What does it measure?** The percentage of UNC Asheville's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

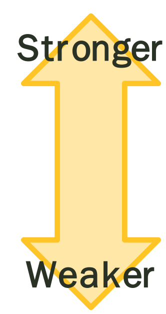
- Target Ratio: 15%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 19%
- Lowest Study Period Ratio: 19% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	74,360,900	19%
2022	72,103,400	21%
2023	69,717,700	22%
2024	66,865,200	23%
2025	63,836,400	24%

5-Year Payout Ratio





Expendable Resources to Debt

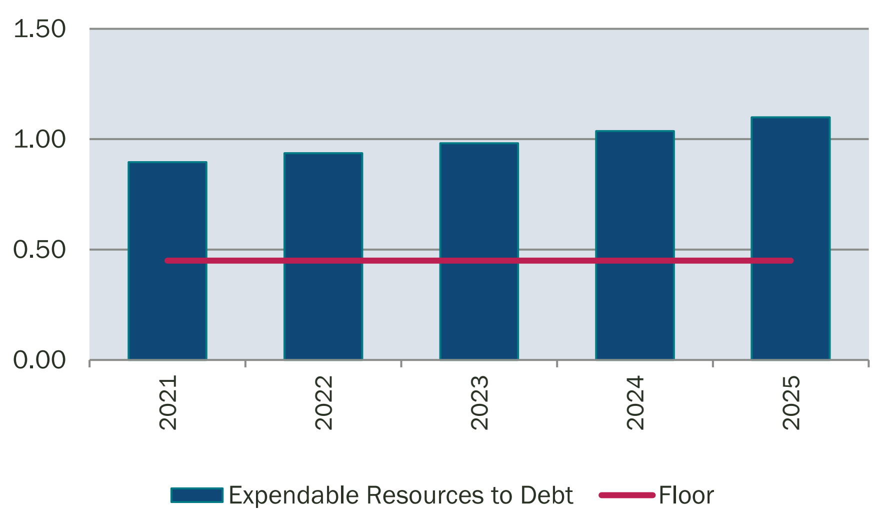
- **What does it measure?** The number of times UNC Asheville's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

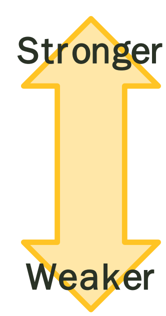
- Floor Ratio: Not less than 0.45x
- Projected 2021 Ratio: 0.90x
- Lowest Study Period Ratio: 0.90x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	66,675,757	1.30%	74,360,900	-	0.90	0.90
2022	67,542,542	1.30%	72,103,400	-	0.94	0.94
2023	68,420,595	1.30%	69,717,700	-	0.98	0.98
2024	69,310,063	1.30%	66,865,200	-	1.04	1.04
2025	70,211,093	1.30%	63,836,400	-	1.10	1.10

Expendable Resources to Debt





Debt Service to Operating Expenses

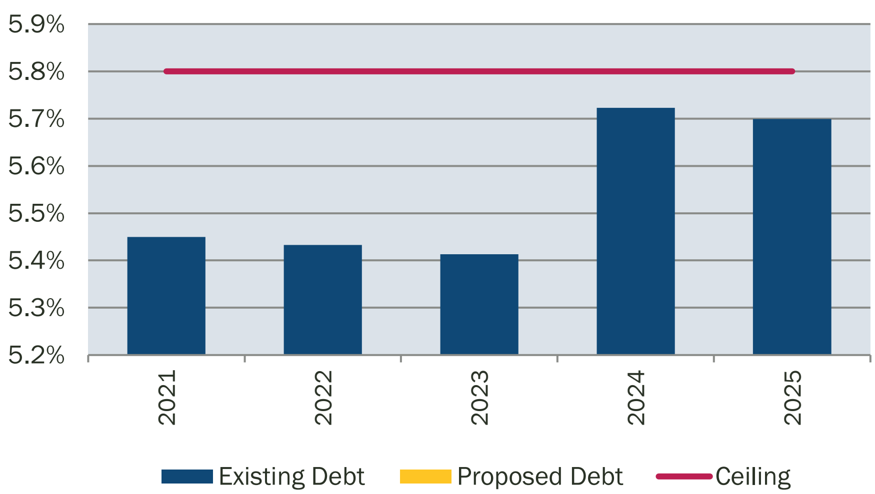
- **What does it measure?** UNC Asheville's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

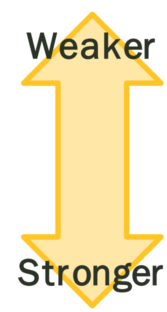
- Policy Ratio: Not to exceed 5.80%
- Projected 2021 Ratio: 5.45%
- Highest Study Period Ratio: 5.72% (2024)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	98,206,247	0.00%	5,352,097	-	5.45%	n/a	5.45%
2022	99,482,929	1.30%	5,404,704	-	5.43%	n/a	5.43%
2023	100,776,207	1.30%	5,455,265	-	5.41%	n/a	5.41%
2024	102,086,297	1.30%	5,841,917	-	5.72%	n/a	5.72%
2025	103,413,419	1.30%	5,893,931	-	5.70%	n/a	5.70%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNC Asheville's debt capacity is based on the amount of debt UNC Asheville could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNC Asheville's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.[1]
- Based solely on the **debt to obligated resources** ratio, UNC Asheville estimated debt capacity for fiscal year 2021 is **$832,150**. After taking into account any legislatively approved projects detailed in **Section 3** above, if UNC Asheville issued no additional debt until the last year of the Study Period, then UNC Asheville's debt capacity for 2025 is projected to increase to **$15,343,597.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.98	2.00	832,150
2022	1.89	2.00	4,067,160
2023	1.81	2.00	7,443,077
2024	1.71	2.00	11,298,667
2025	1.61	2.00	15,343,597

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNC Asheville's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNC Asheville were to use all of its calculated debt capacity during the Study Period, UNC Asheville's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNC Asheville could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - Use of Multiple Factors
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.

- **The State's Impact**
  - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting Campus operations.
  - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
  - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNC Asheville's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2010C	North Carolina System Pool Revenue Bonds	1,885,000	10/1/2024	New Residence Hall	2002A	Housing and Dining Revenues
Series 2012D	Revenue Refunding Bonds (U.S. Bank)	2,591,600	6/1/2027	New Residence Hall	2002A	Housing and Dining Revenues
Series 2013A	General Revenue Bond (SunTrust)	3,137,000	4/1/2030	Acquisition and Renovation of MAHEC Facility Campus Security Facilities Improvements		Health Services Student Fee Overhead Receipts and Endowment Administrative Fees
Series 2013B	Taxable General Revenue Refunding Bonds (TD Bank)	1,533,000	4/1/2023	Dormitory and Dining Hall Projects	2005A	Housing and Dining Revenues
Series 2014	General Revenue Bonds (SunTrust)	687,000	6/1/2029	Karl Strauss Track Building Student Recreation Center Improvments		Athletics Student Fee Athletics Student Fee
Series 2017	General Revenue Bonds	45,785,000	6/1/2046	New Residence Hall Highsmith Renovations		Housing Revenues Student Fees
Series 2019	General Revenue Bonds	20,875,000	6/1/2040	Refunding of 2010 BAB'S originally issued for Overlook Hall Construction and Governor's Village Renovation	2010	Housing and Dining Revenues
Total		76,493,600				

7. Credit Profile

The following page provides a snapshot of UNC Asheville's current credit ratings, along with (1) a summary of various credit factors identified in UNC Asheville's most recent rating report and (2) recommendations for maintaining and improving UNC Asheville's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains an A1 rating on UNC Asheville's general revenue bonds. The outlook is negative.
- Moody's downgraded the Series 2010C bonds from Aa3 to A1 reflecting the shift in composition of the pool participants in 2020; UNCA is now the sole obligor to Series 2010C bonds.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Strong financial support for operations and capital projects from the Aaa-rated state of North Carolina
- Very good strategic positioning supported by clear strategic direction, favorable location in a vibrant city and market niche as a public liberal arts university
- Operating appropriations from the state have increased 9% since FY 2014 and moderate increases are expected to continue

Credit Challenges

- Thin operating performance and liquidity relative to A1 peers; Lower unrestricted liquidity reserves as compared to smaller scale and operations
- Since 2015, enrollment has softened by 2.5% and retention rates have declined
- Limited prospects for significant improvement in unrestricted liquidity relative to expenses
- State-imposed tuition pricing constraints limit pricing flexibility and will likely suppress tuition revenue growth

Recommendations & Observations

- Proactive management of improving operating cash flow margin relative to A1 median peers.
- Continue to develop initiatives to highlight and strengthen UNC Asheville's distinctive market position.
- Especially during COVID, enhance liquidity reserves to provide an adquate cushion to UNCA's debt obligations.

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina Asheville	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		St. Mary's College of Maryland	Ramapo College	Bowling Green State University	Central Michigan University		
Fiscal Year	2020	2019	2019	2019	2019		2019
Most Senior Rating	A1	A2	A2	A1	A1		A1
Total Long-Term Debt ($, in millions)	79	26	223	284	142		113
Total Cash & Investments ($, in millions)	73	69	100	416	436		219
Operating Revenue ($, in millions)	91	68	161	360	437		250
Operating Expenses ($, in millions)	95	68	161	373	436		240
Market Performance Ratios							
Annual Change in Operating Revenue (%)	-4.1%	6.5%	0.9%	-0.7%	-3.2%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	6.9%	11.2%	15.1%	9.1%	7.6%		11.9%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.8	1.0	0.6	1.1	1.0		1.0
Total Debt to Operating Expenses (x)	0.8	0.4	1.4	0.8	0.3		0.5
Monthly Days Cash on Hand (x)	59	115	195	224	269		155
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	0.9	2.6	0.5	1.5	3.1		1.9
Debt Service to Operating Expenses (%)	7.6%	4.4%	10.8%	4.6%	2.7%		4.9%
Total Debt-to-Cash Flow (x)	12.6	3.4	9.2	8.7	4.3		4.9

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

UNC Asheville's current debt policy is attached.

APPENDIX D

December 16, 2016

Debt Management Policy

University of North Carolina at Asheville

Table of Contents

1. Introduction

The University of North Carolina at Asheville ("UNCA") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of UNCA's strategic vision to provide its students the opportunity, within a diverse and inclusive community, to experience liberal arts education at its best, while preserving the operational flexibility and resources necessary to support UNCA's current and future programming. UNCA recognizes the important role that the responsible stewardship of its financial resources will play as UNCA seeks to invest in its campus and related infrastructure in a manner that is economically, socially and environmentally sustainable.

This Policy has been developed to assist UNCA's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with UNCA's capital improvement plan, stated policies, objectives and core values. Like other limited resources, UNCA's debt capacity should be used and allocated strategically and equitably, taking into account the benefits and burdens for both current and future students.

Specifically, the objective of this Policy is to provide a framework that will enable UNCA's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within UNCA's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating UNCA's financial health, debt affordability and debt capacity;

(iv) Manage and protect UNCA's credit profile in order to maintain UNCA's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure UNCA remains in compliance with all of its post-issuance obligations and requirements.

This Policy is intended solely for UNCA's internal planning purposes. The Vice Chancellor for Administration & Finance will review this Policy annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Policy are subject to the Board's approval.

2. Authorization and Oversight

UNCA's Vice Chancellor for Administration & Finance is responsible for the day-to-day management of UNCA's financial affairs in accordance with the terms of this Policy and for all of UNCA's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of UNCA will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be jointly approved by the Vice Chancellor for University of Advancement and the Vice Chancellor for Administration & Finance before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, UNCA takes into account both its debt affordability and its debt capacity. Debt affordability focuses on UNCA's cash flows and measures UNCA's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between UNCA's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including UNCA's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, UNCA's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

UNCA believes, however, that it is important to consider and monitor objective metrics when evaluating UNCA's financial health and its ability to incur additional debt. To that end, UNCA has identified four key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Five-Year Payout Ratio

(iii) Expendable Resources to Debt

(iv) Debt Service to Operating Expenses

Note that the selected financial ratios are the same benchmarks monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which UNCA believes will promote clarity and consistency in UNCA's debt management and planning efforts.

UNCA has established for each ratio a floor or ceiling target, as the case may be, with the expectation that UNCA will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Policy should align with the ratios used in the report UNCA submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve UNCA's financial health and operating flexibility and to ensure UNCA is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Policy.

UNCA recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of UNCA's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, UNCA has developed as part of this Policy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when UNCA has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Policy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to UNCA or would negatively impact UNCA's credit rating.

At no point, however, should UNCA intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure? UNCA's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes

Why is it tracked? The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of UNCA's ability to absorb debt on its balance sheet and is the primary ratio used to calculate UNCA's "debt capacity" under the methodology used in the UNC Debt Capacity Study

How is it calculated? Aggregate debt* divided by obligated resources**

Policy Ratio: Not to exceed 2.0x (UNC Debt Capacity Study Target Ratio = 1.50x)

* As used throughout this Policy, "aggregate debt" includes UNCA's energy savings contracts, which, in accordance with State law, are excluded from the UNC Debt Capacity Study.

* "Available Funds," which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for "obligated resources." The two concepts are generally identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of UNCA's obligated resources.

Ratio 2 – Five-Year Payout Ratio Overview

What does it measure?	The percentage of UNCA's debt scheduled to be retired in the next five years
Why is it tracked?	The ratio measures how aggressively UNCA is amortizing its debt and is a ratio that is monitored in the UNC Debt Capacity
How is it calculated?	Aggregate principal to be paid in the next five years divided by aggregate debt
Policy Ratio:	Not less than 10% (UNC Debt Capacity Study Target Ratio = 15%)

Ratio 3 – Expendable Resources to Debt

What does it measure?	The number of times UNCA's liquid and expendable net assets covers its aggregate debt
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses UNCA's ability to settle its debt obligations using only its available net assets as of a particular date
How is it calculated?	The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt
Policy Ratio:	Not less than 0.45x

Ratio 4 – Debt Service to Operating Expenses

What does it measure?	UNCA's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues
Why is it tracked?	The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates UNCA's relative cost of borrowing to its overall expenditures and provides a measure of UNCA's budgetary flexibility
How is it calculated?	Annual debt service divided by annual operating expenses
Policy Ratio:	Not to exceed 5.80%

Reporting

The Vice Chancellor for Administration & Finance will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Administration & Finance within the context of this Policy and the overall portfolio to ensure that any financial product or structure is consistent with UNCA's stated objectives. As part of effective debt management, UNCA must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

UNCA will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves UNCA's strategic plan and financing objectives. In making that determination, UNCA will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect UNCA's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce UNCA's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates UNCA's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, UNCA should structure its debt to provide for level annual payments of debt service, though UNCA may elect alternative structures when the Vice Chancellor for Administration & Finance determines it to be in UNCA's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

UNCA will use maturity structures that correspond with the life of the facilities financed, not to exceed the maximum term authorized under applicable State law (currently 30 years). Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

UNCA recognizes that a degree of exposure to variable interest rates within UNCA's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from UNCA's assets. UNCA's debt portfolio should be managed to ensure that no more than 20% of UNCA's total debt bears interest at an unhedged variable rate.

UNCA's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. UNCA may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. UNCA may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Debt Related to Public Private Partnerships

To address UNCA's anticipated capital needs as efficiently and prudently as possible, UNCA may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

UNCA will pursue P3 Arrangements only when UNCA has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with UNCA's core mission).

P3 Arrangements will receive increased scrutiny if the Vice Chancellor for Administration & Finance determines, in consultation with UNCA's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by UNCA's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider UNCA's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on UNCA's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, UNCA or a UNCA affiliate must be approved in advance by the Vice Chancellor for Administration & Finance.

Refunding Considerations

UNCA will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, UNCA should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of UNCA ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve UNCA of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

Financing Team Professionals

UNCA will generally select its financial advisors, underwriters, lenders and bond counsel through a request for proposal process. Firms providing financial advisory and bond counsel services are generally selected for a specific period of time rather than for individual transactions, while underwriters and lenders will be selected on a transaction-by-transaction basis. Additionally, UNCA may use the financial advisors, underwriters and bond counsel selected by General Administration through its own similar competitive process.

6. Derivative Products

UNCA recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit UNCA to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. UNCA will use derivatives only to manage and mitigate risk; UNCA will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, UNCA's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Administration & Finance must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that UNCA's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

UNCA will use derivatives only when the Vice Chancellor for Administration & Finance determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing UNCA's strategic objectives without imposing inappropriate risks on UNCA.

7. Post-Issuance Compliance Matters

To the extent UNCA adopts any formal policies relating to post-issuance compliance matters after the effective date of this Policy, the Vice Chancellor for Administration & Finance will attach each such policy as **Appendix A** to this Policy.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

University of North Carolina at Chapel Hill

Institution Report

University of North Carolina at Chapel Hill

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), University of North Carolina at Chapel Hill ("***UNC-Chapel Hill***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNC-Chapel Hill has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNC-Chapel Hill, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNC-Chapel Hill has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNC-Chapel Hill's debt capacity reflects the amount of debt UNC-Chapel Hill could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNC-Chapel Hill intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNC-Chapel Hill's current debt profile, including project descriptions financed with, and the sources of repayment for, UNC-Chapel Hill's outstanding debt;
- UNC-Chapel Hill's current credit profile, along with recommendations for maintaining or improving UNC-Chapel Hill's credit rating; and
- A copy of any UNC-Chapel Hill debt management policy currently in effect.

Overview of UNC-Chapel Hill

For the fall 2019 semester, UNC-Chapel Hill had a headcount student population of approximately 29,877, including 19,154 undergraduate students and 10,723 graduate students. During the 2019-20 academic year, UNC-Chapel Hill employed approximately 2,642 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNC-Chapel Hill's enrollment has increased approximately 2.7%.

UNC-Chapel Hill's average age of plant is 12.56 years, which is lower than the median ratio for all institutions of 14.68 years. A lower age of plant generally indicates that UNC-Chapel Hill is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNC-Chapel Hill anticipates incurring approximately $125.5 million in additional debt during the Study Period, as summarized in **Section 3** below.

UNC-Chapel Hill has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses <u>plus</u> an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on UNC-Chapel Hill's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNC-Chapel Hill by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNC-Chapel Hill expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below overstate UNC-Chapel Hill's current debt burden.
- The five-year lens of future debt service within the study template does not capture the impact of the bullet maturities in the mid-2030s and 2042. UNCCH internally manages and plans for those future commitments by treating them as amortizing obligations and building reserves to cover those obligations.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	(1,956,630,353)	99,242,931	3,080,579,422		1,223,192,000
2017	(810,781,778)	106,146,356	3,080,579,422	94.24%	2,375,944,000
2018	(1,059,270,280)	121,048,211	3,059,283,069	-10.73%	2,121,061,000
2019	(576,328,721)	134,479,885	2,923,806,836	17.01%	2,481,958,000
2020	(575,287,833)	190,135,330	2,787,915,503	-3.19%	2,402,763,000
2021	2,249,426,952	-	-	-6.38%	2,249,426,952
2022	2,278,669,502	-	-	1.30%	2,278,669,502
2023	2,308,292,206	-	-	1.30%	2,308,292,206
2024	2,338,300,004	-	-	1.30%	2,338,300,004
2025	2,368,697,904	-	-	1.30%	2,368,697,904

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	2,827,248,586	30,967,249	-		2,858,215,835
2017	3,013,411,532	(6,903,425)	-	5.19%	3,006,508,107
2018	3,044,426,228	(14,901,855)	21,296,353	1.47%	3,050,820,726
2019	3,050,681,301	(13,431,674)	135,476,233	4.00%	3,172,725,860
2020	3,188,788,173	(55,655,445)	135,891,333	3.04%	3,269,024,061
2021	3,311,521,374	-	-	1.30%	3,311,521,374
2022	3,354,571,152	-	-	1.30%	3,354,571,152
2023	3,398,180,577	-	-	1.30%	3,398,180,577
2024	3,442,356,924	-	-	1.30%	3,442,356,924
2025	3,487,107,564	-	-	1.30%	3,487,107,564

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	30,755,000	44,944,341	75,699,341	1,249,335,000
2022	32,295,000	44,465,285	76,760,285	1,217,040,000
2023	32,150,000	43,850,456	76,000,456	1,184,890,000
2024	32,955,000	43,104,868	76,059,868	1,151,935,000
2025	33,825,000	42,294,881	76,119,881	1,118,110,000
2026	36,655,000	41,389,204	78,044,204	1,081,455,000
2027	38,220,000	40,412,464	78,632,464	1,043,235,000
2028	39,275,000	39,352,661	78,627,661	1,003,960,000
2029	40,435,000	38,149,101	78,584,101	963,525,000
2030	41,840,000	36,687,073	78,527,073	921,685,000
2031	43,310,000	35,042,594	78,352,594	878,375,000
2032	44,840,000	33,339,541	78,179,541	833,535,000
2033	126,390,000	30,055,713	156,445,713	707,145,000
2034	131,050,000	25,084,080	156,134,080	576,095,000
2035	132,015,000	19,887,677	151,902,677	444,080,000
2036	63,515,000	15,313,772	78,828,772	380,565,000
2037	65,710,000	12,243,746	77,953,746	314,855,000
2038	36,295,000	10,284,762	46,579,762	278,560,000
2039	36,710,000	8,798,295	45,508,295	241,850,000
2040	11,850,000	7,707,956	19,557,956	230,000,000
2041	-	6,946,854	6,946,854	230,000,000
2042	230,000,000	3,489,522	233,489,522	-
2043	-	-	-	-
2044	-	-	-	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	763,369,586	1,372,331,559	54,445,888	702,767,770	210,214,543	99,242,931	2,781,943,191	
2017	684,476,213	1,548,370,142	60,884,766	791,874,093	86,534,071	106,146,356	3,105,217,499	11.62%
2018	(2,280,949,000)	1,572,780,589	68,128,278	875,243,877	69,010,368	3,180,331,280	3,346,524,656	7.77%
2019	(1,884,101,696)	1,568,685,368	76,395,908	955,113,256	45,579,727	3,058,286,721	3,728,799,830	11.42%
2020	(1,835,439,597)	1,509,141,486	80,259,177	965,231,159	25,066,420	2,978,050,833	3,672,176,638	-1.52%
2021	1,107,909,295	1,463,307,753	77,821,647	935,916,381	24,305,135	-	3,560,649,941	-3.04%
2022	1,122,312,116	1,482,330,753	78,833,328	948,083,294	24,621,102	-	3,606,938,390	1.30%
2023	1,136,902,173	1,501,601,053	79,858,162	960,408,377	24,941,176	-	3,653,828,589	1.30%
2024	1,151,681,902	1,521,121,867	80,896,318	972,893,686	25,265,411	-	3,701,328,361	1.30%
2025	1,166,653,766	1,540,896,451	81,947,970	985,541,304	25,593,862	-	3,749,445,629	1.30%

Note: The temporary restricted net position is no longer being reported following FASB implementation with respect to DPCU's and the Study is reporting along donor restrictions. To prevent a large anomaly with the 2020 data, UNCCH normalized the Foundation Net Assets With Donor Restrictions column to retroactively equate the values back to 2016. To do that and make the comparative result, UNCCH modified the prior values to equal what was previously reported as "With Donor Restrictions", "Temporarily Restricted", and "Permanently Restricted" on the DPCU balance sheet as those categories now roll into a consolidated caption "With Donor Restrictions".

3. Proposed Debt Financings

The table below summarizes any legislatively approved projects that UNC-Chapel Hill expects to finance during the Study Period. Using the assumptions outlined in the table below, the model has developed a tailored, but conservative, debt service schedule for each proposed financing and incorporated each pro forma debt service schedule into its calculations of the financial ratios as detailed in **Section 4** below.

UNC-Chapel Hill Proposed Debt Financings

Year	Use of Funds	Borrowing Amount	Term	Source of Repayment
2021	Morehead Chemistry	22,000,000	30	Multi-auxiliary revenue stream
2021	Campus Life Safety	6,500,000	30	Multi-auxiliary revenue stream
2021	ACC Media and Comm	9,313,000	30	Athletic Receipts
2021	DLAM	3,473,508	30	F&A Receipts
2021	Kenan Labs	5,627,397	30	F&A Receipts
2021	Translational Research Building	6,586,095	30	F&A Receipts
2021	Rizzo Center	10,000,000	30	Rizzo Center Operations
2021	Indoor Practice Facility	30,000,000	30	Athletic Receipts
2022	Translational Research Building	13,163,904	30	F&A Receipts
2022	Medical Education Building	18,800,000	30	F&A Receipts, Fundraising
Total		125,463,904		

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNC-Chapel Hill's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

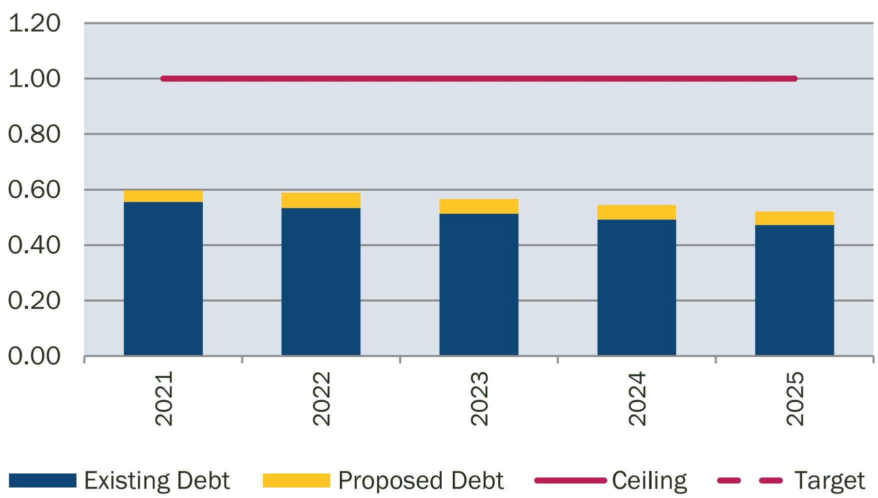
- Target Ratio: 1.00
- Ceiling Ratio: Not to exceed 1.00
- Projected 2021 Ratio: 0.60
- Highest Study Period Ratio: 0.60 (2021)

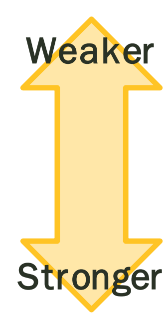
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	2,249,426,952	-6.38%	1,249,335,000	93,500,000	0.56	0.04	0.60
2022	2,278,669,502	1.30%	1,217,040,000	124,665,957	0.53	0.05	0.59
2023	2,308,292,206	1.30%	1,184,890,000	122,094,620	0.51	0.05	0.57
2024	2,338,300,004	1.30%	1,151,935,000	119,484,457	0.49	0.05	0.54
2025	2,368,697,904	1.30%	1,118,110,000	115,909,212	0.47	0.05	0.52

Debt to Obligated Resources





5-Year Payout Ratio Overview

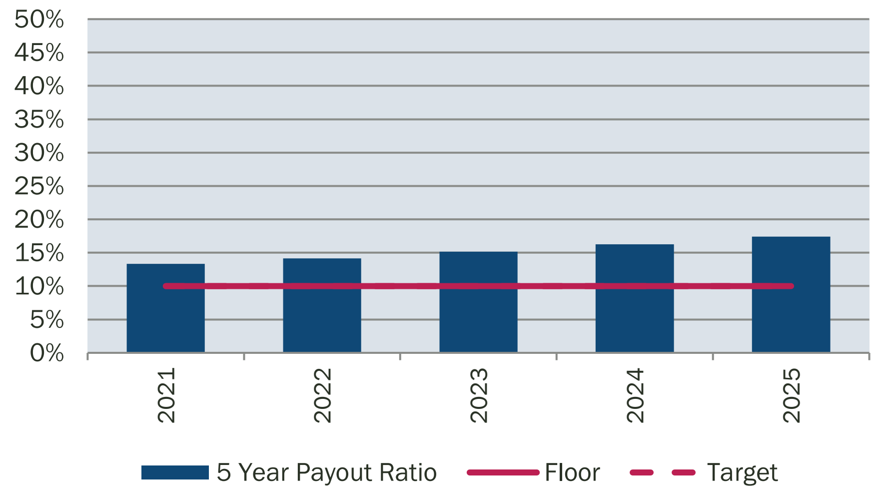
- **What does it measure?** The percentage of UNC-Chapel Hill's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

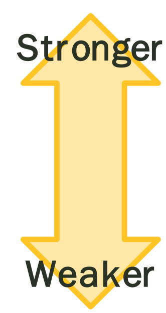
- Target Ratio: 10%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 13%
- Lowest Study Period Ratio: 13% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	1,342,835,000	13%
2022	1,341,705,957	14%
2023	1,306,984,620	15%
2024	1,271,419,457	16%
2025	1,234,019,212	17%

5-Year Payout Ratio





Expendable Resources to Debt

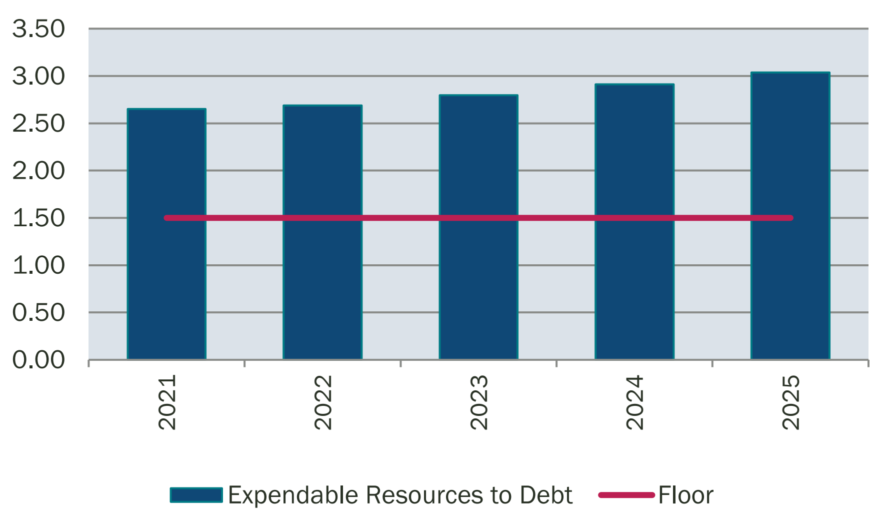
- **What does it measure?** The number of times UNC-Chapel Hill's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

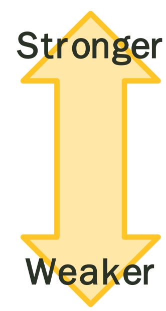
- Floor Ratio: Not less than 1.50x
- Projected 2021 Ratio: 2.65x
- Lowest Study Period Ratio: 2.65x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	3,560,649,941	-3.04%	1,249,335,000	93,500,000	2.85	2.65
2022	3,606,938,390	1.30%	1,217,040,000	124,665,957	2.96	2.69
2023	3,653,828,589	1.30%	1,184,890,000	122,094,620	3.08	2.80
2024	3,701,328,361	1.30%	1,151,935,000	119,484,457	3.21	2.91
2025	3,749,445,629	1.30%	1,118,110,000	115,909,212	3.35	3.04

Expendable Resources to Debt





Debt Service to Operating Expenses

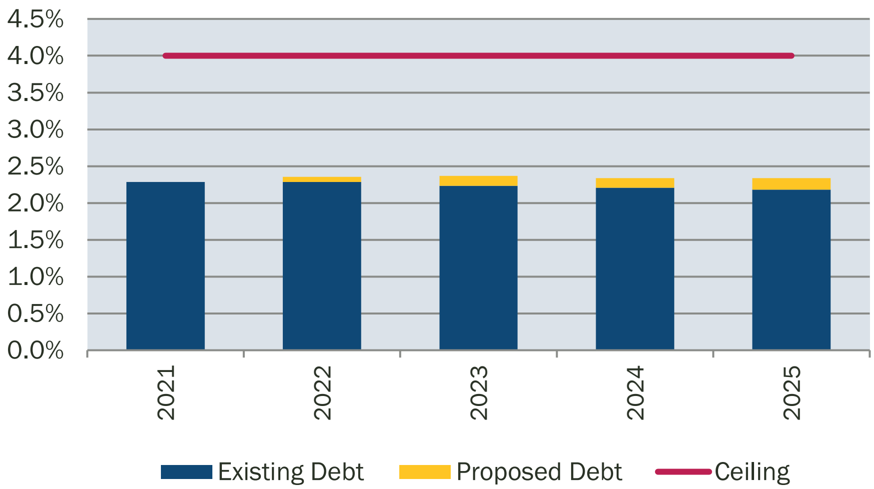
- **What does it measure?** UNC-Chapel Hill's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

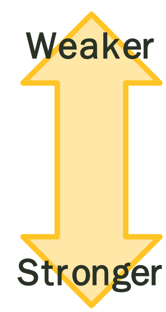
- Policy Ratio: Not to exceed 4.00%
- Projected 2021 Ratio: 2.29%
- Highest Study Period Ratio: 2.37% (2023)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	3,311,521,374	1.30%	75,699,341	-	2.29%	n/a	2.29%
2022	3,355,983,002	1.30%	76,760,285	2,209,797	2.29%	0.07%	2.35%
2023	3,400,063,033	1.30%	76,000,456	4,453,793	2.24%	0.13%	2.37%
2024	3,444,200,553	1.30%	76,059,868	4,453,793	2.21%	0.13%	2.34%
2025	3,488,911,779	1.30%	76,119,881	5,379,459	2.18%	0.15%	2.34%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNC-Chapel Hill's debt capacity is based on the amount of debt UNC-Chapel Hill could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNC-Chapel Hill's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNC-Chapel Hill's current estimated debt capacity is **$906,591,952.** After taking into account any legislatively approved projects detailed in **Section 3** above, if UNC-Chapel Hill issued no additional debt until the last year of the Study Period, then UNC-Chapel Hill's debt capacity for 2025 is projected to increase to **$1,134,678,692.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	0.60	1.00	906,591,952
2022	0.59	1.00	936,963,545
2023	0.57	1.00	1,001,307,585
2024	0.54	1.00	1,066,880,548
2025	0.52	1.00	1,134,678,692

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNC-Chapel Hill's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount UNC-Chapel Hill could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **Factor Interdependence**
        - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
        - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance

obligations.

- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNC-Chapel Hill's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 1997	Utility System Revenue Refunding Bonds	16,820,000	8/1/2021	Utilities		Utilities Receipts
Series 2001B	General Revenue Bonds (VRDB)	12,830,000	12/1/2025	Housing	2000	Housing Receipts
				Athletic Facilities	1998	Athletics Receipts
				Parking	1997C	Parking Receipts
				Kenan Stadium	1996	Athletics Receipts
				Dental School	1995	Dental Receipts
				Carolina Inn		Carolina Inn Receipts
				Ambulatory Care Clinic	1990	Faculty Practice Receipts
Series 2001C	General Revenue Bonds (VRDB)	12,830,000	12/1/2025	Housing	2000	Housing Receipts
				Athletic Facilities	1998	Athletics Receipts
				Parking	1997C	Parking Receipts
				Kenan Stadium	1996	Athletics Receipts
				Dental School	1995	Dental Receipts
				Carolina Inn		Carolina Inn Receipts
				Ambulatory Care Clinic	1990	Faculty Practice Receipts
Series 2009B	Taxable General Revenue Bonds (BABs)	112,805,000	12/1/2039	Genome Sciences Building		F&A
				Carmichael Auditorium		Athletics Receipts
				Fetzer Gym		Athletics Receipts
				Kenan Stadium		Athletics Receipts
				New Venable		F&A
				Murray Hall		F&A
				Utility Infrastructure		Utilities Receipts

Series 2012B	General Revenue Bonds (FRN)	100,000,000	12/1/2041	Genome Sciences Building		F&A
				Bell Tower Chilled Water		Utilities Receipts
				Bell Tower Parking Deck		Parking Receipts
				Carmichael Auditorium		Athletics Receipts
				Craige Deck Expansion		Parking Receipts
				Dental Sciences Building		F&A
				Enterprise Resource Planning		Unrestricted Trust Funds
				Fetzer Gym		Athletics Receipts
				Lenoir Hall		Dining Receipts
				Research Building at CN		F&A
				New Venable		F&A
				Murray Hall		F&A
				Sports Medicine (Stallings-Evans)		Fundraising
				Student Union		Student Debt Fee
				Woollen Gym		Athletics Receipts
				Utility Infrastructure		Utilities Receipts
Series 2012C	Taxable General Revenue Refunding Bonds	96,660,000	12/1/2033	Bioinformatics	2001A	F&A
				Biomolecular Research Bldg	2001A	F&A
				Neurosciences	2001A	F&A
				1700 Airport Rd.	2001A	F&A
				Dining	2001A	Dining Receipts
				Carolina Inn	2001A	Carolina Inn Receipts
				Administrative Office Building	2003	F&A
				Carrington Hall	2003	F&A
				CAW Dorms	2003	Housing Receipts
				Development Bldg (208 W. Franklin)	2003	Unrestricted Trust Funds
				MKA Dorms	2003	Housing Receipts
				RamsHead (Parking)	2003	Parking Receipts
				RamsHead (Dining)	2003	Dining Receipts
				RamsHead (SRC)	2003	Student Debt Fee
				RamsHead (Utilities)	2003	Utilities Receipts
				Public Health (Hooker Bldg)	2003	F&A
				Stone Center	2003	Unrestricted Trust Funds

Series 2012D	General Revenue Bonds (Bank)	30,000,000	6/1/2042	Kenan Stadium Phase II		Foundation/Fundraising
Series 2014	Taxable General Revenue Refunding Bonds	253,105,000	12/1/2034	Bioinformatics	2001A	F&A
				Biomolecular Research Bldg	2001A	F&A
				Neurosciences	2001A	F&A
				1700 Airport Rd.	2001A	F&A
				Dining	2001A	Dining Receipts
				Carolina Inn	2001A	Carolina Inn Receipts
				Burnett Womack	2005A	F&A
				Carrington Hall (SON)	2005A	F&A
				Caudill Labs (Science Complex)	2005A	F&A
				Chapman Hall (Science Complex)	2005A	F&A
				Cobb Parking Deck (NE Chiller Deck)	2005A	Parking Receipts
				Cobb Residence Hall	2005A	Housing Receipts
				Fields 3&4	2005A	Student Debt Fee
				Genetic Medicine Building	2005A	F&A
				Jackson Parking Deck	2005A	Parking Receipts
				NE Chiller Plant	2005A	Utilities Receipts
				Public Health (Hooker Bldg)	2005A	F&A
				RamsHead (Dining)	2005A	Dining Receipts
				Utility Infrastructure	2005A	Utilities Receipts

Series 2016C	Taxable General Revenue Refunding Bonds	383,890,000	12/1/2036	Bioinformatics	2005A	F&A
				Biomolecular Research Bldg	2005A	F&A
				Neurosciences	2005A	F&A
				1700 Airport Rd.	2005A	F&A
				Dining	2005A	Dining Receipts
				Carolina Inn	2005A	Carolina Inn Receipts
				Student Union	2005A	Student Debt Fee
				Housing	2005A	Housing Receipts
				Parking	2005A	Parking Receipts
				Burnett Womack	2005A	F&A
				Carrington Hall (SON)	2005A	F&A
				Cobb Parking Deck (NE Chiller Deck)	2005A	Parking Receipts
				Cobb Residence Hall	2005A	Housing Receipts
				Fields 3&4	2005A	Student Debt Fee
				Genetic Medicine Building	2005A	F&A
				Jackson Parking Deck	2005A	Parking Receipts
				Public Health (Hooker Bldg)	2005A	F&A
				RamsHead (Dining)	2005A	Dining Receipts
				Residence College	2005A	Housing Receipts
				Chapman Hall	2005A	F&A
				Caudill Labs	2005A	F&A
				Student Family Housing	2005A	Housing Receipts
				Utility Infrastructure	2005A	Utilities Receipts
				Carmichael Residence Hall	2007	Housing Receipts
				Food Service Facility (The Beach)	2007	Dining Receipts
				Global Education	2007	F&A
				Global Education (parking)	2007	Parking Receipts
				Morrison Residence Hall	2007	Housing Receipts
				Park and Ride Lot	2007	Parking Receipts
				Residence College	2007	Housing Receipts
				Old East Residence Hall	2007	Housing Receipts
				Old West Residence Hall	2007	Housing Receipts
				Rizzo Center	2007	Rizzo Center Operations
				Chapman Hall (Science Complex)	2007	F&A
				Caudill Labs (Science Complex)	2007	F&A
				Student Stores	2007	Student Stores Receipts
				Utility Infrastructure	2007	Utilities Receipts

Series 2017	Taxable General Revenue Refunding Bonds	110,225,000	12/1/2038	Genome Sciences Building	2009A	F&A
				Carmichael Auditorium	2009A	Athletics Receipts
				Carmichael Residence Hall	2009A	Housing Receipts
				Fetzer Gym	2009A	Athletics Receipts
				Genetic Medicine Building	2009A	F&A
				Lenoir Hall	2009A	Dining Receipts
				Old East Residence Hall	2009A	Housing Receipts
				Old West Residence Hall	2009A	Housing Receipts
				Residence College	2009A	Housing Receipts
				Rizzo Center	2009A	Rizzo Center Operations
				Rosenau Hall	2009A	F&A
				Chapman Hall (Science Complex)	2009A	F&A
				Caudill Labs (Science Complex)	2009A	F&A
				Sitterson Hall (Science Complex)	2009A	F&A
				Kenan Labs (Science Complex)	2009A	F&A
				New Venable (Science Complex)	2009A	F&A
				Murray Hall (Science Complex)	2009A	F&A
				Sports Medicine (Stallings-Evans)	2009A	Fundraising
				Student Union	2009A	Student Debt Fee
				Utility Infrastructure	2009A	Utilities Receipts
				Commercial Paper Refunding	CP	
Series 2019A	Variable Rate General Revenue Refunding Bonds	100,000,000	12/1/2041	Commercial Paper Refunding	CP	
Series 2019B	Variable Rate General Revenue Refunding Bonds	50,925,000	12/1/2034	Bioinformatics	2005A	F&A
				Biomolecular Research Bldg	2005A	F&A
				Neurosciences	2005A	F&A
				1700 Airport Rd.	2005A	F&A
				Dining	2005A	Dining Receipts
				Cobb Residence Hall	2005A	Housing Receipts
				Fields 3&4	2005A	Student Debt Fee
				Genetic Medicine Building	2005A	F&A
				Jackson Parking Deck	2005A	Parking Receipts
				Public Health (Hooker Bldg)	2005A	F&A
				RamsHead (Dining)	2005A	Dining Receipts
				Residence College	2005A	Housing Receipts
				Chapman Hall	2005A	F&A
				Caudill Labs	2005A	F&A
				Student Family Housing	2005A	Housing Receipts
				Utility Infrastructure	2005A	Utilities Receipts
Total		1,280,090,000				

7. Credit Profile

The following page provides a snapshot of UNC-Chapel Hill's current credit ratings, along with (1) a summary of various credit factors identified in UNC-Chapel Hill's most recent rating report and (2) recommendations for maintaining and improving UNC-Chapel Hill's credit ratings in the future.

THE UNIVERSITY *of* NORTH CAROLINA *at* CHAPEL HILL

Credit Profile of the University – (General Revenue)

Overview

- Moody's, Standard and Poor's, and Fitch all maintain triple-A ratings with stable outlooks on UNC-Chapel Hill's general revenue bonds.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Excellent student demand and large sponsored research base
- Strong state support for operations and capital
- Superior financial flexibility through significant reserves of total cash and investments for university and related foundations
- Strong prospects for ongoing donor support boosts credit quality

Credit Challenges

- Political limits on tuition pricing and financial aid policies underscore the importance of strong state operating support for maintaining credit quality
- Exposure to more volatile patient care revenue through the university's faculty practice plan and related hospitals
- Need to control expenses and improve operating performance margins
- Monthly days cash on hand is low for the rating category

Recommendations & Observations

- Continue to proactively manage capital investment program and debt portfolio in accordance with the University's existing debt policy and in service of UNC-Chapel Hill's broader strategic mission.
- Control of operational expenses and continued revenue growth will strengthen monthly days cash on hand and unrestricted liquidity reserves

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina Chapel Hill	Most Recent Peer Institution Data				
Peer Institution		University of Pittsburgh	University of Illinois	University of Virginia	University of Washington	Moody's Public Higher Education Medians
Fiscal Year	2020	2019	2019	2019	2019	2019
Most Senior Rating	Aaa	Aa1	A1	Aaa	Aaa	Aaa
Total Long-Term Debt ($, in millions)	1335	932	1477	2332	2392	1134
Total Cash & Investments ($, in millions)	4430	4854	5721	10062	6226	4499
Operating Revenue ($, in millions)	3186	2392	6039	3560	6195	3240
Operating Expenses ($, in millions)	3212	2262	5819	3524	6043	3196
Market Performance Ratios						
Annual Change in Operating Revenue (%)	-1.1%	4.9%	-10.7%	5.1%	5.8%	6.4%
Operating Ratios						
Operating Cash Flow Margin (%)	6.4%	14.4%	8.7%	10.3%	9.9%	10.3%
Wealth & Liquidity Ratios						
Total Cash & Investments to Operating Expenses (x)	1.4	2.1	1.0	2.9	1.0	1.4
Total Debt to Operating Expenses (x)	0.4	0.4	0.3	0.7	0.4	0.4
Monthly Days Cash on Hand (x)	134	415	196	192	155	208
Leverage Ratios						
Total Cash & Investments to Total Debt (x)	3.3	5.2	3.9	4.3	2.6	4.5
Debt Service to Operating Expenses (%)	2.6%	3.3%	2.9%	2.8%	2.8%	3.2%
Total Debt-to-Cash Flow (x)	6.5	2.7	2.8	6.3	3.9	3.8

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

UNC-Chapel Hill's current debt policy is included in the following pages.

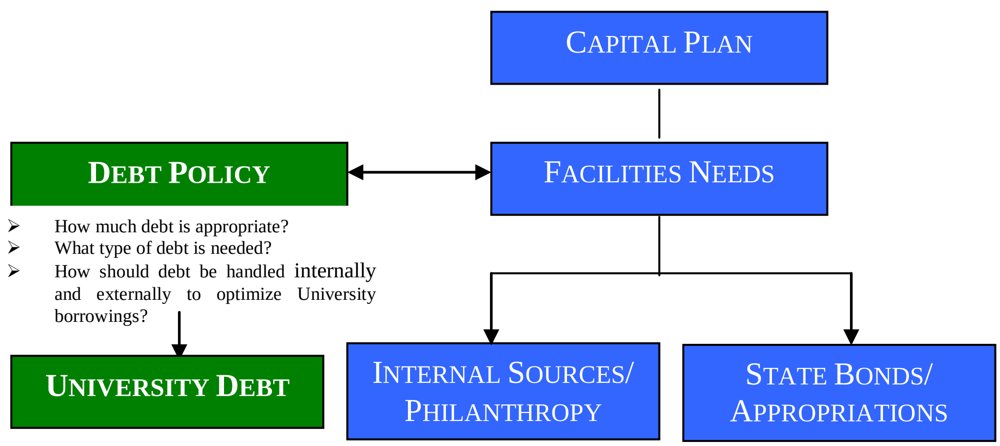
PREFACE

PURPOSE

The University of North Carolina at Chapel Hill's ("the University") strategic and capital planning is a long-term process that is continuously reevaluated. To support the funding of its capital plan, the University has and will utilize a mix of funding sources including State funds (bonds and appropriations), University bonds, internal reserves, and philanthropy.

To ensure the appropriate mix of funding sources is utilized, the University periodically reviews this debt policy. This policy is continuously used by management as a tool to evaluate the University's organizational and capital funding structure, the appropriate use of leverage, and internal lending mechanisms. Maintaining the debt policy is a long-term process.

FIGURE 1. DEBT POLICY FRAMEWORK



CONTENTS

I. INTRODUCTION

APPROACH

To fulfill its mission, the University will need to make ongoing strategic capital investments, driving capital decisions that impact the University's credit. Appropriate financial leverage serves a useful role and should be considered a long-term component of the University's balance sheet. Just as investments represent an integral component of the University's assets, debt is viewed to be a continuing component of the University's liabilities. Debt, especially tax-exempt debt, provides a low cost source of capital for the University to fund capital investments in order to achieve its mission and strategic objectives.

University Mission

"To serve all the people of the State, and indeed the nation, as a center for scholarship and creative endeavor. The University exists to teach students at all levels in an environment of research, free inquiry, and personal responsibility; to expand the body of knowledge; to improve the condition of human life through service and publication; and to enrich our culture."

The debt objectives below, combined with management judgment, provide the framework by which decisions will be made regarding the use and management of debt. The debt policy and objectives are subject to re-evaluation and change over time.

OBJECTIVES

1. Identify projects eligible for debt financing. Using debt to fund mission critical projects will ensure that debt capacity is optimally utilized to fulfill the University's mission. Projects that relate to the core mission will be given priority for debt financing; projects with associated revenues will receive priority consideration as well.

2. Maintain the University's favorable access to capital. Management's determination of the timing of capital projects will not be compromised by the University's access to capital sources, including debt. Management will utilize and issue debt in order to ensure timely access to capital.

3. Limit risk of the University's debt portfolio. The University will manage debt on a portfolio, rather than a transactional or project-specific, basis. The University's continuing objective to achieve the lowest cost of capital will be balanced with the goal of limiting exposure to market shifts.

4. Manage the University's credit to maintain the highest acceptable credit rating. Maintaining the highest acceptable credit rating will permit the University to continue to issue debt and finance capital projects at favorable interest rates while meeting its strategic objectives. The University will limit its overall debt to a level that will maintain an acceptable credit with the bond rating agencies; however, the attainment or maintenance of a specific rating is not an objective of this policy.

I. INTRODUCTION

For the University to achieve the above objectives, it will adopt debt strategies and procedures relating to both the external and the internal management of debt and interest. It is intended for these strategies to be reviewed and reassessed periodically by management.

DEBT STRATEGIES

1 **MISSION BASED CAPITAL PLANNING**. Provide framework with link to mission to evaluate and prioritize projects eligible for debt financing.

2. **CORE RATIOS**. Adopt a set of core financial ratios to guide capital planning and ensure central oversight of University-wide leverage levels.

3. **FINANCIAL INSTRUMENTS**. Provide the University with access to appropriate financing sources, including debt and liability management strategies debt based on borrowing and portfolio management needs.

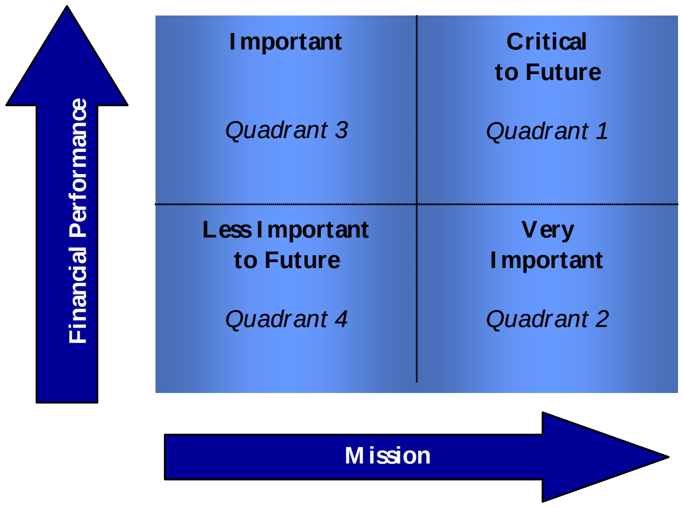
4. **EXTERNAL AND INTERNAL DEBT REPAYMENT**. De-link external and internal debt repayment, including adoption of internal lending policies.

In addition to the debt strategies the University has adopted to support its objectives, the University will also incorporate debt management practices. These practices will be updated periodically and are intended to be resource for management in determining structuring, marketing, and administrative elements of the debt program.

II. DEBT STRATEGIES – 1. MISSION BASED CAPITAL PLANNING

Generally, the following guidelines, although not intended to be all-inclusive, will be considered in the prioritization of the use of debt.

FIGURE 2. DEBT ALLOCATION MATRIX



1. Only projects that relate to the mission of the University, directly or indirectly, will be considered for debt financing.

2. A project that has a related revenue stream or can create budgetary savings will receive priority consideration. Every project considered for financing must have a defined, supportable plan of costs approved by management.

3. In assessing the possible use of debt, all funding sources will be considered. Some combination of State appropriations/bonds, philanthropy, project-generating revenues, research facilities and administrative cost reimbursements, expendable reserves, and other sources are expected to fund a portion of the cost of a project. Debt is to be used prudently and strategically.

4. The University will consider alternative funding opportunities (e.g., joint ventures, real estate development, etc.) when appropriate and advantageous to the University. Opportunities and financing sources will be evaluated within the context of the Debt Policy.

5. Federal research projects will receive priority consideration for external debt financing due to partial reimbursement of operating expenses (including the interest component of applicable debt service) of research facilities.

II. DEBT STRATEGIES – 2. CORE RATIOS

The University will establish guidelines for overall debt using a select number of financial ratios. These ratios will be derived from the financial statements, and should be consistent with some of the measures used by the marketplace. Following are the ratios and corresponding guidelines. They will be calculated and reported annually and when new debt is issued, and will be revised to reflect any changes in accounting standards.

BALANCE SHEET RATIO - EXPENDABLE RESOURCES TO DEBT (X COVERAGE)

POLICY LIMIT. The Expendable Resources to Debt Ratio indicates one of the key determinants of near- to medium-term financial health by measuring the availability of intermediate-term funds to cover debt should the University be required to repay all its outstanding obligations. Although numerous balance sheet measures exist, this ratio is the most appropriate and utilized by the marketplace and credit analysts to evaluate leverage versus funds that could be expended by the University.

$$\frac{\text{UNRESTRICTED AND EXPENDABLE NET ASSETS}}{\text{TOTAL ADJUSTED UNIVERSITY DEBT}^{1}}$$

The target ratio is established to maintain the University's comparative debt coverage level among peer institutions and provide sufficient buffer against possible declines in coverage from decreases in quasi endowment and temporary investment pool balances. The ratio is also a key determinant of the University's credit rating. *The guideline for this ratio is to be no less than 1.5 times coverage.*

STATEMENT OF ACTIVITIES RATIO – DEBT TO OPERATIONS (%)

POLICY LIMIT. This ratio measures the University's ability to repay debt service associated with all outstanding debt and the impact on the overall budget. The target for this ratio is intended to maintain the University's long-term operating flexibility to fund new initiatives.

$$\frac{\text{PRINCIPAL AND INTEREST ON NOTES AND BONDS}}{\text{TOTAL EXPENDITURES}}$$

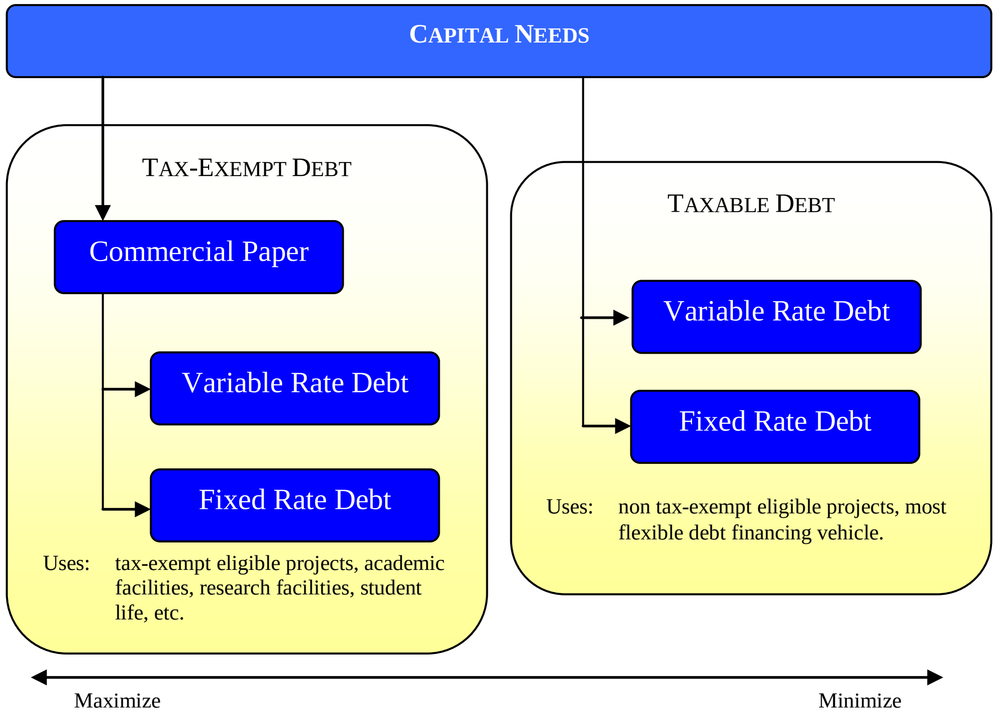
The measure is based on aggregate expenses as opposed to revenues because expenses typically are more stable and better reflect the operating size of the University. Management recognizes that a growing expense base would make this ratio appear more attractive. *The guideline for this ratio is not to be greater than 4.0%. If more than 4.0% of the University's annual budget were committed to debt service expense, flexibility to devote resources to fund other objectives could be reduced.*

[1] Excludes EPA.

II. DEBT STRATEGIES – 3. DEBT INSTRUMENTS

Under the guidance of Treasury and Risk Management Services, the University will pool debt and in doing so, manage debt on a portfolio basis to minimize cost and manage volatility.

FIGURE 3. TAX-EXEMPT AND TAXABLE DEBT



TAX-EXEMPT DEBT

The University recognizes the benefits associated with tax-exempt debt, and therefore will manage the tax-exempt portfolio to maximize the portion of tax-exempt debt outstanding under the Debt Policy.

COMMERCIAL PAPER

The University recognizes that a commercial paper (CP) program can provide low-cost working capital and provide bridge financing for projects; however, as with other debt structures, the level of CP outstanding impacts the University's overall debt capacity.

Commercial paper can provide the University with interim financing for projects before gifts are received or in anticipation of an external bond issue. Project-related CP provides the Central Bank (see Debt Strategies 4 – External and Internal Debt Repayment) with an easily accessible low-cost source of funding to manage its cash balances and provide continuous access to capital to the divisions, regardless of whether an external financing is imminent. Project-related CP will be treated as any other form of debt and subject to the Debt Policy guidelines.

TAXABLE DEBT

The University will manage its debt portfolio to minimize its taxable component. Unlike tax-exempt debt, taxable debt will not be considered a perpetual component of the University's liabilities. Taxable debt will be utilized to fund projects ineligible for tax-exempt financing or for those projects for which the University wants to preserve maximum operating flexibility; however, the University will manage its overall debt portfolio and total financing sources in order to minimize (or eliminate) the need for taxable debt. Periodically and when any new

II. DEBT STRATEGIES – 3. DEBT INSTRUMENTS

debt is issued, the University will determine its aggregate taxable needs and manage the taxable debt portfolio, if any based on the aggregate need and desired flexibility.

INTEREST RATE SWAPS

The use of swaps will be employed primarily to manage the University's variable rate exposure. The University will utilize a framework to evaluate potential derivative instruments through evaluation of its variable rate allocation, market and interest rate conditions, and the compensation for undertaking counterparty exposure. In addition, the University will incorporate the cost/benefit of any derivative instrument. Under no circumstances will a derivative transaction be utilized that is not fully understood by the University or that imposes inappropriate risk on the University.

FIXED VERSUS VARIABLE ALLOCATION

Due to the financing flexibility and typically low interest cost associated with variable-rate debt, it is desirable to maintain a portion of the University's aggregate debt on a floating-rate basis. However, variable-rate debt introduces volatility to the University's debt service obligations and typically requires liquidity support. The University will utilize variable-rate debt on a prudent basis after careful consideration of the cost/benefits of this interest rate mode.

II. DEBT STRATEGIES – 4. EXTERNAL AND INTERNAL DEBT REPAYMENT

TREASURY AND RISK MANAGEMENT SERVICES ("TRMS") AS A CENTRAL BANK

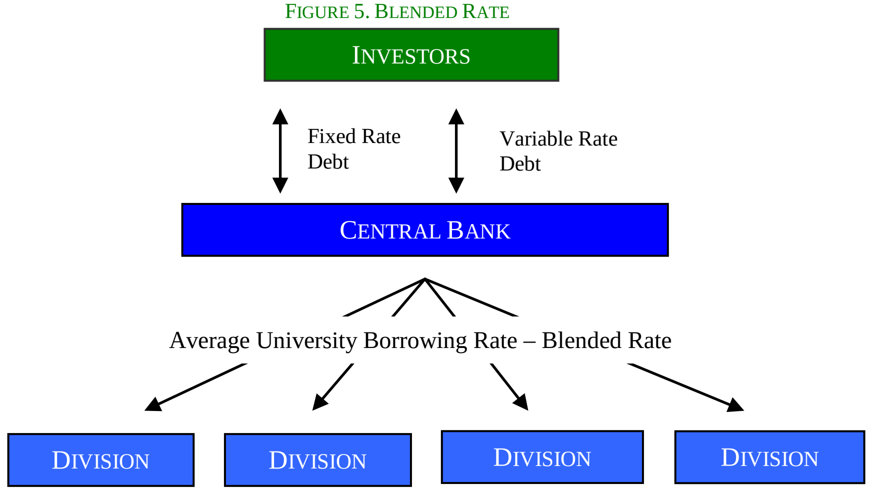
Since it is acknowledged that debt will remain a perpetual component of the University's capitalization, the Office of TRMS will execute transactions, provide funds and develop repayment schedules for individual units. In this regard, TRMS is viewed as a central bank for financing of projects for and across divisions. The University will pool all debt and act as a central source of funds that borrows from the markets and receives capital funds from other sources and makes funds available to the divisions to achieve their objectives.

As mentioned above, debt will remain a long-term component of the University's balance sheet and division leaders will seek funding for projects from the central bank subject to the debt policy. Deans and Vice Chancellors are not concerned about the source of funds to finance their projects; they are interested in the access to capital, the project ranking criteria, the impact on the current budget, and the predictability of future payments. Therefore, it is desirable to decouple the source of financing (e.g., prevailing fixed or variable rates, synthetic debt, etc) from the use of funds to finance capital projects to the greatest extent possible. Project financing decisions will be made based on the Mission Based Capital Planning strategy continued in the Debt Policy, and not based on the timing of specific transactions.

SINGLE UNIVERSITY-WIDE INTEREST RATE – BLENDED RATE

The University will charge a single interest rate for loaned proceeds regardless of use or source. The single University-wide rate will be adjusted periodically based on the University's blended cost of capital on all external debt.

FIGURE 5. BLENDED RATE



The blended interest rate will achieve the following objectives:

- Provide a consistent source of capital to divisions with a predictable and consistent cost of capital. A single interest rate for divisions will make year-to-year budgeting easier for the divisions, since the cost of capital is established at the beginning of the year and is somewhat insulated from changes in market interest rates.
- Align the interests of the University with the divisions. Since debt will be managed on a portfolio basis under debt policy guidelines, transactions will be structured to benefit the entire University, which will benefit the blended rate charged to all divisions.
- Timing of borrowing for projects will not impact the rate borne by the division. The University will time and pool debt issuance for multiple projects to achieve the most economic transactions.

II. DEBT STRATEGIES – 4. EXTERNAL AND INTERNAL DEBT REPAYMENT

The blended interest rate will be influenced by a number of factors:

- Any savings derived from refinancing of existing debt will lower the blended rate, benefiting all borrowers.
- For purposes of the University's variable rate debt, the blended rate will assume a variable rate based on a multi-year moving average of the University's external short-term borrowing cost.
- The University may elect to reserve funds collected in order to minimize year-to-year adjustments in the blended rate. The University's current blended rate is 5.03%.

III. MANAGEMENT PRACTICES

GENERAL REVENUE PLEDGE

The University will utilize general revenue secured debt for all financing needs, unless for certain projects management desires to structure specific revenue pledges independent of general revenue projects. The general revenue pledge provides a strong, flexible security which captures the strengths of not only auxiliary and student related revenues, but of the University's research programs. General revenue bonds price better than corresponding auxiliary or indirect cost recovery bonds. In addition, on general revenue debt the University is not subject to operating or financial covenants and coverage levels imposed by the market and external constituents.

The University will use revenue-specific bonds for those projects that are subsidized externally or not funded by unrestricted current funds of the University. These bonds (e.g. EPA bonds) will be structured to accommodate requirements of the pledged revenue stream or management desires to keep a project independent from other general revenue funded projects.

STRUCTURE (MATURITY, ETC.)

The University will employ maturity structures that correspond with the life of the facilities financed, subject to System and State limitations. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

METHODS OF SALE

The University will consider any method of sale. Negotiated and competitive bond offerings will be considered on an individual transaction basis. For those transactions that represent a new or non-traditional pledge of University revenues, the University generally will consider negotiated methods of sale over competitive sales.

REFUNDING TARGETS

The University will continuously monitor its outstanding tax-exempt debt portfolio for refunding and/or restructuring opportunities.

For a stand-alone refunding, the University will enter into a transaction that produces at least 3-5% present value savings (based on refunded bonds), with this threshold higher for those transactions with a long escrow.

The University also will consider a refinancing if it relieves the University of certain limitations, covenants, payment obligations or reserve requirements that reduce flexibility. The University will also consider refinancing certain obligations within a new money offering even if savings levels are minimal in order to consolidate debt into the general revenue pledge, and/or reduce the administrative burden and cost of managing many small outstanding obligations.

DISCLOSURE

The University will continue to meet its ongoing disclosure requirements in accordance to SEC rule 15c2-12. The University will submit financial reports, statistical data, and any other material events as required under outstanding bond indentures. The University will attempt to provide all relevant investor information on its website.

III. MANAGEMENT PRACTICES

ARBITRAGE

Annually, the University will comply with arbitrage requirements on invested bond funds. The implementation of tax-exempt CP will reduce the University's ongoing investment of earnings restricted bond funds.

BOND PROCEED INVESTMENT

The University will continue to invest bond-funded construction funds, capitalized interest funds, and costs of issuance funds appropriately to achieve the highest return available under arbitrage limitations. When sizing bond transactions, the University will consider funding on either a net or gross basis.

LIQUIDITY

The University will provide liquidity support for variable rate debt and commercial paper by purchasing external support from a third-party or parties or from internal liquid reserves. While providing internal liquidity support is most economic, the University should not be constrained from investing funds long-term in order to maintain liquidity requirements. The University regularly will review its liquidity requirements and sources make any adjustments as necessary or desired.

May 26, 2021

The University of North Carolina System
Debt Capacity Study – Fiscal Year 2020

University of North Carolina at Charlotte

Institution Report

University of North Carolina at Charlotte

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "*Act*"), The University of North Carolina at Charlotte ("*UNC Charlotte*") has submitted this report (this "*Institution Report*") as part of the annual debt capacity study (the "*Study*") undertaken by The University of North Carolina (the "*University*") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNC Charlotte has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNC Charlotte, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNC Charlotte has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNC Charlotte's debt capacity reflects the amount of debt UNC Charlotte could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNC Charlotte intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNC Charlotte's current debt profile, including project descriptions financed with, and the sources of repayment for, UNC Charlotte's outstanding debt;
- UNC Charlotte's current credit profile, along with recommendations for maintaining or improving UNC Charlotte's credit rating; and
- A copy of any UNC Charlotte debt management policy currently in effect.

Overview of UNC Charlotte

For the fall 2019 semester, UNC Charlotte had a headcount student population of approximately 29,615, including 24,070 undergraduate students and 5,545 graduate students. UNC Charlotte employs approximately 1,475 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNC Charlotte's enrollment has increased approximately 5.8%.

UNC Charlotte's average age of plant is 10.86 years, which is lower than the median ratio for all institutions of 14.68 years. A lower age of plant generally indicates that UNC Charlotte is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNC Charlotte anticipates incurring no additional debt during the Study Period. UNC Charlotte has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 AND 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 AND 75.
- Outstanding debt service is based on UNC Charlotte's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNC Charlotte by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNC Charlotte expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate UNC Charlotte's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	291,179,452	19,955,060	-		311,134,512
2017	340,623,010	21,128,002	-	16.27%	361,751,012
2018	(276,161,445)	24,962,892	628,775,878	4.37%	377,577,325
2019	(241,876,663)	28,006,850	605,555,612	3.74%	391,685,799
2020	(217,840,187)	41,297,544	585,199,019	4.33%	408,656,376
2021	413,968,909	-	-	1.30%	413,968,909
2022	419,350,505	-	-	1.30%	419,350,505
2023	424,802,061	-	-	1.30%	424,802,061
2024	430,324,488	-	-	1.30%	430,324,488
2025	435,918,706	-	-	1.30%	435,918,706

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	542,160,000	6,602,236	-		548,762,236
2017	586,249,328	(1,145,093)	-	6.62%	585,104,235
2018	616,021,490	(3,835,591)	248,588	4.67%	612,434,487
2019	623,172,653	(3,043,958)	23,589,711	5.11%	643,718,406
2020	664,487,807	(13,290,694)	20,009,802	4.27%	671,206,915
2021	679,932,605	-	-	1.30%	679,932,605
2022	688,771,729	-	-	1.30%	688,771,729
2023	697,725,761	-	-	1.30%	697,725,761
2024	706,796,196	-	-	1.30%	706,796,196
2025	715,984,547	-	-	1.30%	715,984,547

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	20,129,174	24,010,860	44,140,034	532,825,223
2022	19,068,817	23,239,179	42,307,996	513,756,406
2023	19,621,403	22,407,001	42,028,404	494,135,003
2024	20,156,916	21,615,117	41,772,033	473,978,087
2025	20,091,281	20,720,359	40,811,640	453,886,806
2026	19,460,719	19,849,897	39,310,616	434,426,087
2027	20,455,229	18,986,493	39,441,722	413,970,858
2028	20,719,810	18,152,829	38,872,639	393,251,047
2029	21,156,047	17,184,521	38,340,568	372,095,000
2030	21,550,000	16,269,180	37,819,180	350,545,000
2031	22,470,000	15,317,223	37,787,223	328,075,000
2032	23,435,000	14,319,677	37,754,677	304,640,000
2033	24,545,000	13,168,753	37,713,753	280,095,000
2034	25,600,000	12,081,528	37,681,528	254,495,000
2035	26,675,000	10,966,811	37,641,811	227,820,000
2036	26,775,000	9,820,265	36,595,265	201,045,000
2037	27,210,000	8,724,764	35,934,764	173,835,000
2038	24,915,000	7,606,707	32,521,707	148,920,000
2039	26,000,000	6,484,255	32,484,255	122,920,000
2040	24,035,000	5,387,114	29,422,114	98,885,000
2041	22,685,000	4,309,479	26,994,479	76,200,000
2042	15,595,000	3,443,601	19,038,601	60,605,000
2043	16,315,000	2,715,556	19,030,556	44,290,000
2044	12,890,000	1,953,475	14,843,475	31,400,000
2045	9,785,000	1,343,450	11,128,450	21,615,000
2046	5,765,000	862,350	6,627,350	15,850,000
2047	6,045,000	582,475	6,627,475	9,805,000
2048	6,335,000	289,000	6,624,000	3,470,000
2049	1,700,000	104,800	1,804,800	1,770,000
2050	1,770,000	35,400	1,805,400	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 AND 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	207,528,508	45,911,148	19,879,411	67,646,909	20,216,006	19,955,060	340,705,030	
2017	210,654,443	49,770,635	33,729,604	67,840,816	18,913,623	21,128,002	364,209,877	6.90%
2018	(389,487,415)	36,675,019	33,994,250	70,046,275	-	652,075,397	403,303,526	10.73%
2019	(344,210,310)	36,962,343	28,534,342	139,030,193	-	631,529,644	491,846,212	21.95%
2020	(331,181,686)	43,863,030	20,959,137	152,946,590	-	624,740,168	511,327,239	3.96%
2021	297,374,742	44,433,249	21,231,606	154,934,896	-	-	517,974,493	1.30%
2022	301,240,614	45,010,882	21,507,617	156,949,049	-	-	524,708,162	1.30%
2023	305,156,742	45,596,023	21,787,216	158,989,387	-	-	531,529,368	1.30%
2024	309,123,780	46,188,771	22,070,449	161,056,249	-	-	538,439,249	1.30%
2025	313,142,389	46,789,225	22,357,365	163,149,980	-	-	545,438,960	1.30%

3. Proposed Debt Financings

While UNC Charlotte evaluates its capital investment needs on a regular basis, UNC Charlotte currently has no legislatively approved projects that it anticipates financing during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNC Charlotte's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

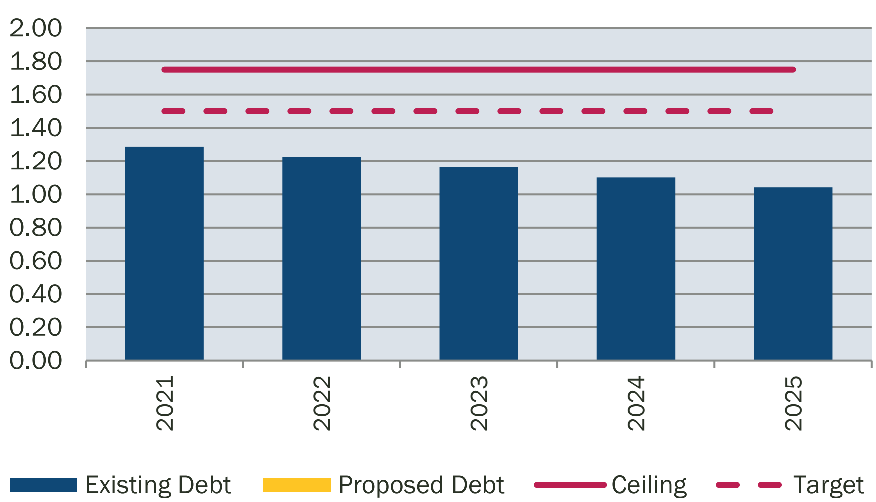
- Target Ratio: 1.50
- Ceiling Ratio: Not to exceed 1.75
- Projected 2021 Ratio: 1.29
- Highest Study Period Ratio: 1.29 (2021)

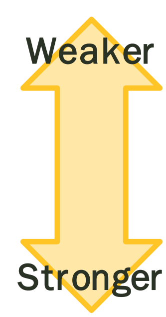
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	413,968,909	1.30%	532,825,223	-	1.29	n/a	1.29
2022	419,350,505	1.30%	513,756,406	-	1.23	n/a	1.23
2023	424,802,061	1.30%	494,135,003	-	1.16	n/a	1.16
2024	430,324,488	1.30%	473,978,087	-	1.10	n/a	1.10
2025	435,918,706	1.30%	453,886,806	-	1.04	n/a	1.04

Debt to Obligated Resources





5-Year Payout Ratio Overview

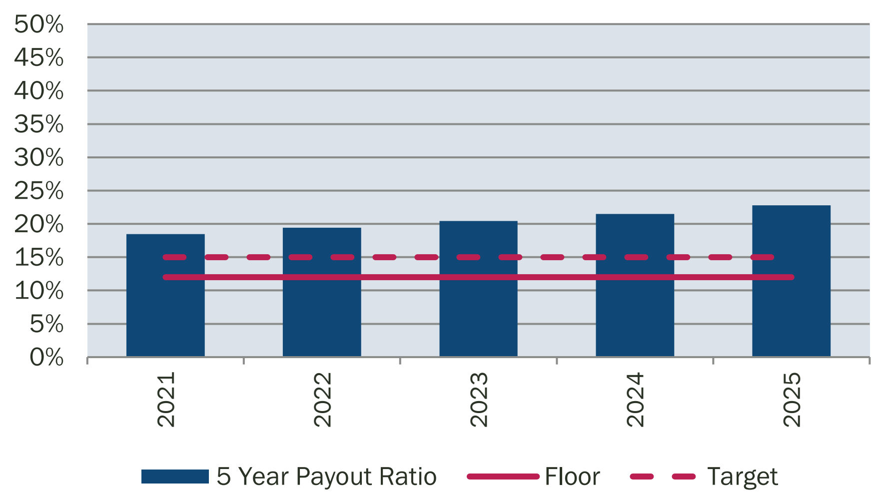
- **What does it measure?** The percentage of UNC Charlotte's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

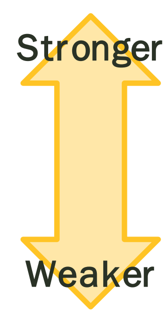
- Target Ratio: 15%
- Floor Ratio: Not less than 12%
- Projected 2021 Ratio: 18%
- Lowest Study Period Ratio: 18% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	532,825,223	18%
2022	513,756,406	19%
2023	494,135,003	20%
2024	473,978,087	21%
2025	453,886,806	23%

5-Year Payout Ratio





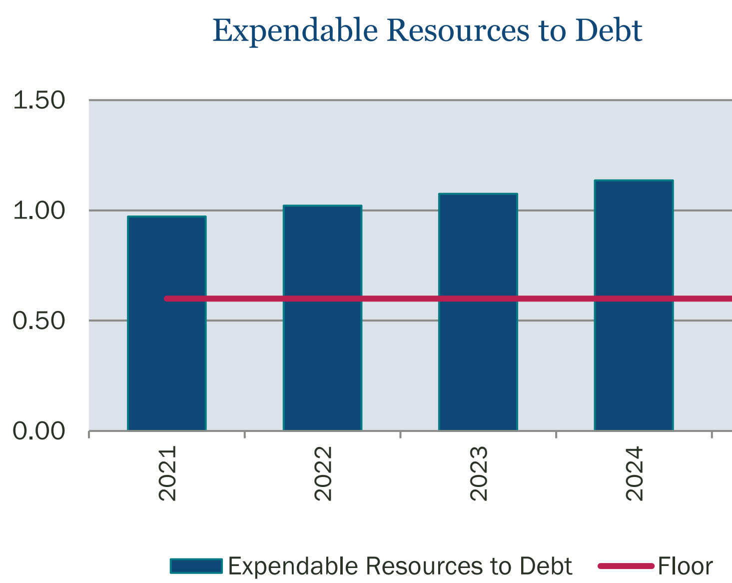
Expendable Resources to Debt

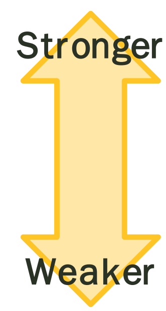
- **What does it measure?** The number of times UNC Charlotte's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.60x
- Projected 2021 Ratio: 0.97x
- Lowest Study Period Ratio: 0.97x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	517,974,493	1.30%	532,825,223	-	0.97	0.97
2022	524,708,162	1.30%	513,756,406	-	1.02	1.02
2023	531,529,368	1.30%	494,135,003	-	1.08	1.08
2024	538,439,249	1.30%	473,978,087	-	1.14	1.14
2025	545,438,960	1.30%	453,886,806	-	1.20	1.20





Debt Service to Operating Expenses

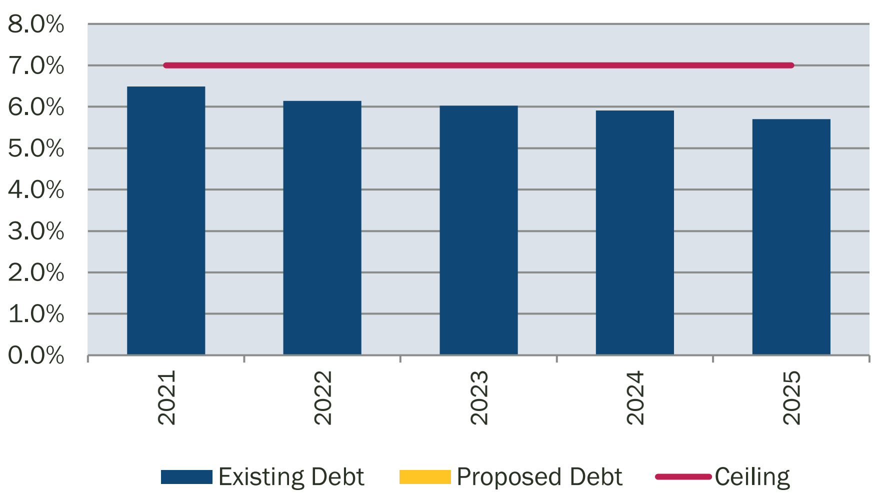
- **What does it measure?** UNC Charlotte's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (adjusted to include interest expense of proposed debt)

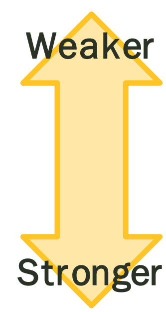
- Policy Ratio: Not to exceed 7.00%
- Projected 2021 Ratio: 6.49%
- Highest Study Period Ratio: 6.49% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	679,932,605	1.30%	44,140,034	-	6.49%	n/a	6.49%
2022	688,771,729	1.30%	42,307,996	-	6.14%	n/a	6.14%
2023	697,725,761	1.30%	42,028,404	-	6.02%	n/a	6.02%
2024	706,796,196	1.30%	41,772,033	-	5.91%	n/a	5.91%
2025	715,984,547	1.30%	40,811,640	-	5.70%	n/a	5.70%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNC Charlotte's debt capacity is based on the amount of debt UNC Charlotte could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNC Charlotte's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNC Charlotte's current estimated debt capacity is **$191,620,368.** After taking into account any legislatively approved projects detailed in **Section 3** above, if UNC Charlotte issued no additional debt until the last year of the Study Period, then UNC Charlotte's debt capacity for 2025 is projected to increase to **$308,620,368.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.29	1.75	191,620,368
2022	1.23	1.75	220,106,977
2023	1.16	1.75	249,268,604
2024	1.10	1.75	279,089,767
2025	1.04	1.75	308,970,930

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNC Charlotte's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" <u>does not</u> necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNC Charlotte were to use all of its calculated debt capacity during the Study Period, UNC Charlotte's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNC Charlotte could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - <u>**Use of Multiple Factors**</u>
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - <u>**The State's Impact**</u>
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus

operations.
- Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
- If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNC Charlotte's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2010	Taxable General Revenue BABs	32,015,000	4/1/2040	Football Stadium		Debt Fee
Series 2012A	General Revenue Bonds	5,005,000	4/1/2041	Portal Building		Overhead Receipts
				South Village Dining		Dining Revenues
				Regional Utility Plant		Overhead Receipts
				Refi-Sprinkler Loan		Housing Rentals
				Parking Deck I		Parking Revenues
				Parking Deck J		Parking Revenues
				Residence Hall Phase 10		Housing Rentals
				Residence Hall Phase 11		Housing Rentals
				2012 Sprinkler Project		Housing Rentals
				Final Refi of Phase 8 2002-A bonds	2002A	Housing Rentals
Series 2012B	Taxable General Revenue Bonds	2,100,000	4/1/2041	Portal Building		Overhead Receipts
				South Village Dining		Dining Revenues
				Regional Utility Plant		Overhead Receipts
Series 2013A	General Revenue Bonds	36,620,000	4/1/2043	Residence Hall Phase 12		Housing Rentals
				Refinancing of 2003-A Pooled Bonds	2003A	Debt Fee
Series 2013B	Taxable General Revenue Bonds	29,735,000	4/1/2043	Campus Infrastructure		Debt Fee
				Parking	2004A	Parking Revenues
Series 2014	General Revenue Bonds	53,220,000	4/1/2044	Housing Phase 13		Housing Rentals
				Oak Hall Renovations		Housing Rentals
				Holshouser Hall Renovations		Housing Rentals
Series 2015	General Revenue Bonds	109,805,000	4/1/2045	Residence Hall Phase 14		Housing Rentals
				CID 2		Debt Fee
				Parking Deck G	2006	Parking Revenues
				Student Union	2007B	Debt Fee
Series 2015	Taxable Refunding Limited Obligation Bonds	11,030,000	3/1/2035	Student Housing Project	2005	
Series 2017A	General Revenue Refunding Bonds	77,210,000	10/1/2040	Portal Building	2012A	Overhead Receipts
				South Village Dining	2012A	Dining Revenues
				Regional Utility Plant	2012A	Overhead Receipts
				Refi-Sprinkler Loan	2012A	Housing Rentals
				Parking Deck I	2012A	Parking Revenues
				Parking Deck J	2012A	Parking Revenues
				Residence Hall Phase 10	2012A	Housing Rentals
				Residence Hall Phase 11	2012A	Housing Rentals
				2012 Sprinkler Project	2012A	Housing Rentals
				Final Refi of Phase 8 2002-A bonds	2012A	Housing Rentals
Series 2017B	Taxable General Revenue Refunding Bonds	21,105,000	10/1/2040	Portal Building	2012B	Overhead Receipts
				South Village Dining	2012B	Dining Revenues
				Regional Utility Plant	2012B	Overhead Receipts
				Student Union	2007A	Debt Fee
				Housing Phase 7	2010B-1	Housing Rentals
				1st Partial Refunding of Phase 8	2010B-1	Housing Rentals
				Parking	2010B-1	Parking Revenues
2017	General Revenue Bonds	74,240,000	10/1/2047	Health and Wellness Center		Student Fees
				Scott Hall		Housing Revenues
				Elm Maple Pine		Housing Revenues
Series 2020A	Taxable General Revenue Refunding Bonds	71,425,000	4/1/2021	Refinance Multiple Projects	SAC	Debt Fee
Series 2020B	UNC System Pool Revenue Bonds	22,975,000	10/1/2020	Refinance Multiple Projects		Housing Rentals
Total		546,485,000				

7. Credit Profile

The following page provides a snapshot of UNC Charlotte's current credit ratings, along with (1) a summary of various credit factors identified in UNC Charlotte's most recent rating report and (2) recommendations for maintaining and improving UNC Charlotte's credit ratings in the future.

UNC CHARLOTTE

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Aa3 rating on UNC Charlotte's general revenue bonds. The outlook is stable.
- Standard and Poor's maintains an A+ rating on UNC Charlotte's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Strong financial positions with favorable operations, healthy liquidity, and growing reserves
- Desirable location in economically vibrant city
- University has maintained steady enrollment and net tuition revenue growth
- Strong operating and capital support from the Aaa-rated State of North Carolina

Credit Challenges

- Moderately high financial leverage compared to similarly rated peers
- Tuition pricing constraints could reduce future budget predictability

Recommendations & Observations

- Continue to develop initiatives to highlight and strengthen UNC Charlotte's distinctive market position.
- Strong operating reserves and liquidity provide UNCC financial flexibility and favorable debt affordability.
- Continue to seek strategies to limit new debt in the near term while addressing critical infrastructure needs, in accordance with UNC Charlotte's existing debt policy and in service of UNC Charlotte's other strategic initiatives.

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina Charlotte	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		George Mason University	Northern Arizona University	Portland State University	Florida Atlantic University		
Fiscal Year	2019	2020	2019	2019	2019		2019
Most Senior Rating	Aa3	A1	A1	N/A	Aa3		Aa3
Total Long-Term Debt ($, in millions)	548	542	595	225	238		437
Total Cash & Investments ($, in millions)	562	796	386	319	682		735
Operating Revenue ($, in millions)	691	976	565	502	567		691
Operating Expenses ($, in millions)	623	935	562	496	536		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	5.3%	0.6%	2.7%	2.2%	6.5%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	17.8%	12.7%	13.2%	8.8%	11.5%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.9	0.9	0.7	0.6	1.3		1.0
Total Debt to Operating Expenses (x)	0.9	0.6	1.1	0.5	0.4		0.5
Monthly Days Cash on Hand (x)	181	211	155	149	192		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.0	1.5	0.6	1.4	2.9		1.6
Debt Service to Operating Expenses (%)	6.5%	5.9%	9.3%	4.8%	1.6%		4.5%
Total Debt-to-Cash Flow (x)	4.5	4.4	8.0	5.1	3.6		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

UNC Charlotte's current debt policy is included in the following page

University Policy 601.18, Debt Policy

Executive Summary:

This Policy outlines the University philosophy on debt, establishes the framework for approving, managing, and reporting debt and provides debt management guidelines.

I. Policy Statement

The mission of The University of North Carolina at Charlotte (University) is supported by the development and implementation of the long-term strategic plan. The strategic plan establishes University-wide priorities and programmatic objectives. The University develops a capital plan to support these priorities and objectives.

The University's use of debt plays a critical role in ensuring adequate and cost effective funding for the capital plan. By linking the objectives of its Debt Policy to its strategic objectives, the University ultimately increases the likelihood of achieving its mission.

This Debt Policy is intended to be a dynamic document that will evolve over time to meet the changing needs of the University.

A. Scope

This Debt Policy applies to the University and affiliated entities and covers all forms of debt including long-term, short-term, fixed-rate, and variable-rate debt. It also covers other forms of financing including both on-balance sheet and off-balance sheet structures, such as leases, and other structured products used with the intent of funding capital projects.

The use of derivatives is not covered under this policy. When the use of derivatives is being considered a separate Interest Rate Risk Management policy will be drafted.

B. Objectives

The objectives of this policy are to:

(i) Outline the University's philosophy on debt

(ii) Establish a control framework for approving and managing debt

(iii) Define reporting guidelines

(iv) Establish debt management guidelines

This Debt Policy formalizes the link between the University's Strategic Plan and the issuance of debt. Debt is a limited resource that must be managed strategically in order to best support University priorities.

The policy establishes a control framework to ensure that appropriate discipline is in place regarding capital rationing, reporting requirements, debt portfolio composition, debt servicing, and debt authorization. It establishes guidelines to ensure that existing and proposed debt issues are consistent with financial resources to maintain an optimal amount of leverage, a strong financial profile, and a strategically optimal credit rating.

Under this policy, debt is being managed to achieve the following goals:

(i) Maintaining access to financial markets: capital, money, and bank markets.

(ii) Managing the University's credit rating to meet its strategic objectives while maintaining the highest acceptable creditworthiness and most favorable relative cost of capital and borrowing terms;

(iii) Optimizing the University's debt mix (i.e., short-term and long-term, fixed-rate and floating-rate) for the University's debt portfolio;

(iv) Managing the structure and maturity profile of debt to meet liquidity objectives and make funds available to support future capital projects and strategic initiatives;

(v) Coordinating debt management decisions with asset management decisions to optimize overall funding and portfolio management strategies.

The University may use debt to accomplish critical priorities by more prudently using debt financing to accelerate the initiation or completion of certain projects, where appropriate. As part of its review of each project, the University evaluates all funding sources to determine the optimal funding structure to achieve the lowest cost of capital.

II. Roles and Responsibilities; Compliance

The Office of the Vice Chancellor for Business Affairs ("VCBA") is responsible for implementing this policy and for all debt financing activities. The policy and any subsequent, material changes to the policy must be approved by the Chancellor after consultation with the University's Board of Trustees ("BOT".) The approved policy provides the framework under which debt management decisions are made.

The exposure limits listed in the policy are monitored on a regular basis by Treasury Services. The office of the VCBA reports regularly to the Chancellor and the BOT on the University's debt position and plans.

III. Procedures

A. Debt Affordability and Capacity

In assessing its current debt levels and when planning for additional debt, the University takes into account both its debt affordability and debt capacity. Debt affordability focuses on the University's ability to service its debt through its operating budget and identified revenue streams and is driven by strength in income and cash flows. Debt capacity focuses on the University's financial leverage in terms of debt funding as a percentage of the University's total capital.

The University considers many factors in assessing its debt affordability and debt capacity including its strategic plan, market position, and alternative sources of funding. The University uses four key quantitative ratios to inform its assessments with respect to debt affordability and debt capacity.

The ratios described below are not intended to track a specific rating, but rather to help the University maintain a competitive financial profile and funding for facilities needs and reserves.

This Debt Policy is shared with external credit analysts and other parties to provide them with background on the University's philosophy on debt and management's assessment of debt capacity and affordability.

1. Debt Affordability Measures

a. Debt Burden Percentage

This ratio measures the University's debt service burden as a percentage of total university expenses. The target for this ratio is intended to maintain the University's long-term operating flexibility to finance existing requirements and new initiatives.

$$\frac{\text{ANNUAL DEBT SERVICE}}{\text{TOTAL OPERATING EXPENSES}} \leq 6.0\%$$

The measure is based on aggregate operating expenses as opposed to operating revenues because expenses typically are more stable (e.g. revenues may be subject to one-time operating gifts, investment return fluctuations, variability of State funding, etc.) and better reflect the operating base of the University. This ratio is adjusted to reflect any non-amortizing or non-traditional debt structures that could result in significant single year fluctuations including the effect of debt refundings.

b. Average Debt Service Coverage Ratio

This ratio measures the University's ability to cover debt service requirements from adjusted net operating income. This calculation is a three-year average of income compared to actual debt services on capital debt. The target established is intended to ensure that operating revenues are sufficient to meet debt service requirements and that debt service does not consume too large a portion of income.

$$\frac{\text{THREE YEARS ANNUAL OPERATING SURPLUS (DEFICIT) + NON-OPERATING REVENUE + DEPRECIATION}}{\text{THREE YEARS ANNUAL DEBT SERVICE}} > 2X$$

This ratio is adjusted to reflect any non-amortizing or non-traditional debt structures that could result in significant single year fluctuations including the effect of debt refundings.

2. Debt Capacity Measures

a. Average Viability Ratio

This ratio indicates one of the most basic determinants of financial health by measuring the three year average availability of liquid and expendable net assets to the three year average aggregate debt. The ratio measures the medium to long-term health of the University's balance sheet and debt capacity and is a critical consideration of universities with the highest credit quality.

Many factors influence the viability ratio, affecting both the assets (e.g., investment performance, philanthropy) and liabilities (e.g., timing of bond issues), and therefore the ratio is best examined in the context of changing market conditions so that it accurately reflects relative financial strength.

$$\frac{\text{THREE YEARS UNRESTRICTED NET ASSETS} + \text{RESTRICTED EXPENDABLE NET ASSETS}}{\text{THREE YEARS AGGREGATE DEBT}} \geq .6\text{x}$$

b. Debt Capitalization Ratio

This ratio measures the percentage of University capital that comes from debt. A university that relies too heavily on debt capital may risk being over-leveraged and potentially reduce its access to capital markets. Conversely, a university that does not strategically utilize debt as a source of capital may not be optimizing its funding mix, thereby sacrificing access to low-cost funding to invest in mission objectives.

$$\frac{\text{AGGREGATE DEBT}}{\text{TOTAL NET ASSETS} + \text{AGGREGATE DEBT}} <= 35\%$$

Both the Viability and Debt Capitalization Ratios include any component unit (University-related foundation) balances as disclosed in the University's financial statements.

B. Financing Sources

The University recognizes that there are numerous types of financing structures and funding sources available, each with specific benefits, risks, and costs. All potential funding sources are reviewed by management within the context of this Debt Policy and the overall portfolio to ensure that any financial product or structure is consistent with the University's objectives. Regardless of what financing structure(s) are utilized, due-diligence review must be performed for each transaction, including (i) quantification of potential risks and benefits; and (ii) analysis of the impact on University creditworthiness and debt affordability and capacity.

1. Tax-Exempt Debt

The University recognizes that tax-exempt debt is a significant component of the University's capitalization due in part to its substantial cost benefits; therefore, tax-exempt debt is managed as a portfolio of obligations designed to meet long-term financial objectives rather than as a series of discrete financings tied to specific projects. The University manages the debt portfolio to maximize its utilization of tax-exempt debt relative to taxable debt whenever possible. In all circumstances, however, individual projects continue to be identified and tracked to ensure compliance with all tax and reimbursement regulations.

For tax-exempt debt, the University considers maximizing the external maturity of any tax-exempt bond issue, subject to prevailing market conditions and opportunities and other considerations, including applicable regulations.

2. Taxable Debt

In instances where certain of the University's capital projects do not qualify for tax-exempt debt, the use of taxable debt may be considered. The taxable debt market offers certain advantages in terms of liquidity and marketing efficiency; such advantages will be considered when evaluating the costs and benefits of a taxable debt issuance.

3. Commercial Paper

Commercial paper provides the University with interim financing for projects in anticipation of philanthropy or planned issuance of long-term debt. The use of commercial paper also provides greater flexibility on the timing and structuring of individual bond transactions. This flexibility also makes commercial paper appropriate for financing equipment and short-term operating needs. The University recognizes that the amount of commercial paper is limited by this Debt Policy ratios, the University's variable-rate debt allocation limit, and the University's available liquidity support.

4. University-issued vs. State-Issued Debt

In determining the most cost effective means of issuing debt, the University evaluates the merits of issuing debt directly vs. participating in debt pools through the UNC System Board of Governors. On a regular basis, the University performs a cost/benefit analysis between these two options and takes into consideration the comparative funding costs, flexibility in market timing, and bond ratings of each alternative. The University also takes into consideration the future administrative flexibility of each issue such as the ability to call and/or refund issues at a later date, as well as the administrative flexibility to structure and manage the debt in a manner that the University believes to be appropriate and in the University's best interest.

5. Other Financing Sources

Given limited debt capacity and substantial capital needs, opportunities for alternative and non-traditional transaction structures may be considered. The University recognizes these types of transactions often can be more expensive than traditional University debt structures; therefore, the benefits of any potential transaction must outweigh any potential costs.

All structures may be considered only when the economic benefit and the likely impact on the University's debt capacity and credit have been determined. Specifically, for any third-party or developer-based financing, management ensures the full credit impact of the structure is evaluated and quantified.

C. Portfolio Management of Debt

The University considers its debt portfolio holistically to optimize the portfolio of debt for the entire University rather than on a project-by-project basis while taking into account the University's cash and investment portfolio (see Appendix A). Therefore, management makes decisions regarding project prioritization, debt portfolio optimization, and financing structures within the context of the overall needs and circumstances of the University.

1. Variable-Rate Debt

The University recognizes that a degree of exposure to variable interest rates within the University's debt portfolio might be desirable in order to:

(i) take advantage of repayment/restructuring flexibility;

(ii) benefit from historically lower average interest costs;

(iii) provide a "match" between debt service requirements and the projected cash flows from the University's assets; and

(iv) diversify its pool of potential investors.

Management monitors overall interest rate exposure, analyzes and quantifies potential risks, including interest rate, liquidity and rollover risks, and coordinates appropriate fixed/variable allocation strategies. The portfolio allocation to variable-rate debt may be managed or adjusted through (i) the issuance or redemption of debt in the conventional debt market (e.g. new issues and refundings) and (ii) the use of interest rate derivative products including swaps.

The amount of variable-rate debt outstanding (adjusted for any derivatives) shall not exceed 10% of the University's outstanding debt. This limit is based on the University's desire to: (i) limit annual variances in its interest payments; (ii) provide sufficient structuring flexibility to management; (iii) keep the University's variable-rate allocation within acceptable external parameters; and (iv) utilize variable-rate debt (including derivatives) to optimize debt portfolio allocation and minimize costs.

$$\frac{\text{VARIABLE-RATE DEBT (INCLUDING SYNTHETIC DEBT)}}{\text{TOTAL DEBT OUTSTANDING}} <= 10\%$$

2. Refinancing Outstanding Debt

The University monitors its debt portfolio on a continual basis to assure portfolio management objectives are being met and to identify opportunities to lower its cost of funding, primarily through refinancing outstanding debt. The University of North Carolina General Administration prefers a savings of 2% for refinancing current outstanding debt. Savings requirements in excess of 2% may be required from time to time by the Vice Chancellor for Business Affairs.

The University monitors the prices and yields of its outstanding debt and attempts to identify potential refunding candidates by examining refunding rates and calculating the net present value of any refunding savings after taking into account all transaction costs. The University may choose to pursue refundings for economic and/or legal reasons. The University reserves the right to not partially refund an issue.

3. Liquidity Requirements

If the University's portfolio includes variable-rate debt and commercial paper, liquidity support is required in the event of the bonds or paper being put back to the University by investors. Generally, the University can purchase liquidity support externally from a bank in the form of a standby bond purchase agreement or line of credit. In addition, the University may consider using its own capital in lieu of or to supplement external liquidity facilities. Alternatively, it may utilize variable-rate structures that do not require liquidity support (e.g. auction-rate products.)

Just as the University manages its debt on a portfolio basis, it also manages its liquidity needs by considering its entire asset and debt portfolio, rather than managing liquidity solely on an issue-specific basis. This approach permits institution-wide evaluation of desired liquidity requirements and exposure, minimizes administrative burden, and reduces total liquidity costs.

A balanced approach may be used to provide liquidity support to enhance credit for variable-rate debt, through a combination of external bank liquidity, auction market or derivative structures. Using a variety of approaches limits dependence on an individual type or source of credit; it also allows for exposure to different types of investors. The University must balance liquidity requirements with its investment objectives and its cost and renewal risk of third-party liquidity providers.

Further, a portfolio-approach to liquidity can enhance investment flexibility, reduce administrative requirements, lower total interest costs, and reduce the need for external bank liquidity.

4. Overall Exposure

The University recognizes that it may be exposed to interest rate, third-party credit, and other potential risks in areas other than direct University debt (e.g., counterparty exposure in the investment portfolio, etc.) and, therefore, exposures are considered on a comprehensive University-wide basis.

D. Strategic Debt Allocation

Recognizing that financial resources are not sufficient to fund all capital projects, management must allocate debt strategically, continuing to explore alternate sources of funding for projects. External support, philanthropy, and direct State investment remain critical to the University's facilities investment plan.

Management allocates the use of debt financing internally within the University to reflect the prioritization of debt resources among all uses, including plant and equipment financing, academic projects, and projects with institutional impact. Generally, the University favors debt financing for those projects critical to the attainment of its strategic goals and those projects with identified revenue streams for the repayment of debt service and incremental operating costs.

Each capital project is analyzed at its inception to ensure that capital is used in the most effective manner and in the best interests of the University. There is an initial institutional review of each project, prior to its inclusion in the capital plan, to determine if debt leveraging would be desirable even if not requested by the project sponsor.

As part of this initial institutional review, the University also will assess, based on the project's business plan, the sufficiency of revenues to support any internal loans. If the University determines that collateral is necessary, it may require the entity to segregate unrestricted funds for this purpose.

E. Debt Administration and Other Matters

The issuance of tax-exempt debt generally requires the aid and assistance of several outside parties:

- Use of a financial advisor is recommended with a competitive selection process at least once every five years.
- Bond counsel appointments are competitively determined at least once every five years.
- The selection of underwriters is recommended for each debt issuance using a competitive process. Co-managers are recommended for issuances of $30 million or more and will be selected from the same group of underwriters responding to the competitive bid process.

Debt issuance can be “sized” to include capitalized interest and borrowing costs up to 5% of the debt issuance.

Reimbursement resolutions will be prepared for each debt issuance.

F. Approval Process

All debt issued is by the authority granted to the UNC System Board of Governors under N.C.G.S. § 116D, Article 3. All debt issue is approved by the UNC Charlotte Board of Trustees and then by the UNC System Board of Governors.

When the University participates in bond programs that are administered by the State, including State tax supported debt, such bonds are issued by the State Treasurer, who also possesses the authority to price such bonds.

Revision History: Initially approved February 2, 2015
Authority: Chancellor
Responsible Office: Business Affairs

May 26, 2021

The University of North Carolina at Greensboro

The University of North Carolina System Debt Capacity Study - Fiscal Year 2020

The University of North Carolina at Greensboro

Institution Report

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), University of North Carolina at Greensboro ("***UNC Greensboro***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNC Greensboro has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNC Greensboro, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNC Greensboro has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNC Greensboro's debt capacity reflects the amount of debt UNC Greensboro could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNC Greensboro intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNC Greensboro's current debt profile, including project descriptions financed with, and the sources of repayment for, UNC Greensboro's outstanding debt;
- UNC Greensboro's current credit profile, along with recommendations for maintaining or improving UNC Greensboro's credit rating; and
- A copy of any UNC Greensboro debt management policy currently in effect.

Overview of UNC Greensboro

For the fall 2019 semester, UNC Greensboro had a headcount student population of approximately 20,196, including 16,581 undergraduate students and 3,615 graduate students. UNC Greensboro employs approximately 1,131 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNC Greensboro's enrollment has grown by 4.1%.

UNC Greensboro's average age of plant is 12.77 years, which is lower than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNC Greensboro does not anticipate significant additional borrowings during the Study Period. UNC Greensboro has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on UNC Greensboro's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNC Greensboro by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNC Greensboro expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate UNC Greensboro's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	153,067,113	17,181,012	-		170,248,125
2017	171,993,830	17,318,421	-	11.20%	189,312,251
2018	(251,724,686)	18,690,763	425,862,995	1.86%	192,829,072
2019	(237,093,720)	19,581,421	405,766,445	-2.37%	188,254,146
2020	(220,162,163)	28,812,522	388,626,859	4.79%	197,277,218
2021	199,841,822	-	-	1.30%	199,841,822
2022	202,439,766	-	-	1.30%	202,439,766
2023	205,071,482	-	-	1.30%	205,071,482
2024	207,737,412	-	-	1.30%	207,737,412
2025	210,437,998	-	-	1.30%	210,437,998

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	359,530,904	5,479,604	-		365,010,508
2017	391,641,862	(129,813)	-	7.26%	391,512,049
2018	413,394,628	(1,364,900)	4,437,708	6.37%	416,467,436
2019	427,326,795	(882,169)	20,096,686	7.22%	446,541,312
2020	455,515,453	(9,221,688)	17,140,117	3.78%	463,433,882
2021	469,458,522	-	-	1.30%	469,458,522
2022	475,561,483	-	-	1.30%	475,561,483
2023	481,743,783	-	-	1.30%	481,743,783
2024	488,006,452	-	-	1.30%	488,006,452
2025	494,350,536	-	-	1.30%	494,350,536

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	14,244,037	13,048,878	27,292,915	281,324,876
2022	14,625,555	12,481,847	27,107,402	266,699,321
2023	15,158,879	11,877,666	27,036,545	251,540,442
2024	14,331,672	11,237,817	25,569,490	237,208,770
2025	14,984,699	10,593,398	25,578,097	222,224,071
2026	15,617,719	9,936,415	25,554,135	206,606,352
2027	21,211,352	9,248,964	30,460,316	185,395,000
2028	14,230,000	8,395,600	22,625,600	171,165,000
2029	14,920,000	7,704,100	22,624,100	156,245,000
2030	14,490,000	6,958,100	21,448,100	141,755,000
2031	15,145,000	6,260,150	21,405,150	126,610,000
2032	15,885,000	5,571,900	21,456,900	110,725,000
2033	16,575,000	4,836,850	21,411,850	94,150,000
2034	17,290,000	4,109,400	21,399,400	76,860,000
2035	16,045,000	3,434,163	19,479,163	60,815,000
2036	16,730,000	2,749,963	19,479,963	44,085,000
2037	12,240,000	2,049,838	14,289,838	31,845,000
2038	10,250,000	1,527,850	11,777,850	21,595,000
2039	10,730,000	1,046,750	11,776,750	10,865,000
2040	2,520,000	543,250	3,063,250	8,345,000
2041	2,645,000	417,250	3,062,250	5,700,000
2042	2,780,000	285,000	3,065,000	2,920,000
2043	2,920,000	146,000	3,066,000	-
2044			-	-

*Note: The FY2019 Debt Capacity Study misreported the 2019 Available Funds and Operating Expenses GASB 75 Adjustment. The figures have been updated in this version.

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	84,727,871	122,156,867	-	-	8,348,136	17,181,012	215,717,614	
2017	87,510,902	146,993,613	-	-	12,928,838	17,318,421	238,894,098	10.74%
2018	(335,007,428)	157,266,942	-	-	8,219,480	444,553,758	258,593,792	8.25%
2019	(308,857,519)	163,626,500			8,488,727	425,347,866	271,628,120	5.04%
2020	(308,191,436)	159,677,092			8,810,602	417,439,381	260,114,435	-4.24%
2021	99,986,412	146,140,410	-	-	8,063,680	-	238,063,142	-8.48%
2022	101,286,235	148,040,235	-	-	8,168,508	-	241,157,963	1.30%
2023	102,602,956	149,964,758	-	-	8,274,699	-	244,293,016	1.30%
2024	103,936,795	151,914,300	-	-	8,382,270	-	247,468,825	1.30%
2025	105,287,973	153,889,186	-	-	8,491,239	-	250,685,920	1.30%

3. Proposed Debt Financings

While UNC Greensboro evaluates its capital investment needs on a regular basis, UNC Greensboro currently has not legislatively approved projects that it anticipates financing during the study period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNC Greensboro's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

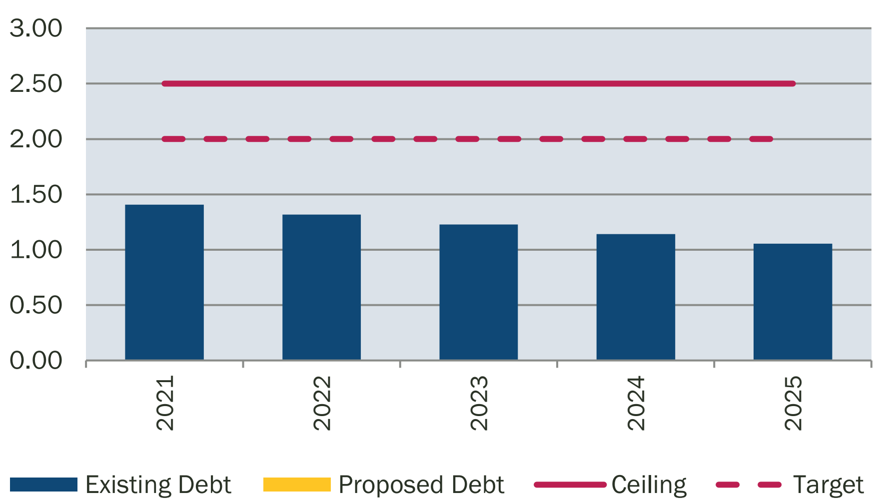
- Target Ratio: 2.00
- Ceiling Ratio: Not to exceed 2.50
- Projected 2021 Ratio: 1.41
- Highest Study Period Ratio: 1.41 (2021)

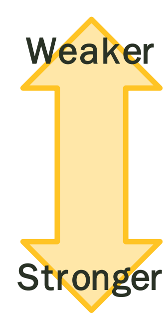
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	199,841,822	1.30%	281,324,876	-	1.41	n/a	1.41
2022	202,439,766	1.30%	266,699,321	-	1.32	n/a	1.32
2023	205,071,482	1.30%	251,540,442	-	1.23	n/a	1.23
2024	207,737,412	1.30%	237,208,770	-	1.14	n/a	1.14
2025	210,437,998	1.30%	222,224,071	-	1.06	n/a	1.06

Debt to Obligated Resources





5-Year Payout Ratio Overview

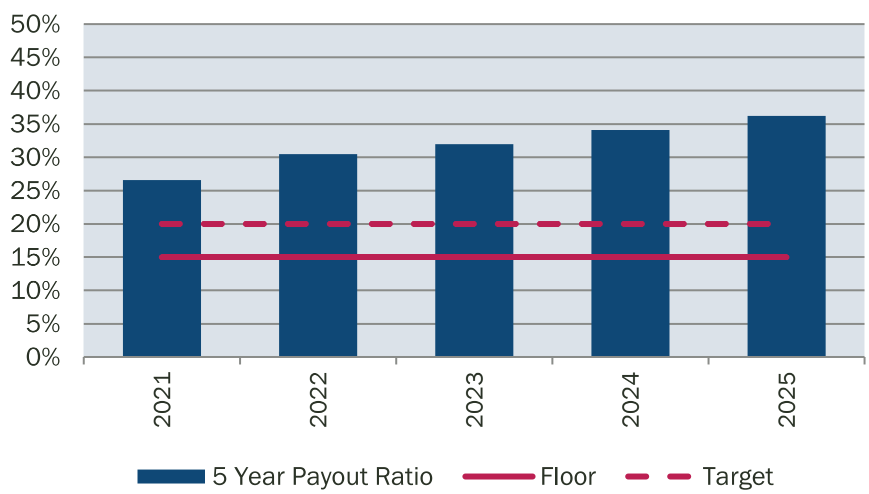
- **What does it measure?** The percentage of UNC Greensboro's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

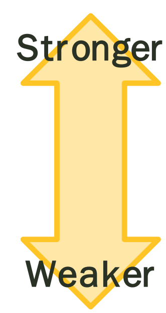
- Target Ratio: 20%
- Floor Ratio: Not less than 15%
- Projected 2021 Ratio: 27%
- Lowest Study Period Ratio: 27% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	281,324,876	27%
2022	266,699,321	30%
2023	251,540,442	32%
2024	237,208,770	34%
2025	222,224,071	36%

5-Year Payout Ratio





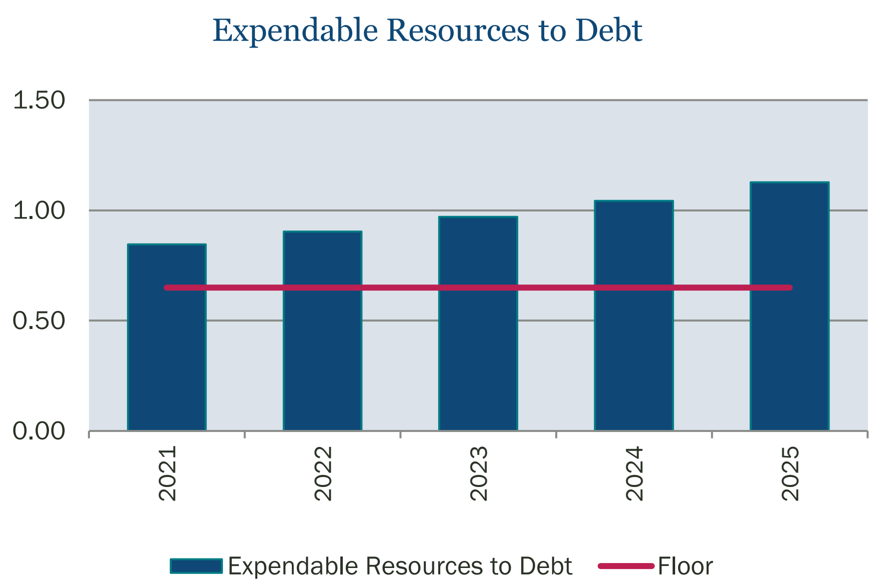
Expendable Resources to Debt

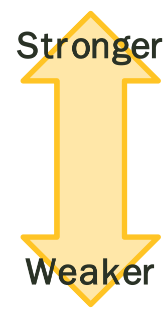
- **What does it measure?** The number of times UNC Greensboro's liquid and expendable net position cover its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

- Floor Ratio: Not less than 0.65x
- Projected 2021 Ratio: 0.85x
- Lowest Study Period Ratio: 0.85x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	238,063,142	-8.48%	281,324,876	-	0.85	0.85
2022	241,157,963	1.30%	266,699,321	-	0.90	0.90
2023	244,293,016	1.30%	251,540,442	-	0.97	0.97
2024	247,468,825	1.30%	237,208,770	-	1.04	1.04
2025	250,685,920	1.30%	222,224,071	-	1.13	1.13





Debt Service to Operating Expenses

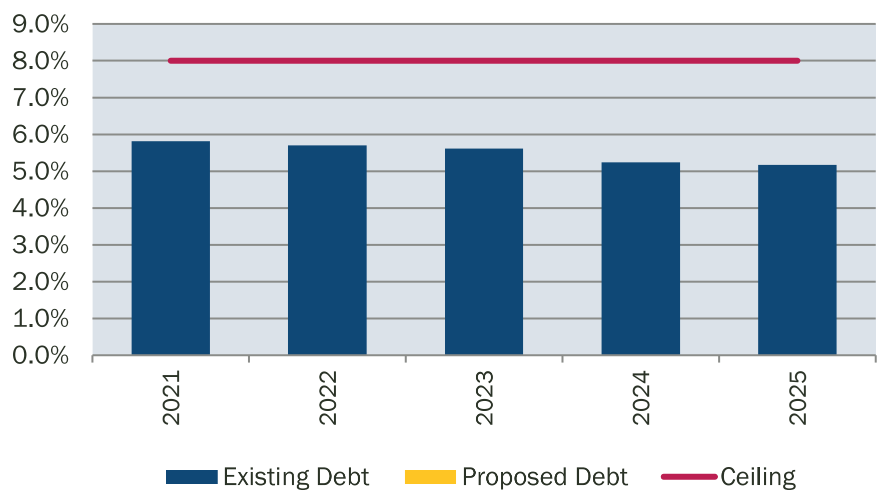
- **What does it measure?** UNC Greensboro's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service <u>divided by</u> annual operating expenses (as adjusted to include interest expense of proposed debt)

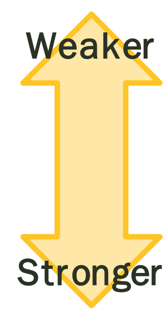
- Policy Ratio: Not to exceed 8.00%
- Projected 2021 Ratio: 5.81%
- Highest Study Period Ratio: 5.81% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	469,458,522	1.30%	27,292,915	-	5.81%	n/a	5.81%
2022	475,561,483	1.30%	27,107,402	-	5.70%	n/a	5.70%
2023	481,743,783	1.30%	27,036,545	-	5.61%	n/a	5.61%
2024	488,006,452	1.30%	25,569,490	-	5.24%	n/a	5.24%
2025	494,350,536	1.30%	25,578,097	-	5.17%	n/a	5.17%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNC Greensboro's debt capacity is based on the amount of debt UNC Greensboro could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNC Greensboro's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNC Greensboro's current estimated debt capacity is **$218,279,679.** After taking into account any legislatively approved projects detailed in **Section 3** above, if UNC Greensboro issued no additional debt until the last year of the Study Period, then UNC Greensboro's debt capacity for 2025 is projected to increase to **$303,870,924.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.41	2.50	218,279,679
2022	1.32	2.50	239,400,093
2023	1.23	2.50	261,138,264
2024	1.14	2.50	282,134,759
2025	1.06	2.50	303,870,924

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNC Greensboro's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" <u>does not</u> necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNC Greensboro were to use all of its calculated debt capacity during the Study Period, UNC Greensboro's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNC Greensboro could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **<u>Use of Multiple Factors</u>**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **<u>The State's Impact</u>**
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus

operations.

- Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
- If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNC Greensboro's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2009A	General Revenue Bonds	-	4/1/2019	Spring Garden Apts		Housing System
				Spring Garden Apts Parking Deck		Parking System
Series 2011	General Revenue & Refunding Bonds	4,925,000	4/1/2036	Highrise Roofs	2002A	Housing System
				Quad Renovations		Housing System
				Dining Hall Renovations		Dining System
Series 2012A	General Revenue and Revenue Refunding Bonds	17,365,000	4/1/2037	Track	2004C	Student Facilities
				Softball Stadium	2004C	Student Facilities
				Residence Hall Bath HVAC	2002A	Housing System
				Jefferson Suites Residence Hall		Housing System
				Moore/Strong Renovation	2004C	Housing System
				Jefferson Suites Dining	2004C	Dining System
				Dining Hall Roof	2004C	Dining System
				Campus Police Building		Auxiliary Administration
Series 2014	General Revenue Bonds	107,680,000	4/1/2039	Student Recreation Center		Student Facilities
				Spartan Village Phase I		Housing System
Series 2015	General Revenue Refunding Bond	6,709,000	4/1/2026	Baseball Stadium	2005A 2012B	Student Facilities
				Phillips-Hawkins Renovation	2005A 2012B	Housing System
				Residence Hall Wiring	2005A 2012B	Housing System
				Walker/McIver Parking Decks	2005A 2012B	Parking System
Series 2016	General Revenue Refunding Bonds	20,555,000	4/1/2034	Spring Garden Apartments	2009A	Housing System
				Spring Garden Apartments Parking Deck		Parking System
Series 2017	CFF Leases	8,766,913	4/1/2027	Theater Project Administrative Support Project		Appropriations, Auxiliary Admin, and Student Fees
Series 2017	General Revenue Refunding Bonds	77,175,000	4/1/2036	Quad Renovations		Student Facilities
				Dining Hall Renovations		Dining System
				Jefferson Suites Residence Hall		Housing System
				Jefferson Suites Dining		Dining System
				Campus Police Building		Auxiliary Administration
Series 2018	General Revenue Bonds	42,845,000	4/1/2043	Spartan Village Phase II		Housing System
Series 2020	General Revenue Refunding Bonds	9,548,000	4/1/2026	EUC Addition and Renovation	2010B-2	Student Facilities
				Soccer Stadium	2010B-2	Student Facilities
				Student Recreation Center	2010B-2	Student Facilities
				Oakland Parking Deck	2010B-2	Parking System
				EUC Addition - Dining Facilities	2010B-2	Dining System
Total		295,568,913				

7. Credit Profile

The following page provides a snapshot of UNC Greensboro's current credit ratings, along with (1) a summary of various credit factors identified in UNC Greensboro's most recent rating report and (2) recommendations for maintaining and improving UNC Greensboro's credit ratings in the future.

THE UNIVERSITY of NORTH CAROLINA GREENSBORO

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Aa3 rating on UNC Greensboro's general revenue bonds. The outlook is stable.
- Standard and Poor's maintains an A+ rating on UNC Greensboro's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Healthy support for operations and capital projects from the Aaa-rated State of North Carolina
- Moderate sized public university with favorable student demand
- Future financial reserve growth will should outperform previous years as a period of extensive capital investment concludes
- Track record of solid financial management and planning supports continued favorable operating performance

Credit Challenges

- State-imposed tuition pricing constraints limit pricing flexibility and will likely suppress tuition revenue growth
- While debt metrics has improved, elevated financial leverage could limit the ability to issue more debt without additional revenue growth and spendable cash and investments

Recommendations & Observations

- Pursue strategies, working within the existing statutory framework relating to reversions, to increase liquidity through growth in cash reserves.
- Continue to seek strategies to limit new debt in the near term while addressing critical infrastructure needs, in accordance with UNC Greensboro's existing debt policy and in service of UNC Greensboro's other strategic initiatives.
- During COVID, prudent financial management can maintain steady performance margins and liquidity reserves.

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina Greensboro	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Northern Arizona University	Portland State University	Florida Atlantic University	Ball State University		
Fiscal Year	2020	2019	2019	2019	2019		2019
Most Senior Rating	Aa3	A1	N/A	Aa3	Aa3		Aa3
Total Long-Term Debt ($, in millions)	296	595	225	238	390		437
Total Cash & Investments ($, in millions)	463	386	319	682	551		735
Operating Revenue ($, in millions)	441	565	502	567	509		691
Operating Expenses ($, in millions)	430	562	496	536	506		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	-1.8%	2.7%	2.2%	6.5%	1.4%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	10.2%	13.2%	8.8%	11.5%	8.5%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	1.1	0.7	0.6	1.3	1.1		1.0
Total Debt to Operating Expenses (x)	0.7	1.1	0.5	0.4	0.8		0.5
Monthly Days Cash on Hand (x)	101	155	149	192	225		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.6	0.6	1.4	2.9	1.4		1.6
Debt Service to Operating Expenses (%)	5.8%	9.3%	4.8%	1.6%	5.3%		4.5%
Total Debt-to-Cash Flow (x)	6.5	8.0	5.1	3.6	9.0		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

UNC Greensboro’s current debt policy is included in the following pages.

Financial Services Policy 13 – Debt Policy

A. Objectives:

1. Prudent utilization of debt to provide a low cost source of capital to fund capital projects and other strategic initiatives in order to achieve the University's mission and strategic objectives.
2. Management of the University's overall debt level in order to provide appropriate access to capital and to maintain a credit rating deemed acceptable by the Board. The minimum acceptable underlying rating for a University issue is the single "A" category by the major rating agencies.
3. Management of the University debt portfolio by balancing the goal of attaining the lowest cost of capital with the goal of minimizing interest rate risk.
4. Management of outstanding debt over time to achieve a low cost of capital and to take advantage of interest rate cycles and refunding opportunities.
5. Assure projects financed have a feasible plan of repayment.

B. Legal Authority for Financings

University financings will conform to the authority granted by North Carolina and Federal laws.

1. General Revenue Bonds

   The Board of Governors of the University of North Carolina is authorized under Chapter 116 of the General Statutes of North Carolina as amended, to issue, subject to the approval of the Director of Budget, at one time or from time to time, special obligation bonds of the Board, for the purpose of paying all or any part of the cost of acquiring, constructing or providing one or more capital facilities at UNCG or refunding any bonds issued under any provision of any Article of Chapter 116 for the benefit of UNCG.

2. Energy Savings Performance Contracts

   UNCG has the power, pursuant to Chapter 142, Article 8 of the General Statutes of North Carolina, to enter into installment financing contracts to finance the purchase of personal property, including equipment for energy savings projects. For energy savings projects, approval is required by the Office of State Budget and Management, the State Treasurer, the State Energy Office, and the Council of State.

3. Interest Rate Swaps

   Interest rate swaps and other derivative products are authorized under Chapter 159 of the General Statutes of North Carolina. In general, interest rate swaps are utilized to reduce the cost and/or risk of existing or planned University debt. By using swaps in a prudent manner, the University can take advantage of market opportunities to reduce debt service cost and/or interest rate risk. The use of swaps must be tied directly to University debt instruments. Swaps may not be utilized for speculative purposes.

C. Assignment of Responsibilities

1. The University takes a comprehensive team approach relative to managing debt. The "Debt Management Team" consists of the Vice Chancellor for Business Affairs (VC – Business Affairs), the Associate Vice Chancellor for Finance (AVC – Finance), the Director of Financial Planning & Budgets (Budget Director), the University Controller (Controller), the Bond Legal Counsel (Bond Counsel), and the Financial Advisor.
2. The VC – Business Affairs participates in the executive level capital planning for all University Facilities. For Self-liquidating Capital Projects, the VC – Business Affairs coordinates through the Associate Vice Chancellor for Facilities, the development and periodic updating of the self-liquidating capital projects multi-year plan, which is the basis for defining the debt needs.
3. The AVC – Finance works closely with the VC – Business Affairs and the Budget Director in the selection of the primary advisors on debt. These primary advisors are the Bond Counsel and the Financial Advisor, who are engaged for a period of years, upon approval by the Vice President for Finance of the University of North Carolina. It is the AVC – Finance's role to work with the Financial Advisor and assess debt capacity based on the current outstanding debt and any planned issues, including the multi-year Self-Liquidating Capital Projects plan. If it is determined that the University will reach its debt capacity from issuing debt on the proposed projects, then priorities and timing will be addressed with the VC – Business Affairs and the project owners to best meet the overall needs of the University. During the year, the Associate Vice Chancellor for Finance meets periodically with the Financial Advisor and/or Bond Counsel other members of the Management Team to discuss debt needs, opportunities and options, including any upcoming debt issues and/or refundings. If action is warranted, the entire team is pulled together to decide upon the merits and, if justified, to define a plan to accomplish the debt issuance, refunding, swap, liquidation or other initiative.
4. It is the Budget Director's primary role to assemble the project description and required financial and statistical information, review the official statements and to do the reporting required by the SEC (NRMSIR).
5. It is the role of the Financial Advisor and Bond Counsel to recommend the approach and financing instrument to best meet the needs of the University and to coordinate the RFP and selection of financial institutions and/or underwriters. The Bond Counsel secures the most favorable terms and covenants, and coordinates the preparation of legal documents with input and review by the Debt Management Team. The Financial Advisor coordinates the preparation of the details of the financing and insurance or other credit enhancements. The Financial Advisor also coordinates review and rating by the appropriate rating agencies.
6. It is the Controller's primary role to coordinate receipt and distribution of proceeds, payments to fiscal agents, allocations of debt service payments to project owners, arbitrage calculations and reporting, and financial reporting.

D. Debt Management Strategies

1. Fixed versus variable rate allocation

   The University will assess prevailing market interest rates and the current debt mix to determine whether to issue fixed or variable rate debt. Variable rate debt can provide a lower cost of capital, but introduces additional risks. To limit this risk, variable rate debt will be no more than 40% of the overall debt outstanding.

Variable rate exposure may be achieved directly through debt issuance or indirectly by entering into an interest rate swap contract.

2. Methods of Sale

The University will consider various methods of sale. Negotiated and competitive sales will be considered on an individual transaction basis. Issue size and complexity will be factors in determining which method of sale to pursue. A retail sales approach may be implemented if deemed appropriate for the particular transaction.

3. Purchase of Insurance or Credit Enhancement

The University will evaluate insurance and credit enhancement opportunities and utilize them if they are deemed cost effective.

4. Refunding Targets

The University will monitor its debt portfolio for refunding and/or restructuring opportunities. Advance refunding transactions must weigh the current opportunity against possible future refunding opportunities. In general, for a stand-alone refunding, the University will enter into a transaction that produces greater than 3% net present value savings, with this threshold higher for those transactions with a long escrow, such as advance refundings. The savings threshold can be less for refundings combined with new issues or other refundings, or for business reasons such as freeing up a reserve fund.

5. Selection of Underwriters and Participants on the Selling Team

The University will utilize a request for proposal process to select senior and co-managing underwriters for University debt issuance. The University will reserve the right to utilize a competitive process for any debt issue.

6. Efficiency of Issuance

The University will combine capital projects within a reasonable time horizon into a single issuance to save costs, to the extent that it is feasible. For small issues even after combining, the University of North Carolina bond pool will be utilized if the timing meets UNCG's needs and it is cost effective and efficient for UNCG. For larger issues, the bond pool will be utilized if significant cost savings can be realized as well as being efficient and timely for UNCG. Stand alone issues will be utilized when in the best interest of UNCG upon approval of the Vice President for Finance.

7. Integrity of Revenue Streams

The revenue system (housing & dining, or parking, or student fees, etc.) for each self-liquidating capital project must stand on its own bottom line, supported by a revenue stream that can fully liquidate the debt over the amortization period in a fiscally sound manner. Debt service costs will be allocated to the capital project owners in proportion to the projects participation in the borrowing.

8. Debt Service Leveling and Reserve for Variable Rate Debt Fluctuations

   The University will allocate debt service costs on capital projects funded with variable rate debt to the capital project owners on a fixed rate basis, effective at the time of issue, over the course of the amortization period. The differences between the allocation and the actual debt service will be placed in a reserve and returned to the project owners at the end of the amortization period. This is effectively an internal hedge to protect business operations from wide fluctuation in variable rates over the life of the debt with a leveling factor. Interest income will be allocated to the reserve.

E. Debt Compliance and Reporting

1. Continuing Disclosure Compliance

   The University will meet the ongoing disclosure requirements in accordance with SEC Rule 15c2-12 (NRMSIR). The University will submit all reporting required with respect to outstanding bonds or certificates of participation to which such Rule is applicable.

2. Arbitrage Rebate Compliance

   The University will comply with arbitrage requirements on invested tax-exempt bond proceeds. Arbitrage calculations will be performed as needed.

May 26, 2021

The University of North Carolina at Pembroke

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

The University of North Carolina at Pembroke

Institution Report

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "*Act*"), The University of North Carolina at Pembroke ("*UNCP*") has submitted this report (this "*Institution Report*") as part of the annual debt capacity study (the "*Study*") undertaken by The University of North Carolina (the "*University*") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNCP has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNCP, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNCP has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNCP's debt capacity reflects the amount of debt UNCP could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNCP intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNCP's current debt profile, including project descriptions financed with, and the sources of repayment for, UNCP's outstanding debt;
- UNCP's current credit profile, along with recommendations for maintaining or improving UNCP's credit rating; and
- A copy of any UNCP debt management policy currently in effect.

Overview of UNCP

For the fall 2019 semester, UNCP had a headcount student population of approximately 7,698, including 6,353 undergraduate students and 1,345 graduate students. For the 2019-20 academic year, UNCP employed approximately 347 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNCP's enrollment has increased approximately 19.5%.

UNCP's average age of plant is 14.22 years, which is lower than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNCP anticipates incurring approximately $4.4 million in additional debt during the Study Period, as summarized in **Section 3** below. UNCP has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 AND GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on UNCP's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNCP by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNCP expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate UNCP's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	31,301,966	5,138,782	-		36,440,748
2017	33,813,637	5,641,926	-	8.27%	39,455,563
2018	(106,329,518)	6,799,196	139,750,749	1.94%	40,220,427
2019	(105,387,130)	7,606,125	132,900,381	-12.68%	35,119,376
2020	(100,588,891)	10,879,256	125,915,733	3.09%	36,206,098
2021	36,676,778	-	-	1.30%	36,676,778
2022	37,153,576	-	-	1.30%	37,153,576
2023	37,636,572	-	-	1.30%	37,636,572
2024	38,125,848	-	-	1.30%	38,125,848
2025	38,621,484	-	-	1.30%	38,621,484

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	119,081,763	1,752,526	-		120,834,289
2017	122,942,369	(497,303)	-	1.33%	122,445,066
2018	120,516,620	(1,155,085)	1,798,622	-1.05%	121,160,157
2019	127,983,293	(806,929)	6,921,090	10.68%	134,097,454
2020	139,923,743	(3,273,131)	6,984,647	7.11%	143,635,259
2021	145,502,517	-	-	1.30%	145,502,517
2022	147,394,050	-	-	1.30%	147,394,050
2023	149,310,173	-	-	1.30%	149,310,173
2024	151,251,205	-	-	1.30%	151,251,205
2025	153,217,471	-	-	1.30%	153,217,471

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	2,284,333	1,877,979	4,162,312	49,216,835
2022	2,400,036	1,792,686	4,192,722	46,816,799
2023	2,541,668	1,702,671	4,244,339	44,275,131
2024	2,666,809	1,607,080	4,273,889	41,608,322
2025	4,045,615	1,507,017	5,552,632	37,562,707
2026	2,563,249	1,366,290	3,929,539	34,999,458
2027	2,709,882	1,266,779	3,976,661	32,289,576
2028	2,855,690	1,161,843	4,017,533	29,433,886
2029	3,020,858	1,051,205	4,072,063	26,413,028
2030	3,185,578	934,029	4,119,607	23,227,450
2031	3,360,050	810,340	4,170,390	19,867,400
2032	3,544,481	680,107	4,224,588	16,322,919
2033	3,634,087	542,855	4,176,942	12,688,832
2034	3,449,095	417,657	3,866,752	9,239,737
2035	3,484,737	302,941	3,787,678	5,755,000
2036	1,095,000	185,819	1,280,819	4,660,000
2037	875,000	151,450	1,026,450	3,785,000
2038	905,000	123,013	1,028,013	2,880,000
2039	930,000	93,600	1,023,600	1,950,000
2040	960,000	63,375	1,023,375	990,000
2041	990,000	32,175	1,022,175	-
2042			-	-
2043			-	-
2044			-	-

Notes

- Expendable Resources equals Unrestricted Net Assets plus Restricted, Expendable Net Assets plus Foundation Unrestricted Net Assets plus Foundation Temporarily Restricted Net Assets minus Restricted, Expendable Net Assets Restricted for Capital Projects.
- Unrestricted Net Assets has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	3,786,104	14,063,150	-	-	3,419,547	5,138,782	19,568,489	
2017	5,005,661	12,854,724	-	-	2,955,461	5,641,926	20,546,850	5.00%
2018	(135,809,916)	27,896,141	-	-	15,856,387	146,197,297	22,427,135	9.15%
2019	(130,771,882)	34,784,454			24,422,135	140,506,506	20,096,943	-10.39%
2020	(128,774,394)	35,439,514			19,673,938	136,794,989	23,786,171	18.36%
2021	8,124,863	35,900,227	-	-	19,929,699	-	24,095,391	1.30%
2022	8,230,486	36,366,930	-	-	20,188,785	-	24,408,631	1.30%
2023	8,337,483	36,839,700	-	-	20,451,239	-	24,725,944	1.30%
2024	8,445,870	37,318,616	-	-	20,717,106	-	25,047,381	1.30%
2025	8,555,666	37,803,759	-	-	20,986,428	-	25,372,997	1.30%

3. Proposed Debt Financings

The table below summarizes any legislatively approved projects that UNCP expects to finance during the Study Period. Using the assumptions outlined in the table below, the model has developed a tailored, but conservative, debt service schedule for each proposed financing and incorporated each pro forma debt service schedule into its calculations of the financial ratios as detailed in **Section 4** of this Institution Report.

UNCP Proposed Debt Financings

Year	Use of Funds	Borrowing Amount	Term	Source of Repayment
2021	Campus Rec/Baseball Softball Outdoor Complex	4,400,000	30	Debt Service Fee
Total		4,400,000		

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNCP's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

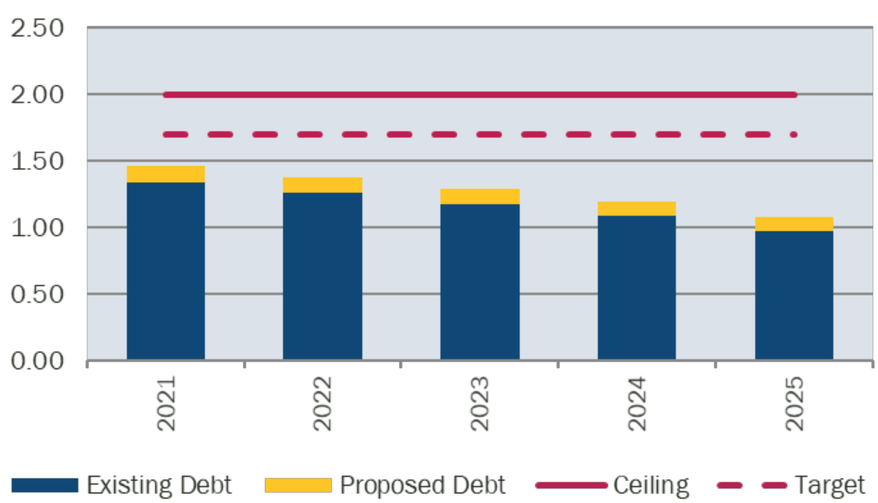
- Target Ratio: 1.70
- Ceiling Ratio: Not to exceed 2.00
- Projected 2021 Ratio: 1.46
- Highest Study Period Ratio: 1.46 (2021)

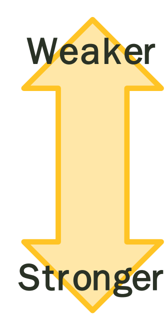
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	36,676,778	1.30%	49,216,835	4,400,000	1.34	0.12	1.46
2022	37,153,576	1.30%	46,816,799	4,299,938	1.26	0.12	1.38
2023	37,636,572	1.30%	44,275,131	4,197,364	1.18	0.11	1.29
2024	38,125,848	1.30%	41,608,322	4,092,216	1.09	0.11	1.20
2025	38,621,484	1.30%	37,562,707	3,984,429	0.97	0.10	1.08

Debt to Obligated Resources





5-Year Payout Ratio Overview

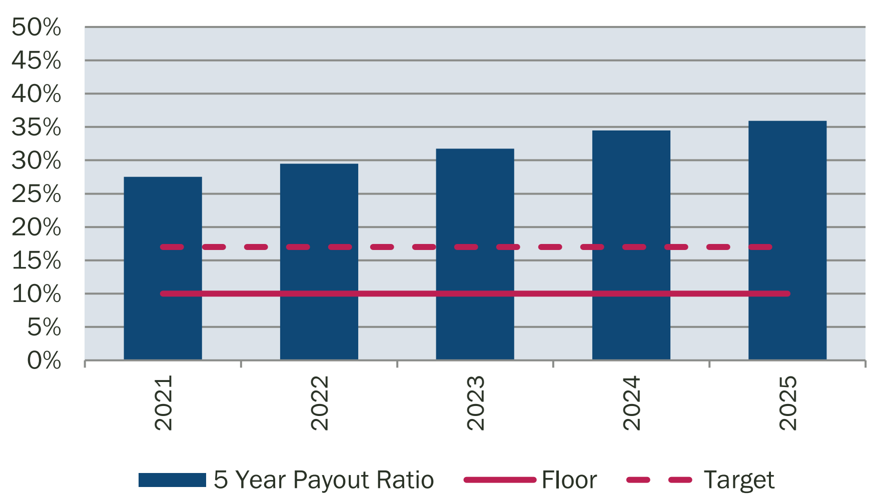
- **What does it measure?** The percentage of UNCP's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

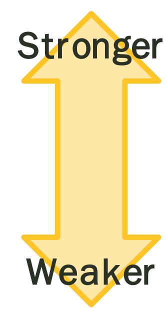
- Target Ratio: 17%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 27%
- Lowest Study Period Ratio: 27% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	53,616,835	27%
2022	51,116,737	29%
2023	48,472,495	32%
2024	45,700,538	34%
2025	41,547,136	36%

5-Year Payout Ratio





Expendable Resources to Debt

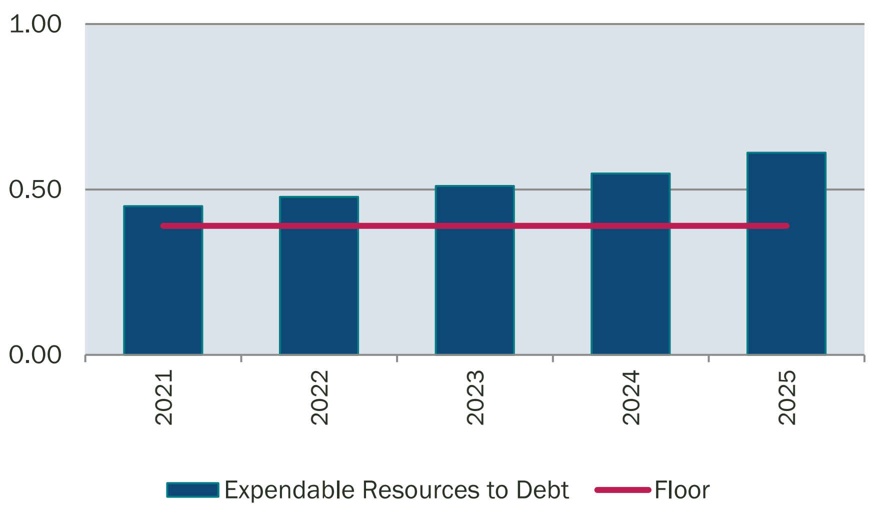
- **What does it measure?** The number of times UNCP's liquid and expendable net assets covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

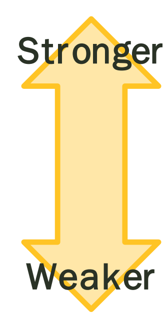
- Floor Ratio: Not less than 0.39x
- Projected 2021 Ratio: 0.45x
- Lowest Study Period Ratio: 0.45x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	24,095,391	1.30%	49,216,835	4,400,000	0.49	0.45
2022	24,408,631	1.30%	46,816,799	4,299,938	0.52	0.48
2023	24,725,944	1.30%	44,275,131	4,197,364	0.56	0.51
2024	25,047,381	1.30%	41,608,322	4,092,216	0.60	0.55
2025	25,372,997	1.30%	37,562,707	3,984,429	0.68	0.61

Expendable Resources to Debt





Debt Service to Operating Expenses

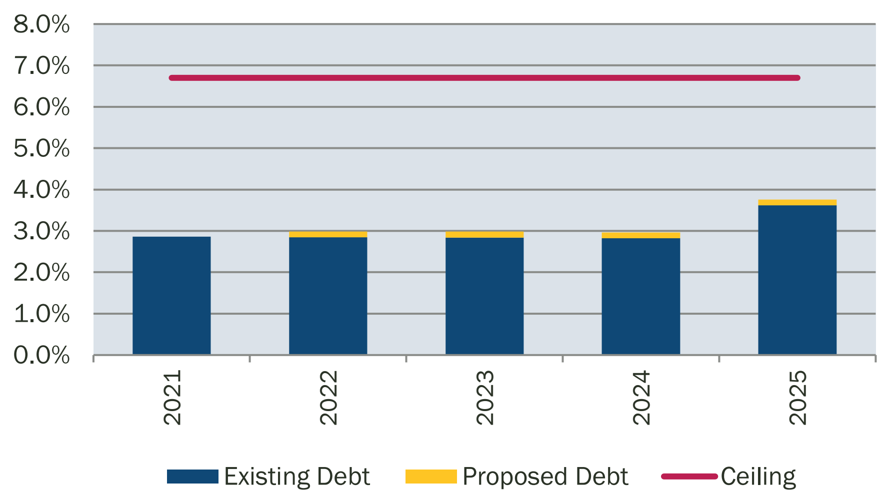
- **What does it measure?** UNCP's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

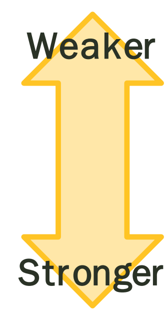
- Policy Ratio: Not to exceed 6.70%
- Projected 2021 Ratio: 2.86%
- Highest Study Period Ratio: 3.76% (2025)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	145,502,517	1.30%	4,162,312	-	2.86%	n/a	2.86%
2022	147,504,490	1.30%	4,192,722	210,502	2.84%	0.14%	2.99%
2023	149,418,101	1.30%	4,244,339	210,502	2.84%	0.14%	2.98%
2024	151,356,559	1.30%	4,273,889	210,502	2.82%	0.14%	2.96%
2025	153,320,185	1.30%	5,552,632	210,502	3.62%	0.14%	3.76%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNCP's debt capacity is based on the amount of debt UNCP could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNCP's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNCP's current estimated debt capacity is **$19,736,720.** After taking into account any legislatively approved projects detailed in **Section 3** above, if UNCP issued no additional debt until the last year of the Study Period, then UNCP's debt capacity for 2025 is projected to increase to **$35,695,832.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.46	2.00	19,736,720
2022	1.38	2.00	23,190,415
2023	1.29	2.00	26,800,649
2024	1.20	2.00	30,551,157
2025	1.08	2.00	35,695,832

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNCP's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNCP were to use all of its calculated debt capacity during the Study Period, UNCP's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNCP could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **The State's Impact**
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it

has historically provided to the institution, and any legislation or policies affecting campus operations.

  - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
  - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNCP's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2008A	UNC System Pool Revenue Bonds	1,425,000	10/1/2033	Athletic Fieldhouse		Auxiliary Revenues
Series 2015	Promissory Note (PNC Student Health Building)	3,065,000	4/1/2025	Student Health Services Building Auxiliary Services Building		Auxiliary Revenues
Series 2017	Refunding Limited Obligation Bond	13,390,000	3/1/2036	University Village Apartments Oak Hall	2004 2006	Housing Lease Revenues Housing Lease Revenues
Series 2019	Limited Obligation Bonds	14,920,000	3/1/2041	Cypress Hall	2010B	Housing Lease Revenues
Series 2019A	Student Housing Revenue Bonds	6,312,167	6/1/2031	Courtyard Project	2001A	Housing Lease Revenues
Series 2019B	Student Housing Revenue Bonds	12,389,000	6/1/2035	Courtyard Project Phase II		Housing Lease Revenues
Total		51,501,168				

7. Credit Profile

The following page provides a snapshot of UNCP's current credit ratings, along with (1) a summary of various credit factors identified in UNCP's most recent rating report and (2) recommendations for maintaining and improving UNCP's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Standard and Poor's maintains an A- issuer credit rating for UNCP. The outlook is negative.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Reports

Credit Strengths

- Historically strong, albeit recently reduced, state operating and capital support from North Carolina
- Enrollment and demand likely to remain stable or grow modestly

Credit Challenges

- Small financial cushion and less flexibility at the current rating level
- Lost revenue streams as a result of the COVID-19 pandemic
- Heavy reliance on state appropriations
- Operating performance that is generally negative on a full-accrual basis, albeit positive on a cash basis.

Note: S&P has not updated their issuer credit rating (ICR) for UNCP since 2014. The information above represents S&P's 2019 analysis of UNCP's 2010B Bond and S&P's 2020 revision of outlooks for universities in light of the COVID-19 pandemic.

Recommendations & Observations

- Continue to develop and implement strategies and policies to meet UNCP's unique challenges, including strategies to stabilize and improve enrollment and revenue.
- Due to the COVID pandemic, S&P's negative outlook to a number of colleges, including UNCP, is based on a lack of financial cushion to absorb revenue reductions, thinner operating margins and lack of liquidity from worsening economic conditions.

8. Peer Comparison

Standard and Poor's Key Credit Ratios	University of North Carolina Pembroke	Most Recent Peer Institution Data			Standard and Poor's Public Higher Education Medians
Peer Insitution		Illinois State University	Pittsburg State University	University of Northern Colorado	
Fiscal Year	2018	2018	2018	2019	
Most Senior Rating	A-	A-	A-	A-	A-
Outstanding Debt ($, in millions)	63	155	54	147	153
Total Cash & Investments ($, in millions)	58	199	28	49	99
Operating Revenue ($, in millions)	134	719	111	260	300
Operating Expenses ($, in millions)	134	670	115	268	289
Operating Ratios					
Net Operating Income to Operating Expenses (x)	0.26%	7.30%	-3.53%	-2.95%	-0.24%
Wealth & Liquidity Ratios					
Total Cash & Investments to Operating Expenses (x)	0.43	0.3	0.2	0.2	0.3
Total Debt to Operating Expenses (x)	0.47	0.2	0.5	0.5	0.5
Leverage Ratios					
Total Cash & Investments to Total Debt (x)	0.92	1.3	0.5	0.3	0.6
Debt Service to Operating Expenses (%)	4.7%	2.1%	5.4%	4.7%	4.7%

*Note: Peers chosen from BOG approved peers if rated by Standard and Poor’s. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

UNCP's current debt policy is included in the following pages.

POL 07.35.01
Debt Management Policy

Authority: Board of Trustees

History:
- First Issued: 2017

Related Policies:

Additional References:
- NCGS §116D-55 - Managing Debt Capacity
- NCGS §116D-56 - Debt affordability study required

Contact Information: Vice Chancellor for Finance and Administration, 910-775-6209

1. INTRODUCTION

1.1 The University of North Carolina at Pembroke ("UNCP") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the realization of UNCP's mission and, consequently, the successful implementation of UNCP's strategic vision to challenge students to embrace difference and adapt to change, think critically, communicate effectively, and become responsible citizens. UNCP recognizes the important role that debt-related strategies may play as it makes the necessary investments in its infrastructure in order to become and remain the destination institution for dedicated students seeking challenging academic programs, engaged faculty and a vibrant campus culture.

1.2 This Policy has been developed to assist UNCP's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with UNCP's stated policies, objectives and core values. Like other limited resources, UNCP's debt capacity should be used and allocated strategically and equitably.

1.3 Specifically, the objective of this Policy is to provide a framework that will enable UNCP's Board of Trustees (the "Board") and finance staff to:

1.3.a. Identify and prioritize projects eligible for debt financing;

1.3.b. Limit and manage risk within UNCP's debt portfolio;

1.3.c. Establish debt management guidelines and quantitative parameters for evaluating UNCP's financial health, debt affordability and debt capacity;

1.3.d. Manage and protect UNCP's credit profile in order to maintain UNCP's credit rating at a strategically optimized level and maintain access to the capital markets; and

1.3.e. Ensure UNCP remains in compliance with all of its post-issuance obligations and requirements.

1.4 This Policy is intended solely for UNCP's internal planning purposes. The Vice Chancellor for Finance and Administration will review this Policy annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Policy are subject to the Board's approval. <u>Attaining or maintaining a specific credit rating is not an objective of this Policy</u>.

2. AUTHORIZATION AND OVERSIGHT

2.1 UNCP's Vice Chancellor for Finance and Administration is responsible for the day-to-day management of UNCP's financial affairs in accordance with the terms of this Policy and for all of UNCP's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

2.2 The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. PROCESS FOR IDENTIFYING AND PRIORITIZING CAPITAL PROJECTS REQUIRING DEBT

3.1 Only projects that directly or indirectly relate to the mission and vision of UNCP will be considered for debt financing.

3.1.a. Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies, sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

3.1.b. Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

3.1.c. Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be jointly approved by the Vice Chancellor for Finance and Administration and the Vice Chancellor for Advancement before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. BENCHMARKS AND DEBT RATIOS

4.1 Overview

4.1.1 When evaluating its current financial health and any proposed plan of finance, UNCP takes into account both its debt affordability and its debt capacity. Debt affordability focuses on UNCP's cash flows and measures UNCP's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between UNCP's net assets and its total debt outstanding.

4.1.2 Debt capacity and affordability are impacted by a number of factors, including UNCP's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, UNCP's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

4.1.3 UNCP understands, however, that it is important to consider and monitor objective metrics when evaluating UNCP's financial health and its ability to incur additional debt. To that end, UNCP has identified three key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

4.1.3.a. Debt to Obligated Resources

4.1.3.b. Expendable Resources to Debt

4.1.3.c. Debt Service to Operating Expenses

4.1.4 Note that the selected financial ratios are also monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which UNCP believes will promote clarity and consistency in UNCP's debt management and planning efforts.

4.1.5 UNCP has established for each ratio a floor or ceiling target, as the case may be, with the expectation that UNCP will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Policy should align with the ratios used in the report UNCP submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve UNCP's financial health and operating flexibility and to ensure UNCP is able to access the market to address capital needs or to take advantage of potential refinancing opportunities.

4.1.6 UNCP recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of UNCP's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, UNCP has developed as part of this Policy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when UNCP has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Policy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

4.1.6.a. The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

4.1.6.b. The proposed project would be financed entirely with private donations based on pledges already in hand.

4.1.6.c. The proposed project is essential to the implementation of one of the Board's strategic priorities.

4.1.6.d. The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

4.1.6.e. Foregoing or delaying the proposed project would result in significant additional costs to UNCP or would negatively impact UNCP's credit rating.

At no point, however, should UNCP intentionally operate outside an established policy ratio without conscious and explicit planning.

4.2 Ratio One – Debt to Obligated Resources

4.2.1 The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of UNCP's ability to absorb debt on its balance sheet and is the primary ratio used to calculate UNCP's "debt capacity" under the methodology used in the UNC Debt Capacity Study

4.2.2 Policy Ratio: Not to exceed 2.00x (UNC Debt Capacity Study Target Ratio = 1.50x)

4.3 Ratio Two – Expendable Resources to Debt

4.3.1 The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses UNCP's ability to settle its debt obligations using only its available net assets as of a particular date

4.3.2 Policy Ratio: Not less than 0.39x

4.4 Ratio Three – Debt Service to Operating Expenses

4.4.1 The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates UNCP's relative cost of borrowing to its overall expenditures and provides a measure of UNCP's budgetary flexibility

4.4.2 Policy Ratio: Not to exceed 6.70%

4.5 Reporting

4.5.1 The Vice Chancellor for Finance and Administration will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the

Board detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. DEBT PORTFOLIO MANAGEMENT AND TRANSACTION STRUCTURE CONSIDERATIONS

5.1 Generally

5.1.1 Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Finance and Administration within the context of this Policy and the overall portfolio to ensure that any financial product or structure is consistent with UNCP's stated objectives. As part of effective debt management, UNCP must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

5.2 Method of Sale

5.2.1 UNCP will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves UNCP's strategic plan and financing objectives. In making that determination, UNCP will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect UNCP's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

5.3 Tax Treatment

5.3.1 When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce UNCP's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates UNCP's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

5.4 Structure and Maturity

5.4.1 To the extent practicable, UNCP should structure its debt to provide for level annual payments of debt service, though UNCP may elect alternative structures when the Vice Chancellor for Finance and Administration determines it to be in UNCP's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

5.4.2 UNCP will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

5.5 Variable Rate Debt

5.5.1 UNCP recognizes that a degree of exposure to variable interest rates within UNCP's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from UNCP's assets. UNCP's debt portfolio should be managed to ensure that no more than 20% of UNCP's total debt bears interest at an unhedged variable rate.

5.5.2 UNCP's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. UNCP may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. UNCP may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

5.6 Public-Private Partnerships (P3)

5.6.1 To address UNCP's anticipated capital needs as efficiently and prudently as possible, UNCP may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

5.6.2 Due to the higher perceived risk and increased complexity of P3 Arrangements, and because the cash flows for the project must satisfy the private partner's expected risk-adjusted rate of return, the financing and initial transaction costs for projects acquired through P3 Arrangements are generally higher than projects financed with proceeds of traditional debt instruments. P3 Arrangements should therefore be pursued only when UNCP has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with UNCP's core mission).

5.6.3 Absent a compelling strategic reason to the contrary, P3 Arrangements should not be considered if the Vice Chancellor for Finance and Administration determines, in consultation with UNCP's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by UNCP's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider UNCP's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on UNCP's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, UNCP or a UNCP affiliate must be approved in advance by the Vice Chancellor for Finance and Administration.

5.7 Refunding Considerations

5.7.1 UNCP will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, UNCP should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of UNCP ("Refunding Bonds") using the following general guidelines:

5.7.1.a. The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

5.7.1.b. Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

5.7.1.c. Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

5.7.1.d. Refunding Bonds may also be issued to relieve UNCP of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. DERIVATIVE PRODUCTS

6.1 UNCP recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit UNCP to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. UNCP will use derivatives only to manage and mitigate risk; UNCP will not use derivatives to create leverage or engage in speculative transactions.

6.2 As with underlying debt, UNCP's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Finance and Administration must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that UNCP's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

6.3 UNCP will use derivatives only when the Vice Chancellor for Finance and Administration determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing UNCP's strategic objectives without imposing inappropriate risks on

UNCP.

7. DEFINITIONS

7.1 Debt to Obligated Resources - UNCP’s aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes. It is calculated by taking Aggregate debt and dividing it by obligated resources[1]

7.2 Expendable Resources to Debt - The number of times UNCP’s liquid and expendable net assets covers its aggregate debt. It is calculated as follows: The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

7.3 Expendable Resources to Debt - UNCP’s debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.

1 Available Funds - a concept commonly used to capture each UNC campus’s obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of UNCP’s obligated resources.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

University of North Carolina Wilmington

Institution Report

University of North Carolina Wilmington

Table of Contents

1. Executive Summary

<u>Overview of the Institution Report</u>

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "*Act*"), University of North Carolina Wilmington ("*UNCW*") has submitted this report (this "*Institution Report*") as part of the annual debt capacity study (the "*Study*") undertaken by The University of North Carolina (the "*University*") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNCW has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNCW, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNCW has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNCW's debt capacity reflects the amount of debt UNCW could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNCW intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNCW's current debt profile, including project descriptions financed with, and the sources of repayment for, UNCW's outstanding debt;
- UNCW's current credit profile, along with recommendations for maintaining or improving UNCW's credit rating; and
- A copy of any UNCW debt management policy currently in effect.

<u>Overview of UNCW</u>

For the fall 2019 semester, UNCW had a headcount student population of approximately 17,499, including approximately 14,785 undergraduate students and 2,714 graduate students. UNCW employs approximately 1,078 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNCW's enrollment has increased approximately 17.3%.

UNCW's average age of plant is 15.27 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNCW anticipates incurring no additional debt during the Study Period. UNCW has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on UNCW's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNCW by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNCW expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below overstate UNCW's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	174,716,226	11,657,030	-		186,373,256
2017	190,889,259	12,189,121	-	8.96%	203,078,380
2018	(135,795,746)	14,057,082	330,232,779	2.67%	208,494,115
2019	(126,996,436)	15,000,984	314,686,525	-2.78%	202,691,073
2020	(120,543,758)	22,963,235	304,443,579	2.06%	206,863,056
2021	209,552,276	-	-	1.30%	209,552,276
2022	212,276,455	-	-	1.30%	212,276,455
2023	215,036,049	-	-	1.30%	215,036,049
2024	217,831,518	-	-	1.30%	217,831,518
2025	220,663,328	-	-	1.30%	220,663,328

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	287,627,942	3,789,853	-		291,417,795
2017	300,800,609	(524,109)	-	3.04%	300,276,500
2018	323,721,787	(1,319,913)	2,325,505	8.14%	324,727,379
2019	331,093,641	(939,574)	14,670,617	6.19%	344,824,684
2020	350,511,186	(7,955,430)	10,243,854	2.31%	352,799,610
2021	357,386,005	-	-	1.30%	357,386,005
2022	362,032,023	-	-	1.30%	362,032,023
2023	366,738,439	-	-	1.30%	366,738,439
2024	371,506,039	-	-	1.30%	371,506,039
2025	376,335,618	-	-	1.30%	376,335,618

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	9,911,105	7,999,649	17,910,754	201,546,230
2022	9,993,718	7,731,210	17,724,928	191,552,512
2023	10,457,965	7,353,230	17,811,195	181,094,547
2024	9,855,862	7,023,443	16,879,305	171,238,685
2025	10,175,071	6,627,947	16,803,018	161,063,614
2026	10,491,743	6,243,093	16,734,837	150,571,871
2027	10,088,642	5,869,870	15,958,513	140,483,228
2028	10,473,939	5,501,534	15,975,473	130,009,289
2029	8,977,504	5,077,824	14,055,327	121,031,785
2030	10,113,785	4,639,637	14,753,422	110,918,000
2031	9,694,000	4,267,754	13,961,754	101,224,000
2032	10,113,000	3,850,649	13,963,649	91,111,000
2033	10,537,000	3,415,226	13,952,226	80,574,000
2034	10,964,000	2,993,781	13,957,781	69,610,000
2035	10,855,000	2,535,025	13,390,025	58,755,000
2036	11,305,000	2,067,500	13,372,500	47,450,000
2037	9,835,000	1,593,100	11,428,100	37,615,000
2038	7,460,000	1,212,900	8,672,900	30,155,000
2039	4,275,000	969,575	5,244,575	25,880,000
2040	4,440,000	810,850	5,250,850	21,440,000
2041	2,010,000	697,000	2,707,000	19,430,000
2042	2,075,000	630,950	2,705,950	17,355,000
2043	2,145,000	562,650	2,707,650	15,210,000
2044	2,220,000	492,000	2,712,000	12,990,000
2045	2,290,000	418,850	2,708,850	10,700,000
2046	2,365,000	343,350	2,708,350	8,335,000
2047	2,440,000	265,350	2,705,350	5,895,000
2048	2,525,000	184,750	2,709,750	3,370,000
2049	2,605,000	101,400	2,706,400	765,000
2050	765,000	15,300	780,300	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projected period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	97,181,998	32,356,514	786,722	2,233,892	3,207,437	11,657,030	141,008,719	
2017	103,453,532	43,703,885	900,714	2,435,831	6,844,438	12,189,121	155,838,645	10.52%
2018	(219,002,041)	45,689,162	989,910	2,416,065	3,153,259	344,289,861	171,229,698	9.88%
2019	(211,566,310)	123,466,571	1,117,718	2,351,930	68,548,910	329,687,509	176,508,508	3.08%
2020	(226,689,413)	104,005,159	1,143,075	4,344,702	50,439,375	327,406,814	159,770,962	-9.48%
2021	88,631,313	91,524,540	1,005,906	3,823,338	44,386,650	-	140,598,447	-12.00%
2022	89,783,520	92,714,359	1,018,983	3,873,041	44,963,676	-	142,426,226	1.30%
2023	90,950,706	93,919,646	1,032,230	3,923,391	45,548,204	-	144,277,767	1.30%
2024	92,133,065	95,140,601	1,045,649	3,974,395	46,140,331	-	146,153,378	1.30%
2025	93,330,795	96,377,429	1,059,242	4,026,062	46,740,155	-	148,053,372	1.30%

3. Proposed Debt Financings

While UNCW evaluates its capital investment needs on a regular basis, UNCW currently has no legislatively approved projects that it anticipates financing during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNCW's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

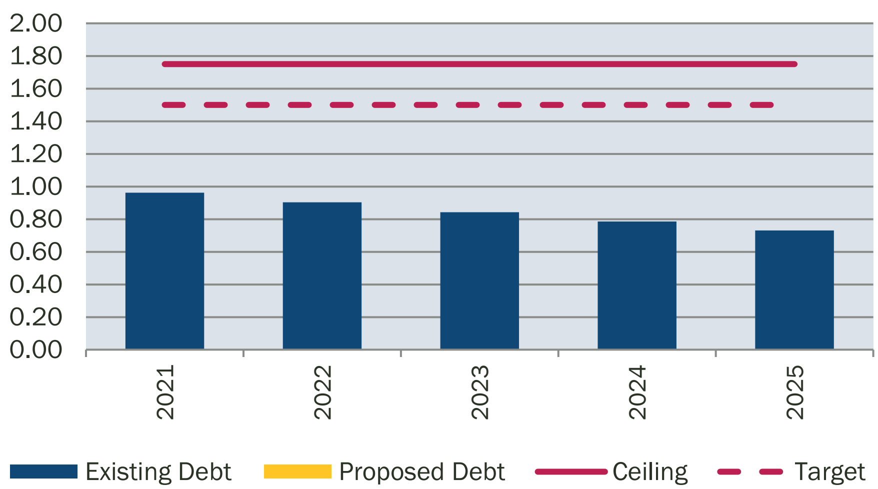
- Target Ratio: 1.50
- Ceiling Ratio: Not to exceed 1.75
- Projected 2021 Ratio: 0.96
- Highest Study Period Ratio: 0.96 (2021)

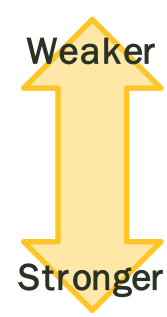
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	209,552,276	1.30%	201,546,230	-	0.96	n/a	0.96
2022	212,276,455	1.30%	191,552,512	-	0.90	n/a	0.90
2023	215,036,049	1.30%	181,094,547	-	0.84	n/a	0.84
2024	217,831,518	1.30%	171,238,685	-	0.79	n/a	0.79
2025	220,663,328	1.30%	161,063,614	-	0.73	n/a	0.73

Debt to Obligated Resources





5-Year Payout Ratio Overview

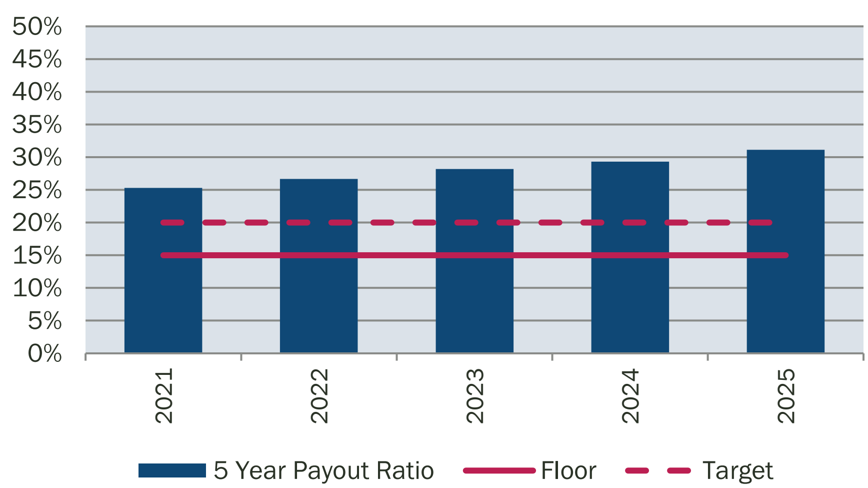
- **What does it measure?** The percentage of UNCW's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

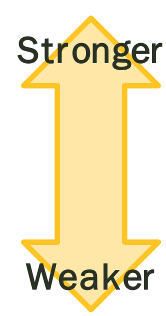
- Target Ratio: 20%
- Floor Ratio: Not less than 15%
- Projected 2021 Ratio: 25%
- Lowest Study Period Ratio: 25% (2021)

5-Year Payout Ratio

	5 Year Payout Ratio	
Fiscal Year	Principal Balance	Ratio
2021	201,546,230	25%
2022	191,552,512	27%
2023	181,094,547	28%
2024	171,238,685	29%
2025	161,063,614	31%

5-Year Payout Ratio





Expendable Resources to Debt

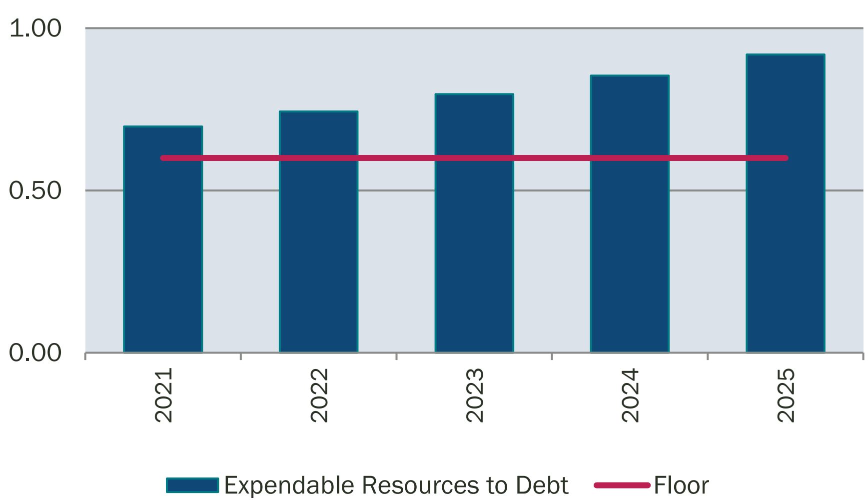
- **What does it measure?** The number of times UNCW's liquid and expendable Net Position cover its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

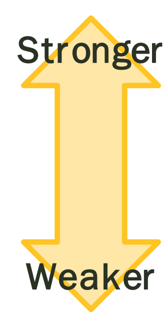
- Floor Ratio: Not less than 0.60x
- Projected 2021 Ratio: 0.70x
- Lowest Study Period Ratio: 0.70x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	140,598,447	-12.00%	201,546,230	-	0.70	0.70
2022	142,426,226	1.30%	191,552,512	-	0.74	0.74
2023	144,277,767	1.30%	181,094,547	-	0.80	0.80
2024	146,153,378	1.30%	171,238,685	-	0.85	0.85
2025	148,053,372	1.30%	161,063,614	-	0.92	0.92

Expendable Resources to Debt





Debt Service to Operating Expenses

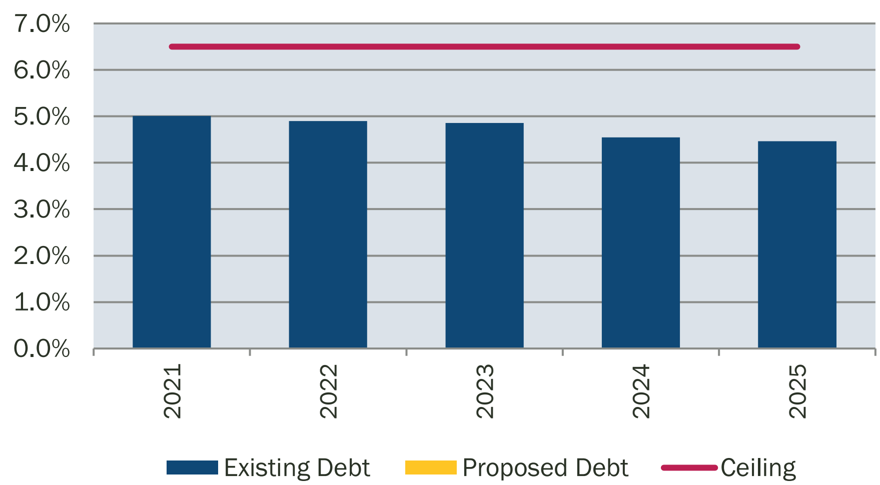
- **What does it measure?** UNCW's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

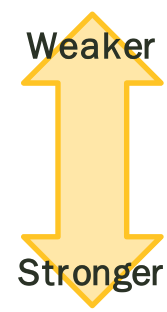
- Policy Ratio: Not to exceed 6.50%
- Projected 2021 Ratio: 5.01%
- Highest Study Period Ratio: 5.01% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	357,386,005	1.30%	17,910,754	-	5.01%	n/a	5.01%
2022	362,032,023	1.30%	17,724,928	-	4.90%	n/a	4.90%
2023	366,738,439	1.30%	17,811,195	-	4.86%	n/a	4.86%
2024	371,506,039	1.30%	16,879,305	-	4.54%	n/a	4.54%
2025	376,335,618	1.30%	16,803,018	-	4.46%	n/a	4.46%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNCW's debt capacity is based on the amount of debt UNCW could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNCW's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNCW's current estimated debt capacity is **$165,170,252.** After taking into account any legislatively approved projects detailed in **Section 3** above, if UNCW issued no additional debt until the last year of the Study Period, then UNCW's debt capacity for 2025 is projected to increase to **$225,097,209.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	0.96	1.75	165,170,252
2022	0.90	1.75	179,931,285
2023	0.84	1.75	195,218,539
2024	0.79	1.75	209,966,471
2025	0.73	1.75	225,097,209

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of UNCW's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNCW were to use all of its calculated debt capacity during the Study Period, UNCW's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNCW could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **Use of Multiple Factors**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **The State's Impact**
    - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it

has historically provided to the institution, and any legislation or policies affecting campus operations.
    - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
    - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
- **Factor Interdependence**
    - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
    - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
    - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
    - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

UNCW's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2015	Refunding Limited Obligation Bonds	52,975,000	6/1/2037	Seahawk Village	2005 COPs	Net Revenues of Seahawk Projects, Dorm, Dining, and Parking Revenues
				Seahawk Landing	2006 COPs	
Series 2016	General Revenue Refunding Bond	8,786,000	10/1/2033	Student Union	2006A	Union Debt Fee
				Parking	2006A	Parking Fees
				Wagoner Dining Hall	2006A	Dining Revenues
				Student Dorms	2006A	Housing Rents
Series 2016	Refunding Limited Obligation Bonds	57,235,000	6/1/2038	Seahawk Crossing	2008 COPs	Net Revenues of Seahawk Projects, Dorm, Dining, & Parking Revenues
				Parking Deck		
Series 2019	Parking Deck	21,350,000	4/1/2049	Parking Deck		Parking Revenues
Series 2019B	General Revenue Refunding Bond	41,395,000	10/1/2049	MARBIONC Facility	2010	General Revenues
				Student Recreation Center	2010D	Rec Center Debt Fee
				Dining Hall		Dining Revenues
Series 2020A	General Revenue Refunding Bond; Dining Facility (New Project)	11,180,000	10/1/2026	Student Recreation Center	2010C / 2002A	Rec Center Debt Fee
				Student Dorms	2010C / 2002A	Housing Rents
				Student Union	2010C / 2003A	Union Debt Fee
				Student Recreation Center	2010C / 2003A	Rec Center Debt Fee
				Dining Facility		Dining Revenues
Series 2020B	General Revenue Refunding Bond	15,868,000	1/1/2028	Student Dorm Renovations	2011	Housing Rents
				Wagoner Dining Hall Renovation	2011	Dining Revenues
				Student Union	2012 / 2003A	Union Debt Fee
College Station Note	Note Payable	369,028	11/5/2022	Osher Life Long Learning Center		Dining Revenues
Truist Hall Note	Note Payable	1,005,573	6/10/2029	Truist Hall		Unobligated Trust Funds
Misc Leases	Note Payable	1,293,733	FY 2026	Laboratory Modulars		Unobligated Trust Funds
				Laundry Equipment		Housing Rents
				Printers		Auxiliary Revenues
Total		211,457,334				

*The 2015 and 2016 Limited Obligation Bonds are obligations of the UNCW Corporation, and the College Station note payable is an obligation of the UNCW Corporation II. Both corporations are associated entities of UNCW whose financials are blended into UNCW's statements.

7. Credit Profile

The following page provides a snapshot of UNCW's current credit ratings, along with (1) a summary of various credit factors identified in UNCW's most recent rating report and (2) recommendations for maintaining and improving UNCW's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains UNCW's general revenue bonds to an Aa3 rating. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Favorable market profile with growing enrollment, competitive pricing, and comprehensive program offerings
- Strong financial support from Aaa-rated North Carolina for both operating and capital projects
- 4% enrollment growth from Fall 2019 and solid retention rates
- Effective financial management allowing the favorable operating performance and growing liquidity

Credit Challenges

- High debt burden relative to reserves, operating revenue, and cash flow
- Environmental risks due to coastal location
- State-imposed tuition pricing puts constraints to tuition revenue growth
- Geographic concentration of enrollment and undergraduate focus increase exposure to conditions within North Carolina

Recommendations & Observations

- Continue to develop initiatives to highlight and strengthen UNCW's distinctive market position.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina Wilmington	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Rowan University	University of Rhode Island	Ohio University	Western Washington University		
Fiscal Year	2019	2020	2020	2019	2019		2019
Most Senior Rating	Aa3	A2	Aa3	Aa3	A1		Aa3
Total Long-Term Debt ($, in millions)	218	671	291	594	90		437
Total Cash & Investments ($, in millions)	285	484	359	1082	208		735
Operating Revenue ($, in millions)	354	583	525	748	309		691
Operating Expenses ($, in millions)	329	587	534	718	322		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	5.9%	0.5%	-0.9%	0.6%	4.9%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	13.3%	14.1%	7.8%	15.3%	5.1%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	0.9	0.8	0.7	1.5	0.6		1.0
Total Debt to Operating Expenses (x)	0.7	1.1	0.5	0.8	0.3		0.5
Monthly Days Cash on Hand (x)	156	164	104	259	105		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.3	0.7	1.2	1.8	2.3		1.6
Debt Service to Operating Expenses (%)	5.0%	10.7%	4.2%	6.2%	2.9%		4.5%
Total Debt-to-Cash Flow (x)	4.6	8.2	7.1	5.2	5.7		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

UNCW's current debt policy is attached.

University of North Carolina Wilmington
Debt Management Guidelines

1. Introduction

University of North Carolina Wilmington ("UNCW") views its debt capacity as a resource that should be used, when appropriate, to help fund the capital investments necessary to successfully implement UNCW's strategic plans and to preserve the operational flexibility and resources necessary to support UNCW's current and future programming. UNCW recognizes its important financial stewardship role to invest in campus infrastructure in order to meet anticipated demand. These Debt Management Guidelines ("Guidelines") have been developed as a framework to assist UNCW's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with UNCW's stated policies, objectives and core values.

These Guidelines are intended solely for UNCW's internal planning purposes. The Vice Chancellor for Business Affairs will revisit these Guidelines as needed and recommend changes to ensure they remain consistent with the University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace.

These Guidelines cover all forms of debt including long-term, short-term, fixed-rate, and variable-rate. They also cover other forms of financing including both on-balance sheet and off-balance sheet structures, such as leases, and other structured products used to fund capital projects.

The use of derivatives or public private partnerships is not covered under these Guidelines. If these options are considered, they will be managed under a separate guideline.

2. Authorization and Oversight

UNCW's Vice Chancellor for Business Affairs is responsible for the day-to-day management of UNCW's financial affairs and for all of UNCW's debt financing activities. All financing arrangements will comply with all applicable state and federal laws. The Board of Trustees approves applicable financing activities in compliance with state law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Projects that directly or indirectly relate to the mission of UNCW will be considered for debt financing.

Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis.

4. Target Debt Ratios

When evaluating its current financial health and any proposed plan of finance, UNCW takes into account both debt affordability and debt capacity. Debt affordability focuses on UNCW's cash flows and measures UNCW's ability to service debt through its operating budget and identified revenue streams. Debt capacity focuses on the relationship between UNCW's net assets and total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including UNCW's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, UNCW's debt capacity cannot be calculated using any single ratio or even a small handful of ratios.

UNCW believes that it is important to consider and monitor objective metrics when evaluating UNCW's financial health and its ability to incur additional debt. To that end, UNCW will use three key financial ratios to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources *
(ii) Spendable Cash and Investments to Debt **
(iii) Debt Service to Operating Expenses *

* Monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study").
** Considered relevant indicators of Leverage and Debt Affordability by Moody's Investor Service (Global Higher Education Rating Methodology, November 2015).

Target ratios have been established to help preserve UNCW's financial health and operating flexibility and to ensure UNCW is able to access the market to address capital needs and to take advantage of potential refinancing opportunities.

UNCW recognizes that the target ratios, while helpful, have limitations and should be viewed together with UNCW's strategic plan or other planning tools. UNCW has developed specific criteria for evaluating and approving critical infrastructure projects even if UNCW reaches its debt capacity as calculated by the UNC Debt Capacity Study or the Guidelines' target ratios. In such instances, it may be appropriate to issue debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees, rents, or grants) sufficient to support the financing that are not currently captured in the benchmark ratios.
(ii) The proposed project is essential to the implementation of one of the University's strategic priorities.
(iii) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.
(iv) Foregoing or delaying the proposed project would result in significant additional costs to UNCW or would negatively impact UNCW's credit rating.

The University will review each ratio by February 1st of each year and will provide a report to the Vice Chancellor for Business Affairs detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated target ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning with the Guidelines or (b) the rationale for any recommended changes to any such stated target ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

Ratio 1 – Debt to Obligated Resources

What does it measure? Aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes. Each UNC constituent institution is required to report this target ratio under the provisions of the Debt Study). This ratio is not used outside the state and is only included due to the Debt Study.

How is it calculated? Aggregate debt divided by obligated resources.
Obligated resources is defined as Available Funds plus an adjustment for non-cash expenses related to the implementation of GASB 68. Available funds is a concept commonly used to capture each UNC's campus's obligated resources in loan and bond documentation.

Target Ceiling Ratio: Not to exceed 1.75x

Ratio 2 – Spendable Cash and Investments to Debt

What does it measure? This leverage ratio highlights the ability of the university to repay debt from wealth that can be accessed over time for a specific purpose. It measures the number of times liquid and expendable resources cover aggregate debt

How is it calculated? Cash and investments (at the university and affiliated foundations) plus funds held in trust by others plus pledges receivable reported in permanently restricted net assets, less permanently restricted net assets, divided by operating expenses

Target Floor Ratio: Not less than 0.6x

Ratio 3 – Debt Service to Operating Expense

What does it measure? Debt service burden as a percentage of total expenses, which is used as the denominator because it is typically more stable than revenues

How is it calculated? Annual debt service divided by annual operating expenses

Target Ceiling Ratio: Not to exceed 6.5%

5. Debt Portfolio Management and Transaction Structure Considerations

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business Affairs within the context of these Guidelines and the overall portfolio to ensure that any financial product or structure is consistent with UNCW's stated objectives. As part of effective debt management, UNCW must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

UNCW will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves UNCW's strategic plan and financing objectives. In making that determination, UNCW will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect UNCW's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce UNCW's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates UNCW's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, UNCW should structure its debt to provide for level annual payments of debt service, though UNCW may elect alternative structures when the Vice Chancellor for Business Affairs determines it to be in UNCW's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

UNCW will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

General Revenue Pledge

UNCW will utilize general revenue secured debt for all financing needs, unless there is compelling reason to structure specific revenue pledges independent of general revenue projects. The general revenue pledge provides a strong, flexible security which captures the strengths of auxiliary and student related revenues as well as research programs. In addition, general revenue debt does not subject the University to operating or financial covenants and coverage levels imposed by the market or external constituents.

Variable Rate Debt

While fixed rate debt is preferable, UNCW recognizes that a degree of exposure to variable interest rates within UNCW's debt portfolio may be desirable as part of a short-term bond anticipation note or in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs or (3) provide a "match" between debt service requirements and the projected cash flows from UNCW's assets. UNCW's debt portfolio should be managed to ensure that no more than a minimum amount of UNCW's total long-term debt bears interest at an unhedged variable rate.

UNCW will monitor overall interest rate exposure. UNCW may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. UNCW may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Refunding Considerations

UNCW will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, UNCW should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of UNCW ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed thirty years beyond the original issue date.
(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 2% of the par amount refunded.
(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.
(iv) Refunding Bonds may also be issued to relieve UNCW of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Post-Issuance Compliance Matters

UNCW will develop a separate guideline on post-issuance compliance matters.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

University of North Carolina School of the Arts
Institution Report

University of North Carolina School of the Arts

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), University of North Carolina School of the Arts ("***UNCSA***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. UNCSA has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, UNCSA, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—UNCSA has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, UNCSA's debt capacity reflects the amount of debt UNCSA could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that UNCSA intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- UNCSA's current debt profile, including project descriptions financed with, and the sources of repayment for, UNCSA's outstanding debt;
- UNCSA's current credit profile, along with recommendations for maintaining or improving UNCSA's credit rating; and
- A copy of any UNCSA debt management policy currently in effect.

Overview of UNCSA

For the fall 2019 semester, UNCSA had a headcount student population of 1,336, including 250 High school students, 929 undergraduate students and 157 graduate students. During the 2019-20 academic year, UNCSA employed approximately 174 full-time, part-time, and temporary instructional faculty. Over the past 5 years, UNCSA's enrollment has increased approximately 12%.

UNCSA's average age of plant is 16.30 years, which is higher than the median ratio for all institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

UNCSA does not anticipate significant additional borrowings during the Study Period. UNCSA has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on UNCSA's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to UNCSA by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt UNCSA expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below overstate UNCSA's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	20,351,907	2,332,230	-		22,684,137
2017	23,761,927	2,409,474	-	15.37%	26,171,401
2018	(33,430,796)	2,930,772	59,599,375	11.19%	29,099,351
2019	(35,386,402)	3,314,017	60,033,470	-3.91%	27,961,085
2020	(34,073,710)	4,919,099	56,113,501	-3.58%	26,958,890
2021	25,026,344	-	-	-7.17%	25,026,344
2022	25,351,687	-	-	1.30%	25,351,687
2023	25,681,259	-	-	1.30%	25,681,259
2024	26,015,115	-	-	1.30%	26,015,115
2025	26,353,312	-	-	1.30%	26,353,312

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	58,377,605	786,080	-		59,163,686
2017	63,101,303	(153,584)	-	6.40%	62,947,719
2018	65,810,839	(465,602)	(337,407)	3.27%	65,007,830
2019	66,603,544	(463,594)	1,799,307	4.51%	67,939,257
2020	70,748,990	(1,706,439)	1,311,536	3.55%	70,354,087
2021	71,268,690	-	-	1.30%	71,268,690
2022	72,195,183	-	-	1.30%	72,195,183
2023	73,133,720	-	-	1.30%	73,133,720
2024	74,084,459	-	-	1.30%	74,084,459
2025	75,047,557	-	-	1.30%	75,047,557

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	336,000	115,235	451,235	46,003,000
2022	346,000	105,188	451,188	45,657,000
2023	892,000	1,764,718	2,656,718	44,765,000
2024	933,000	1,727,294	2,660,294	43,832,000
2025	973,000	1,688,040	2,661,040	42,859,000
2026	1,010,000	1,646,988	2,656,988	41,849,000
2027	1,056,000	1,604,327	2,660,327	40,793,000
2028	1,098,000	1,559,587	2,657,587	39,695,000
2029	1,146,000	1,512,989	2,658,989	38,549,000
2030	1,194,000	1,464,251	2,658,251	37,355,000
2031	1,225,000	1,436,025	2,661,025	36,130,000
2032	1,285,000	1,374,775	2,659,775	34,845,000
2033	1,350,000	1,310,525	2,660,525	33,495,000
2034	1,415,000	1,243,025	2,658,025	32,080,000
2035	1,485,000	1,172,275	2,657,275	30,595,000
2036	1,560,000	1,098,025	2,658,025	29,035,000
2037	1,640,000	1,020,025	2,660,025	27,395,000
2038	1,690,000	970,825	2,660,825	25,705,000
2039	1,740,000	920,125	2,660,125	23,965,000
2040	1,790,000	867,925	2,657,925	22,175,000
2041	1,860,000	796,325	2,656,325	20,315,000
2042	1,935,000	721,925	2,656,925	18,380,000
2043	2,015,000	644,525	2,659,525	16,365,000
2044	2,095,000	563,925	2,658,925	14,270,000
2045	2,180,000	480,125	2,660,125	12,090,000
2046	2,265,000	392,925	2,657,925	9,825,000
2047	2,340,000	319,313	2,659,313	7,485,000
2048	2,415,000	243,263	2,658,263	5,070,000
2049	2,495,000	164,775	2,659,775	2,575,000
2050	2,575,000	83,688	2,658,688	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projected period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	14,627,902	9,743,032	565,028	15,656,053	3,522,147	2,332,230	39,402,099	
2017	16,725,073	14,911,627	707,985	15,502,396	7,129,343	2,409,474	43,127,212	9.45%
2018	(42,584,245)	16,690,460	817,931	21,595,377	6,293,229	62,356,104	52,582,398	21.92%
2019	(42,313,240)	20,871,200	1,890,984	247,450	8,620,808	60,809,461	32,885,047	-37.46%
2020	(44,458,121)	21,989,068	1,962,154	23,447,248	7,561,921	61,032,600	56,411,028	71.54%
2021	16,789,947	22,274,926	1,987,662	23,752,062	7,660,226	-	57,144,371	1.30%
2022	17,008,217	22,564,500	2,013,502	24,060,839	7,759,809	-	57,887,248	1.30%
2023	17,229,324	22,857,838	2,039,677	24,373,630	7,860,687	-	58,639,782	1.30%
2024	17,453,305	23,154,990	2,066,193	24,690,487	7,962,876	-	59,402,100	1.30%
2025	17,680,198	23,456,005	2,093,053	25,011,463	8,066,393	-	60,174,327	1.30%

3. Proposed Debt Financings

While UNCSA evaluates its capital investment needs on a regular basis, UNCSA currently has no legislatively approved projects that it anticipates financing during the Study Period

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** UNCSA's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

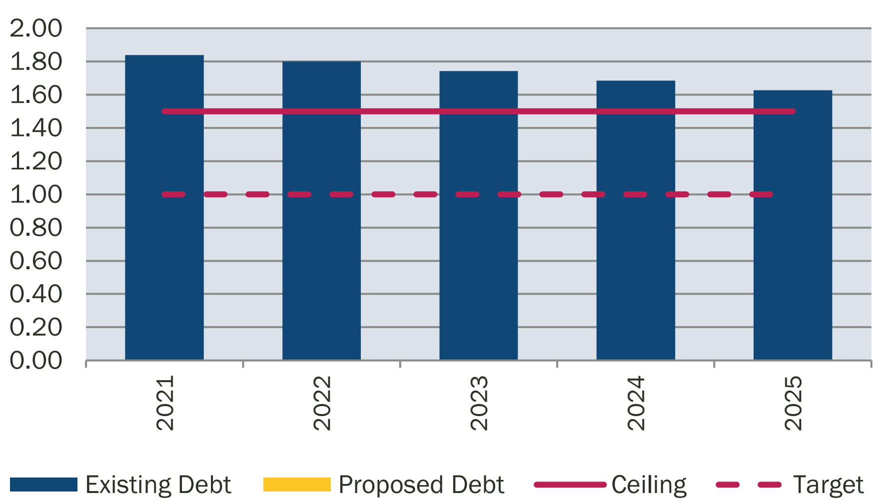
- Target Ratio: 1.00
- Ceiling Ratio: Not to exceed 1.50
- Projected 2021 Ratio: 1.84
- Highest Study Period Ratio: 1.84 (2021)

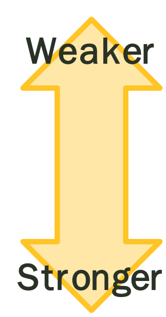
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	25,026,344	-7.17%	46,003,000	-	1.84	n/a	1.84
2022	25,351,687	1.30%	45,657,000	-	1.80	n/a	1.80
2023	25,681,259	1.30%	44,765,000	-	1.74	n/a	1.74
2024	26,015,115	1.30%	43,832,000	-	1.68	n/a	1.68
2025	26,353,312	1.30%	42,859,000	-	1.63	n/a	1.63

Debt to Obligated Resources





5-Year Payout Ratio Overview

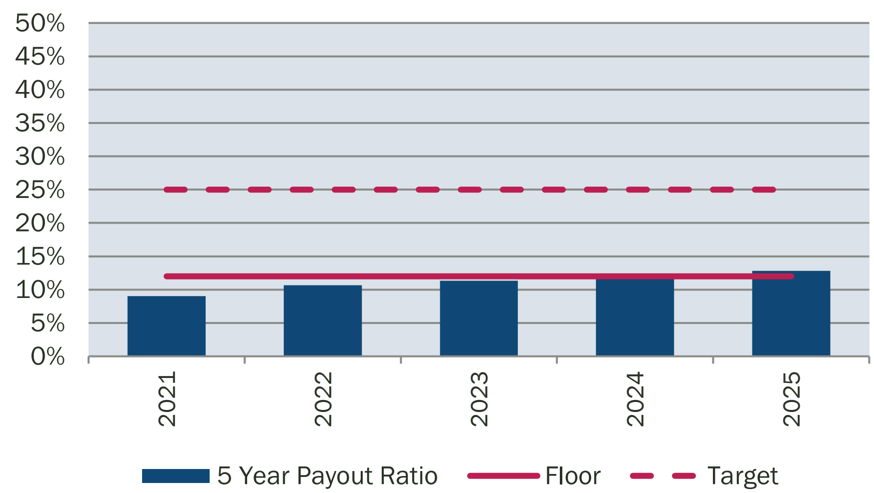
- **What does it measure?** The percentage of UNCSA's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

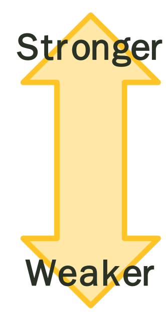
- Target Ratio: 25%
- Floor Ratio: Not less than 12%
- Projected 2021 Ratio: 9%
- Lowest Study Period Ratio: 9% (2021)

5-Year Payout Ratio

	5 Year Payout Ratio	
Fiscal Year	Principal Balance	Ratio
2021	46,003,000	9%
2022	45,657,000	11%
2023	44,765,000	11%
2024	43,832,000	12%
2025	42,859,000	13%

5-Year Payout Ratio





Expendable Resources to Debt

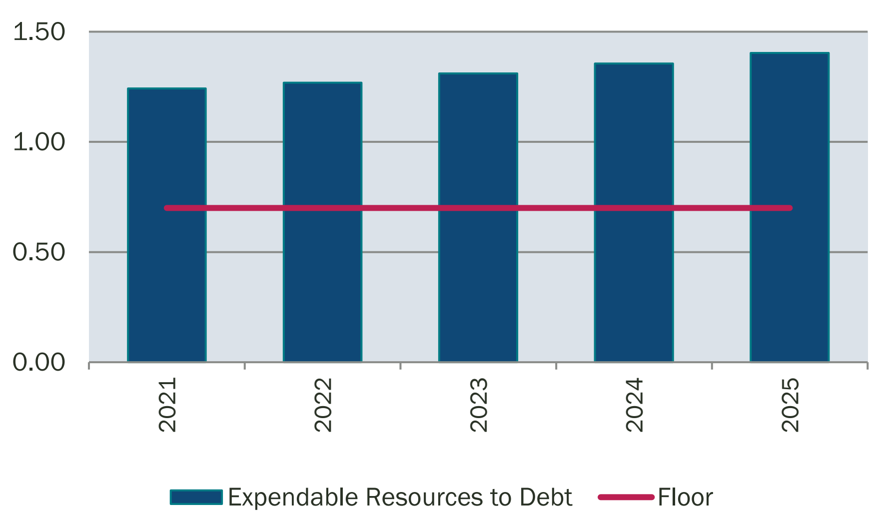
- **What does it measure?** The number of times UNCSA's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

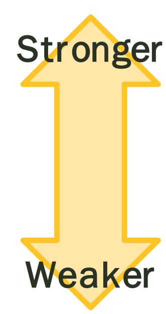
- Floor Ratio: Not less than .70x
- Projected 2021 Ratio: 1.24x
- Lowest Study Period Ratio: 1.24x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	57,144,371	1.30%	46,003,000	-	1.24	1.24
2022	57,887,248	1.30%	45,657,000	-	1.27	1.27
2023	58,639,782	1.30%	44,765,000	-	1.31	1.31
2024	59,402,100	1.30%	43,832,000	-	1.36	1.36
2025	60,174,327	1.30%	42,859,000	-	1.40	1.40

Expendable Resources to Debt





Debt Service to Operating Expenses

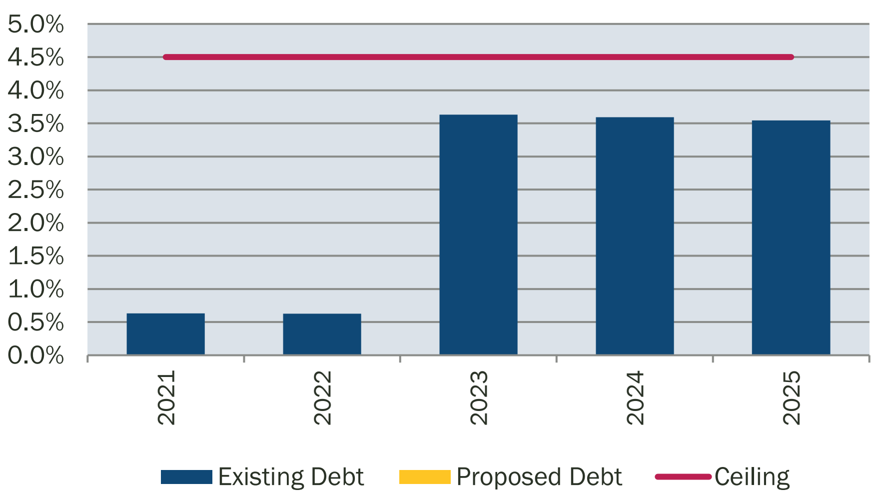
- **What does it measure?** UNCSA's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

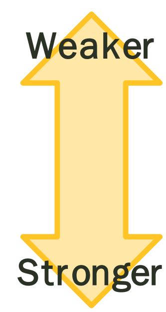
- Policy Ratio: Not to exceed 4.50%
- Projected 2021 Ratio: .63%
- Highest Study Period Ratio: 3.63% (2023)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	71,268,690	1.30%	451,235	-	0.63%	n/a	0.63%
2022	72,195,183	1.30%	451,188	-	0.62%	n/a	0.62%
2023	73,133,720	1.30%	2,656,718	-	3.63%	n/a	3.63%
2024	74,084,459	1.30%	2,660,294	-	3.59%	n/a	3.59%
2025	75,047,557	1.30%	2,661,040	-	3.55%	n/a	3.55%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, UNCSA's debt capacity is based on the amount of debt UNCSA could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, UNCSA's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, UNCSA has no estimated debt capacity during the study period.

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.84	1.50	(8,463,483)
2022	1.80	1.50	(7,629,470)
2023	1.74	1.50	(6,243,112)
2024	1.68	1.50	(4,809,327)
2025	1.63	1.50	(3,329,033)

Limitations on Debt Capacity, Credit Rating Implications, and Comment from UNCSA

- The debt capacity calculation shown above provides a general indication of UNCSA's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If UNCSA were to use all of its calculated debt capacity during the Study Period, UNCSA's credit ratings may face significant downward pressure**.
- Projecting the exact amount UNCSA could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
  - **Use of Multiple Factors**
    - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
    - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
  - **The State's Impact**
    - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.
    - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.

        - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
    - **Factor Interdependence**
        - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
        - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
    - **Distortions Across Rating Categories**
        - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
        - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.
- UNCSA provided the following comment on the financial ratios that are outside of the target range.
    - "The limited debt capacity reflected in the financial ratios for UNC School of the Arts represents the recent issuance of 2020 nontaxable General Revenue Bonds, with a par amount of $42.5 million, in which the bond proceeds will be used to finance a new residence hall. In addition, based upon NCDHHS and CDC guidance the University reduced Housing density in response to the coronavirus pandemic emergency, which resulted in decreased revenues."

6. Debt Profile

UNCSA's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2015	Certificates of Participation	3,854,000	6/1/2030	Student Housing Project	2005	Student Fees
Series 2020	General Revenue Bonds	42,485,000	2/1/2050	New Residence Hall		Housing Revenues
Total		46,339,000				

7. Credit Profile

The following page provides a snapshot of UNCSA's historical key credit metrics, along with (1) a summary of various observations and (2) recommendations for maintaining and improving UNCSA's credit profile in the future.

UNIVERSITY OF NORTH CAROLINA SCHOOL OF THE ARTS

Credit Profile of the University – (General Revenue)

Overview

- Moody's assigned UNCSA's general revenue bonds an A2 rating. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Reports

Credit Strengths

- Niche role, good enrollment diversification, and affordable tuition pricing support
- Favorable student demand and incremental enrollment growth
- Strong financial support from Aaa-rated North Carolina
- In fall 2019, 43% of out-of-state students which is not cap constrained
- Manageable leverage and solid operating reserve

Credit Challenges

- Thin operating performance, small scope of operations, and tuition pricing limitations
- Cash flow margins are likely to remain weaker than similarly rated peers

Recommendations & Observations

- Continue trend of strengthening balance sheet metrics (Expendable Financial Resources, Total Financial Resources, Total Cash and Investments)
- Wealth and liquidity supported by donor support and fund raising efforts to help finance capital needs. Revenue growth and improved performance margins can improve debt affordability for capital projects.

8. Peer Comparison

Moody's Key Credit Ratios	University of North Carolina School of the Arts	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Savannah College of Art & Design	Berklee College of Music	University of Cincinnati	Indiana University		
Fiscal Year	2019	2020	2019	2019	2019		2019
Most Senior Rating	A2	A3	A2	Aa3	Aaa		A2
Total Long-Term Debt ($, in millions)	46	164	235	1177	971		64
Total Cash & Investments ($, in millions)	132	480	468	1652	4400		100
Operating Revenue ($, in millions)	66	498	296	1253	3240		97
Operating Expenses ($, in millions)	67	333	277	1248	3196		93
Market Performance Ratios							
Annual Change in Operating Revenue (%)	5.3%	1.5%	3.5%	2.5%	2.8%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	5.3%	43.3%	15.7%	13.9%	7.5%		11.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	2.0	1.4	1.7	1.3	1.4		0.8
Total Debt to Operating Expenses (x)	0.7	0.5	0.8	0.9	0.3		0.7
Monthly Days Cash on Hand (x)	146	571	263	165	208		167
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	2.9	2.9	2.0	1.4	4.5		1.6
Debt Service to Operating Expenses (%)	1.6%	3.4%	5.6%	7.3%	3.2%		5.7%
Total Debt-to-Cash Flow (x)	1.5	0.8	5.1	6.8	4.0		6.9

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used. The MFRA Database has not been updated to include UNCSA's Series 2020 General Revenue Bonds. The table above has been adjusted to include those bonds in order to provide a more accurate representation of UNCSA's debt.

Debt Management Policies

UNCSA’s current debt policy is included in the following pages.

APPENDIX D

Debt Management Manual

University of North Carolina School of the Arts

March 1, 2017

Table of Contents

1. Introduction

The University of North Carolina School of the Arts ("UNCSA") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of UNCSA's strategic vision to prepare its gifted emerging artists with the experience, knowledge, and skills needed to excel in their disciplines and in their lives, and it serves and enriches the cultural and economic prosperity of the people of North Carolina and the nation. UNCSA recognizes the important role that debt-related strategies may play as it makes the necessary investments in its infrastructure in order to become and remain the destination institution for dedicated students seeking challenging academic programs, engaged faculty and a vibrant campus culture.

This Manual has been developed to assist UNCSA's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with UNCSA's stated policies, objectives and core values. Like other limited resources, UNCSA's debt capacity should be used and allocated strategically and equitably.

Specifically, the objective of this Manual is to provide a framework that will enable UNCSA's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within UNCSA's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating UNCSA's financial health, debt affordability and debt capacity;

(iv) Manage and protect UNCSA's credit profile in order to maintain UNCSA's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure UNCSA remains in compliance with all of its post-issuance obligations and requirements.

This Manual is intended solely for UNCSA's internal planning purposes. The Vice Chancellor for Business Affairs and/or the Associate Vice Chancellor for Finance and Controller will review this Manual annually and, if necessary, recommend changes to ensure that it remains consistent with University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Manual are subject to the Chancellor's approval.

2. Authorization and Oversight

UNCSA's Associate Vice Chancellor for Finance and Controller is responsible for the day-to-day management of UNCSA's financial affairs in accordance with the terms of this Manual and for all of UNCSA's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of UNCSA will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any projects that will require gift financing or include a gift financing component must be approved by the Vice Chancellor for Business Affairs before any project-restricted donations are solicited. The fundraising goal for any project to be financed primarily with donations should also include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, UNCSA takes into account both its debt affordability and its debt capacity. Debt affordability focuses on UNCSA's cash flows and measures UNCSA's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between UNCSA's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including UNCSA's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, UNCSA's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

UNCSA believes, however, that it is important to consider and monitor objective metrics when evaluating UNCSA's financial health and its ability to incur additional debt. To that end, UNCSA has identified three key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Expendable Resources to Debt

(iii) Debt Service to Operating Expenses

Note that the selected financial ratios are also monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which UNCSA believes will promote clarity and consistency in UNCSA's debt management and planning efforts.

UNCSA has established for each ratio a floor or ceiling target, as the case may be, with the expectation that UNCSA will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Manual should align with the ratios used in the report UNCSA submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve UNCSA's financial health and operating flexibility and to ensure UNCSA is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Manual.

UNCSA recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of UNCSA's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, UNCSA has developed as part of this Manual specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when UNCSA has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Manual. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to UNCSA or would negatively impact UNCSA's credit rating.

At no point, however, should UNCSA intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure?	UNCSA's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes
Why is it tracked?	The ratio, which is based on the legal structure proscribed by the General Revenue Bond Statutes, provides a general indication of UNCSA's ability to absorb debt on its balance sheet and is the primary ratio used to calculate UNCSA's "debt capacity" under the methodology used in the UNC Debt Capacity Study
How is it calculated?	Aggregate debt divided by obligated resources*
Policy Ratio:	Not to exceed 1.50x (UNC Debt Capacity Study Target Ratio = 1.50x)

*Available Funds, which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though *Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of UNCSA's* obligated resources.

Ratio 2 – Expendable Resources to Debt

What does it measure? The number of times UNCSA's liquid and expendable net assets covers its aggregate debt

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, is a basic measure of financial health and assesses UNCSA's ability to settle its debt obligations using only its available net assets as of a particular date

How is it calculated? The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

Policy Ratio: Not less than 1.25x

Ratio 3 – Debt Service to Operating Expenses

What does it measure? UNCSA's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues

Why is it tracked? The ratio, which is widely tracked by rating agencies and other capital market participants, evaluates UNCSA's relative cost of borrowing to its overall expenditures and provides a measure of UNCSA's budgetary flexibility

How is it calculated? Annual debt service divided by annual operating expenses

Policy Ratio: Not to exceed 3.00%

Reporting

The Vice Chancellor for Business Affairs and/or the Associate Vice Chancellor for Finance and Controller will review each ratio in connection with the delivery of the University's audited financials and will provide an annual report to the Board substantially in the form of **Appendix B** detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Business Affairs and/or Associate Vice Chancellor for Finance and Controller within the context of this Manual and the overall portfolio to ensure that any financial product or structure is consistent with UNCSA's stated objectives. As part of effective debt management, UNCSA must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

UNCSA will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves UNCSA's strategic plan and financing objectives. In making that determination, UNCSA will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect UNCSA's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce UNCSA's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates UNCSA's ongoing administrative and compliance risks. When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, UNCSA should structure its debt to provide for level annual payments of debt service, though UNCSA may elect alternative structures when the Vice Chancellor for Business Affairs determines it to be in UNCSA's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

UNCSA will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

UNCSA recognizes that a degree of exposure to variable interest rates within UNCSA's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from UNCSA's assets. UNCSA's debt portfolio should be managed to ensure that no more than 20% of UNCSA's total debt bears interest at an unhedged variable rate.

UNCSA's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. UNCSA may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. UNCSA may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

[Public Private Partnerships]

To address UNCSA's anticipated capital needs as efficiently and prudently as possible, UNCSA may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

Due to their higher perceived risk and increased complexity, and because the cash flows for the project must satisfy the private partner's expected risk-adjusted rate of return, the financing and initial transaction costs for projects acquired through P3 Arrangements are generally higher than projects financed with proceeds of traditional debt instruments. P3 Arrangements should therefore be pursued only when UNCSA has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with UNCSA's core mission).

Absent a compelling strategic reason to the contrary, P3 Arrangements should not be considered if the Vice Chancellor for Business Affairs determines, in consultation with UNCSA's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by UNCSA's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider UNCSA's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on UNCSA's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, UNCSA or a UNCSA affiliate must be approved in advance by the Chancellor.

<u>Refunding Considerations</u>

UNCSA will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, UNCSA should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of UNCSA ("<u>Refunding Bonds</u>") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve UNCSA of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Derivative Products

UNCSA recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit UNCSA to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. UNCSA will use derivatives only to manage and mitigate risk; UNCSA will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, UNCSA's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Business Affairs and/or Associate Vice Chancellor for Finance and Controller must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that UNCSA's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

UNCSA will use derivatives only when the Vice Chancellor for Business Affairs and/or Associate Vice Chancellor for Finance and Controller determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing UNCSA's strategic objectives without imposing inappropriate risks on UNCSA.

7. Post-Issuance Compliance Matters

On their adoption, the Associate Vice Chancellor for Finance and Controller will attach as **Appendix A** to this Strategy any policies relating to post-issuance compliance.

May 26, 2021

The University of North Carolina System Debt Capacity Study – Fiscal Year 2020

Western Carolina University
Institution Report

Western Carolina University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "***Act***"), Western Carolina University ("***WCU***") has submitted this report (this "***Institution Report***") as part of the annual debt capacity study (the "***Study***") undertaken by The University of North Carolina (the "***University***") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. WCU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, WCU, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—WCU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, WCU's debt capacity reflects the amount of debt WCU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that WCU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- WCU's current debt profile, including project descriptions financed with, and the sources of repayment for, WCU's outstanding debt;
- WCU's current credit profile, along with recommendations for maintaining or improving WCU's credit rating; and
- A copy of any WCU debt management policy currently in effect.

Overview of WCU

For the fall 2019 semester, WCU had a headcount student population of approximately 12,167, including 10,469 undergraduate students and 1,698 graduate students. WCU employs approximately 618 full-time, part-time, and temporary instructional faculty. Over the past 5 years, WCU's enrollment has increased approximately 17.7%.

WCU's average age of plant is 15.51 years, which is higher than the median ratio for all Institutions of 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

WCU anticipates incurring approximately $89.94 million in additional debt during the Study Period, as summarized in **Section 3** below. WCU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 and GASB 75.
- Outstanding debt service is based on WCU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to WCU by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt WCU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate WCU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	106,429,718	8,392,304			114,822,022
2017	122,276,065	9,231,867		14.53%	131,507,932
2018	(87,996,057)	11,238,050	241,072,371	24.95%	164,314,364
2019	(97,785,259)	11,547,232	247,061,837	-2.12%	160,823,810
2020	(84,726,621)	18,272,918	221,863,705	-3.37%	155,410,002
2021	(107,423,857)	13,062,330	239,308,403	-6.73%	144,946,876
2022	(121,630,859)	11,681,606	256,780,438	1.30%	146,831,185
2023	(136,483,908)	10,969,624	274,254,275	1.30%	148,739,991
2024	(134,333,417)	10,751,010	274,256,017	1.30%	150,673,610
2025	(129,714,093)	10,751,010	271,595,450	1.30%	152,632,367

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	207,002,819	2,702,905			209,705,724
2017	217,409,367	(1,037,574)		3.18%	216,371,793
2018	223,278,944	(2,016,765)	1,873,246	3.13%	223,135,425
2019	229,075,814	(1,571,730)	9,558,019	6.24%	237,062,103
2020	241,820,397	(5,452,096)	9,371,699	3.66%	245,740,000
2021	234,731,430	(241,508)	14,444,698	1.30%	248,934,620
2022	236,559,969	1,138,766	14,472,035	1.30%	252,170,770
2023	240,548,369	426,784	14,473,837	1.30%	255,448,990
2024	261,471,403	208,170	(2,909,746)	1.30%	258,769,827
2025	267,856,432	-	(5,722,597)	1.30%	262,133,835

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	6,085,000	7,102,173	13,187,173	163,455,000
2022	6,365,000	6,831,053	13,196,053	157,090,000
2023	6,630,000	6,555,350	13,185,350	150,460,000
2024	6,865,000	6,316,626	13,181,626	143,595,000
2025	7,165,000	6,020,763	13,185,763	136,430,000
2026	7,390,000	5,700,596	13,090,596	129,040,000
2027	7,375,000	5,362,706	12,737,706	121,665,000
2028	7,175,000	5,027,256	12,202,256	114,490,000
2029	6,745,000	4,722,331	11,467,331	107,745,000
2030	7,035,000	4,429,353	11,464,353	100,710,000
2031	7,335,000	4,132,931	11,467,931	93,375,000
2032	7,650,000	3,821,994	11,471,994	85,725,000
2033	7,315,000	3,525,459	10,840,459	78,410,000
2034	6,895,000	3,239,716	10,134,716	71,515,000
2035	5,715,000	2,997,388	8,712,388	65,800,000
2036	5,945,000	2,767,456	8,712,456	59,855,000
2037	6,185,000	2,524,900	8,709,900	53,670,000
2038	6,455,000	2,253,350	8,708,350	47,215,000
2039	6,740,000	1,969,925	8,709,925	40,475,000
2040	4,340,000	1,673,900	6,013,900	36,135,000
2041	4,550,000	1,468,050	6,018,050	31,585,000
2042	3,945,000	1,247,900	5,192,900	27,640,000
2043	4,135,000	1,054,250	5,189,250	23,505,000
2044	4,340,000	851,050	5,191,050	19,165,000
2045	4,540,000	655,838	5,195,838	14,625,000
2046	4,725,000	469,766	5,194,766	9,900,000
2047	3,770,000	304,625	4,074,625	6,130,000
2048	3,915,000	161,509	4,076,509	2,215,000
2049	1,085,000	66,900	1,151,900	1,130,000
2050	1,130,000	22,600	1,152,600	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 and GASB 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	77,326,718	38,661,630	-	-	9,605,091	8,392,304	114,775,562	
2017	81,341,429	40,531,293	-	-	6,477,309	9,231,867	124,627,281	8.58%
2018	(152,955,672)	57,556,023	-	-	14,046,785	252,310,421	142,863,987	14.63%
2019	(132,911,352)	78,912,829			34,217,573	243,279,631	155,063,535	8.54%
2020	(120,157,949)	71,391,460			27,031,788	240,136,623	164,338,346	5.98%
2021	121,538,397	72,319,549	-	-	27,383,201	-	166,474,744	1.30%
2022	123,118,396	73,259,703	-	-	27,739,183	-	168,638,916	1.30%
2023	124,718,935	74,212,079	-	-	28,099,792	-	170,831,222	1.30%
2024	126,340,281	75,176,836	-	-	28,465,090	-	173,052,028	1.30%
2025	127,982,705	76,154,135	-	-	28,835,136	-	175,301,704	1.30%

3. Proposed Debt Financings

The table below summarizes any legislatively approved projects that WCU expects to finance during the Study Period. Using the assumptions outlined in the table below, the model has developed a tailored, but conservative, debt service schedule for each proposed financing and incorporated each pro forma debt service schedule into its calculations of the financial ratios as detailed in **Section 4** below.

WCU Proposed Debt Financings

Year	Use of Funds	Borrowing Amount	Term	Source of Repayment
2021	Financing Dorm Construction	75,815,000	30	Housing Revenues
2021	Defeasance of 2011B	14,125,000	9	Housing Revenues & Student Fees
Total		89,940,000		

4. Financial Ratios

Debt to Obligated Resources

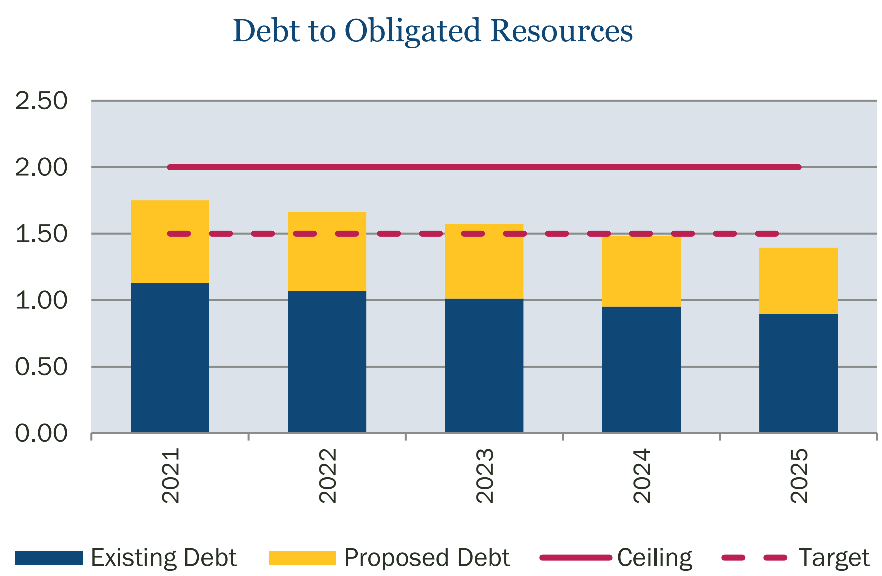
- **What does it measure?** WCU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt divided by obligated resources*

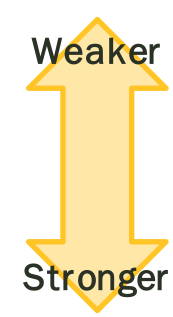
- Target Ratio: 1.50
- Ceiling Ratio: Not to exceed 2.00
- Projected 2021 Ratio: 1.13
- Highest Study Period Ratio: 1.13 (2021)

*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	144,946,876	-6.73%	163,455,000	90,425,458	1.13	0.62	1.75
2022	146,831,185	1.30%	157,090,000	86,982,301	1.07	0.59	1.66
2023	148,739,991	1.30%	150,460,000	83,489,968	1.01	0.56	1.57
2024	150,673,610	1.30%	143,595,000	79,947,618	0.95	0.53	1.48
2025	152,632,367	1.30%	136,430,000	76,354,396	0.89	0.50	1.39





5-Year Payout Ratio Overview

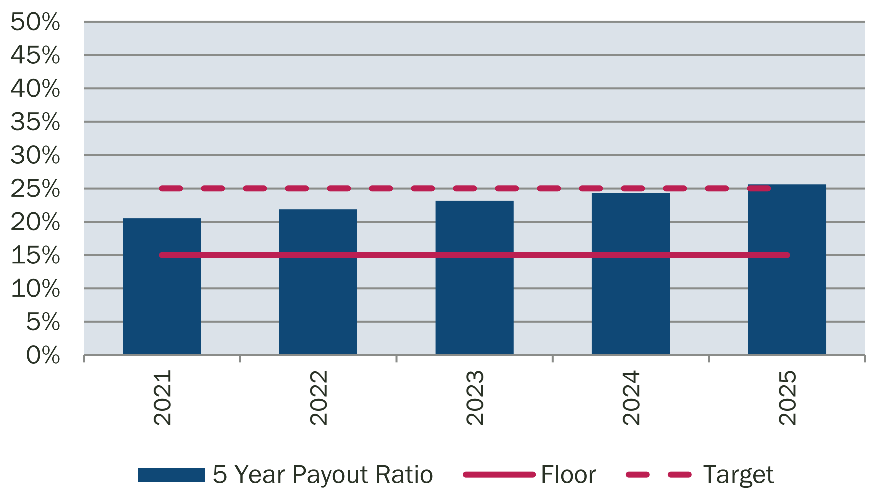
- **What does it measure?** The percentage of WCU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

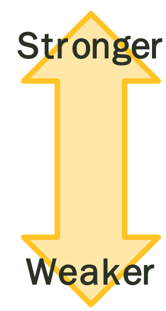
- Target Ratio: 25%
- Floor Ratio: Not less than 15%
- Projected 2021 Ratio: 21%
- Lowest Study Period Ratio: 21% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	253,880,458	21%
2022	244,072,301	22%
2023	233,949,968	23%
2024	223,542,618	24%
2025	212,784,396	26%

5-Year Payout Ratio





Expendable Resources to Debt

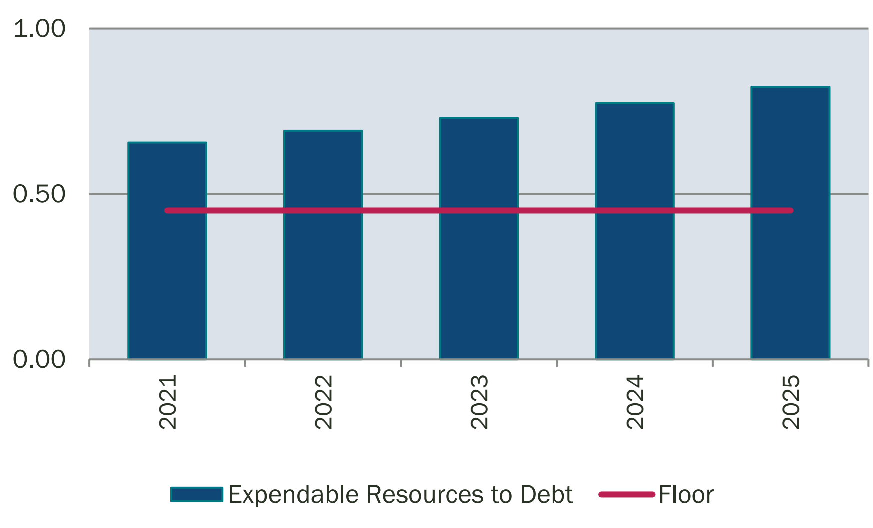
- **What does it measure?** The number of times WCU's liquid and expendable Net Position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

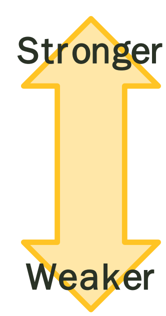
- Floor Ratio: Not less than 0.45x
- Projected 2021 Ratio: 1.02x
- Lowest Study Period Ratio: 1.02x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	166,474,744	1.30%	163,455,000	90,425,458	1.02	0.66
2022	168,638,916	1.30%	157,090,000	86,982,301	1.07	0.69
2023	170,831,222	1.30%	150,460,000	83,489,968	1.14	0.73
2024	173,052,028	1.30%	143,595,000	79,947,618	1.21	0.77
2025	175,301,704	1.30%	136,430,000	76,354,396	1.28	0.82

Expendable Resources to Debt





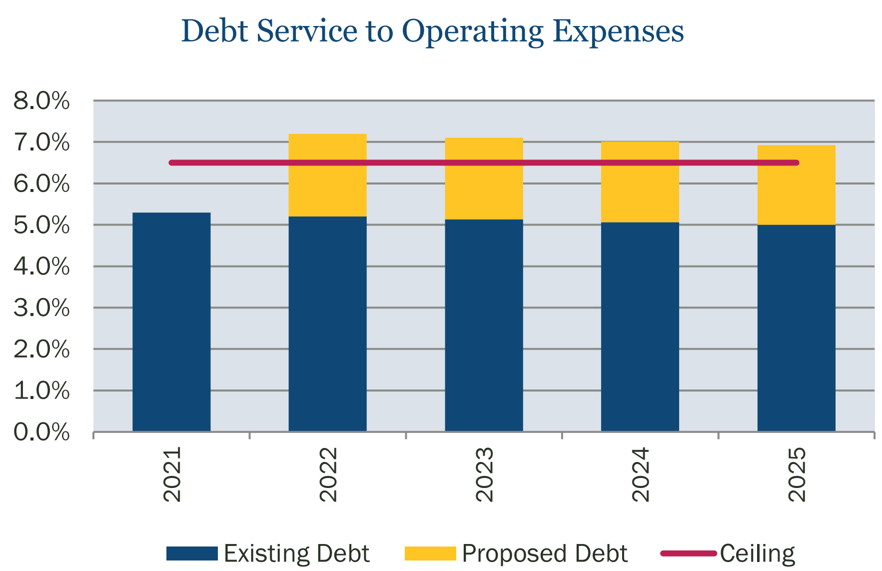
Debt Service to Operating Expenses

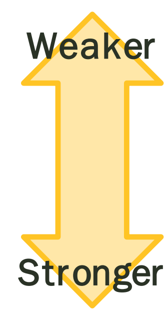
- **What does it measure?** WCU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

- Policy Ratio: Not to exceed 6.50%
- Projected 2021 Ratio: 5.30%
- Highest Study Period Ratio: 7.19% (2022)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	248,934,620	1.30%	13,187,173	-	5.30%	n/a	5.30%
2022	253,790,479	1.30%	13,196,053	5,062,866	5.20%	1.99%	7.19%
2023	257,019,523	1.30%	13,185,350	5,062,866	5.13%	1.97%	7.10%
2024	260,290,343	1.30%	13,181,626	5,062,866	5.06%	1.95%	7.01%
2025	263,603,478	1.30%	13,185,763	5,062,866	5.00%	1.92%	6.92%





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, WCU's debt capacity is based on the amount of debt WCU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, WCU's current debt capacity equals **the lowest constraint on its debt capacity** in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, WCU's current estimated debt capacity is **$36,013,294.** After taking into account any legislatively approved projects detailed in **Section 3** above, if WCU issued no additional debt until the last year of the Study Period, then WCU's debt capacity for 2025 is projected to increase to **$92,480,339.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	1.75	2.00	36,013,294
2022	1.66	2.00	49,590,069
2023	1.57	2.00	63,530,013
2024	1.48	2.00	77,804,603
2025	1.39	2.00	92,480,339

Limitations on Debt Capacity, Credit Rating Implications, and Comment from WCU

- The debt capacity calculation shown above provides a general indication of WCU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- **If WCU were to use all of its calculated debt capacity during the Study Period, WCU's credit ratings may face significant downward pressure**.
- Projecting the exact amount WCU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **The State's Impact**
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has

historically provided to the institution, and any legislation or policies affecting campus operations.

        - Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
        - If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.
    - **Factor Interdependence**
        - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
        - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
    - **Distortions Across Rating Categories**
        - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
        - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.
- WCU provided the following comment on the financial ratios that are outside the target range.
    - **"For projected ratios that are out of range, the University's issuance of new debt for the construction of a residence hall project is impacting the ratios in the short-term. Two dormitories were demolished for the new construction, and thus, housing revenue will be down slightly until the replacement housing is brought online."**

6. Debt Profile

WCU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
Series 2011B	UNC System Pool Revenue Bonds	14,525,000	4/1/2041	Student Housing - Harrill		Housing Revenues
				Athletic Facilities	2003A	Student Fees
				Student Recreation Center	2003A	Student Fees
Series 2013	Refunding Limited Obligation Bonds	6,845,000	6/1/2033	Student Housing Projects		Housing Revenues
Series 2015	Refunding Limited Obligation Bonds	6,140,000	6/1/2032	Student Housing Projects	2005	Housing Revenues
Series 2015A	General Revenue and Revenue Refunding Bonds	34,745,000	10/1/2045	Athletic Facilities	2003A	Student Fees
				Student Recreation Center	2003A	Student Fees
				Student Recreation Center	2008A	Student Fees
				Dining Hall Facility	2008A	Student Fees
				Brown Renovation		Student Fees
Series 2015B	Taxable General Revenue Refunding Bonds	5,225,000	10/1/2026	Student Center	2006A	Student Fees
				Athletic Facilities	2006A	Student Fees
Series 2016	Refunding Limited Obligation Bonds	35,950,000	6/1/2039	Student Housing Projects	2008	Housing Revenues
Series 2018	General Revenue Bonds	46,285,000	10/1/2047	New Residence Hall		Housing Revenues
Series 2020	General Revenue Bonds	19,825,000	10/1/2049	University Parking Deck		Parking Revenues
Total		169,540,000				

7. Credit Profile

The following page provides a snapshot of WCU's current credit ratings, along with (1) a summary of various credit factors identified in WCU's most recent rating report and (2) recommendations for maintaining and improving WCU's credit ratings in the future.

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains a Aa3 rating on WCU's general revenue bonds. The outlook is stable.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	BBB+	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Reports

Credit Strengths

- Steadily growing enrollment and close budget oversight
- Consistently favorable operating performance
- Strong financial support from the State of North Carolina (Aaa stable)
- Financial reserves are increasing at a pace above other Aa3-rated peers

Credit Challenges

- Heavy reliance on state funding with the reliance increasing due to NC Promise Tuition Plan
- State imposed pricing restrictions limits the university's ability to address unforeseen budget pressures
- Limited additional debt capacity without financial reserve growth

Recommendations & Observations

- Continue to develop and implement strategies and policies to meet WCU's unique challenges, including strategies to growth wealth to provide a stronger cushion relative to debt and improve revenue diversity.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	Western Carolina University	Most Recent Peer Institution Data					Moody's Public Higher Education Medians
Peer Institution		Indiana State University	Western Kentucky University	Ferris State University	Central Washington University		
Fiscal Year	2020	2019	2019	2019	2019		2019
Most Senior Rating	Aa3	A1	A2	A1	A1		Aa3
Total Long-Term Debt ($, in millions)	173	257	262	106	158		437
Total Cash & Investments ($, in millions)	249	221	247	190	111		735
Operating Revenue ($, in millions)	253	250	307	233	244		691
Operating Expenses ($, in millions)	235	247	302	228	253		641
Market Performance Ratios							
Annual Change in Operating Revenue (%)	-0.4%	-1.4%	-1.1%	-1.9%	5.2%		2.7%
Operating Ratios							
Operating Cash Flow Margin (%)	13.7%	11.7%	13.3%	9.6%	6.1%		12.1%
Wealth & Liquidity Ratios							
Total Cash & Investments to Operating Expenses (x)	1.1	0.9	0.8	0.8	0.4		1.0
Total Debt to Operating Expenses (x)	0.7	1.0	0.9	0.5	0.6		0.5
Monthly Days Cash on Hand (x)	208	220	123	217	119		156
Leverage Ratios							
Total Cash & Investments to Total Debt (x)	1.4	0.9	0.9	1.8	0.7		1.6
Debt Service to Operating Expenses (%)	5.1%	7.7%	6.3%	5.2%	3.7%		4.5%
Total Debt-to-Cash Flow (x)	5.0	8.8	6.4	4.7	10.6		4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

9. Debt Management Policies

WCU's current debt policy is attached.

Proposed – December 8, 2016

Debt Management Strategy

Western Carolina University

Table of Contents

1. Introduction

Western Carolina University ("WCU") views its debt capacity as a limited resource that should be used, when appropriate, to help fund the capital investments necessary for the successful implementation of WCU's strategic vision to serve the people of North Carolina and beyond, while preserving the operational flexibility and resources necessary to support WCU's current and future programming. WCU recognizes the important role that the responsible stewardship of its financial resources will play as WCU seeks to invest in its campus and related infrastructure in order to meet anticipated demand.

This Strategy has been developed to assist WCU's efforts to manage its debt on a long-term, portfolio basis and in a manner consistent with WCU's stated policies, objectives and core values. Like other limited resources, WCU's debt capacity should be used and allocated strategically and equitably.

Specifically, the objective of this Strategy is to provide a framework that will enable WCU's Board of Trustees (the "Board") and finance staff to:

(i) Identify and prioritize projects eligible for debt financing;

(ii) Limit and manage risk within WCU's debt portfolio;

(iii) Establish debt management guidelines and quantitative parameters for evaluating WCU's financial health, debt affordability and debt capacity;

(iv) Manage and protect WCU's credit profile in order to maintain WCU's credit rating at a strategically optimized level and maintain access to the capital markets; and

(v) Ensure WCU remains in compliance with all of its post-issuance obligations and requirements.

This Strategy is intended solely for WCU's internal planning purposes. The Vice Chancellor for Administration & Finance will review this Strategy annually and, if necessary, recommend changes to ensure that it remains consistent with the University's strategic objectives and the evolving demands and accepted practices of the public higher education marketplace. Proposed changes to this Strategy are subject to the Board's approval.

2. Authorization and Oversight

WCU's Vice Chancellor for Administration & Finance is responsible for the day-to-day management of WCU's financial affairs in accordance with the terms of this Strategy and for all of WCU's debt financing activities. Each University financing will conform to all applicable State and Federal laws.

The Board will consider for approval each proposed financing in accordance with the requirements of any applicable State law.

3. Process for Identifying and Prioritizing Capital Projects Requiring Debt

Only projects that directly or indirectly relate to the mission of WCU will be considered for debt financing.

(i) Self-Liquidating Projects – A project that has a related revenue stream (self-liquidating project) will receive priority consideration. Each self-liquidating project financing must be supported by an achievable plan of finance that provides, or identifies sources of funds, sufficient to (1) service the debt associated with the project, (2) pay for any related infrastructure improvements, (3) cover any new or increased operating costs and (4) fund appropriate reserves for anticipated replacement and renovation costs.

(ii) Energy Conservation Projects – Each energy conservation project financing must provide annual savings sufficient to service the applicable debt and all related monitoring costs.

(iii) Other Projects – Other projects funded through budgetary savings, gifts and grants will be considered on a case-by-case basis. Any project requiring financing to be repaid primarily with gift receipts (a "Gift-Financed Project") must be approved by the Chancellor with consultation from the Vice Chancellor for Development and Alumni Relations and the Vice Chancellor for Administration & Finance before any project-restricted donations are solicited. In all cases, institutional strategy, and not donor capacity, must drive the decision to pursue any proposed project.

The fundraising goal for any Gift-Financed Project should include, when feasible, an appropriately-sized endowment for deferred maintenance and other ancillary ownership costs. When such endowment is not feasible, the plan of finance for the Gift-Financed Project must identify other sources of funds sufficient to cover incremental increases in operating costs and to fund appropriate reserves for anticipated replacement and renovation costs relating to the Gift-Financed Project.

The University recognizes that it will begin to incur (1) significant soft costs for any Gift-Financed Project when an architect is selected and (2) significant hard costs for a project when construction actually begins. For any Gift-Financed Project, therefore, the University must have raised (1) at least 25% of the applicable fundraising goal in gifts and pledges before selecting an architect and (2) 100% of such fundraising goal in gifts before beginning construction. If less than 100% of the fundraising goal has been met, the University may still begin construction for a Gift-Financed Project if it has developed an achievable plan of finance that identifies sources of funds (other than gifts) sufficient to support a permanent financing for any difference between the applicable fundraising goal and the amount of gifts actually received to date. This Strategy recognizes that extraordinary circumstances may warrant strategic exceptions to the policies outlined in this paragraph, but any such exception must be approved by the Board of Trustees.

4. Benchmarks and Debt Ratios

Overview

When evaluating its current financial health and any proposed plan of finance, WCU takes into account both its debt affordability and its debt capacity. Debt affordability focuses on WCU's cash flows and measures WCU's ability to service its debt through its operating budget and identified revenue streams. Debt capacity, on the other hand, focuses on the relationship between WCU's net assets and its total debt outstanding.

Debt capacity and affordability are impacted by a number of factors, including WCU's enrollment trends, reserve levels, operating performance, ability to generate additional revenues to support debt service, competing capital improvement or programmatic needs, and general market conditions. Because of the number of potential variables, WCU's debt capacity cannot be calculated based on any single ratio or even a small handful of ratios.

WCU believes, however, that it is important to consider and monitor objective metrics when evaluating WCU's financial health and its ability to incur additional debt. To that end, WCU has identified four key financial ratios that it will use to assess its ability to absorb additional debt based on its current and projected financial condition:

(i) Debt to Obligated Resources

(ii) Debt Service Coverage Ratio

(iii) Expendable Resources to Debt

(iv) Debt Service to Operating Expenses

Note that the selected financial ratios are the same benchmarks monitored as part of the debt capacity study for The University of North Carolina delivered each year under Article 5 of Chapter 116D of the North Carolina General Statutes (the "UNC Debt Capacity Study"), which WCU believes will promote clarity and consistency in WCU's debt management and planning efforts.

WCU has established for each ratio a floor or ceiling target, as the case may be, with the expectation that WCU will operate within the parameters of those ratios most of the time. To the extent possible, the policy ratios established from time to time in this Strategy should align with the ratios used in the report WCU submits each year as part of the UNC Debt Capacity Study. The policy ratios have been established to help preserve WCU's financial health and operating flexibility and to ensure WCU is able to access the market to address capital needs or to take advantage of potential refinancing opportunities. Attaining or maintaining a specific credit rating is not an objective of this Strategy.

WCU recognizes that the policy ratios, while helpful, have limitations and should not be viewed in isolation of WCU's strategic plan or other planning tools. In accordance with the recommendations set forth in the initial UNC Debt Capacity Study delivered April 1, 2016, WCU has developed as part of this Strategy specific criteria for evaluating and, if warranted, approving critical infrastructure projects even when WCU has limited debt capacity as calculated by the UNC Debt Capacity Study or the benchmark ratios in this Strategy. In such instances, the Board may approve the issuance of debt with respect to a proposed project based on one or more of the following findings:

(i) The proposed project would generate additional revenues (including, if applicable, dedicated student fees or grants) sufficient to support the financing, which revenues are not currently captured in the benchmark ratios.

(ii) The proposed project would be financed entirely with private donations based on pledges already in hand.

(iii) The proposed project is essential to the implementation of one of the Board's strategic priorities.

(iv) The proposed project addresses life and safety issues or addresses other critical infrastructure needs.

(v) Foregoing or delaying the proposed project would result in significant additional costs to WCU or would negatively impact WCU's credit rating.

At no point, however, should WCU intentionally operate outside an established policy ratio without conscious and explicit planning.

Ratio 1 – Debt to Obligated Resources

What does it measure? WCU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt under the General Revenue Bond Statutes

How is it calculated? Aggregate debt divided by obligated resources*

Policy Ratio: Not to exceed 2.00x

*Available Funds, which is the concept commonly used to capture each UNC's campus's obligated resources in its loan and bond documentation, has been used as a proxy for obligated resources. The two concepts are generally identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of WCU's obligated resources.

Ratio 2 – Debt Service Coverage Ratio Overview

What does it measure? WCU's ability to service its annual debt service obligations from WCU's operating cash flows

How is it calculated? Operating cash flow divided by annual debt service

Policy Ratio: Not less than 2.00x

Ratio 3 – Expendable Resources to Debt

What does it measure? The number of times WCU's liquid and expendable net assets covers its aggregate debt

How is it calculated? The sum of (1) Adjusted Unrestricted Net Assets and (2) Restricted Expendable Net Assets divided by aggregate debt

Policy Ratio: Not less than 0.45x

Ratio 4 – Debt Service to Operating Expenses

What does it measure? WCU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues

How is it calculated? Annual debt service divided by annual operating expenses

Policy Ratio: Not to exceed 5.40%

Reporting

In an instance where the University falls outside a stated policy ratio, the Vice Chancellor for Administration & Finance will review each ratio in connection with the delivery of the University's audited financials and will provide a report to the Board detailing (1) the calculation of each ratio for that fiscal year and (2) an explanation for any ratio that falls outside the University's stated policy ratio, along with (a) any applicable recommendations, strategies and an expected timeframe for aligning such ratio with the University's stated policy or (b) the rationale for any recommended changes to any such stated policy ratio going forward (including any revisions necessitated by changes in accounting standards or rating agency methodologies).

5. Debt Portfolio Management and Transaction Structure Considerations

Generally

Numerous types of financing structures and funding sources are available, each with specific benefits, risks, and costs. Potential funding sources and structures will be reviewed and considered by the Vice Chancellor for Administration & Finance within the context of this Strategy and the overall portfolio to ensure that any financial product or structure is consistent with WCU's stated objectives. As part of effective debt management, WCU must also consider its investment and cash management strategies, which influence the desired structure of the debt portfolio.

Method of Sale

WCU will consider various methods of sale on a transaction-by-transaction basis to determine which method of sale (i.e., competitive, negotiated or private placement) best serves WCU's strategic plan and financing objectives. In making that determination, WCU will consider, among other factors: (1) the size and complexity of the issue, (2) the current interest rate environment and other market factors (such as bank and investor appetite) that might affect WCU's cost of funds, and (3) possible risks associated with each method of sale (e.g., rollover risk associated with a financing that is privately placed with a bank for a committed term that is less than the term of the financing).

Tax Treatment

When feasible and appropriate for the particular project, the use of tax-exempt debt is generally preferable to taxable debt. Issuing taxable debt may reduce WCU's overall debt affordability due to higher rates but may be appropriate for projects that do not qualify for tax-exemption, or that may require interim funding. For example, taxable debt may be justified if it sufficiently mitigates WCU's ongoing administrative and compliance risks.

When used, taxable debt should be structured to provide maximum repayment flexibility and rapid principal amortization.

Structure and Maturity

To the extent practicable, WCU should structure its debt to provide for level annual payments of debt service, though WCU may elect alternative structures when the Vice Chancellor for Administration & Finance determines it to be in WCU's best interest. In addition, when financing projects that are expected to be self-supporting (such as a revenue-producing facility or a facility to be funded entirely through a dedicated fundraising campaign), the debt service may be structured to match future anticipated receipts.

WCU will use maturity structures that correspond with the life of the facilities financed, not to exceed 30 years. Equipment should be financed for a period not to exceed 120% of its useful life. Such determinations may be made on a blended basis, taking into account all assets financed as part of a single debt offering. As market dynamics change, maturity structures should be reevaluated. Call features should be structured to provide the highest degree of flexibility relative to cost.

Variable Rate Debt

WCU recognizes that a degree of exposure to variable interest rates within WCU's debt portfolio may be desirable in order to (1) take advantage of repayment or restructuring flexibility, (2) benefit from historically lower average interest costs and (3) provide a "match" between debt service requirements and the projected cash flows from WCU's assets. WCU's debt portfolio should be managed to ensure that no more than 20% of WCU's total debt bears interest at an unhedged variable rate.

WCU's finance staff will monitor overall interest rate exposure and will analyze and quantify potential risks, including interest rate, liquidity and rollover risks. WCU may manage the liquidity risk of variable rate debt either through its own working capital/investment portfolio, the type of instrument used, or by using third party sources of liquidity. WCU may manage interest rate risk in its portfolio through specific budget and central bank management strategies or through the use of derivative instruments.

Public Private Partnerships

To address WCU's anticipated capital needs as efficiently and prudently as possible, WCU may choose to explore and consider opportunities for alternative and non-traditional transaction structures (collectively, "P3 Arrangements").

Due to their higher perceived risk and increased complexity, and because the cash flows for the project must satisfy the private partner's expected risk-adjusted rate of return, the financing and initial transaction costs for projects acquired through P3 Arrangements are generally higher than projects financed with proceeds of traditional debt instruments. P3 Arrangements should therefore be pursued only when WCU has determined that (1) a traditional financing alternative is not feasible, (2) a P3 Arrangement will likely produce construction or overall operating results that are superior, faster or more efficient than a traditional delivery model or (3) a P3 Arrangement serves one of the Board's broader strategic objectives (e.g., a decision that operating a particular auxiliary function is no longer consistent with WCU's core mission).

Absent a compelling strategic reason to the contrary, P3 Arrangements should not be considered if the Vice Chancellor for Administration & Finance determines, in consultation with WCU's advisors, that the P3 Arrangement will be viewed as "on-credit" (i.e., treated as University debt) by WCU's auditors or outside rating agencies. When evaluating whether the P3 Arrangement should be viewed as "on-credit," rating agencies consider WCU's economic interest in the project and the level of control it exerts over the project. Further, rating agencies will generally treat a P3 Arrangement as University debt if the project is located on WCU's campus or if the facility is to be used for an essential University function. For this reason, any P3 Arrangement for a university-related facility to be located on land owned by the State, WCU or a WCU affiliate must be approved in advance by the Vice Chancellor for Administration & Finance.

Refunding Considerations

WCU will actively monitor its outstanding debt portfolio for refunding or restructuring opportunities. Absent a compelling economic or strategic reason to the contrary, WCU should evaluate opportunities to issue bonds for the purpose of refunding existing debt obligations of WCU ("Refunding Bonds") using the following general guidelines:

(i) The life of the Refunding Bonds should not exceed the remaining life of the bonds being refunded.

(ii) Refunding Bonds issued to achieve debt service savings should have a target savings level measured on a present net value basis of at least 3% of the par amount refunded.

(iii) Refunding Bonds that do not achieve debt service savings may be issued to restructure debt or provisions of bond documents if such refunding serves a compelling interest.

(iv) Refunding Bonds may also be issued to relieve WCU of certain limitations, covenants, payment obligations or reserve requirements that reduce operational flexibility.

6. Derivative Products

WCU recognizes that derivative products may provide for more flexible management of the debt portfolio. In certain circumstances, interest rate swaps and other derivatives permit WCU to adjust its mix of fixed- and variable-rate debt and manage its interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. WCU will use derivatives only to manage and mitigate risk; WCU will not use derivatives to create leverage or engage in speculative transactions.

As with underlying debt, WCU's finance staff will evaluate any derivative product comprehensively, taking into account its potential costs, benefits and risks, including, without limitation, any tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. Before entering into any derivative product, the Vice Chancellor for Administration & Finance must (1) conclude, based on the advice of a reputable swap advisor, that the terms of any swap transaction are fair and reasonable under current market conditions and (2) ensure that WCU's finance staff has a clear understanding of the proposed transaction's costs, cash flow impact and reporting treatment.

WCU will use derivatives only when the Vice Chancellor for Administration & Finance determines, based on the foregoing analysis, that the instrument provides the most effective method for accomplishing WCU's strategic objectives without imposing inappropriate risks on WCU.

7. Post-Issuance Compliance Matters

To the extent WCU adopts any formal policies relating to post-issuance compliance matters after the effective date of this Strategy, the Vice Chancellor for Administration & Finance will attach each such policy as **Appendix A** to this Strategy.

May 26, 2021

The University of North Carolina System
Debt Capacity Study – Fiscal Year 2020

Winston-Salem State University
Institution Report

Winston-Salem State University

Table of Contents

1. Executive Summary

Overview of the Institution Report

Pursuant to Article 5 of Chapter 116D of the North Carolina General Statutes (the "*Act*"), Winston-Salem State University ("*WSSU*") has submitted this report (this "*Institution Report*") as part of the annual debt capacity study (the "*Study*") undertaken by The University of North Carolina (the "*University*") in accordance with the Act. Each capitalized term used but not defined in this Institution Report has the meaning given to such term in the Study.

This Institution Report details the historical and projected financial information incorporated into the financial model developed in connection with the Study. WSSU has used the model to calculate and project the following four financial ratios:

- Debt to Obligated Resources
- Five-Year Payout Ratio
- Expendable Resources to Debt
- Debt Service to Operating Expenses

See **Appendix A** to the Study for more information on the ratios and related definitions.

To produce a tailored, meaningful model, WSSU, in consultation with the UNC System Office, has set its own policies for each model ratio. For the two statutorily-required ratios—**debt to obligated resources** and the **five-year payout ratio**—WSSU has set both a target policy and a floor or ceiling policy, as applicable.

For the purposes of the Study, WSSU's debt capacity reflects the amount of debt WSSU could issue during the Study Period without exceeding its ceiling ratio for **debt to obligated resources**, after taking into account debt the General Assembly has previously approved that WSSU intends to issue during the Study Period. Details regarding each approved project are provided in Section 3.

This Institution Report also includes the following information required by the Act:

- WSSU's current debt profile, including project descriptions financed with, and the sources of repayment for, WSSU's outstanding debt;
- WSSU's current credit profile, along with recommendations for maintaining or improving WSSU's credit rating; and
- A copy of any WSSU debt management policy currently in effect.

Overview of WSSU

For the fall 2019 semester, WSSU had a headcount student population of approximately 5,121, including 4,656 undergraduate students and 465 graduate students. During the 2019-20 academic year, WSSU employed approximately 345 full-time, part-time, and temporary instructional faculty. Over the past 5 years, WSSU's enrollment has remained consistent.

WSSU's average age of plant is 13.44 years, which is lower than the median ratio for all Institutions 14.68 years. Age of plant is a financial ratio calculated by dividing the accumulated depreciation by the annual depreciation expense. A low age of plant generally indicates the institution is taking a sustainable approach to its deferred maintenance and reinvestment programs.

WSSU anticipates incurring no additional debt during the Study Period. WSSU has made no changes to the financial model's standard growth assumptions.

2. Institution Data

Notes

- Obligated Resources equals Available Funds plus an adjustment for any noncash charge relating to the implementation of GASB 68 & 75.
- Operating Expenses equals Operating Expenses plus an adjustment for any noncash charge relating to the implementation of GASB 68 & 75.
- Outstanding debt service is based on WSSU's outstanding debt **as of June 30, 2020**, excluding state appropriated debt (such as energy savings contracts). Debt service is net of any interest subsidies owed to WSSU by the federal government (discounted by an assumed 6.2% sequestration rate) and uses reasonable unhedged variable rate assumptions.
- New money debt issued **after June 30, 2020**, together with any legislatively approved debt WSSU expects to issue during the Study Period, **are included** in the model as "proposed debt service" and are taken into account in the projected financial ratios shown in this Institution Report.
- Repayments, redemptions or refundings that have occurred **after June 30, 2020** are not included in the model, meaning the debt service schedules reflected below may overstate WSSU's current debt burden.

Obligated Resources

Fiscal Year	Available Funds (Before GASB Adjustment)	GASB 68 Adjustment	GASB 75 Adjustment	AF Growth	Available Funds (After GASB Adjustment)
2016	29,086,951	7,361,483	-		36,448,434
2017	33,966,030	7,964,039	-	15.04%	41,930,069
2018	(110,315,845)	8,823,189	142,615,754	-1.92%	41,123,098
2019	(111,176,370)	9,753,940	136,256,377	-15.29%	34,833,947
2020	(103,298,546)	12,914,807	128,641,318	9.83%	38,257,579
2021	38,754,928	-	-	1.30%	38,754,928
2022	39,258,742	-	-	1.30%	39,258,742
2023	39,769,105	-	-	1.30%	39,769,105
2024	40,286,104	-	-	1.30%	40,286,104
2025	40,809,823	-	-	1.30%	40,809,823

Operating Expenses

Fiscal Year	Operating Exp.	GASB 68 Adjustment	GASB 75 Adjustment	Growth	Operating Exp.
2016	133,168,052	2,278,481	-		135,446,533
2017	141,152,759	(602,355)	-	3.77%	140,550,404
2018	138,486,736	(855,304)	955,061	-1.40%	138,586,493
2019	132,671,179	(942,010)	6,421,824	-0.31%	138,150,993
2020	136,593,006	(3,156,861)	7,547,051	2.05%	140,983,196
2021	142,815,977	-	-	1.30%	142,815,977
2022	144,672,585	-	-	1.30%	144,672,585
2023	146,553,329	-	-	1.30%	146,553,329
2024	148,458,522	-	-	1.30%	148,458,522
2025	150,388,483	-	-	1.30%	150,388,483

Outstanding Debt

Fiscal Year	Principal	Net Interest	Debt Service	Principal Balance
2021	3,220,000	4,308,160	7,528,160	85,155,000
2022	3,340,000	4,159,586	7,499,586	81,815,000
2023	3,515,000	3,991,986	7,506,986	78,300,000
2024	3,710,000	3,815,656	7,525,656	74,590,000
2025	3,905,000	3,640,110	7,545,110	70,685,000
2026	4,115,000	3,444,183	7,559,183	66,570,000
2027	4,315,000	3,243,990	7,558,990	62,255,000
2028	4,550,000	3,041,717	7,591,717	57,705,000
2029	4,775,000	2,828,487	7,603,487	52,930,000
2030	5,005,000	2,589,002	7,594,002	47,925,000
2031	5,250,000	2,350,098	7,600,098	42,675,000
2032	5,265,000	2,099,450	7,364,450	37,410,000
2033	5,515,000	1,848,188	7,363,188	31,895,000
2034	5,785,000	1,571,063	7,356,063	26,110,000
2035	4,465,000	1,289,925	5,754,925	21,645,000
2036	4,150,000	1,067,775	5,217,775	17,495,000
2037	2,045,000	862,131	2,907,131	15,450,000
2038	1,545,000	757,331	2,302,331	13,905,000
2039	1,620,000	678,206	2,298,206	12,285,000
2040	1,705,000	595,038	2,300,038	10,580,000
2041	1,790,000	507,700	2,297,700	8,790,000
2042	1,885,000	415,938	2,300,938	6,905,000
2043	1,980,000	319,244	2,299,244	4,925,000
2044	1,140,000	217,750	1,357,750	3,785,000
2045	1,200,000	159,250	1,359,250	2,585,000
2046	1,260,000	97,750	1,357,750	1,325,000
2047	1,325,000	33,125	1,358,125	-

Notes

- Expendable Resources equals Unrestricted Net Position plus Restricted, Expendable Net Position plus Foundation Unrestricted Net Position plus Foundation Temporarily Restricted Net Position minus Restricted, Expendable Net Position Restricted for Capital Projects.
- Unrestricted Net Position has been adjusted for any noncash charge relating to the implementation of GASB 68 & 75 during the projection period.
- Due to a reporting requirement change from the Financial Accounting Standards Board (FASB), Foundation Net Assets are presented as with and without donor restrictions for FY 2019-20. Previous years use the former standard of Unrestricted Net Position and Temporarily Restricted Net Position.

Expendable Resources

Fiscal Year	Unrestricted Net Position	Restricted, Expendable Net Position	Foundation Net Assets Without Donor Restrictions	Foundation Net Assets With Donor Restrictions	Less: Restricted, Expendable Net Position Restricted for Capital Projects	GASB 68 & 75 Adjustment	Expendable Resources	Growth
2016	(3,732,269)	14,971,560	1,211,884	9,193,727	2,569,134	7,361,483	26,437,251	
2017	(6,322,184)	18,461,527	509,227	10,118,981	3,718,523	7,964,039	27,013,067	2.18%
2018	(147,531,243)	25,725,860	1,024,512	11,973,237	7,184,425	151,081,025	35,088,966	29.90%
2019	(142,338,153)	25,350,839	1,965,857	12,684,874	4,045,994	145,554,496	39,171,919	11.64%
2020	(132,224,588)	27,279,656	2,192,263	12,162,164	6,216,170	141,124,307	44,317,632	13.14%
2021	9,015,416	27,634,292	2,220,762	12,320,272	6,296,980	-	44,893,762	1.30%
2022	9,132,616	27,993,537	2,249,632	12,480,436	6,378,841	-	45,477,381	1.30%
2023	9,251,340	28,357,453	2,278,878	12,642,681	6,461,766	-	46,068,586	1.30%
2024	9,371,608	28,726,100	2,308,503	12,807,036	6,545,769	-	46,667,478	1.30%
2025	9,493,438	29,099,540	2,338,513	12,973,528	6,630,864	-	47,274,155	1.30%

3. Proposed Debt Financings

While WSSU evaluates its capital investment needs on a regular basis, WSSU currently has no legislatively approved projects that it anticipates financing during the Study Period.

4. Financial Ratios

Debt to Obligated Resources

- **What does it measure?** WSSU's aggregate outstanding debt as compared to its obligated resources—the funds legally available to service its debt.
- **How is it calculated?** Aggregate debt <u>divided by</u> obligated resources*

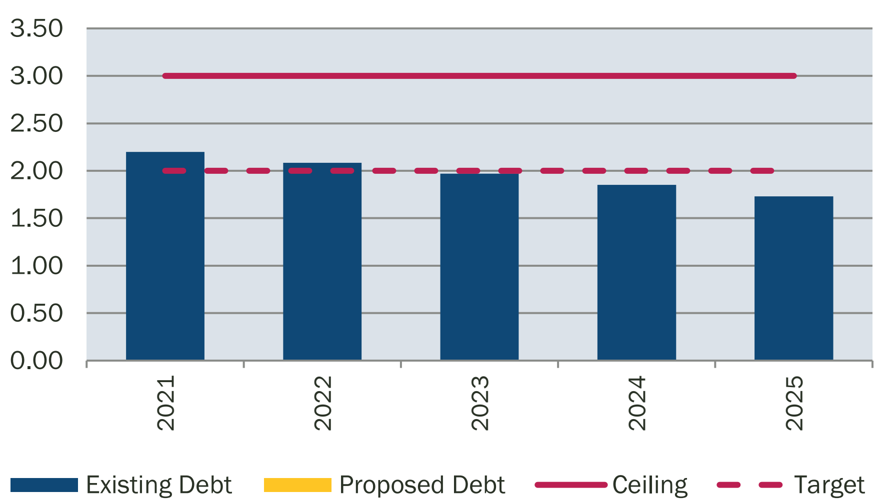
- Target Ratio: 2.00
- Ceiling Ratio: Not to exceed 3.00
- Projected 2021 Ratio: 2.20
- Highest Study Period Ratio: 2.20 (2021)

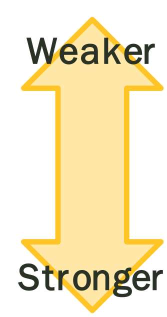
*Available Funds, which is the concept commonly used to capture an institution's obligated resources in its loan and bond documentation, has been used in the model as a proxy for obligated resources. For most institutions, the two concepts are identical, though Available Funds may include additional deductions for certain specifically pledged revenues, making it a conservative measure of an institution's obligated resources.

Debt to Obligated Resources

Debt to Obligated Resources							
Fiscal Year	Obligated Resources	Growth	Existing Debt	Proposed Debt	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	38,754,928	1.30%	85,155,000	-	2.20	n/a	2.20
2022	39,258,742	1.30%	81,815,000	-	2.08	n/a	2.08
2023	39,769,105	1.30%	78,300,000	-	1.97	n/a	1.97
2024	40,286,104	1.30%	74,590,000	-	1.85	n/a	1.85
2025	40,809,823	1.30%	70,685,000	-	1.73	n/a	1.73

Debt to Obligated Resources





5-Year Payout Ratio Overview

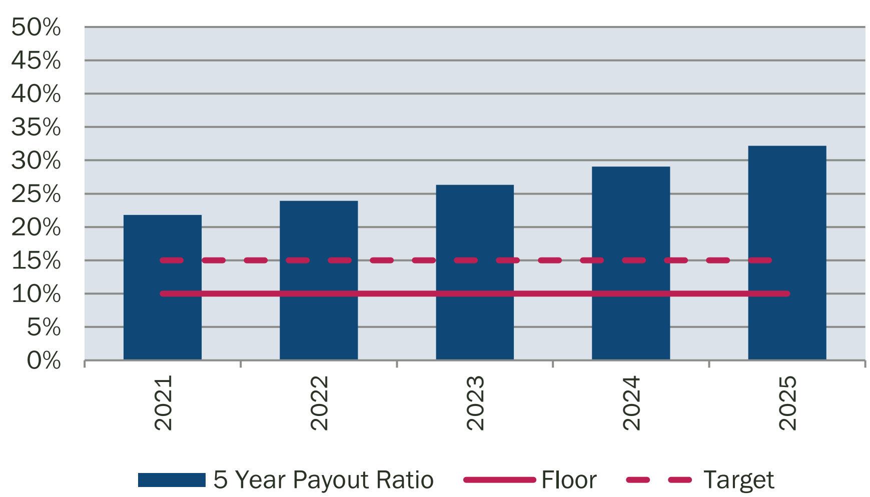
- **What does it measure?** The percentage of WSSU's debt scheduled to be retired in the next five years.
- **How is it calculated?** Aggregate principal to be paid in the next five years divided by aggregate debt

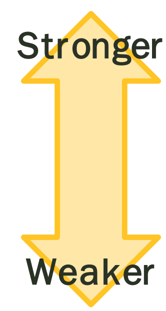
- Target Ratio: 15%
- Floor Ratio: Not less than 10%
- Projected 2021 Ratio: 22%
- Lowest Study Period Ratio: 22% (2021)

5-Year Payout Ratio

5 Year Payout Ratio		
Fiscal Year	Principal Balance	Ratio
2021	85,155,000	22%
2022	81,815,000	24%
2023	78,300,000	26%
2024	74,590,000	29%
2025	70,685,000	32%

5-Year Payout Ratio





Expendable Resources to Debt

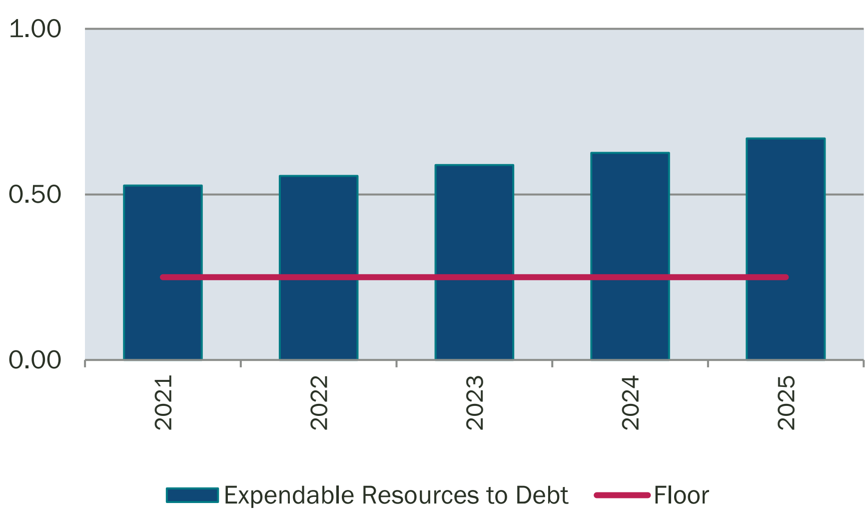
- **What does it measure?** The number of times WSSU's liquid and expendable net position covers its aggregate debt.
- **How is it calculated?** The sum of (1) Adjusted Unrestricted Net Position and (2) Restricted Expendable Net Position divided by aggregate debt

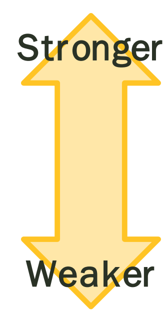
- Floor Ratio: Not less than 0.25x
- Projected 2021 Ratio: 0.53x
- Lowest Study Period Ratio: 0.53x (2021)

Expendable Resources to Debt

Expendable Resources to Debt						
Fiscal Year	Expendable Resources	Growth	Existing Balance	Proposed Balance	Existing Debt	Existing & Proposed Debt
2021	44,893,762	1.30%	85,155,000	-	0.53	0.53
2022	45,477,381	1.30%	81,815,000	-	0.56	0.56
2023	46,068,586	1.30%	78,300,000	-	0.59	0.59
2024	46,667,478	1.30%	74,590,000	-	0.63	0.63
2025	47,274,155	1.30%	70,685,000	-	0.67	0.67

Expendable Resources to Debt





Debt Service to Operating Expenses

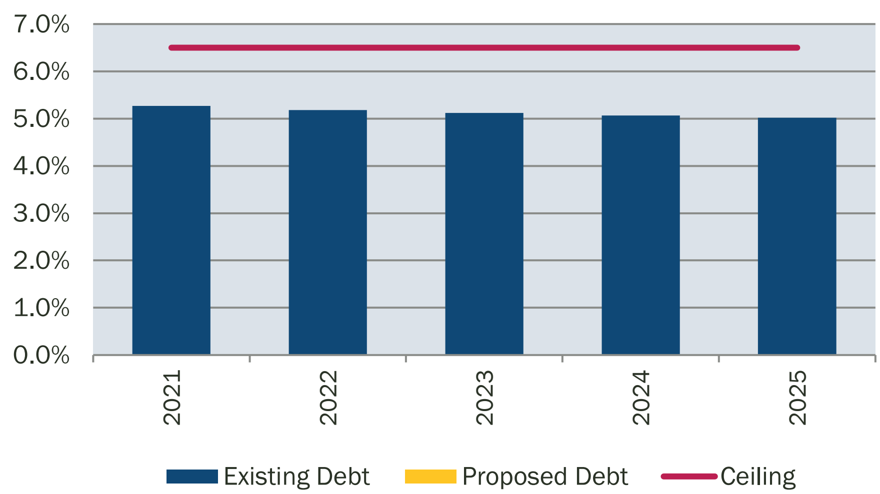
- **What does it measure?** WSSU's debt service burden as a percentage of its total expenses, which is used as the denominator because it is typically more stable than revenues.
- **How is it calculated?** Annual debt service divided by annual operating expenses (as adjusted to include interest expense of proposed debt)

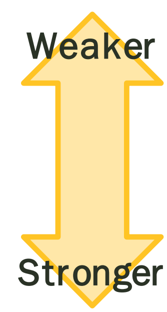
- Policy Ratio: Not to exceed 6.50%
- Projected 2021 Ratio: 5.27%
- Highest Study Period Ratio: 5.27% (2021)

Debt Service to Operating Expenses

Debt Service to Operating Expenses							
Fiscal Year	Operating Expenses	Growth	Existing Debt Service	Proposed Debt Service	Ratio - Existing	Ratio - Proposed	Ratio - Total
2021	142,815,977	1.30%	7,528,160	-	5.27%	n/a	5.27%
2022	144,672,585	1.30%	7,499,586	-	5.18%	n/a	5.18%
2023	146,553,329	1.30%	7,506,986	-	5.12%	n/a	5.12%
2024	148,458,522	1.30%	7,525,656	-	5.07%	n/a	5.07%
2025	150,388,483	1.30%	7,545,110	-	5.02%	n/a	5.02%

Debt Service to Operating Expenses





5. Debt Capacity Calculation

Debt Capacity Calculation

- For the purposes of this Institution Report and the Study, WSSU's debt capacity is based on the amount of debt WSSU could issue during the Study Period (after taking into account any legislatively approved projects detailed in **Section 3** above) without exceeding its ceiling ratio for **debt to obligated resources**.
- As presented below, WSSU's 2021 debt capacity is the lowest in any single year during the Study Period.
- Based solely on the **debt to obligated resources** ratio, WSSU's current estimated debt capacity is **$31,109,783.** After taking into account any legislatively approved projects detailed in **Section 3** above, if WSSU issued no additional debt until the last year of the Study Period, then WSSU's debt capacity for 2025 is projected to increase to **$51,744,469.**

Debt Capacity Calculation			
Fiscal Year	Debt to Obligated Resources (Current Ratio)	Debt to Obligated Resources (Ceiling)	Debt Capacity Calculation
2021	2.20	3.00	31,109,783
2022	2.08	3.00	35,961,225
2023	1.97	3.00	41,007,316
2024	1.85	3.00	46,268,311
2025	1.73	3.00	51,744,469

Limitations on Debt Capacity and Credit Rating Implications

- The debt capacity calculation shown above provides a general indication of WSSU's ability to absorb debt on its balance sheet during the Study Period and may help identify trends and issues over time.
- "**Debt capacity**" does not necessarily equate to "**debt affordability**," which takes into account a number of quantitative and qualitative factors, including project revenues and expenses, cost of funds and competing strategic priorities.
- Projecting the exact amount WSSU could issue during the Study Period without negatively impacting its credit rating is difficult for a number of reasons.
    - **Use of Multiple Factors**
        - Any single financial ratio makes up only a fraction of the "scorecard" used by rating agencies to guide their credit analysis.
        - Under Moody's approach, for example, the **financial leverage ratio** accounts for only **10%** of an issuer's overall score.
    - **The State's Impact**
        - In assessing each institution's credit rating, rating agencies also consider the State's credit rating and demographic trends, the health of its pension system, the level of support it has historically provided to the institution, and any legislation or policies affecting campus operations.

- Historically, each institution's credit rating has been bolstered by the State's strong support and overall financial health. As a result, many institutions "underperform" relative to the national median ratios for their rating category.
- If "debt capacity" were linked to those national median ratios, many institutions would have limited debt capacity for an extended period of time.

- **Factor Interdependence**
  - The quantitative and qualitative factors interact with one another in ways that are difficult to predict.
  - For example, a university's "**strategic positioning**" score, which accounts for 10% of its overall score under Moody's criteria, could deteriorate if a university either (1) issued excessive debt or (2) failed to reinvest in its campus to address its deferred maintenance obligations.
- **Distortions Across Rating Categories**
  - Because quantitative ratios account for only a portion of an issuer's final rating, the national median for any single ratio is not perfectly correlated to rating outcomes, meaning the median ratio for a lower rating category may be more stringent than the median ratio for a higher rating category. For the highest and lowest rating categories, the correlation between any single ratio and rating outcomes becomes even weaker.
  - Tying capacity directly to ratings may also distort strategic objectives. For example, an institution may be penalized for improving its rating, as it may suddenly lose all of its debt capacity because it must now comply with a much more stringent ratio.

6. Debt Profile

WSSU's detailed debt profile, including a brief description of each financed project and the source of repayment for each outstanding debt obligation, is reflected in the table on the following page.

Summary of Debt Outstanding as of FYE June 30, 2020

Series	Description	Par Outstanding	Final Maturity	Use of Funds	Refunding	Source of Repayment
2006D	Certificate of Participation	1,970,000	5/25/2031	Bowman-Gray Fieldhouse		Student Debt Service Fee
Series 2008A	UNC System Pool Revenue Bonds	265,000	10/1/2020	Brown Hall Renovations		Housing Revenues
				Civitan Park Athletic Upgrade		Student Debt Service Fee
Series 2013	General Revenue Bonds	27,865,000	4/1/2043	Housing Renovations	2002	Housing Revenues
				Martin-Shexnider Residence Hall		Housing Revenues
				Wilson Hall	1998	Housing Revenues
				Student Success Center		Student Debt Service Fee
				North Campus Project		Student Debt Service Fee
				Donald Reaves Center		Student Debt Service Fee
Series 2014	Refunding LOBs	22,415,000	6/1/2036	Rams Commons	2004	Housing Revenues
				Hairston Gleason Residence Hall		Housing Revenues
Series 2016	Refunding LOBs	11,300,000	6/1/2036	Foundation Heights Residence Hall	2006	Housing Revenues
Series 2017	General Revenue Bonds	24,560,000	10/1/2046	Residence Hall - Freshman Living Learning		Housing Revenues
				Brown Hall Renovations	2008A	Housing Revenues
				Civitan Park Athletic Upgrade	2008A	Student Debt Service Fee
Total		88,375,000				

7. Credit Profile

The following page provides a snapshot of WSSU's current credit ratings, along with (1) a summary of various credit factors identified in WSSU's most recent rating report and (2) recommendations for maintaining and improving WSSU's credit ratings in the future.

WINSTON-SALEM STATE UNIVERSITY

Credit Profile of the University – (General Revenue)

Overview

- Moody's maintains an A3 rating on WSSU's general revenue bonds. The outlook is stable.
- Standard and Poor's downgraded WSSU's general revenue bonds to a BBB+ rating. The outlook is negative.

Moody's	S&P	Fitch
Aaa	AAA	AAA
Aa1	AA+	AA+
Aa2	AA	AA
Aa3	AA-	AA-
A1	A+	A+
A2	A	A
A3	A-	A-
Baa1	**BBB+**	BBB+
Baa2	BBB	BBB
Baa3	BBB-	BBB-

Non Investment Grade

Key Information Noted in Rating Reports

Credit Strengths

- Healthy operating and capital support from State of North Carolina representing about 50% of total revenue which is strong relative to similarly rated peers
- Expected to maintain stable enrollment, liquidity and sufficient excess cash flow
- Receives comprehensive oversight and regular monitoring of operations and liquidity from the System Office

Credit Challenges

- University maintains relatively thin cash flow margins and modest liquidity
- High geographic concentration, with over 90% of students in-state, creates exposure to shifting conditions within North Carolina
- Near break even operating performance provides narrow cushion to increasing debt service commitments

Recommendations & Observations

- Continue to develop and implement strategies and policies to meet WSSU's unique challenges, including strategies to stabilize and improve enrollment and revenue.
- During COVID, continued assessment of operating cash flows and reserves can improve performance margins and debt affordability.

8. Peer Comparison

Moody's Key Credit Ratios	Winston-Salem State University	Most Recent Peer Institution Data				Moody's Public Higher Education Medians
Peer Institution		Eastern Illinois University	Alabama State University	Ramapo College	Rowan University	
Fiscal Year	2019	2019	2019	2019	2020	2019
Most Senior Rating	A3	B1	Ba2	A2	A2	A3
Total Long-Term Debt ($, in millions)	132	82	205	223	671	34
Total Cash & Investments ($, in millions)	89	129	102	100	484	52
Operating Revenue ($, in millions)	131	155	126	161	583	58
Operating Expenses ($, in millions)	129	163	127	161	587	55
Market Performance Ratios						
Annual Change in Operating Revenue (%)	-0.6%	-26.2%	-2.7%	0.9%	0.5%	-2.4%
Operating Ratios						
Operating Cash Flow Margin (%)	10.5%	8.0%	14.7%	15.1%	14.1%	11.0%
Wealth & Liquidity Ratios						
Total Cash & Investments to Operating Expenses (x)	0.7	0.8	0.8	0.6	0.8	0.7
Total Debt to Operating Expenses (x)	1.0	0.5	1.6	1.4	1.1	0.6
Monthly Days Cash on Hand (x)	44	96	26	195	164	136
Leverage Ratios						
Total Cash & Investments to Total Debt (x)	0.7	1.6	0.5	0.5	0.7	1.5
Debt Service to Operating Expenses (%)	5.3%	6.0%	15.0%	10.8%	10.7%	5.1%
Total Debt-to-Cash Flow (x)	9.6	6.6	11.1	9.2	8.2	4.6

*Note: Peers chosen from BOG approved peers if available in Moody's Municipal Financial Ratio Analysis (MFRA) Database. If approved peer data is unavailable, universities with similar credit ratings are used.

Debt Management Policies

WSSU's current debt policy is attached.

WINSTON-SALEM STATE UNIVERSITY

DEBT CAPACITY POLICY

I. SUMMARY

Debt financing, especially tax-exempt debt, provides a low cost source of capital for the Winston-Salem State University (University) to fund capital investments to achieve its mission and strategic objectives. Indeed, as the economic landscape continues to evolve and change, the use of debt will become an increasingly important tool that enables the University to move its strategy forward. In this environment, appropriate financial leverage plays a key role and is considered a long-term component of the University's balance sheet. Given that the University has limited debt repayment resources, the allocation of and management of debt is a limited resource. The guidelines provided in this document are the framework by which decisions will be made regarding the issuance of debt to finance particular capital improvements.

II. AUTHORITY

North Carolina General Statutes Chapter J 160 Article 3 authorize the Board of Governors of the University of North Carolina (the Board) to issue special obligation bonds for improvements to the facilities of the University of North Carolina System.

Prior to a bond issue, the Board designates the capital improvements financed as "special obligation bond projects" and the University's Board of Trustees approves the issuance of special obligation bonds for those projects.

The State Energy Conservation Finance Act. Article 8 of Chapter 142 of the North Carolina General Statutes authorizes the Board to solicit and through G.S. 143-64.J 7A. finance guaranteed energy conservation measures. These financing agreements must have the approval of the Office of State Budget and Management, the State Treasurer, and Counsel of State prior to closing.

III. CRITERIA

The University's debt capacity is a limited resource. Only projects that relate to the mission of the University, directly or indirectly, will be considered for debt financing. In general, projects that will be approved are broader in scope than college, or unit-based projects. However, certain mission-critical school-based projects can also receive approval.

State funding and philanthropy are expected to remain major sources of financing for the University's capital projects. In assessing the possible use of debt, all other financing and revenue sources will be considered. State appropriations and bonds, philanthropy, project-generating revenues, research facilities and administration cost reimbursement, expendable reserves, and other sources are expected to finance a portion of the cost of a project. Debt is to be used conservatively and strategically.

Projects financed through a bonding program will have received approval through the NC State Legislature annual non-appropriated capital improvements bill and will have been designated as "special obligation projects" by the North Carolina Board of Governors. Energy conservation measures will have received state agency approval as required.

A project that has a related revenue stream (self-liquidating project) will receive priority consideration. For these projects, the use of debt must be supported by an achievable financial plan that includes servicing the debt, including interest expense, financing related infrastructure and utilities, meeting any new or increased operating costs (including security applications), and providing for appropriate replacement and renovation costs. Energy conservation measures must show that savings will be adequate to service the debt and an annual monitoring costs. Other projects funded by budgetary savings, gifts, and grants will be considered on a case by case basis. Any projects that will require gift financing, or include a gift financing component, must be jointly approved by the Vice Chancellor for University Advancement and the Vice Chancellor for Finance and Administration before approaching any prospective donors about gifts to the project. In all cases, institutional strategy and not donor capacity must drive the decision to build a project.

IV. MAINTENANCE OF CREDIT RATING

Maintaining a high credit rating will permit the University to continue to issue debt and finance capital projects at favorable interest rates while meeting its strategic objectives. While the University's decision to issue additional debt will be primarily focused on the strategic importance of the new capital improvements, the potential impact of a change in credit rating will also be reviewed. The University recognizes that external economic, natural, or other events may from time to time affect the creditworthiness of its debt. Nevertheless, the University is committed to ensuring that actions within its control are prudent. Management will provide the rating agencies with full and timely access to required information. The University currently receives credit ratings from Standard and Poor's Financial Services and Moody's Investor Services.

V. METHODS OF SALE

The standard methods of sale are competitive, negotiated and private placement. University management will evaluate each method of sale and determine the best type for each bond issue.

VI. FINANCING TEAM PROFESSIONALS

Selection of financing team professionals will be accomplished based on guidance from UNC General Administration, Bond Counsel, Financial Advisor (if needed) and Underwriter pool will be selected using appropriate contractual processes.

VII. REFUNDING

Refunding and/or restructuring opportunities will be evaluated on a regular basis. Costs incurred by the refunding activity will be taken into consideration with a target of 3% present value savings. The University will also consider refinancing for other strategic reasons including the elimination of certain limitations, covenants, payment obligations or reserve requirements that reduce flexibility.

VIII. ARBITRAGE

The University will comply with federal arbitrage requirements on invested tax-exempt bond proceeds, causing arbitrage rebate calculations to be performed annually and rebate payments to be remitted to the IRS periodically as required. The University currently uses Bingham Arbitrage Rebate Services (third party) to compute any arbitrage liability.

IX. TYPES OF INSTRUMENTS

Tax-exempt debt - The University recognizes the benefits associated with tax- exempt debt, and therefore will manage the tax-exempt portfolio to maximize the use of tax-exempt debt subject to changing conditions and changes in tax law.

Construction Bridge Loans – Due to timing, the need to begin a project and receipt bond proceeds does not always coincide. Therefore, there may be a need for temporary financing (normally a note payable) until the bond proceeds are received. The University will solicit bids from financial institutions and will accept the bid that offers the lowest costs (interest, fees, etc.) that also provides the most flexibility in repayment.

X. MATURITY AND DEBT SERVICE

The useful life of the capital project financed will be taken into consideration when determining the length of financing. No capital project will be financed for more than 120% of its useful life. Call features should be structured to provide the highest degree of flexibility relative to cost. Structure of debt service will take into consideration existing debt and future capital plans. In addition, the University's amortization of debt service may be spread along the full yield curve depending on market conditions.

XI. DISCLOSURES AND COMPLIANCE

Annually, the University will review compliance with covenants and requirements under outstanding bond indentures. The University will continue to meet its ongoing disclosure requirements in accordance with SEC rule 15c2-12. The University will submit financial reports, statistical data, and any other material events as required under outstanding bond indentures. The University will comply with arbitrage requirements on invested bond funds. The University will comply with Internal Revenue Service rules related to private use and use of proceeds on tax-exempt debt.

XII. USE OF BENCHMARKS AND DEBT RATIOS

The Current Operations and Capital Improvements Appropriations Act of 2015, which was signed into law on September 18, 2015 added a new Article 5 to Chapter 116D of the General Statutes of North Carolina (the "Act"), requiring the University to provide to the UNC Board of Governors with an annual report on its current and anticipated debt levels. The Act expressly requires the University to report on two ratios – **debt to obligated resources** and a **five-year payout ratio.** The UNC Board of Governors has also required the University to provide two supplementary ratios to measure the University's debt burden – **expendable resources to debt** and **debt service to operating expenses**. In setting its target, the University considered a number of quantitative and qualitative factors, including comparisons to its designated peer institutions, its strategic initiatives, its historical results, its average age of plant and its recent and projected growth.

The **debt to obligated resources** compares outstanding debt to the funds legally available to service its debt. This provides a general indication of the University's ability to repay debt from wealth that can be accessed over time. This ratio is tied to the statutory framework for University debt. *The target ratio for the University is 2.0 with a ceiling of 3.0.*

The **five-year payout** measures the percentage of University debt to be retired within the subsequent five year period. This ratio indicates how rapidly the University's debt is amortizing and how much additional debt capacity may be created in the near term. *The target ratio for the University is 15% with a floor of 10.0%.*

The **debt service to operations** measures debt service burden as a percentage of University total operating expenses. This ratio indicates the University's operating flexibility to finance existing requirements and new initiatives. Expenses are used rather than revenues because expenses tend to be more stable year-over-year. *The target ratio for the University is 6.5%.*

The **expendable resources to debt** measures the number of times the University's liquid and expendable net assets covers its aggregate debt. This ratio provides a general indication of the University's ability to repay debt from wealth that can be accessed over time. *The target ratio for the University is 0.25.*

Effective Date: This policy becomes effective upon adoption by the Board of Trustees.

Adopted: December 9, 2016

William U. Harris

William U. Harris
Chairman, Board of Trustees
Winston-Salem State University

Scott F. Wierman
Secretary, Board of Trustees
Winston-Salem State University

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

MEETING OF THE BOARD OF GOVERNORS
Committee on Budget and Finance
May 26, 2021

AGENDA ITEM

A-5. Establishment of For-Profit Associated Entity –
University of North Carolina at Chapel Hill ....Jennifer Haygood

Situation: The University of North Carolina at Chapel Hill has requested approval to establish a for-profit associated entity ("KFBSF Real Estate Fund V") to manage real estate investment funds as an educational program at the Kenan-Flagler School of Business.

Background: Section 600.2.5.2[R] (specifically section C.2.) of the UNC Policy Manual requires constituent institutions to receive approval from the Board of Governors to establish an associated entity on a for-profit basis. Since 2006, the Kenan-Flagler School of Business has established seven for-profit student investment funds (three private equity and four real estate) with Board approval. These funds are generally $2.5 million to $3.5 million in size and are established primarily as an educational program. Students in both the Master of Business Administration (MBA) and Bachelor of Science in Business Administration (BSBA) programs evaluate investment opportunities and make recommendations to the General Partner, KFBSF, Inc., a N.C. nonprofit corporation established by Kenan-Flagler Business School Foundation, Inc. (Business Foundation). In addition to the General Partner, profits are distributed to the Limited Partners. Any funds to the General Partner in excess of expenses are transferred to the Business Foundation.

Assessment: These funds provide MBA and BSBA students with hands-on experience in operating a private investment fund. KFBSF Real Estate Funds I, II, and III are fully invested, and KFBSF Real Estate Fund IV is almost fully invested. If future students are to participate in this educational program, additional funds will need to be raised and an additional real estate fund established ("KFBSF Real Estate Fund V").

Action: This item requires a vote by the committee, with a vote by the full Board of Governors through the consent agenda.

Establishment of For-Profit Associated Entity – University of North Carolina at Chapel Hill

ISSUE OVERVIEW

In September 2006, the Board of Governors approved a request from the Kenan-Flagler School of Business of The University of North Carolina at Chapel Hill to establish three associated entities: (1) KFBSF Private Equity Fund I, L.P.; (2) KFBSF Real Estate Fund I, L.P. as for-profit investment funds; and (3) KFBSF, Inc., a North Carolina not-for-profit corporation of which the Kenan-Flagler Business School Foundation, Inc. (Business Foundation) is the sole member and serves as General Partner for the funds. The Board of Governors approved similar requests to establish Private Equity Fund II, L.P. (in 2010), Real Estate Fund II, L.P. (in 2011), Real Estate Fund III, L.P. (in 2014), Private Equity Fund III, L.P. (in 2015), and Real Estate Fund IV (in 2017) without tax-exempt status. These student investment funds are all part of an educational program of the Business School and each fund ranges from $2.5 million to $3.5 million in size.

The Limited Partner investors are by invitation only, generally have a relationship with the school, and must meet certain eligibility requirements. In addition to the General Partner, profits are distributed to the Limited Partners. There are 31 Limited Partners in Real Estate Fund I, 39 Limited Partners in Real Estate Fund II, 51 Limited Partners in Real Estate Fund III, and 55 Limited Partners in Real Estate Fund IV. Any funds to the General Partner in excess of expenses are transferred to the Business Foundation.

The General Partner is organized and operated to support the Business School and its educational programs. It is managed under the direction of its board of directors, which consists of six directors, four of whom are employees of the university and two of whom are elected by the board of directors of the Business Foundation. The General Partner is also an "Associated Entity" under Board of Governors rules and has adopted conflict of interest, document retention, and whistleblower policies in accordance with the rules and on behalf of these investment funds.

Kenan-Flagler and UNC-Chapel Hill now request authority to establish an eighth student investment fund — KFBSF Real Estate Fund V, L.P. — since KFBSF Real Estate Fund IV, L.P. is almost fully invested. If future students are to participate in this educational program, additional funds will need to be raised and an additional real estate fund established. Section 600.2.5[R] (specifically section C.2.) of the UNC Policy Manual requires that associated entities have nonprofit corporate and tax-exempt status unless the Board of Governors approve otherwise.

The primary objective of these limited partnership funds is to give selected students hands-on experience in operating private investment funds. To our knowledge, all of the KFBSF Real Estate Funds are the only student-managed real estate private equity funds in the U.S. These students work with faculty and friends of Kenan-Flagler to identify and evaluate investment opportunities and to make investment recommendations to the General Partner. Students participate, without pay, as part of an investment management course for academic credit. After an investment is made by the partnerships, the students monitor the investment. Through the identification, evaluation and monitoring process, students gain insights into the operation and management of private investment funds and their portfolio companies as well as establish personal and professional relationships with investment managers. A secondary objective is to provide investment returns to the partners who are the investors.

It is recommended that the Board of Governors approve the establishment of KFBSF Real Estate Fund V, L.P. as a UNC-Chapel Hill associated entity and an educational program at the Kenan-Flagler School of Business without obtaining nonprofit tax-exempt status.

Capital Improvement Projects – NC State University, UNC Asheville, and NC School of Science and Mathematics

ISSUE OVERVIEW

UNC System institutions are required to request authority from the Board of Governors to proceed with non-appropriated projects using available funds (non-general funds). Non-appropriated capital projects are funded by the institution and include the construction, repair, or renovation of facilities such as residence halls, dining facilities, research buildings, athletic facilities, and student health buildings.

Three UNC System institutions have requested four capital improvement projects: three new projects and one project for increased authorization.

I. NEW PROJECTS

Institution/Project Title		Total Project Cost ($)	Previous Authorization ($)	Requested Authorization ($)	Funding Source
University of North Carolina at Asheville					
1.	Ridges Parking Deck Emergency Repairs	$1,198,835	$0	$1,198,835	Trust Funds
UNCA Subtotal		*$1,198,835*	*$0*	*$1,198,835*	
North Carolina School of Science and Math					
2.	Residence Hall Renovations - Hill Phase I	$2,968,000	$800,000	$2,168,000	Donations and Gifts
3.	Academic Commons and Cafeteria Renovations - Phase I	$3,227,000	$1,200,000	$2,027,000	Donations and Gifts
NCSSM Subtotal		*$6,195,000*	*$2,000,000*	*$4,195,000*	
Grand Total		**$7,393,835**	**$2,000,000**	**$5,393,835**	

II. INCREASED AUTHORIZATION

Institution/Project Title		Total Project Cost ($)	Previous Authorization ($)	Requested Authorization ($)	Funding Source
North Carolina State University					
4.	Page Hall Partial Renovation	$8,218,948	$5,750,000	$2,468,948	F&A (81%)/Carry Forward (19%)
NC State Subtotal		*$8,218,948*	*$5,750,000*	*$2,468,948*	
Grand Total		**$15,612,783**	**$7,750,000**	**$7,862,783**	

RECOMMENDATION

All projects and associated funding sources are in compliance with G.S. 143C-8-12 (State Budget Act).

It is recommended that these projects be authorized and reported to the NC Office of State Budget and Management as non-appropriated projects that do not require any additional debt or burden on state appropriations.

III. REPORTING

The following projects are being reported to the Board of Governors and Fiscal Research Division in compliance with GS 143C-8-13 (d) which permits Chancellors to authorize Repairs and Renovation projects less than $600,000 in 13 allowable categories.

Institution/Project Title		Amount	Fund Source	R&R Category
North Carolina Central University				
1.	Art Museum Roof Replacement	$260,000	General Fund	1 - Roof repairs and replacements

Disposition of Property by Deed – North Carolina State University

ISSUE OVERVIEW
NC State University is requesting approval of disposition of property by assent to reallocation to the North Carolina Department of Transportation for the I-440 Expansion project. The request for reallocation includes the following two properties:

Parcel 1: An 11-acre tract located at the intersection of Hillsborough Street and I-440, ground leased to the NC State University Partnership Corporation. The legal property description will be determined by survey and will include approximately 2.78 acres of permanent right of way, 0.031 acres of permanent easements and 0.233 acres of temporary easements. Estimated value is $3,075,000.

Parcel 2: A 7.24-acre tract located at the intersection of Hillsborough Street and Blue Ridge Road; ground leased to the NC State University Partnership Corporation. The legal property description will be determined by survey and will include approximately 2.507 acres of permanent right of way and 0.691 acres of permanent easements. Estimated value is $3,075,000.

The total acreage to be reallocated is approximately 18.24 acres with a total estimated value of $6.15 million. By statute, the funds will revert to NC State and shall be used to remedy the impact from the I-440 expansion project.

RECOMMENDATION
It is recommended that the Board of Governors approve this request.

Form PO-2
Rev. 10/01
Original and one copy to State Property Office

STATE OF NORTH CAROLINA
DEPARTMENT OF ADMINISTRATION

DISPOSITION OF REAL PROPERTY

Institution or Agency: North Carolina State University **Date:** February 26, 2021

The Department of Administration is requested, as provided by GS 146-28 to dispose of the real property herein described by ~~(sale), (lease), (rental), or (land exchange)~~:

Assent to reallocation

This disposition is recommended for the following reasons:

The subject property is being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

Description of Property: ***(Attach additional pages if needed.)***

The subject property, identified as the 11 acre tract ground leased to the NC State University Partnership Corporation and located at the intersection of Hillsborough Street and I-440. The final quantity, description and exact location of the reallocated property will be determined by survey and is expected to include +/- 2.78 acres of Permanent Right of Way, +/- 0.031 acres of Permanent Easements, and +/- 0.233 acres of Temporary Easements.

Estimated value: $3,075,000.00

Where deed is filed, if known: Wake County Register of Deeds

If deed is in the name of agency other than applicant, state the name: N/A

Rental income, if applicable, and suggested terms: N/A

Funds from the disposal of this property are recommended for the following use:

Pursuant to Section 34.4, S.B. 99, 2017 Reg. Sess. (NC 2017), compensation for any impact from the I-440 Expansion Project to lands allocated to North Carolina State University shall be deposited in the university's account and shall be used to remedy the impact from the I-440 Expansion Project.

Action recommending this transaction was taken by the Board of Trustees **at its meeting held on February 26, 2021.**

Signature Randy Woodson
Chancellor

DISPOSITION OF REAL PROPERTY

ASSENT TO REALLOCATION

GRANTOR State of North Carolina on behalf of North Carolina State University

GRANTEE State of North Carolina

LOCATION Hillsborough Street and I-440 (Property Leased to the NC State University Partnership Corporation)

SIZE +/- 2.780 acres of Permanent Right of Way
+/- 0.031 acres of Permanent Easements
+/- 0.233 acres of Temporary Easements

RATE $3,075,000.00

TERM Permanent

USE The subject property is being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

 APPENDIX G

TRANSMITTAL OF REQUEST FOR ACQUISITION/DISPOSITION OF REAL PROPERTY

Form Number: PO-2

Preparation Date: 2/26/2021

Request: Assent to reallocation of property located at the intersection of Hillsborough Street and I-440 and ground leased to the NC State University Partnership Corporation being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

Institution NORTH CAROLINA STATE UNIVERSITY

. . . .

RECOMMENDED BY CHANCELLOR, NCSU Randy Woodson

(Chancellor's Signature)

. . . .

RECOMMENDED BY COMMITTEE ON BUILDINGS AND PROPERTY

DocuSigned by:
Ed Stack
F4E0D95567E1402...

(Chairman's Signature)

. . . .

RECOMMENDED BY BOARD OF TRUSTEES, NCSU

DocuSigned by:
80EEED2D02E04C6...

(Chairman's Signature)

. . . .

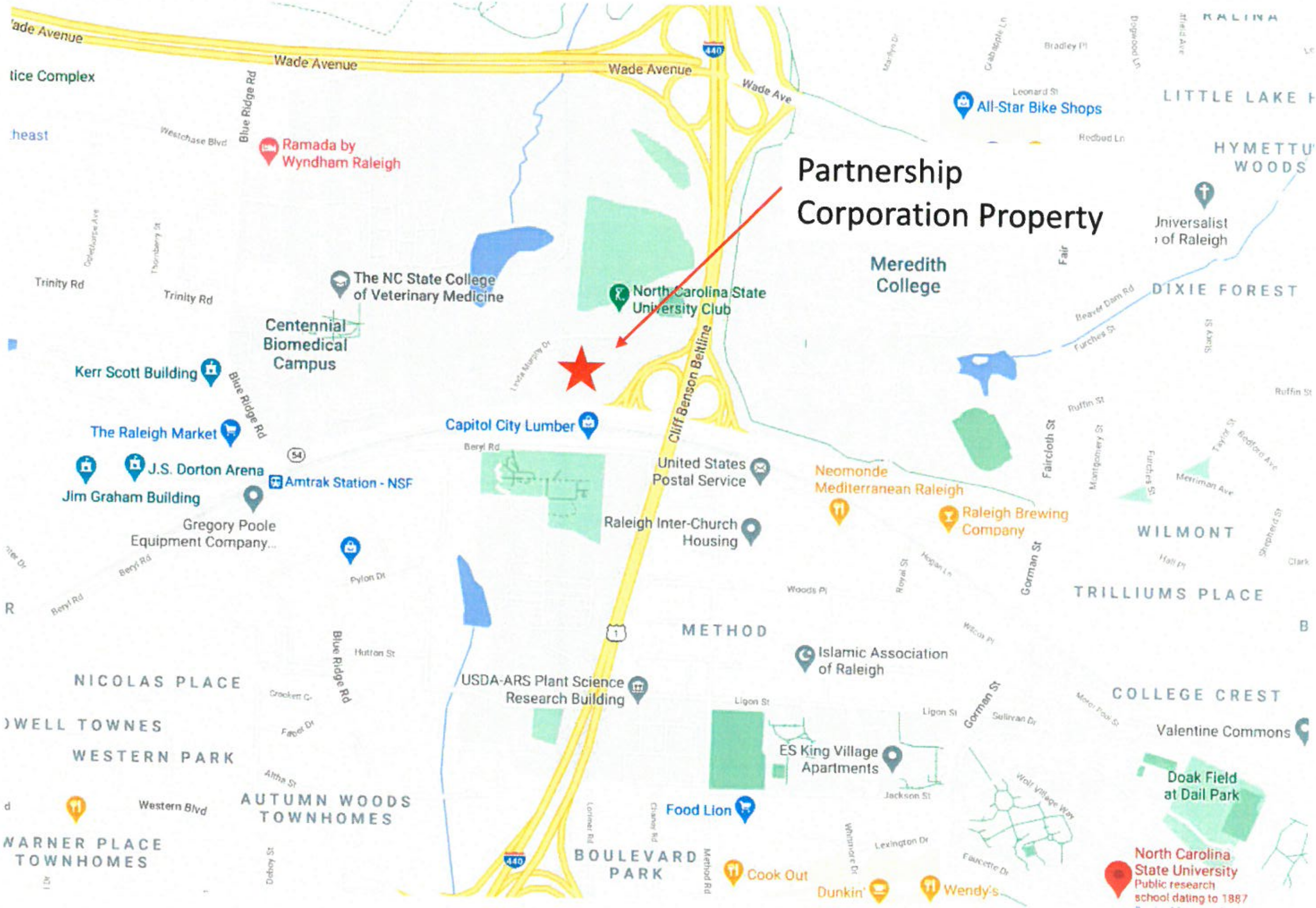
RECOMMENDED BY BOARD OF GOVERNORS ______________________

(Secretary's Signature)

. . . .

 APPENDIX G

PO2 for Partnership Corp Property at Hillsborough Street and I-440
Vicinity Map



PO2 for Partnership Corp Property at Hillsborough Street and I-440

Green: 2.78 acres of Permanent Right of Way
Red: 0.031 acres of Permanent Easements
Yellow: 0.233 acres of Temporary Easements

 APPENDIX G

Form PO-2
Rev. 10/01
Original and one copy to State Property Office

STATE OF NORTH CAROLINA
DEPARTMENT OF ADMINISTRATION

DISPOSITION OF REAL PROPERTY

Institution or Agency: North Carolina State University **Date:** February 26, 2021

The Department of Administration is requested, as provided by GS 146-28 to dispose of the real property herein described by ~~(sale), (lease), (rental), or (land exchange)~~:

Assent to reallocation

This disposition is recommended for the following reasons:

The subject property is being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

Description of Property: ***(Attach additional pages if needed.)***

The subject property, identified as the 7.24 acre tract ground leased to the NC State University Partnership Corporation and located at the intersection of Hillsborough Street and Blue Ridge Road. The final quantity, description and exact location of the reallocated property will be determined by survey and is expected to include +/- 2.507 acres of Permanent Right of Way, and +/- 0.691 acres of Permanent Easements.

Estimated value: $3,075,000.00

Where deed is filed, if known: Wake County Register of Deeds

If deed is in the name of agency other than applicant, state the name: N/A

Rental income, if applicable, and suggested terms: N/A

Funds from the disposal of this property are recommended for the following use:

Pursuant to Section 34.4, S.B. 99, 2017 Reg. Sess. (NC 2017), compensation for any impact from the I-440 Expansion Project to lands allocated to North Carolina State University shall be deposited in the university's account and shall be used to remedy the impact from the I-440 Expansion Project.

Action recommending this transaction was taken by the Board of Trustees **at its meeting held on February 26, 2021.**

Signature Randy Woodson
Chancellor

DISPOSITION OF REAL PROPERTY

ASSENT TO REALLOCATION

GRANTOR	State of North Carolina on behalf of North Carolina State University
GRANTEE	State of North Carolina
LOCATION	Hillsborough Street and Blue Ridge Road (Property Leased to the NC State University Partnership Corporation)
SIZE	+/- 2.507 acres of Permanent Right of Way +/- 0.691 acres of Permanent Easements
RATE	$3,075,000.00
TERM	Permanent
USE	The subject property is being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

TRANSMITTAL OF REQUEST FOR ACQUISITION/DISPOSITION OF REAL PROPERTY

Form Number: PO-2

Preparation Date: 2/26/2021

Request: Assent to reallocation of property located at the intersection of Hillsborough Street and Blue Ridge Road and ground leased to the NC State University Partnership Corporation being acquired by the Department of Transportation as part of the I-440 Expansion Project (STIP Project No. U-2719).

Institution NORTH CAROLINA STATE UNIVERSITY

RECOMMENDED BY CHANCELLOR, NCSU Randy Woodson
(Chancellor's Signature)

RECOMMENDED BY COMMITTEE ON BUILDINGS AND PROPERTY
DocuSigned by:
Ed Stack
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(Chairman's Signature)

RECOMMENDED BY BOARD OF TRUSTEES, NCSU
DocuSigned by:
80EEED2D02E04C6...
(Chairman's Signature)

RECOMMENDED BY BOARD OF GOVERNORS ____________________
(Secretary's Signature)

APPENDIX G

PO2 for Partnership Corp Property at Hillsborough Street and Blue Ridge Road
Vicinity Map

APPENDIX G

PO2 for Partnership Corp Property at Hillsborough Street and Blue Ridge Road

Green: 2.507 acres of Permanent Right of Way
Red: 0.691 acres of Permanent Easements

Sale of Special Obligation Bonds – University of North Carolina at Chapel Hill

ISSUE OVERVIEW

The Board of Governors is authorized to issue special obligation bonds for capital improvements projects that have been approved by the General Assembly. Although a specific source of funding is used by a campus when retiring these bonds, special obligation bonds are generally payable from all campus revenues excluding tuition, State appropriations, and restricted reserves.

The University of North Carolina at Chapel Hill requests that the Board issue special obligation bonds in one or more series of tax-exempt or taxable bonds in an aggregate principal amount not to exceed $178.5 million for the purpose of (1) refinancing $113,750,000 of its outstanding Taxable General Revenue Bonds, Series 2009B Build America Bonds (the "2009B BABs"), (2) financing all or a portion of the costs of upgrades and improvements for the Morehead Chemistry Laboratory HVAC and campus-wide life safety improvements (collectively, the "New Money Projects"), (3) refunding UNC-Chapel Hill's outstanding General Revenue Bond, Series 2002A (the "Commercial Paper"), the proceeds of which were used to pay a portion of the costs of (a) a new media and communications studio, (b) renovations to Kenan Labs, (c) renovations to UNC-Chapel Hill's DLAM facilities, (d) the acquisition of Rizzo Center Phase III, and (e) the Translational Research Building (collectively, the "CP Projects"); and (4) paying costs associated with the issuance of the 2021 Bonds.

Except for financing approval for the New Money Projects, all projects in this request have been previously approved by the Board. The General Assembly approved (1) the Rizzo Center Phase III acquisition under S.L. 2013-394 (H.B. 480), (2) the media and communications studio, the renovations to Kenan Labs and to UNC-Chapel Hill's DLAM facilities, and the Medical Education Building under S.L. 2017-141 (H.B. 620), (3) the South Parking Deck and the Translational Research Building under S.L. 2018-35 (H.B. 1054), and (4) the New Money Projects under S.L. 2020-66 (S.B. 733). UNC-Chapel Hill has in place a reimbursement resolution related to the Morehead Chemistry Laboratory HVAC facility for $15.4 million declaring its intent to issue bonds and reimburse UNC-Chapel Hill for applicable project costs.

Current estimates indicate approximately $24 million in net present value savings by refunding the 2009B BABs, representing approximately 21 percent of the par amount refunded, which is based on an assumed cost of funds of approximately 2.1 percent. Because the 2009B BABs were issued as taxable "Build America Bonds" under the American Recovery and Reinvestment Act of 2009, UNC-Chapel Hill pays a taxable rate of interest on the 2009B BABs but receives a subsidy payment from the federal government equal to a percentage of each interest payment. The subsidy, which was originally set at 35 percent of each interest payment, has been reduced since 2013 due to federal budget sequestration. In addition to the anticipated savings described above, refinancing the 2009B Bonds will eliminate the risk associated with any further reduction or elimination of the federal subsidy payments.

To take advantage of prevailing market conditions, reduce long-term interest rate risk, and streamline costs of issuance, UNC-Chapel Hill is also requesting authority (1) to refinance up to $36 million of its outstanding Commercial Paper originally issued to finance all or a portion of the CP Projects and (2) to issue up to $28.75 million to finance all or a portion of the New Money Projects.

The 2021 Bonds will be issued in one or more series of taxable and tax-exempt bonds based on the use of the refinanced facilities and market conditions at the time of pricing. The 2021 Bonds will be sold in the public market on a negotiated basis by BofA Securities, Inc., Goldman Sachs & Co. LLC, and Loop Capital Markets LLC, all members of the pool of approved underwriters selected by UNC-Chapel Hill through a competitive RFP process.

Currently, UNC-Chapel Hill is rated “Aaa” with a stable outlook by Moody’s Investors Service, “AAA” with a stable outlook by Standard & Poor’s Global Ratings, and “AAA” with a stable outlook by Fitch Ratings. The transaction is not expected to have any impact on UNC-Chapel Hill’s credit ratings.

Parker Poe Adams & Bernstein LLP is bond counsel, and First Tryon Advisors is the financial advisor.

RECOMMENDATION

It is recommended that the president of the University, or his designee, be authorized to sell the special obligation bonds through the attached resolution.

RESOLUTION OF THE BOARD OF GOVERNORS OF THE UNIVERSITY OF NORTH CAROLINA SYSTEM AUTHORIZING THE ISSUANCE OF SPECIAL OBLIGATION BONDS TO REFINANCE SPECIAL OBLIGATION BOND PROJECTS FOR THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

WHEREAS, by Chapter 116 of the General Statutes of North Carolina, the Board of Governors (the *"Board"*) of the University of North Carolina System (the *"UNC System"*) is vested with general control and supervision of the constituent institutions of the UNC System; and

WHEREAS, the Board is authorized by Chapter 116D of the General Statutes of North Carolina (the *"Act"*) to issue, subject to the approval of the Director of the Budget, at one time or from time to time, (1) special obligation bonds of the Board for the purpose of paying all or any part of the cost of acquiring, constructing, or providing special obligation bond projects and (2) refunding bonds for the purpose of refunding any bonds by the Board under the Act or under any Article of Chapter 116 of the General Statutes of North Carolina, including the payment of any redemption premium on them and any interest accrued or to accrue to the date of redemption of the bonds refunded; and

WHEREAS, the University of North Carolina at Chapel Hill (*"UNC-Chapel Hill"*) and its financial advisor have advised the Board that it may be able to achieve debt service savings and reduce the risk of further cuts in federal subsidy payments by refunding the outstanding The University of North Carolina at Chapel Hill Taxable General Revenue Bonds (Build America Bonds), Series 2009B (the *"2009B Bonds"*) previously issued by the Board on behalf of UNC-Chapel Hill to finance and refinance various special obligation bond projects at UNC-Chapel Hill;

WHEREAS, UNC-Chapel Hill has advised the Board it would like to refund the outstanding The University of North Carolina at Chapel Hill General Revenue Bond, Series 2002A (the *"Commercial Paper Bonds"*) in order to provide long-term financing for the following special obligation bond projects all or a portion of which was financed with the outstanding Commercial Paper Bonds: (1) Rizzo Center Phase III Acquisition (authorized by S.L. 2013-394 of the 2013 Session Laws, (2) Media and Communications Studio (Athletics), DLAM Renovations (swing space for Berryhill Hall) & AAALAC Certification and Kenan Labs – Renovations to Labs 7A, 7B, 7C, 8B, & 8C for Applied Physics, each authorized by S.L. 2017-141 of the 2017 Session Laws and (3) Translational Research Building, authorized by S.L. 2018-35 of the 2018 Session Laws (collectively, the *"CP Projects"*);

WHEREAS, UNC-Chapel Hill has advised the Board that while it is in the market for the foregoing items, depending on market conditions, it would like to consider financing additional special obligation bond projects authorized by the General Assembly including Morehead Chemistry Laboratory HVAC Upgrades and Campus-Wide Life Safety Upgrades – Phase 1, each authorized by S.L. 2020-66 of the 2020 Session Laws (the *"2020 Bond Projects"*);

WHEREAS, to achieve the goals set forth above, the Board has determined to authorize the issuance of The University of North Carolina at Chapel Hill General Revenue Bonds (with appropriate descriptions and series designations) in one or more series (the *"Bonds"*) in an aggregate principal amount not to exceed $178,500,000 to (1) refund all or a portion of the 2009B Bonds and the Commercial Paper Bonds (collectively, the *"Refunded Bonds"*), (2) finance the 2020 Bond Projects and (3) pay the costs of issuing the Bonds; and

WHEREAS, the Board has determined to issue the Bonds under the General Trust Indenture dated as of January 15, 2001 (the *"General Indenture"*) between the Board and The Bank of New York, the successor to which is The Bank of New York Mellon Trust Company, N.A., as trustee (the *"Trustee"*), and a Series Indenture, Number 18 (the *"Series Indenture"*) between the Board and the Trustee; and

WHEREAS, the Bonds and other obligations issued under the General Indenture are payable solely from any funds of UNC-Chapel Hill or the Board in each Fiscal Year remaining after satisfying obligations of UNC-Chapel Hill or the Board under a trust indenture, trust agreement or bond resolution providing for the issuance of debt of the Board with respect to UNC-Chapel Hill as of the date of the General Indenture, including Unrestricted General Fund balances and Unrestricted Quasi-Endowment Fund balances shown as such on the UNC-Chapel Hill financial statements, but excluding (1) appropriations by the General Assembly of the State from the State General Fund, (2) tuition payments by UNC-Chapel Hill students, (3) funds whose purpose has been restricted by the gift, grant or payee thereof and (4) revenues generated by Special Facilities (as defined in the General Indenture) (the *"Available Funds"*); and

WHEREAS, BofA Securities, Inc., Goldman Sachs & Co. LLC and Loop Capital Markets LLC (the *"Underwriters"*) will agree to purchase all of the Bonds pursuant to the terms of a bond purchase agreement (the *"Purchase Agreement"*) between the Board and the Underwriters; and

WHEREAS, there have been made available to the Board forms of the following documents (the *"Board Documents"*), which the Board proposes to approve, ratify, execute and deliver, as applicable, to effectuate the financing:

1. the General Indenture;

2. the Series Indenture;

3. the Purchase Agreement;

4. the Preliminary Official Statement (the *"Preliminary Official Statement"*) relating to the Bonds, which after the inclusion of certain pricing and other information will become the final Official Statement (the *"Official Statement"*) relating to the Bonds; and

5. the Bonds in the form set forth in the Series Indenture; and

WHEREAS, the issuance of the Bonds does not directly or indirectly or contingently obligate the State or any agency or political subdivision of the State to levy or to pledge any taxes to pay the cost, in whole or in part, of the Bonds in compliance with Section 116D-23 of the Act;

NOW, THEREFORE, BE IT RESOLVED by the Board as follows:

Section 1. ***Authorization of Bonds.*** That the Board hereby authorizes the issuance of the Bonds under the General Indenture and the Series Indenture as follows:

(1) in an aggregate principal amount not to exceed $113,750,000 to pay the costs of refunding the 2009B Bonds and the costs of issuance of the Bonds related thereto;

(2) in an aggregate principal amount not to exceed $36,000,000 to pay the costs of refunding the Commercial Paper Bonds and the costs of issuance of the Bonds related thereto; and

(3) in an aggregate principal amount not to exceed $28,750,000 to pay the costs of the 2020 Bond Projects and the costs of issuance of the Bonds related thereto.

The maximum principal amount of Bonds to be issued related to the refunding of the Commercial Paper Bonds and financing of the 2020 Bond Projects may also include an additional 5% of the amounts specified above to pay additional issuance expenses and other related costs. The Bonds may be issued in one or more series of bonds in any combination of tax-exempt and taxable bonds for any or all of the purposes set forth herein, as the Senior Vice President for Finance and Administration and CFO of the UNC System (the *"SVP-Finance"*), or her designee, in consultation with the appropriate officers at UNC-Chapel Hill, determine to be in UNC-Chapel Hill's best interest to achieve the goals set forth herein.

Section 2. ***Sufficiency of Available Funds.*** That the Board hereby finds that sufficient Available Funds are available to pay the principal of and interest on the Bonds and to provide for the maintenance and operation of the facilities at UNC-Chapel Hill to the extent required under the General Indenture.

Section 3. ***Selection of Financing Team Members.*** That the Board authorizes the SVP-Finance and the Vice Chancellor for Finance and Operations of UNC-Chapel Hill to select any professionals necessary to undertake the financing as contemplated in this Resolution.

Section 4. ***Authorization of Board Documents.*** That the form and content of the Board Documents be and the same hereby are in all respects authorized, approved and confirmed, and the Chairman of the Board, the President of the UNC System, the SVP-Finance, the Secretary and the Assistant Secretary of the Board and the Secretary of the UNC System, or anyone acting in an interim capacity, individually and collectively (the *"Authorized Officers"*), be and they hereby are each authorized, empowered and directed to execute and deliver the Board Documents for and on behalf of the Board, including necessary counterparts, in substantially the form and content presented to the Board, but with such changes, modifications, additions or deletions therein as to them seem necessary, desirable or appropriate, their execution thereof to constitute conclusive evidence of the Board's approval of any and all such changes, modifications, additions or deletions therein, and that from and after the execution and delivery of the Board Documents, the Authorized Officers are each hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of the Board Documents as executed.

Section 5. ***Authorization of Purchase Agreement.*** That the Chairman of the Board, the President of the UNC System and the SVP-Finance, individually or collectively, be and they hereby are each authorized, empowered and directed to execute and deliver the Purchase Agreement for and on behalf of the Board, including necessary counterparts, in a form and substance consistent with the terms of this Resolution and that from and after the execution and delivery of the Purchase Agreement, the Authorized Officers are each hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of the Purchase Agreement as executed.

Section 6. ***Authorization of Preliminary Official Statement and Official Statement.*** That the form, terms and content of the Preliminary Official Statement be and the same hereby are in all respects authorized, approved and confirmed, and the use of the Preliminary Official Statement by the

Underwriters in connection with the sale of the Bonds is hereby in all respects authorized, approved, ratified and confirmed. The President of the UNC System and the SVP-Finance, or their respective designees, individually or collectively, be and they hereby are each authorized, empowered and directed to deliver the Official Statement for and on behalf of the Board in substantially the form and content of the Preliminary Official Statement presented to the Board, but with such changes, modifications, additions or deletions therein as to them seem necessary, desirable or appropriate, their execution of the Purchase Agreement to constitute conclusive evidence of the Board's approval of any and all such changes, modifications, additions or deletions therein, and the use of the Preliminary Official Statement and the Official Statement by the Underwriters in connection with the sale of the Bonds to investors is hereby authorized, approved and confirmed.

Section 7. ***Commercial Paper Bond and other Available Funds for the 2020 Bond Projects.*** If it is determined not to issue the Bonds to complete any or all of the 2020 Bond Projects, the Board hereby (a) approves and ratifies the use of the proceeds from the issuance of new Commercial Paper Bonds and the use of other Available Funds, or any combination thereof, in order to finance and pay the costs of the 2020 Bond Projects and (b) finds that sufficient Available Funds are available to pay the principal of and interest on the Commercial Paper Bonds for the 2020 Bond Projects, if issued, and to provide for the maintenance and operation of the facilities at UNC-Chapel Hill to the extent required under the General Indenture.

Section 8. ***General Authority.*** From and after the execution and delivery of the documents hereinabove authorized, the Authorized Officers are each hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of said documents as executed, and are further authorized to take any and all further actions to execute and deliver any and all other documents as may be necessary to the issuance and on-going administration of the Bonds, and otherwise contemplated by this Resolution. Any provision in this Resolution that authorizes more than one Authorized Officer to take certain actions shall be read to permit such Authorized Officers to take the authorized actions either individually or collectively. The Chancellor and the Vice Chancellor for Finance and Operations at UNC-Chapel Hill, or their respective designees, individually or collectively, are hereby authorized to execute and deliver all documents and take such actions as may be necessary to the issuance and on-going administration of the Bonds, and otherwise contemplated by this Resolution on behalf of UNC-Chapel Hill.

Section 9. ***Conflicting Provisions.*** All resolutions or parts thereof of the Board in conflict with the provisions herein contained are, to the extent of such conflict, hereby superseded and repealed.

Section 10. ***Effective Date.*** This Resolution is effective immediately on the date of its adoption.

PASSED, ADOPTED, AND APPROVED this 27th day of May, 2021.

STATE OF NORTH CAROLINA
COUNTY OF ORANGE

I, Meredith McCullen, Secretary of the University of North Carolina System, DO HEREBY CERTIFY that (1) the foregoing is a full, true and correct copy of the approving resolution adopted by the Board of Governors of the University of North Carolina System at its meeting on May 27, 2021, and appearing in the minutes of such meeting, (2) notice of the meeting of the Board of Governors of the University of North Carolina System held on May 27, 2021 was sent to each member of the Board, and (3) a quorum was present at the meeting on May 27, 2021, at which time the foregoing Resolution was adopted.

WITNESS, my hand and the seal of the University of North Carolina System this ____ day of May, 2021

[SEAL]

Meredith McCullen, Secretary of the University of North Carolina System

Remarketing of Special Obligation Bonds – University of North Carolina at Chapel Hill

ISSUE OVERVIEW

The Board of Governors is authorized to issue special obligation bonds for capital improvements projects that have been approved by the General Assembly. Although a specific source of funding is used by a campus when retiring these bonds, special obligation bonds are generally payable from all campus revenues excluding tuition, State appropriations, and restricted reserves.

The University of North Carolina at Chapel Hill requests that the Board approve the remarketing of (1) its General Revenue Refunding Bonds, 2019A (the "2019A Bonds") and (2) its General Revenue Refunding Bonds, 2019B Bonds (the "2019B Bonds," and together with the 2019A Bonds, the "2019 Bonds") prior to their mandatory tender date and the delivery of a related remarketing supplement. UNC-Chapel Hill is requesting to remarket the 2019 Bonds, the proceeds of which refunded bonds that were originally issued in 2012 and 2016. The Board has previously approved the remarketing or refinancing of the bonds in 2016 and 2019.

The 2019 Bonds were issued as "floating rate notes" and are subject to mandatory tender on December 1, 2021, in accordance with their terms. The 2019 Bonds may be refinanced or remarketed on or after June 1, 2021, without penalty. Approval of remarketing the 2019 Bonds will avoid tendering the bonds on December 1, 2021, or incurring additional cost of issuance related to another transaction.

UNC-Chapel Hill requests that the Board approve (1) the remarketing of the 2019 Bonds prior to their mandatory tender date and (2) the delivery of a new remarketing supplement in connection with the remarketing of the 2019 Bonds. This request would authorize UNC-Chapel Hill to remarket the 2019 Bonds in accordance with their terms in a new variable interest rate mode while maintaining their original maturity dates.

UNC-Chapel Hill anticipates that each series of the 2019 Bonds will be remarketed on a variable rate basis and will have a mandatory purchase date within one to three years. Requests for remarketing bonds is administrative and shall occur prior to each mandatory purchase date. To reduce liquidity risk associated with each mandatory purchase date, UNC-Chapel Hill expects the 2019 Bonds to be remarketed with a term-out provision that will allow UNC-Chapel Hill to repay or restructure the 2019 Bonds over a period of up to three years following each mandatory purchase date, consistent with the 2019 Bonds' existing terms.

The 2021 Bonds will be remarketed by BofA Securities, Inc. who is a member of the pool of approved underwriters selected by UNC-Chapel Hill through a competitive RFP process.

Currently, UNC-Chapel Hill is rated "Aaa" with a stable outlook by Moody's Investors Service, "AAA" with a stable outlook by Standard & Poor's Global Ratings, and "AAA" with a stable outlook by Fitch Ratings. The transaction is not expected to have any impact on UNC-Chapel Hill's credit ratings.

Parker Poe Adams & Bernstein LLP is bond counsel, and First Tryon Advisors is the financial advisor.

RECOMMENDATION

It is recommended that the president of the University, or his designee, be authorized to remarket the special obligation bonds through the attached resolution.

RESOLUTION OF THE BOARD OF GOVERNORS OF THE UNIVERSITY OF NORTH CAROLINA SYSTEM AUTHORIZING THE CONVERSION AND REMARKETING OF SPECIAL OBLIGATION BONDS FOR THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

WHEREAS, by Chapter 116 of the General Statutes of North Carolina, the Board of Governors (the *"Board"*) of the University of North Carolina System (the *"UNC System"*) is vested with general control and supervision of the constituent institutions of the UNC System; and

WHEREAS, the Board is authorized by Chapter 116D of the General Statutes of North Carolina (the *"Act"*) to issue, subject to the approval of the Director of the Budget, at one time or from time to time, (1) special obligation bonds of the Board for the purpose of paying all or any part of the cost of acquiring, constructing, or providing special obligation bond projects and (2) refunding bonds for the purpose of refunding any bonds by the Board under the Act or under any Article of Chapter 116 of the General Statutes of North Carolina, including the payment of any redemption premium on them and any interest accrued or to accrue to the date of redemption of the bonds refunded; and

WHEREAS, the Board has previously issued the University of North Carolina at Chapel Hill General Revenue Refunding Bonds, Series 2019A and the University of North Carolina at Chapel Hill General Revenue Refunding Bonds, Series 2019B (the *"2019 Bonds"*), the proceeds of which were used to refinance the construction, renovation, improvement, equipping and furnishing of certain facilities on the UNC Chapel Hill campus, under the General Indenture and Series Indenture, Number 16 dated as of February 1, 2019 (the *"Sixteenth Series Indenture"*) between the Board and the Trustee;

WHEREAS, the Board has determined to convert the interest rate and remarket the 2019 Bonds that are subject to mandatory tender by their terms on December 1, 2021 in accordance with the Sixteenth Series Indenture;

WHEREAS, in connection with the remarketing of the 2019 Bonds, the Board has determined to cause to be prepared and delivered a Remarketing Supplement (the *"2019 Bonds Remarketing Supplement"*), a form of which has been made available to the Board;

NOW, THEREFORE, BE IT RESOLVED by the Board as follows:

Section 1. ***Remarketing of 2019 Bonds.*** That the Board authorizes the conversion of the interest rate and remarketing of the 2019 Bonds in accordance with the terms of the Sixteenth Series Indenture. The Authorized Officers, be and they hereby are each authorized, empowered and directed to execute and deliver such amendments to the Sixteenth Series Indenture for and on behalf of the Board as shall to them seem necessary, desirable or appropriate in remarketing the 2019 Bonds. BofA Securities, Inc. (the *"Remarketing Agent"*) is hereby appointed as the Remarketing Agent for the remarketing of the 2019 Bonds. The Vice Chancellor for Finance and Operations at UNC-Chapel Hill, in consultation with the SVP-Finance, is authorized and directed to establish the terms for the remarketing of the 2019 Bonds in accordance with the Sixteenth Series Indenture. The 2019 Bonds may be remarketed at a premium to provide funds, in addition to funds to pay the tender price of the 2019 Bonds, to pay the costs of issuance related to the remarketing of the 2019 Bonds. The form, terms and content of the 2019 Bonds Remarketing Supplement be and the same hereby are in all respects authorized, approved and confirmed, and the use of the 2019 Bonds Remarketing Supplement by the Remarketing Agent in connection with the remarketing of the 2019 Bonds is hereby in all respects authorized, approved, ratified and confirmed. The Chairman of the Board, the President, the SVP-Finance and Vice Chancellor for Finance and

Operations of UNC Chapel Hill, individually or collectively, be and they hereby are each authorized, empowered and directed to deliver the 2019 Bonds Remarketing Supplement for and on behalf of the Board in substantially the form and content of the 2019 Bonds Remarketing Supplement presented to the Board, but with such changes, modifications, additions or deletions therein as shall to them seem necessary, desirable or appropriate.

Section 2. ***General Authority.*** From and after the execution and delivery of the documents hereinabove authorized, the Authorized Officers are each hereby authorized, empowered and directed to do all such acts and things and to execute all such documents as may be necessary to carry out and comply with the provisions of said documents as executed, and are further authorized to take any and all further actions to execute and deliver any and all other documents as may be necessary to remarketing of the 2019 Bonds and otherwise contemplated by this Resolution. Any provision in this Resolution that authorizes more than one officer to take certain actions shall be read to permit such officers to take the authorized actions either individually or collectively. The Chancellor and the Vice Chancellor for Finance and Operations at UNC-Chapel Hill, or their respective designees, individually or collectively, are hereby authorized to execute and deliver all documents and take such actions as may be necessary to the on-going administration and the remarketing of the 2019 Bonds and otherwise contemplated by this Resolution on behalf of UNC-Chapel Hill.

Section 3. ***Conflicting Provisions.*** All resolutions or parts thereof of the Board in conflict with the provisions herein contained are, to the extent of such conflict, hereby superseded and repealed.

Section 4. ***Effective Date.*** This Resolution is effective immediately on the date of its adoption.

PASSED, ADOPTED, AND APPROVED this 27th day of May, 2021.

STATE OF NORTH CAROLINA
COUNTY OF ORANGE

I, Meredith McCullen, Secretary of the University of North Carolina System, DO HEREBY CERTIFY that (1) the foregoing is a full, true and correct copy of the approving resolution adopted by the Board of Governors of the University of North Carolina System at its meeting on May 27, 2021, and appearing in the minutes of such meeting, (2) notice of the meeting of the Board of Governors of the University of North Carolina System held on May 27, 2021 was sent to each member of the Board, and (3) a quorum was present at the meeting on May 27, 2021, at which time the foregoing Resolution was adopted.

WITNESS, my hand and the seal of the University of North Carolina System this ____ day of May, 2021

[SEAL]

____

Meredith McCullen, Secretary of the University of North Carolina System

2020 Faculty Teaching Workload Report

May 27, 2021

University of North Carolina System
Chapel Hill, North Carolina

Introduction

Faculty work is complex, with all faculty engaging in some combination of research, teaching, and service. As the expectations for this mixture vary across field, faculty type, and institutional type, Section 400.3.4 of the UNC Policy *Monitoring Faculty Teaching Workloads* states that "all campuses and constituent institutions shall implement annual faculty performance evaluation policies that measure and reward allaspects of faculty workload, separately and in combination, consistent with the instructional mission." The policy addresses faculty teaching workload policies, standardized data collection systems, and campus-based processes for monitoring faculty teaching workload. The full policy can be found in Appendix A.

In 2011, the UNC Board of Governors (Board) Committee on Educational Planning, Policies, and Programs appointed five Board members, two university chancellors, and two other senior advisors to the Faculty Workload Advisory Group to review Section 400.3.4 of the UNC Policy Manual. In spring 2012, the Advisory Group presented their findings and recommendations to the full committee. Based on the findings and recommendations of the Advisory Group, the Board adopted an amended policy on faculty teaching workloads on January 11, 2013, which states:

> All campuses and constituent institutions will develop and implement policies and procedures to monitor faculty teaching loads and to approve significant or sustained variations from expected minimums. Policies must include the criteria and approval process for reductions in institutional load attendant to increased administrative responsibilities, externally-funded research, including course buy-outs, and additional institutional and departmental service obligations. Given the complexity of faculty work activities, individual faculty teaching loads are best managed at the department and school level, and not the system or state level. However, to ensure meaningful comparisons of faculty teaching load over time and across peers, all campuses shall adopt a standard methodology for collecting data on teaching load. This standard is described below.
>
> For reporting purposes the Board of Governors (Board) will annually review data from the National Study of Instructional Costs & Productivity (The Delaware Study) of teaching loads for full time equivalent faculty within the University. The Delaware Study provides comparable teaching data at the discipline level using the following faculty categories: regular tenure stream, other regular, supplemental and teaching assistants. Teaching load is derived by the number of organized class courses a faculty member is assigned in a given semester. Courses that are not conducted in regularly scheduled class meetings, such as "readings," "special topics," "problems" or "research" courses, including dissertation/thesis research, and "individual lesson" courses (typically in music and fine arts) are excluded from the Teaching Load calculation.

Per Board policy, standard annual teaching loads will be differentiated to accommodate the diverse missions of the individual campuses as articulated by Carnegie Classification. The following represent the standard faculty teaching load measured by the average number of organized class courses taught per semester:

Research Universities - Very High Research Activity: 2
Research Universities - High Research Activity & Doctoral Granting: 2.5
Master's Colleges & Universities - Large & Medium: 3
Baccalaureate Colleges - Arts & Sciences: 4
Baccalaureate Colleges - Diverse Fields: 4

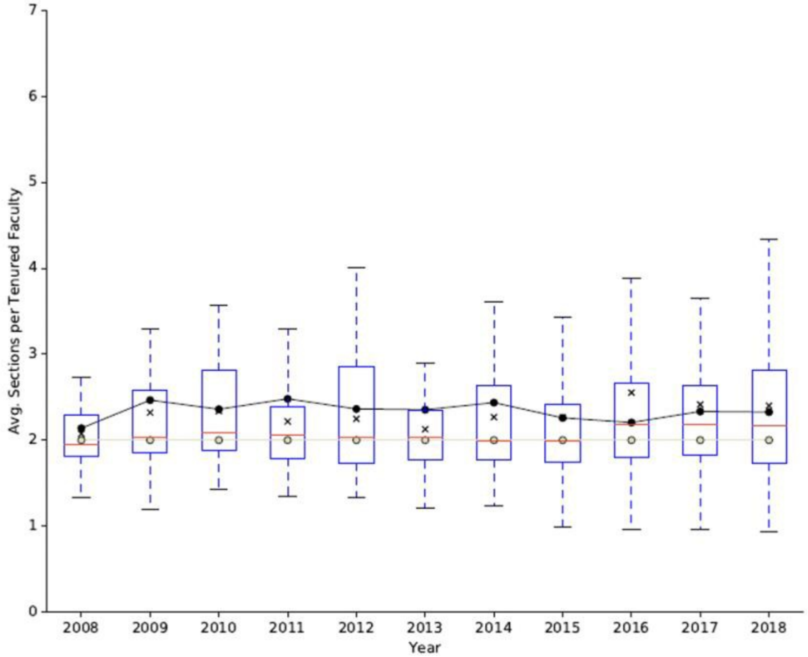
A benefit of participation in the Delaware Study is that data are provided for all participating institutions by Carnegie Classification. This allows the results from UNC System constituent institutions to be benchmarked against peers by Carnegie Classification.[1] This comparison provides a national snapshot of comparable institutions' figures and helps to ground the results of System constituent institutions in a national context. Please notethat this is not a representative sample of institutions and that both the number and specific institutionsvary from year to year.

The following pages present the faculty teaching workload section averages for the category "Tenured Faculty," contrasting the average sections taught at System constituent institutions with that of the same Carnegie Classification from the Delaware Study by only tenured or tenure-track faculty members. Appendix B1 and Appendix B2 present institutional level details for sections taught and student credit hours (SCHs) per FTE faculty for "Tenured Faculty." Appendix B3 and Appendix B4 provide the same institutional leveldetail for the Delaware Category of "All Faculty." [2]

[1]In order to process all institutional data fully, the most recent data provided by the Delaware Study for UNC institutions and their peers are from fall 2018.
[2]All Faculty includes: Tenured/Tenure-Track Faculty, Other Regular Faculty, Supplemental Faculty, and Teaching Assistants.

UNC System Instructional Teaching Load: Research Universities Very High

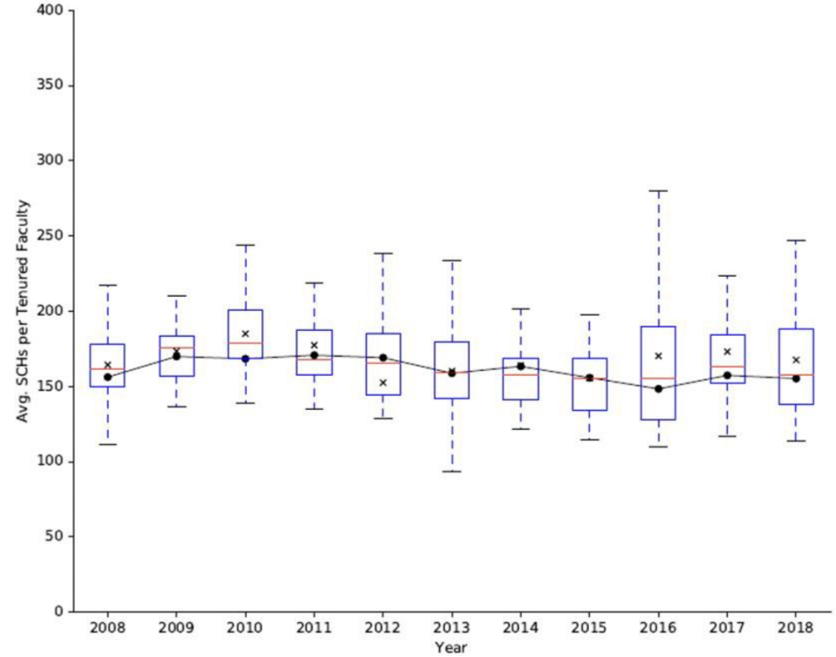
Figure 1: Average Sections Per Semester per FTE1 Faculty, 2008 – 2018



—●— : UNC Group Mean — ○ — : UNC Group Standard

x : Carnegie Mean – : Carnegie Median □ : Carnegie Interquartile Range (IQR)

Figure 2: Average SCHs Per Semester per FTE1 Faculty, 2008 – 2018



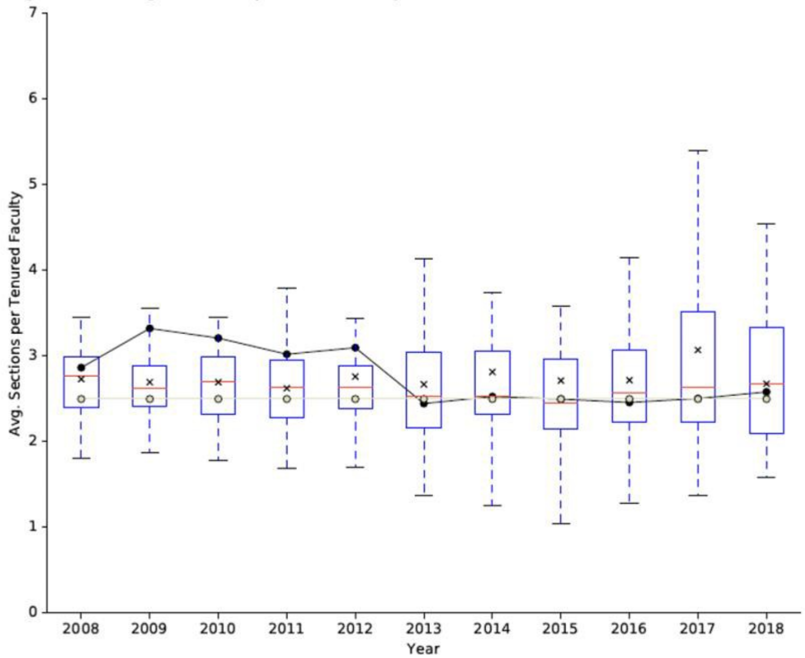
—●— : UNC Group Mean — ○ — : UNC Group Standard

x : Carnegie Mean – : Carnegie Median □ : Carnegie Interquartile Range (IQR)

- UNC System constituent institutions in the Research Universities – Very High category: North Carolina State University and UNC-Chapel Hill.

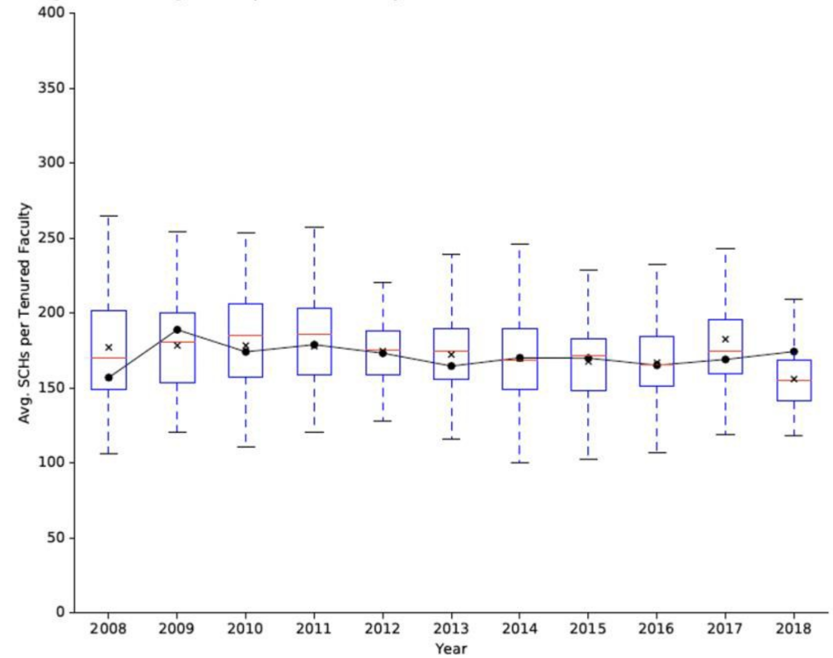
UNC System Instructional Teaching Load: Research Universities High and Doctoral

Figure 1: Average Sections Per Semester per FTE1 Faculty, 2008 – 2018



—●— : UNC Group Mean —○— : UNC Group Standard
x : Carnegie Mean – : Carnegie Median □ : Carnegie Interquartile Range (IQR)

Figure 2: Average SCHs Per Semester per FTE1 Faculty, 2008 – 2018



—●— : UNC Group Mean —○— : UNC Group Standard
x : Carnegie Mean – : Carnegie Median □ : Carnegie Interquartile Range (IQR)

- UNC System constituent institutions in the Research Universities – High category: East Carolina University, North Carolina A&T State University, UNC Charlotte, and UNC Greensboro: All Years. UNC Wilmington is included for 2018.
- This group meets or exceeds the Board standard for sections taught per semester in 2008-12, 2014-15, and 2017-18.

UNC System Instructional Teaching Load: Master's – All Levels

Figure 1: Average Sections Per Semester per FTE1 Faculty, 2008 – 2018

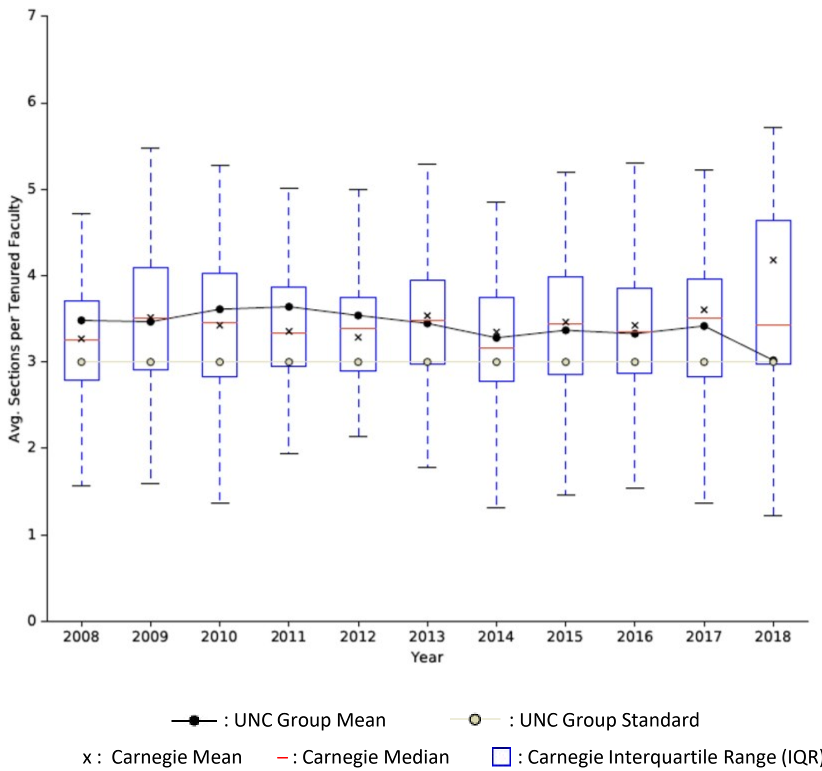
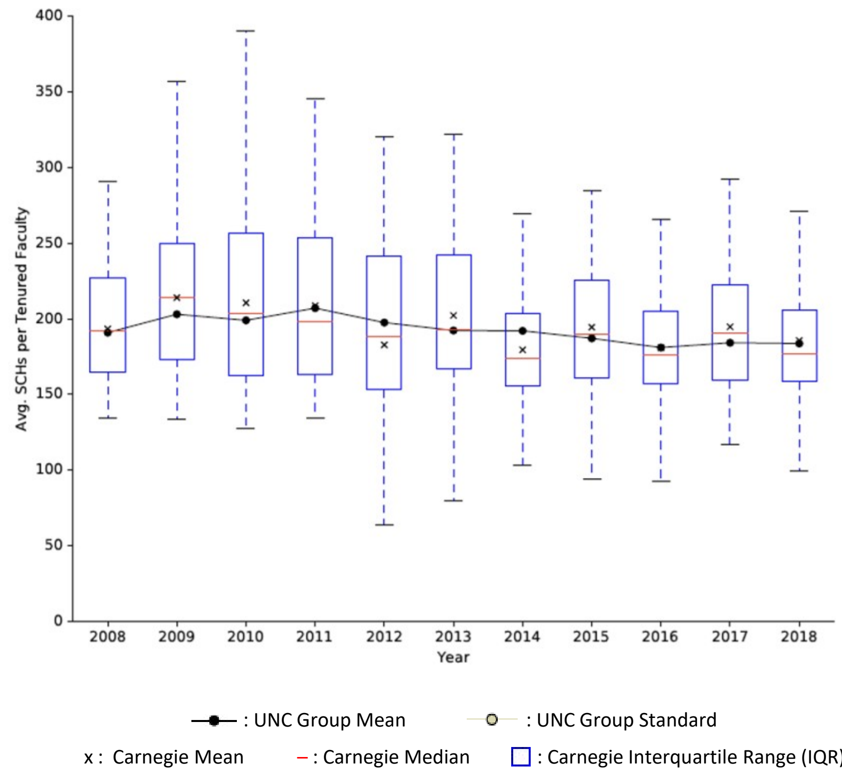


Figure 2: Average SCHs Per Semester per FTE1 Faculty, 2008 – 2018



- UNC System constituent institutions in the Master's categories: Appalachian State University, Fayetteville State University, North Carolina Central University, UNC Pembroke, Western Carolina University, and Winston-Salem State University: All Years. Elizabeth City State University was included 2014-2017. UNC Wilmington was included from 2008-2017.
- This group meets or exceeds the Board standard for sections taught per semester in all years.

UNC System Instructional Teaching Load: Baccalaureate – Arts & Sciences and Diverse Fields

Figure 1: Average Sections Per Semester per FTE1 Faculty, 2008 – 2018

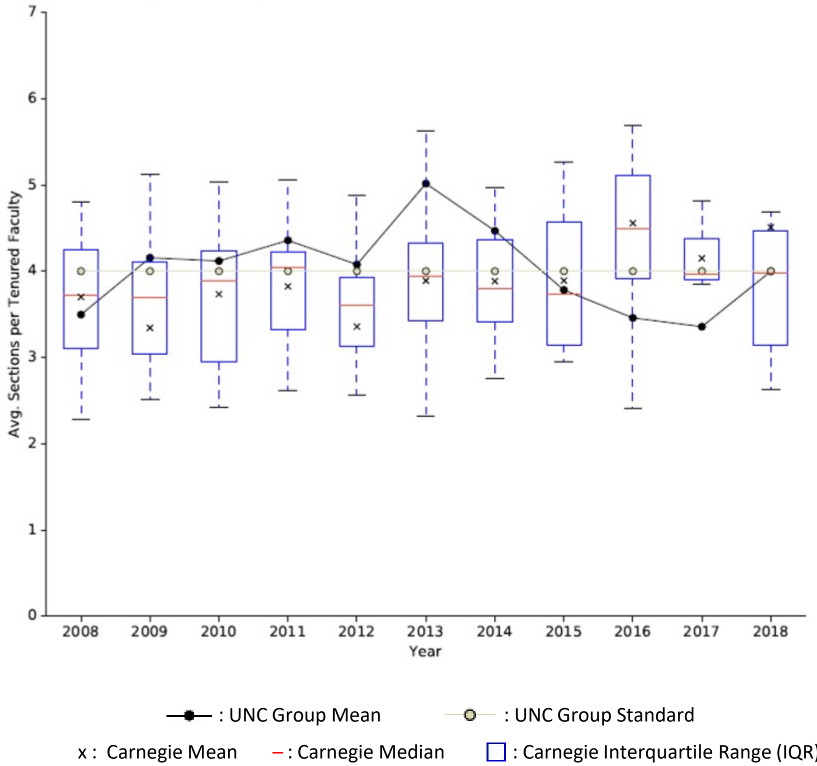
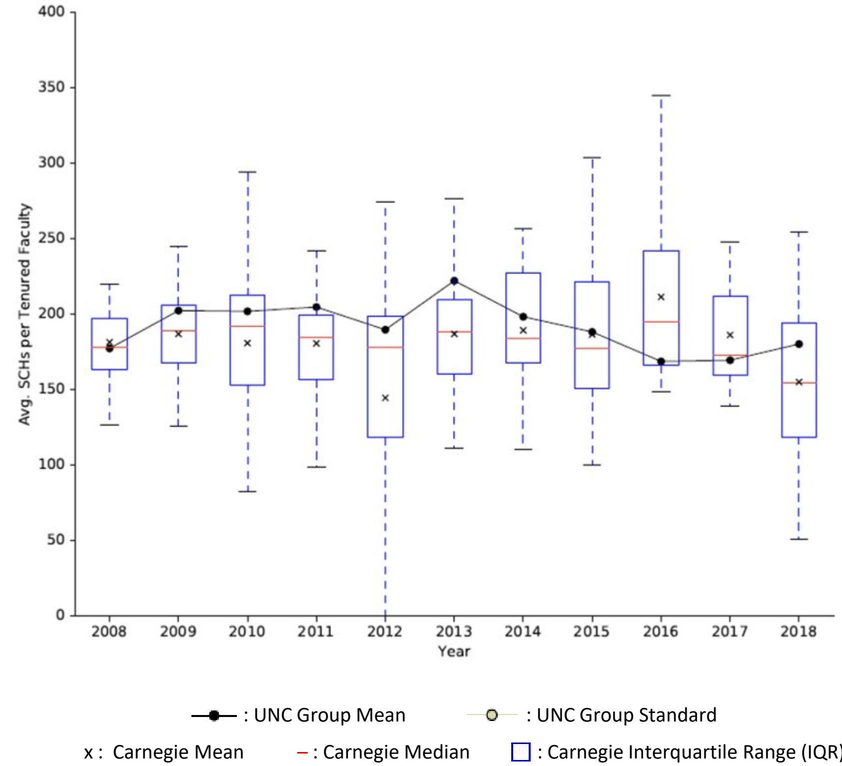


Figure 2: Average SCHs Per Semester per FTE1 Faculty, 2008 – 2018



- UNC System constituent institutions in the Baccalaureate Colleges category: UNC Asheville: All years. Elizabeth City State University was included for 2008 –
  2013 and 2018.
- This group exceeds the Board standard for sections taught per semester in 2009 – 2014, and again in 2018.

Appendix A

The UNC Policy Manual
400.3.4*
Adopted 04/12/96
Amended 03/07/01
Amended 01/11/13

Monitoring Faculty Teaching Workloads

Introduction:

As a result of findings and recommendations of the 1995 Legislative Study Commission on the Status of Education at the University of North Carolina, the 1995 Session of the General Assembly enacted House Bill 229, Section 15.9 entitled "Rewarding Faculty Teaching." The bill requires;

The Board of Governors shall design and implement a system to monitor faculty teaching workloads on the campuses of the constituent institutions.

The Board of Governors shall direct constituent institutions that teaching be given primary consideration in making faculty personnel decisions regarding tenure, teaching, and promotional decisions for those positions for which teaching is the primary responsibility. The Board shall assure itself that personnel policies reflect this direction.

The Board of Governors shall develop a plan for rewarding faculty who teach more than a standard academic load.

The Board of Governors shall review the procedures used by the constituent institutions to screen and employ graduate teaching assistants. The Board shall direct that adequate procedures be used by each constituent institution to ensure that all graduate teaching assistants have the ability to communicate and teach effectively in the classroom.

The Board of Governors shall report on the implementation of this section to the Joint Legislative Education Oversight Committee by April 15, 1996.

System to Monitor Faculty Teaching Loads:

All campuses and constituent institutions will develop and implement policies and procedures to monitor faculty teaching loads and to approve significant or sustained variations from expected minimums. Policies must include the criteria and approval process for reductions in institutional load attendant to increased administrative responsibilities, externally-funded research, including course buy-outs, and additional institutional and departmental service obligations. Given the complexity of faculty work activities, individual faculty teaching loads are best managed at the department and school level, and not the system or state level. However, to ensure meaningful comparisons of faculty teaching load over time and across peers, all campuses shall adopt a standard methodology for collecting data on teaching load. This standard is described below.

For reporting purposes the Board of Governors will annually review data from the National Study of Instructional Costs & Productivity (The Delaware Study)[1] of teaching loads for full time equivalent faculty within the University. The Delaware Study provides comparable teaching data at the discipline level using the following faculty categories: regular tenure stream, other regular, supplemental and teaching assistants. Teaching load is derived by the number of organized class courses a faculty member is assigned in a given semester. Courses that are not conducted in regularly scheduled class meetings, such as "readings," "special topics," "problems" or "research" courses, including dissertation/thesis research, and "individual lesson" courses (typically in music and fine arts) are excluded from the Teaching Load calculation.

Standard annual teaching loads will be differentiated to accommodate the diverse missions of the individual campuses. These differences will be captured by Carnegie Classification.[2] Standard faculty teaching load measured by number of organized class courses a faculty member is assigned in a given academic year is the following:

- Research Universities I: 4
- Doctoral Universities I: 5
- Masters (Comprehensive) I: 6
- Baccalaureate (Liberal Arts) I: 8
- Baccalaureate (Liberal Arts) II: 8

Distinction between Teaching, Instructional, and Total Faculty Workload:

In addition to teaching load, as defined above, instructional workload also includes developing materials for a new course, developing courseware or other materials for technology-based instruction, supervising undergraduate research and masters theses and doctoral dissertations, directing students in co-curricular activities such as plays, preparing and equipping new laboratories, supervision of teaching assistants, and academic advising.

To ensure that course material delivered in the classroom is relevant, faculty perform scholarly activities such as research, scholarship, and creative expression. These activities may include writing articles, monographs, and grant proposals, editing a scholarly journal, preparing a juried art exhibit, directing a center or institute, or performing in a play, concert, or musical recital.

Faculty also engage in service activities that inform classroom teaching and student learning. These activities may include responses to requests for information, advice, and technical assistance as well as instruction offered directly through continuing education. Service includes training and technology transfer for business and industry, assistance to public schools and unit of government, and commentary and information for the press and other media. Service also includes time spent internal to the university which may include participation in faculty governance, serving on search committees for new faculty, and preparing for discipline accreditation visits.

In order to appropriately monitor and reward faculty teaching, evaluations must be placed in the context of total faculty workload. Therefore, all campuses and constituent institutions shall implement annual faculty performance evaluation policies that measure and reward all aspects of faculty workload, separately and in combination, consistent with the instructional mission.

Rewarding Teaching:

The board's intent is that measures described in the previous section will lead to personnel policies and decisions that take due account of each faculty member's contribution to the undergraduate teaching mission of the institution. The President and the board are concerned that faculty be rewarded both for the quantity and even more for the quality of teaching. Concerning quality, the board notes the enthusiastic support from campuses and the public for its teaching awards. It takes pride in the standard for teaching excellence that is set by award recipients.

All policies and procedures required under The UNC Policy 400.3.4 must be submitted by campuses and constituent institutions to General Administration and approved by the President.

*Supersedes and replaces the prior UNC Policy 400.3.4, “Monitoring Faculty Teaching Workloads” as this version was approved by the Board of Governors on January 11, 2013.

[1]The National Study of Instructional Costs & Productivity (“The Delaware Study”) is the acknowledged “tool of choice” for comparative analysis of faculty teaching loads, direct instructional cost, and separately budgeted scholarly activity, all at the level of the academic discipline.
[2]The Carnegie Classification™ is a framework for recognizing and describing institutional diversity in U.S. higher education. This framework has been widely used in the study of higher education, both as a way to represent and control for institutional differences, and also in the design of research studies to ensure adequate representation of sampled institutions, students, or faculty.

Appendix B1: Average Sections per Semester per FTE Faculty – Tenured/Tenure-Track Faculty Only

Carnegie Group	Institution	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Research - Very High	North Carolina State University	2.0	2.2	2.1	2.3	2.2	2.1	2.3	1.9	1.9	1.9	1.9
	UNC-Chapel Hill	2.3	2.7	2.6	2.7	2.5	2.6	2.6	2.6	2.5	2.7	2.7
	BOG Standard	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*
Research - High	East Carolina University	2.8	3.5	3.5	3.1	3.1	2.8	2.9	2.7	2.6	2.7	2.5
	North Carolina A&T State University	2.9	3.2	3.1	2.8	3.1	2.9	2.8	2.7	2.6	2.7	2.6
	UNC Charlotte	2.4	2.6	2.5	2.1	2.1	2.0	2.1	2.0	1.9	1.9	1.9
	UNC Greensboro	3.3	4.0	3.7	4.1	4.0	2.0	2.3	2.6	2.7	2.7	2.4
	UNC Wilmington	3.5	3.7	3.7	3.4	3.5	3.4	3.5	2.8	3.4	3.3	3.5
	BOG Standard	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*
Master's - All Levels	Appalachian State University	3.3	3.2	3.2	3.2	3.3	3.2	2.9	2.9	2.9	2.7	2.6
	Fayetteville State University	3.8	3.9	3.8	3.9	3.9	4.1	4.0	3.9	2.6	3.1	2.9
	North Carolina Central University	3.6	3.6	4.3	4.5	3.8	3.7	2.9	2.9	3.1	3.0	3.0
	UNC Pembroke	3.7	3.6	3.8	3.8	3.8	3.7	3.6	3.8	3.5	3.6	3.6
	Western Carolina University	3.0	2.9	2.8	2.9	2.8	2.7	2.8	2.8	2.8	2.9	2.8
	Winston-Salem State University	3.3	3.4	3.8	3.8	3.8	3.3	3.2	3.0	2.8	3.3	3.1
	BOG Standard	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*
Baccalaureate	Elizabeth City State University	3.8	4.2	4.0	4.3	4.1	6.1	5.0	4.9	5.5	5.5	4.5
	UNC Asheville	3.4	4.2	4.2	4.4	4.0	3.9	3.9	3.8	3.5	3.4	3.5
	BOG Standard	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*

Notes: The Carnegie Classifications are updated every few years. Institutions are grouped by their most recent Carnegie Classification. In the most recent (2018) update, ECSU moved to the Baccalaureate Colleges: Diverse Fields category, and UNCW moved to the Doctoral Universities: High Research Activity category.

Appendix B2: Average Student Credit Hours per Semester FTE Faculty – Tenured/Tenure-Track Faculty Only

Carnegie Group	Institution	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Research - Very High	North Carolina State University	160.3	186.1	188.0	191.8	183.8	162.1	173.8	155.3	150.6	159.9	157.0
	UNC-Chapel Hill	152.1	153.8	148.8	149.7	154.3	155.5	152.9	156.2	146.2	154.8	153.5
Research - High	East Carolina University	161.8	183.6	170.5	183.6	178.0	174.8	187.5	194.7	196.8	199.5	182.5
	North Carolina A&T State University	154.7	204.9	177.6	175.7	176.0	166.0	163.3	164.2	158.4	172.5	169.6
	UNC Charlotte	154.0	174.0	170.8	171.7	162.3	161.1	164.6	160.1	147.7	154.6	152.4
	UNC Greensboro	158.1	193.8	178.3	185.3	177.5	157.5	165.8	161.5	158.6	150.4	163.8
	UNC Wilmington	219.9	237.0	237.0	212.6	214.7	209.7	215.8	173.6	214.6	209.7	204.3
Master's - All Levels	Appalachian State University	195.8	201.9	194.4	207.9	193.9	193.9	184.6	190.5	186.9	177.1	176.2
	Fayetteville State University	203.5	234.6	219.7	228.9	233.1	239.3	234.7	214.4	136.1	185.4	193.8
	North Carolina Central University	171.1	191.8	202.6	210.0	185.5	179.8	174.6	177.2	191.4	181.5	176.5
	UNC Pembroke	190.8	186.7	197.4	189.5	190.4	176.8	189.1	193.2	173.8	175.7	185.9
	Western Carolina University	164.2	187.3	173.8	204.1	186.6	180.1	181.9	192.1	190.4	194.8	191.3
	Winston-Salem State University	179.3	181.8	168.1	196.4	178.6	166.4	163.7	154.5	170.5	169.2	178.5
Baccalaureate	Elizabeth City State University	184.4	214.5	211.9	198.5	191.1	253.7	202.9	201.2	184.3	180.1	188.5
	UNC Asheville	168.5	190.4	192.0	211.1	188.4	190.7	193.8	188.3	168.8	169.6	172.1

Notes: The Carnegie Classifications are updated every few years. Institutions are grouped by their most recent Carnegie Classification. In the most recent (2018) update, ECSU moved to the Baccalaureate Colleges: Diverse Fields category, and UNCW moved to the Doctoral Universities: High Research Activity category.

Appendix B3: Average Sections per Semester per FTE Faculty – All Faculty

Carnegie Group	Institution	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Research - Very High	North Carolina State University	2.6	2.8	2.8	3.2	3.2	3.0	3.3	3.1	3.1	3.2	3.2
	UNC-Chapel Hill	2.6	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.0	3.0	3.0
	BOG Standard	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*
Research - High	East Carolina University	3.1	4.3	3.9	3.6	3.6	3.4	3.3	3.3	3.2	3.3	3.2
	North Carolina A&T State University	3.4	3.8	3.7	3.3	3.4	3.7	3.6	3.6	3.5	3.1	3.0
	UNC Charlotte	3.0	3.1	3.0	2.8	2.9	2.8	2.8	2.8	2.7	2.8	2.9
	UNC Greensboro	3.6	4.1	4.0	4.0	4.2	2.7	2.8	3.0	3.4	3.3	3.7
	UNC Wilmington	3.7	3.8	3.8	3.7	3.7	3.7	3.8	3.3	3.7	3.7	3.8
	BOG Standard	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*	*2.5*
Master's - All Levels	Appalachian State University	3.5	3.5	3.5	3.6	3.7	3.5	3.4	3.4	3.4	3.3	3.1
	Fayetteville State University	3.9	3.9	3.8	4.0	4.0	4.1	4.1	3.4	2.8	3.3	3.1
	North Carolina Central University	4.2	3.8	4.2	4.6	4.2	3.9	3.2	3.1	2.9	2.8	3.3
	UNC Pembroke	3.9	3.9	3.9	3.9	3.9	4.0	3.9	4.1	3.6	3.4	3.5
	Western Carolina University	3.2	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
	Winston-Salem State University	3.2	3.0	3.4	3.5	3.4	3.8	3.1	3.0	2.8	3.3	3.4
	BOG Standard	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*	*3.0*
Baccalaureate	Elizabeth City State University	4.0	4.3	4.0	4.6	4.4	6.1	5.1	4.9	5.5	5.5	4.5
	UNC Asheville	3.7	4.5	4.4	4.5	4.3	4.2	4.3	4.2	3.7	3.6	3.7
	BOG Standard	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*	*4.0*

Notes: The Carnegie Classifications are updated every few years. Institutions are grouped by their most recent Carnegie Classification. In the most recent (2018) update, ECSU moved to the Baccalaureate Colleges: Diverse Fields category, and UNCW moved to the Doctoral Universities: High Research Activity category.

All Faculty includes: Tenured/Tenure-Track Faculty, Other Regular Faculty, Supplemental Faculty, and Teaching Assistants.

Appendix B4: Average Student Credit Hours per Semester per FTE Faculty – All Faculty

Carnegie Group	Institution	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Research - Very High	North Carolina State University	216.8	243.1	220.7	236.8	245.6	229.5	242.5	220.5	224.8	232.5	240.5
	UNC-Chapel Hill	173.5	185.3	189.1	188.8	190.2	187.1	187.9	197.7	185.5	187.2	186.0
Research - High	East Carolina University	201.2	253.4	224.0	232.9	231.5	228.5	236.3	249.0	256.1	258.2	251.4
	North Carolina A&T State University	187.2	247.4	233.9	226.5	211.7	229.8	236.2	242.4	241.2	231.3	220.4
	UNC Charlotte	216.3	232.2	237.3	248.7	236.1	252.9	259.7	264.9	252.6	260.9	264.2
	UNC Greensboro	225.1	246.1	230.9	229.8	234.0	204.1	212.4	217.0	222.3	215.3	253.3
	UNC Wilmington	236.4	246.9	246.9	230.8	228.4	227.9	238.7	206.2	236.8	231.9	226.0
Master's - All Levels	Appalachian State University	216.4	218.0	213.2	229.5	226.4	227.9	216.6	216.3	221.1	216.9	212.0
	Fayetteville State University	213.6	241.3	226.2	233.5	238.7	244.8	240.8	198.2	151.3	201.3	207.4
	North Carolina Central University	217.9	216.4	229.5	229.3	220.9	202.0	201.6	193.1	182.1	175.9	198.2
	UNC Pembroke	203.9	202.8	208.8	198.7	194.6	196.0	197.4	213.5	181.2	180.0	198.6
	Western Carolina University	182.0	208.5	189.2	218.3	202.4	209.0	210.2	213.4	215.7	217.8	221.6
	Winston-Salem State University	181.1	172.7	167.4	182.3	166.5	196.6	166.5	162.2	172.1	171.8	191.4
Baccalaureate	Elizabeth City State University	198.5	228.0	206.1	208.8	201.1	253.7	205.3	208.3	184.3	180.1	188.5
	UNC Asheville	184.2	202.8	198.8	212.7	197.4	198.2	195.9	196.7	172.9	175.5	183.6

Notes: The Carnegie Classifications are updated every few years. Institutions are grouped by their most recent Carnegie Classification. In the most recent (2018) update, ECSU moved to the Baccalaureate Colleges: Diverse Fields category, and UNCW moved to the Doctoral Universities: High Research Activity category.

All Faculty includes: Tenured/Tenure-Track Faculty, Other Regular Faculty, Supplemental Faculty, and Teaching Assistants.

Request for Authorization to Establish
Master (M) in Advanced Architectural Studies
CIP 04.0902
North Carolina State University

I. Program Highlights

- North Carolina State University (NC State) proposes the establishment of a Master of Advanced Architectural Studies (MAAS).
- The program is currently offered by NC State as a post-professional track under the existing Master of Architecture (M.Arch.) degree that does not lead to licensure.
- The National Architectural Accrediting Board (NAAB) is requiring all institutions to discontinue the use of "Master of Architecture" for any program that is not accredited and does not lead to licensure.
- NC State University will continue to offer the Master of Architecture degree as a professionally accredited program that leads to licensure.
- Approval of this program change will not result in any increase in faculty, courses, or costs. It simply changes the administrative structure from a concentration to a degree.

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** The University of North Carolina at Charlotte (UNCC) offers both the accredited professional Master of Architecture (M.Arch., CIP 04.0902) and the Master of Science in Architecture (MS, CIP 04.0902) that is not NAAB accredited and does not lead to licensure.

2. **Relation to Campus Distinctiveness and Mission.** The MAAS program supports the UNC System and NC State University missions and strategic plans in several ways. NC State University's mission statement focuses on both research and teaching excellence, highlighting the creation and application of knowledge through collaboration and interdisciplinary efforts. As a synergistic program focusing on the development of specialized research for application in the field of design, the MAAS program supports the goals of educational innovation, engaging research, interdisciplinary approaches, organizational excellence, and fostering partnerships.

3. **Student Demand.** The MAAS program will attract and invite a diverse applicant pool. While the NC State School of Architecture is one of two professional architecture schools in North Carolina, MAAS will be unique. According to the National Architectural Accrediting Board (NAAB), "there are over 150 NAAB-accredited programs offered by more than 120 institutions of higher learning in the U.S." Of these, very few offer a program of this type, and none with its mix of specializations. The robust design and

entrepreneurial culture of the Research Triangle Area will draw a significant pool of applicants.

4. **Potential for Unnecessary Duplication.** NC State and UNC Charlotte are the two UNC System institutions that offer professional and non-professional/post-professional degree programs in architecture. Like NC State, UNC Charlotte was required to comply with the National Architectural Accrediting Board restricting use of the term “Master of Architecture” to professional degree programs. In response, UNC Charlotte created a non-professional Master of Science in Architecture (M.S.) with two concentrations: (1) Digital Technologies and Material Systems, and (2) Design Science and Building Systems. The NC State proposed MAAS program differs in focus and aligns with their existing graduate concentrations and certificates in Public Interest Design, Energy and Technology, City Design, and History and Theory. Students would focus their courses and research on one of these topics.

5. **Employment Opportunities for Graduates.** The MAAS program will offer students a rich environment to pursue meaningful research questions to help shape future design practice. Graduates of the program will be prepared to advance the profession of architecture locally, nationally, and internationally with enhanced research and design skills. Alternatively, students graduating with this degree will be well prepared to apply for teaching positions in schools of architecture and design. This program’s benefits to the public will be profound, as students graduating from this program will be prepared to advance the technical and artistic qualities of the built environment through ethical practice that prioritizes human wellbeing and ecological sustainability.

6. **Faculty Quality and Number.** No new faculty are required for the Master of Advanced Architecture Studies program over the first four years. Teaching responsibilities will be absorbed by existing faculty. This does not represent additional workload for existing faculty members because the Master of Advanced Architectural Studies program is replacing the current Master of Architecture (Track 2) program. NC State has fifteen tenure-line faculty in the School of Architecture that will be directly involved in the program.

7. **Availability of Campus Resources (library, space, etc.)** In addition to NC State University’s two main libraries (James B. Hunt on Centennial Campus and D.H. Hill on Main Campus), the College of Design has a branch Library (Harrye B. Lyons Design Library in Brooks Hall) that is operated the NC State University Libraries. The Harry B. Lyons Design Library is located on the College of Design campus and will be accessible to all students in the Master of Advanced Architectural Studies program. The Design Library has sufficient holdings, resources, and services to serve the Master of Advanced Architectural Studies program without diminishing existing services to other College of Design or NC State University programs.

The Harrye B. Lyons Design Libraries collection includes books and journals that focus on architecture, landscape architecture, graphic design, industrial design, and art and design. In addition, the library has a collection of approximately 150,000 digital images that are available through Luna Insight 6.3.

In addition to the Design Library, the D.H. Library Special Collections Resource Center contains archives of numerous celebrated architects from the region, including Phil Freelon, George Matsumoto, Henry Kamphoefner, and Milton Small. Located centrally in Brooks Hall, the library is comprised of a reading room, book stacks, shelved journal, a lightroom, staff offices, and a printing/scanning area. Library staff are specially trained to assist design students in their research.

Existing College of Design facilities are adequate for the Master of Advanced Architectural Studies program. No new facilities are required. The program will be accommodated within the College of Design buildings, including Brooks Hall, Leazar Hall, and Kamphoefner Hall. Collectively, these buildings on the north portion of NC State's main campus contain faculty, staff, and administrative offices, classrooms, conference rooms, lecture halls, a 160-person auditorium, the Harrye B. Lyons Design Library, the William Bayley IT lab and computer clusters, a materials lab (a shop for working with various materials, including wood, metals, concrete, and plastics), a digital prototyping lab, PhD workspaces, and a project gallery and exhibition space.

The existing facilities will adequately serve the Master of Advanced Architectural Studies program without compromising other College of Design programs. These facilities will be adequate at the outset of the program and should remain sufficient for the next decade, assuming routine maintenance and normal technology upgrades continue.

8. **Relevant Lower-level and Cognate Programs.** NC State's School of Architecture offers a full complement of degrees, including the accredited, professional Bachelor of Architecture (M.Arch.) and Master of Architecture (M.Arch.). The proposed MAAS program is currently offered as a track within the existing Master of Architecture degree.

9. **Impact on Access and Affordability.** As the program is currently offered as a track within the existing Master of Architecture degree, there are no anticipated changes in access or affordability.

   No change to the approved tuition, tuition differential, or fees from the existing Master of Architecture program is requested. Tuition and fees at the fall 2021 and spring 2022 full-time (9+ credit hour) rates are as follows:

Full-Time 2021-22 Graduate Tuition and Fees per Semester (In Dollars)

Category	**Resident**	**Non-Resident**
Tuition	4,547.50	13,541.00
Tuition Differential	700.00	700.00

Mandatory Fees (Student Activities, Health Services, Education & Technology, Campus Safety, Debt Service, ASG)	1180.30	1180.30
Special Fees	6.00	6.00
Application Fee	85.00	85.00

10. **Expected Quality.** The Master of Advanced Architectural Studies will reside within the School of Architecture and the College of Design at NC State University. The existing MAAS program and School of Architecture are both widely recognized in the field for their academic quality. The MAAS is an innovative and collaborative degree program that will provide students with opportunities to engage current and emerging trends in the architecture profession through specialized research. MAAS students will focus on research in one of four distinct areas already established as graduate certificates and concentrations in the NC State University School of Architecture: Public Interest Design (PID), City Design (CD), Energy and Technology (ET), and History and Theory (HT). The MAAS program will bring together cohorts in a collaborative setting, employing Design Thinking methods to address grand challenges in the built environment. The MAAS program will draw on existing faculty expertise and resources to enhance NC State's land-grant mission, its strong commitment to community engagement, and its legacy of technological innovation.

    The School of Architecture has a Director of Graduate Programs (DGP) who will assist with recruiting, admissions, and advising students in the program. The College of Design employs a Graduate Student Services Coordinator who provides support for admissions, communication with the Graduate School, record keeping, and enrollment.

    The NC State University Graduate School and its Dean provide supervision of all graduate programs. The Graduate school sets policies and provides oversight for each degree program. The Graduate School and its staff are responsible for admissions, program assessment, appointing Graduate Faculty, reviewing student Plans of Work, outlining and enforcing procedures, publishing the Graduate Handbook and Catalog, providing resources to students, encouraging academic and research excellence, and reviewing and approving new programs.

11. **Feasibility of Collaborative Program.** This program is currently offered by NC State as a track under the existing Master of Architecture degree. Operations and collaborations will therefore continue in a manner similar to previous years.

12. **Other Considerations.** None.

III. Summary of Review Processes

1. **Campus Review Process and Feedback.** The proposal was reviewed by NC State's faculty, department head, faculty, graduate school, CFO, provost, and chancellor. Approval and support were provided at all levels.

2. **UNC System Office Review Process and Feedback.** Throughout the review process, NC State provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

IV. Recommendation

It is recommended that the Board of Governors approve North Carolina State University's request to establish the Master of Advanced Architectural Studies (CIP 04.0902) effective fall 2021.

Request for Authorization to Establish
PhD in Computer Science
CIP 11.0701
University of North Carolina at Greensboro

I. Program Highlights

- The University of North Carolina at Greensboro (UNCG) proposes the establishment of a Doctor of Philosophy (Ph.D.) in Computer Science.
- The proposed Ph.D. program builds upon UNCG's historic strengths in the traditional arts and sciences, including biology, chemistry, geography, kinesiology, mathematics and statistics, nanoscience, and more.
- The proposed program would be located on-campus and would not require a tuition differential or program-specific fee.

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** Within the UNC System, North Carolina A&T State University, North Carolina State University, and the University of North Carolina at Chapel Hill currently offer an in-person Ph.D. in Computer Science (CIP 11.0701). The University of North Carolina at Charlotte offers a related in-person Ph.D. in Computing and Information Systems (CIP 11.0101). Duke University also offers a Ph.D. in Computer Science (CIP 11.0701).

2. **Relation to Campus Distinctiveness and Mission.** The proposed Ph.D. program in Computer Science supports UNCG's role as a well-established research university with a strong arts and sciences background. UNCG stresses collaborative scholarship and creative activity, encouraging engagement across the disciplines. This proposed Ph.D. program would leverage the unique history and focus of UNCG in incorporating liberal arts and technology. As an engaged research university, UNCG is prepared to develop a program with strong basic and applied research components.

3. **Student Demand.** UNCG anticipates significant student demand for the proposed Ph.D. in Computer Science. For the 2020-21 academic year, nearly 1,000 students applied for admission across the five related doctoral programs in North Carolina, but only 261 were admitted. While all of these students would not be qualified for a doctoral program, conversations with program directors at the other institutions indicated that many of those students were qualified, but the programs were at capacity. As such, there are potentially hundreds of students who wish to pursue a doctoral program in Computer Science in North Carolina who might consider this program.

In a similar fashion, demand for UNCG's existing computer science programs (BS and MS) have grown dramatically in the past five years, with a 79% increase in undergraduate enrollment and a 54% increase in graduate enrollment. UNCG is projecting a "steady-state" enrollment level of roughly 25 students in the program.

4. **Potential for Unnecessary Duplication.** The proposed program is designed to complement, but not compete, with the other existing Ph.D. Computer Science programs in North Carolina. While there are five related doctoral programs offered in North Carolina in Computer Science, the UNCG program would have a data-centric focus, with primary specializations in bioinformatics, data analysis, data science, natural language processing, and network analysis. In particular, these areas of focus are discreet from and complement those in place at NC A&T State University, the program most geographically proximate to UNCG. Additionally, the UNC System Graduate Council, which is comprised of the graduate deans or designees from each constituent institution, voted unanimously to support the creation of this program.

5. **Employment Opportunities for Graduates.** External estimates of employment opportunities were secured from the Taulbee Report, EAB, and Economic Modeling Specialists, Inc. (EMSI). UNCG also consulted with Burning Glass Labor/Insight and United States Bureau of Labor Statistic reports. All of these external sources demonstrate a strong labor market for graduates of the proposed Ph.D. program. The EAB analysis noted that "…increasing state and national demand for doctoral-level computer science professionals indicates opportunity for program development at UNCG." National data demonstrated a consistent and significant demand for doctoral-level computer science professionals. The EMSI Labor Market Analytics project a 20.6% increase in demand for computer scientist doctorates in North Carolina between 2019 and 2029, with median earnings of $88,200 per year. The EMSI analysis of related job postings in North Carolina shows a posting intensity (number of job postings per unique job) of 6:1, higher than the regional average, and indicative of a situation in which demand exceeds supply. NC Tower data further demonstrates the wage premium for graduates from these programs, with 2015-16 graduates of the other UNC System Ph.D. programs in Computer Science earning on average $122,790 three years after graduation.

   Graduates of doctoral programs in computer science are also likely to pursue full-time positions in industry, with nearly two out of three graduate's securing employment in this area, and roughly one of three securing an academic position. North Carolina remains a hub for computer and technology development as evidenced by the recent announcement that Apple will invest $1 billion and establish a campus in Research Triangle Park. The ripple effects of this investment and related growth will only increase demand for computer science doctorates in the years to come.

6. **Faculty Quality and Number.** UNCG has a strong cadre of computer science faculty that has doubled in size, moving from 6 to 12 between 2008 and 2017. Those faculty lead strong research programs supported by regular external funding and producing

publications in leading journals and conferences. Recent faculty additions have targeted interdisciplinary research, with a specific focus on data science and related areas. UNCG expects additional growth in students and faculty as computer science becomes a centerpiece of cross-disciplinary information processing for health sciences, natural sciences, social sciences, and the humanities.

7. **Availability of Campus Resources (library, space, etc.)** UNCG libraries provide access to adequate physical and online resources to all students, faculty, and staff. The collections consist of a variety of formats, including more than 1.2 million print monographs, over 620,500 federal and state documents, more than 300,000 microfilms, and 49,000 audio units. The libraries provide access to more than 50,000 serial titles, of which over 45,000 are electronic journals. In recent years, the number of electronic books has increased substantially, with over 370,000 accessible made available to campus constituents. Specific library resources in support of the program include ACM Digital Library and SpringerLink, two leading publishers of computer science resources. There is also a full-time science librarian, who serves as a liaison between the academic department and the university library.

   The Department of Computer Science currently has sufficient facilities to support the existing BS and MS program, with general and special purpose laboratory facilities available. UNCG may elect to reposition programs and faculty in the future contingent upon growth in the undergraduate and graduate computer science programs. UNCG also provides significant on-campus computing labs, network connectivity, and technological support for general-purpose and research computing. Computer Science research labs include advanced computing system, dedicated locally-managed storage, special purpose systems (including a Lambda DevBox specialized for machine learning tasks) and dedicated system administration staff that manage these platforms.

8. **Relevant Lower-level and Cognate Programs.** UNCG has offered high-quality bachelor's and master's degrees in computer science for many years, with the BS in Computer Science having been started in 1991, and the MS in Computer Science since 1998. The Department of Computer Science became a stand-alone unit (separate from mathematical sciences) since 2006. Enrollment has been incredibly strong in these existing programs, with undergraduate enrollment increasing from 146 to 481 and graduate enrollment increasing from 27 to 40 between 2008 and 2017.

9. **Impact on Access and Affordability.** The proposed program expands access to North Carolina students wishing to pursue research in the high-demand field of computer science. UNCG has been committed to improving access, enhancing student success, and improving affordability, as demonstrated by their recent accomplishments in achieving UNC System Strategic Plan goals. This program would expand access to a high-quality doctoral program in the growing computer science field in North Carolina. As a research doctorate, UNCG is planning for all students enrolled in the program to receive financial support in the form of stipends and tuition waivers. The level of those benefits is designed

to ensure that any student that has enters with a MS or has completed the equivalent level of coursework in the program will not require any student loans to cover their costs. Additionally, no tuition differential or program specific fee is requested for this program.

Full-Time 2021-22 Graduate Tuition and Fees per Semester (In Dollars)

Category	**Resident**	**Non-Resident**
Tuition	2,609.50	9,468.50
Tuition Differential	--	--
Mandatory Fees (Athletics, Student Activities, Health Services, Education & Technology, Campus Security, Debt Service, ASG)	1,464.00	1,464.00
Special Fees	--	--
Application Fee	65.00	65.00

10. **Expected Quality.** UNCG will build upon their successful BS and MS programs in Computer Science in developing this proposed Ph.D. program. The existing research infrastructure and graduate school administration is also prepared to help facilitate the introduction of the Ph.D. program, with policies and procedures related to student advisory committees, dissertation committees, and research activities in place. The doctoral curriculum has been designed to accommodate students entering with either a BS or a MS in Computer Science, with the number of required credits varying dependent upon prior academic experience.

    Additionally, all degree programs at UNCG undergo annual assessment and review, coordinated by UNCG's Office of Assessment, Accreditation, and Academic Program Planning, and the Student Learning Enhancement Committee, which consists of faculty from across the university. The Department of Computer Science has significant experience with program and student learning assessment through both the UNCG assessment process and active engagement with ABET, the accrediting body for undergraduate computer science programs.

11. **Feasibility of Collaborative Program.** The proposed program is designed to complement the existing doctoral computer science programs offered in North Carolina, as described in greater detail earlier in the document. Ongoing conversations have taken place between UNCG and NC A&T regarding ways to partner and support their complementary programs. The Greater Greensboro Consortium allows students to easily take courses across the institutions, and collaborative research projects and grant applications are expected. Furthermore, a number of UNCG Computer Science faculty members have ongoing relationships with colleagues in the other Ph.D. programs in the state.

12. **Other Considerations.** None.

III. Summary of Review Processes

1. **Campus Review Process and Feedback.** The proposal was reviewed by UNCG's faculty, department head, graduate curriculum committee, college dean, graduate dean, CFO, provost, and chancellor. Approval and support were provided at all levels.

2. **UNC System Office Review Process and Feedback.** Throughout the review process, UNCG provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made. UNCG also received feedback and comments from other constituent institutions as well as from scholars from institutions outside the state through the external feedback process and incorporated those perspectives into their proposal.

IV. Recommendation

It is recommended that the Board of Governors approve the University of North Carolina at Greensboro's request to establish the Doctor of Philosophy in Computer Science (CIP 11.0701) to enroll students starting fall 2022.

UNC System: Delegated Academic Program Actions

Mode of Delivery Changes

	Institution	Degree	Program Title	CIP	Mode	Date
1.	ASU	BS	Middle Grades Education	13.1203	Online	12/04/2020
2.	ASU	BSBA	Supply Chain Management	52.0203	Online	03/26/2021
3.	UNC-CH	MSA	School Administration	13.0409	Online	05/03/2021
4.	UNCC	DNP	Doctor of Nursing Practice	51.3818	Online	02/15/2021
5.	UNCC	MA	Spanish	16.0905	Online	03/26/2021
6.	UNCC	BA	Sociology	45.1101	Online	04/05/2021
7.	UNCC	MBA	Business Administration	52.0201	Online	05/03/2021
8.	UNCG	DNP	Doctor of Nursing Practice	51.3818	Online	02/05/2021
9.	UNCG	BSN	Bachelor of Science in Nursing	51.3801	Online	03/05/2021
10.	UNCG	BS	Accounting	52.0301	Online	03/16/2021
11.	UNCG	BS	Finance	52.0801	Online	03/16/2021
12.	UNCG	BS	Hospitality and Tourism Management	52.0901	Online	03/16/2021

Instructional Site Discontinuations

	Institution	Degree	Program Title	CIP	Mode	Date
1.	UNCG	EDS	Specialist in Education	13.0401	On Campus	12/04/2020

CIP, Degree, and Title Changes

	Order	Institution	Degree	Program Title	CIP	Date
1.	Old	ASU	BS	History, Social Studies Education	13.1328	03/26/2021
1.	New	ASU	BS	History/Social Studies Education	13.1328	

	Order	Institution	Degree	Program Title	CIP	Date
2.	Old	ECU	MS	Counselor Education	13.1101	02/05/2021
2.	New	ECU	MS	Counselor Education	51.1504	

	Order	Institution	Degree	Program Title	CIP	Date
3.	Old	FSU	BA	Intelligence Studies	44.0401	05/10/2021
3.	New	FSU	BA	Intelligence Studies	29.0202	

	Order	Institution	Degree	Program Title	CIP	Date
4.	Old	NCSU	M	Accounting	52.0301	02/15/2021
4.	New	NCSU	M	Accounting	52.1301	

	Order	Institution	Degree	Program Title	CIP	Date
5.	Old	UNC-CH	BA	Psychology	42.0101	03/26/2021
5.	New	UNC-CH	BA	Psychology	30.0701	

	Order	Institution	Degree	Program Title	CIP	Date
6.	Old	UNC-CH	BS	Psychology	42.0101	03/26/2021
6.	New	UNC-CH	BS	Psychology	30.0701	

	Order	Institution	Degree	Program Title	CIP	Date
7.	Old	UNC-CH	MA	Psychology	42.0101	03/26/2021
7.	New	UNC-CH	MA	Psychology	30.0701	

	Order	Institution	Degree	Program Title	CIP	Date
8.	Old	UNC-CH	PhD	Psychology	42.0101	03/26/2021
8.	New	UNC-CH	PhD	Psychology	30.0701	

	Order	Institution	Degree	Program Title	CIP	Date
9.	Old	UNCC	BS	Exercise Science	31.0505	04/05/2021
9.	New	UNCC	BS	Exercise Science	26.0908	

	Order	Institution	Degree	Program Title	CIP	Date
10.	Old	UNCG	BS	Sustainable Tourism and Hospitality	52.0901	03/16/2021
10.	New	UNCG	BS	Hospitality and Tourism Management	52.0901	

	Order	Institution	Degree	Program Title	CIP	Date
11.	Old	UNCG	BS	Marketing	52.0201	03/16/2021
11.	New	UNCG	BS	Marketing	52.1401	

	Order	Institution	Degree	Program Title	CIP	Date
12.	Old	UNCW	BA	Environmental Studies	03.0103	05/10/2021
12.	New	UNCW	BA	Environmental Sciences	03.0104	

	Order	Institution	Degree	Program Title	CIP	Date
13.	Old	UNCW	PhD	Marine Biology	26.1302	02/01/2021

13.	New	UNCW	PhD	Integrative, Comparative, and Marine Biology	26.9999	

	Order	Institution	Degree	Program Title	CIP	Date
14.	Old	WCU	BS	Hospitality Tourism Management	52.0901	05/10/2021
14.	New	WCU	BSBA	Hospitality Tourism Management	52.0901	

	Order	Institution	Degree	Program Title	CIP	Date
15.	Old	WCU	MST	Technology	15.0612	05/10/2021
15.	New	WCU	MSET	Engineering Technology	15.0000	

Specialty Code Changes

	Institution	Degree	Program Title	CIP	Date
1.	FSU	MAT	Master of Arts in Teaching	13.1299	05/03/2021
2.	FSU	BS	Birth-Kindergarten	13.1210	05/04/2021
3.	NCA&T	MAED	Reading Education	13.1315	12/02/2020
4.	UNCC	MAT	Master of Arts in Teaching	13.1299	05/03/2021
5.	UNCG	MAT	Master of Arts in Teaching	13.1299	02/05/2021
6.	UNCG	MED	Special Education: General Curriculum	13.1001	05/03/2021
7.	UNCP	BS	Mathematics	27.0101	12/02/2020
8.	UNCP	MSW	Master of Social Work	44.0701	02/17/2021
9.	UNCP	MSA	School Administration	13.0409	02/17/2021

Recommendation for Licensure
ECPI University

Background

ECPI University, OPEID 01019800, (ECPI), an existing licensee in good standing, is a private, for-profit institution with a main campus located in Virginia Beach, Virginia and four satellite campuses in North Carolina. ECPI is regionally accredited by the Southern Association of Colleges and Schools and seeks licensure to expand its program offerings to include a Bachelor of Science in Cyber and Information Security Technology.

These programs are already offered at some of ECPI's other campuses. Staff and external examiners conducted a review of ECPI's application and made findings related to course compositions and ensuring that course content remains updated. Based on the institution's response to the findings, staff believe that the proposed programs will operate in compliance with the Rules and Standards.

Institutional Metrics and Consumer Protection Information

Metric				
8-year outcomes[i]	Graduated	52%		
	Transferred Out	4%		
	Withdrew	43%		
Employment Placement Rate[ii]		Does not report – not required by accreditor		
Federal Financial Composite Score (3.0 is highest, -1.0 is lowest)[iii]		**2020**	**2019**	**2018**
		3.0	3.0	3.0
Three-year cohort default rate[iv]		**Class of 2017**	**Class of 2016**	**Class of 2015**
		14.2	13.7	12.3

System Office staff did not receive any formal student complaints regarding ECPI related to licensed programs during the current academic year. We also searched the Federal Trade Commission's Consumer Sentinel database for any matters pertaining to ECPI and did not find any matters that we believe call into question the appropriateness of granting the license.

Recommendation

Issue a license to ECPI to conduct the postsecondary-degree activity described in this recommendation.

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[i] Unless otherwise noted, this is data reported by the institution to the U.S. Department of Education, and includes both full and part time students and first-time and transfer-in students.
[ii] Unless otherwise noted, this data is reported by the institution to its accreditor according to its accreditor's standards and definitions. It is the most recent data available for the program under consideration.
[iii] This is a general measure of the institution's financial solvency. A score of 1.5 of greater means the institution does not face additional federal restrictions on operating because of financial solvency concerns.
[iv] Three-year cohort default rate ("CDR") is the percentage of graduates who borrowed federal loans and who

defaulted on those loans within three years of graduating. For example, a CDR for a cohort graduating in 2015 can be calculated three years later, in 2018.

Recommendation for Licensure
Johnson and Wales University

Background

Johnson and Wales University – Charlotte, OPEID 000340410, (Johnson and Wales), an existing licensee in good standing, is a private, not-for-profit institution with a main campus located in Providence, Rhode Island and a large residential campus located in Charlotte. Johnson and Wales is regionally accredited by the New England Commission of Higher Education and seeks licensure to expand its program offerings to include a Bachelor of Science in Hospitality Management and a Bachelor of Science in Business Administration - Entrepreneurship.

These programs are already offered at Johnson and Wales' main campus and, and are similar in CIP code and faculty composition to successful existing programs at the Charlotte campus. Staff and external examiners conducted a review of Johnson and Wales' application. With respect to the Bachelor of Science in Hospitality Management, the reviewer made findings related to the division of teaching responsibilities among faculty and on certain course syllabi. With respect to the Bachelor of Science in Business Administration – Entrepreneurship, the reviewer made findings with respect to the course objectives, syllabi, and faculty qualifications. Based on the institution's response to the findings, staff believe that the proposed programs will operate in compliance with the Rules and Standards.

Institutional Metrics and Consumer Protection Information

Metric				
8-year outcomes[i]	Graduated	62%		
	Transferred Out	18%		
	Withdrew	20%		
Employment Placement Rate[ii]		Does not report – not required by accreditor		
Federal Financial Composite Score (3.0 is highest, -1.0 is lowest)[iii]		**2017**	**2016**	**2015**
		3.0	2.4	2.9
Three-year cohort default rate[iv]		**Class of 2017**	**Class of 2016**	**Class of 2015**
		9.4	7.0	6.9

System Office staff have not received any student complaints regarding Johnson and Wales during the current academic year. We also searched the Federal Trade Commission's Consumer Sentinel database for any matters pertaining to Johnson and Wales and did not find any matters that we believe call into question the appropriateness of granting the license.

Recommendation

Issue a license to Johnson and Wales to conduct the postsecondary-degree activity described in this recommendation.

[i] Unless otherwise noted, this is data reported by the institution to the U.S. Department of Education, and includes both full and part time students and first-time and transfer-in students.
[ii] Unless otherwise noted, this data is reported by the institution to its accreditor according to its accreditor's standards and definitions. It is the most recent data available for the program under consideration.
[iii] This is a general measure of the institution's financial solvency. A score of 1.5 of greater means the institution does not face additional federal restrictions on operating because of financial solvency concerns.
[iv] Three-year cohort default rate ("CDR") is the percentage of graduates who borrowed federal loans and who defaulted on those loans within three years of graduating. For example, a CDR for a cohort graduating in 2015 can be calculated three years later, in 2018.

AGENDA ITEM

A-6. Section 700.1.1 of the UNC Policy Manual – Waiver of the SAT/ACT Requirement....... Kimberly van Noort

Situation: Section 700.1.1 of the UNC Policy Manual, Policy on Minimum Eligibility Requirements for Undergraduate Admission to the University of North Carolina System, establishes the minimum academic standards that a student must satisfy to be considered for undergraduate admission at a UNC System institution. This includes the requirement that students submit an ACT or SAT score to be eligible for admissions consideration.

Due to the impact of COVID-19 on test availability, the Board of Governors in July 2020 waived the standardized test requirement for students applying for admission in spring 2021, summer 2021, and fall 2021. Due to ongoing cancellations and disruptions to standardized test availability, it is recommended that the Board extend the standardized test requirement waiver for an additional year, through the fall 2022.

Background: Access to the ACT and SAT has been limited due to the ongoing impacts of the COVID-19 pandemic. In North Carolina, many students access the ACT through in-class administrations. The number of students failing to take the ACT through this option has nearly doubled from last year, with approximately 22,000 students impacted (up from just over 11,000 last year). Additionally, this lack of test availability has been felt most profoundly in rural and economically distressed counties, with 14 of the top 20 counties impacted being classified as Tier 1 by the NC Department of Commerce.

In response, over 60 percent of undergraduate institutions in the United States will not require a standardized test for entry in the fall 2022. In North Carolina, this includes Duke University, Davidson College, Elon University, Wake Forest University. Across the nation, the list includes all Ivy League Institutions; state systems such as the University of Texas System, California State University (CSU) system, the University of Illinois system, the Penn State System; and key enrollment competitors such as the University of Virginia, Virginia Tech, West Virginia University, College of Charleston, University of Alabama, and others. The NCAA has also removed standardized testing requirements for student athletes enrolling in 2022-23.

Assessment: The proposed waiver is consistent with the responses of other colleges, universities, and systems. It is recommended that the Board waive the standardized testing component of Section 700.1.1 for students applying for admission in spring 2022, summer 2022, and fall 2022.

Action: This item requires a vote by the committee, with a vote by the full Board of Governors through the consent agenda.

Adopted 02/10/84
Amended 04/12/00
Amended 04/11/03
Amended 07/01/07
Amended 01/11/08
Amended 02/27/15
Amended 04/15/16
Amended 07/29/16
Amended 03/30/20

Policy on Minimum Eligibility Requirements for Undergraduate Admission for the University of North Carolina System

I. Purpose. The University of North Carolina (UNC) Board of Governors has, since 1988, established minimum requirements for undergraduate admission to any constituent institution. These requirements serve to provide a common set of minimum standards to be considered for admission as an undergraduate student. Exceptions and special considerations to these minimum eligibility requirements are provided in Sections 700.1.1.1[R], 700.1.1.2[R], 700.7.1, and 700.7.1[R] of the UNC Policy Manual. Any constituent institution may set admissions requirements that exceed the minimums established in this policy upon the approval of their board of trustees.

II. High School Diploma. All students should hold a high school diploma or its equivalent.

III. Minimum Course Requirements. The following courses must be completed at the high school level, although those courses may be completed at an earlier time (e.g., middle school).

A. English: four course units emphasizing grammar, composition, and literature.

B. Mathematics: four course units in any of the following combinations:[1]

1. Algebra I, algebra II, geometry, and one unit beyond algebra II; or

2. Algebra I, algebra II, and two units beyond algebra II; or

3. Common core math I, II, and III, and one unit beyond common core math III; or

4. Integrated math I, II, III, and one unit beyond integrated math III; or

5. NC Math 1, 2, 3, and one unit beyond NC Math 3 identified as meeting the 4th level mathematics requirement for admission to UNC System institutions.

C. Science: three course units, including:

1. Life or biological science (e.g., biology); and

2. Physical science (e.g., chemistry, physical science, physics); and

3. One laboratory course.

D. Second Language: two course units of a language other than English.

E. Social Studies: two course units, including one unit in U.S. history.[2]

IV. High School Grade Point Average and Standardized Test Scores. Students must meet either the minimum high school grade point average (GPA) <u>or</u> standardized test score in order to be considered for admission. All applicants for admission, except those exempted by current UNC policy or regulation, must submit a standardized test score, even if they satisfy the minimum eligibility requirement through the high school GPA.

A. High School GPA: A minimum weighted GPA of 2.5; or

B. Standardized Test Scores: A composite ACT score of 19, or combined SAT (mathematics and evidence-based reading and writing) of 1010.

C. Chancellor's Exceptions: The maximum number of chancellor's exceptions is limited to one percent of the total number of applicants accepted as first-time undergraduates each year. A chancellor's exception may be applied to the SAT/ACT minimum requirement or the high school GPA minimum requirement.

V. Graduates of Cooperative Innovative High Schools (Early College). Each UNC constituent institution must offer to any student who graduated from a cooperative innovative high school program with an associate degree and who applies for admission to a constituent institution the option of being considered for admission as a first-time (freshman) or as a transfer student.

A. The constituent institution shall also provide written information to the student regarding the consequences that accompany each option and any other relevant information that may be helpful to the student when considering which option to select.

B. Beginning March 1, 2017, the Board of Governors shall report annually regarding the number of students who graduated from a cooperative innovative high school program with an associate degree and which option was chosen by those students when applying for admission to a constituent institution.

VI. Notification of Stakeholders and Educational Policymakers. The president is directed to develop plans and further recommendations to inform key stakeholders and education policymakers of the changes in requirements.

VII. Other Matters

A. Effective Date. The requirements of this policy shall be effective for all first-time students applying for admission at a constituent institution for any semester beginning with the 2020 fall semester through the 2022 fall semester (including students who attended the institution for the first time in the prior summer term).

B. Relation to Federal and State Laws. The foregoing policy as adopted by the Board of Governors is meant to supplement, and does not purport to supplant or modify, those statutory enactments which may govern or relate to the subject matter of this policy.

C. Regulations and Guidelines. This policy shall be implemented and applied in accordance with such regulations and guidelines as may be adopted from time to time by the president.

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[1]Students applying to the University of North Carolina School of the Arts must only complete three mathematics courses in order to be eligible for admission.

[2]An applicant who does not have the unit in U.S. history may be admitted on the condition that at least three semester hours in that subject be passed by the end of the sophomore (second) year.

NC STATE UNIVERSITY

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May 3, 2021

Mr. Temple Sloan, Chair
Committee on Educational Planning, Policies and Programs
Dr. Kimberly van Noort
Senior Vice President for Academic Affairs and Chief Academic Officer
PO Box 2688
Chapel Hill, NC 27514

Dear Mr. Sloan and Dr. van Noort:

NC State University ("NC State") and the Wake County Board of Education ("Wake County") have successfully collaborated for over a decade on the Wake STEM Early College High School ("STEM ECHS"). NC State and Wake County look forward to continuing this partnership. Pursuant to NCGS § 115C-238.50A and UNC Policy 400.6.1[R], NC State requests a waiver of the requirement that the STEM ECHS be located on NC State's campus in order for the STEM ECHS to constitute a Cooperative Innovative High School. Both NC State and Wake County desire to continue their collaboration on the STEM ECHS after STEM ECHS moves off NC State's campus after December 2021. To this end, the parties have finalized a Third Memorandum of Agreement, which was approved by the Wake County on April 6, 2021 and by NC State's Board of Trustees on April 16, 2021. However, because the parties intend for the STEM ECHS to move operations off NC State's campus in January 2022, we are now seeking an exception and waiver of the requirement that the school be located on NC State's campus.

The STEM ECHS is a supportive and academically challenging learning environment for students underserved in a traditional high school setting and underrepresented in the science, technology, engineering and mathematics disciplines, including first generation college students. The goal of the STEM ECHS is to have students who are prepared to compete globally in careers related to these fields upon graduation. The STEM ECHS has received national and state recognition, including receiving national awards and recognition in each of the last six years. U.S. News and World Report ranks STEM ECHS as the best high school in Wake County, and ranks it sixth (6th) among all North Carolina high schools.

The STEM ECHS and related program have provided great benefit to both NC State and Wake County since it was first established in 2011. The STEM ECHS provides Wake County parents with an extraordinary opportunity for their children to have access to authentic college learning experiences, exposing them to world leading research and development in STEM fields, while also having the ability to earn college course credit at no cost to them. In 2019 alone, 133 STEM ECHS students took NC State courses, earning 1,058 credit hours for college. Since 2016, an average of 9 STEM ECHS students have been admitted and enrolled at NC State each Fall.

Since its establishment, the STEM ECHS has been located in the Cherry Building on NC State's Centennial Campus. The Cherry Building is in need of substantial capital renovations, many of which are cost prohibitive. Thus, to further meet STEM ECHS' operational needs, Wake County is in the process of renovating another facility to house the STEM ECHS, located in Cary, North Carolina. These renovations are scheduled to be completed in December 2021. Upon completion of these renovations, Wake County intends for the STEM ECHS to relocate and operate out of this Cary facility.

STEM ECHS will also continue to maintain a presence at NC State. STEM ECHS utilizes space in NC State's Witherspoon Student Center for program administration while STEM ECHS students are on NC State's main campus, including for daily check-ins and meetings with STEM ECHS classes, teachers, counselors, and the career development coordinator, as well as other educational instruction.

We appreciate the Committee's consideration of the foregoing request. If the Committee needs any further information, we are available to answer any questions or provide any additional information the Committee may need.

Sincerely,

Randy Woodson

W. Randolph Woodson
Chancellor

The UNC Policy Manual
200.6
Adopted 11/13/06
Amended 06/08/07
Amended 04/08/11
Amended 08/10/12
Amended 10/11/12
Amended 07/29/16
Amended 10/14/16
Amended 05/22/19
Amended 11/19/20
Amended 05/27/21

Policy on Delegation of Authority to the President

I. Pursuant to N.C.G.S. § 116-11(13) (G.S.), and other North Carolina law as referenced herein, and notwithstanding *The Code* or any other Board of Governors policy,[1] the Board of Governors delegates the following authorities to the president of the University:

A. Human Resources

1. Authority to establish and administer a human resources program for employees exempt from the State Human Resources Act.[2]

a. "Human resources program" shall include such personnel actions related to the establishment of positions and the administration of salary ranges; recruitment, appointments, salaries, and salary adjustments; promotion and tenure; leave programs; performance management; non-faculty discontinuation, discipline, and discharge; and non-faculty grievance and appeals processes.[3]

b. The president may approve management flexibility plans for Special Responsibility Constituent Institutions and may delegate limited authority for human resources actions to constituent institutions that are not authorized as Special Responsibility Constituent Institutions.[4]

c. Notwithstanding the above provisions, unless otherwise delegated:

(1) The Board of Governors shall retain authority over the appointments and compensation for the president, for the chancellors of the constituent institutions except as provided in paragraph F., of this policy, for the chief executive officer of the UNC Health Care System, and for the UNC Center for Public Media director.[5]

(2) The Board of Governors shall retain authority over certain contract terms for athletic directors and head coaches of the constituent institutions.[6]

(3) The president shall consult with the Board's Committee on Personnel and Tenure on appointments and compensation for the senior officers of the UNC System Office who report directly to the president.

(4) The Board of Governors shall retain authority over adjustments to base salary for permanent faculty and for employees exempt from the State Human Resources Act when the proposed amount (1) exceeds the established salary range or (2) exceeds 25 percent and twenty-five thousand dollars ($25,000) of the compensation in effect at the end of the last fiscal year.

2. Authority to approve all actions relating to the administration of the Optional Retirement Program[7] and the Phased Retirement Program.[8]

3. The president shall report in writing on actions taken under the authority of these delegations to the appropriate committee of the Board of Governors no less than annually, or as otherwise requested by the chair of the Board of Governors or the chair of the Committee on Personnel and Tenure.

B. Governance

1. The authority to approve the initiation of a lawsuit in the name of the University if the action is for monetary relief and the amount in controversy is less than $250,000.[9]

2. The authority to settle potential or pending litigation by or against a constituent institution or the University of North Carolina System, if the settlement is solely for monetary relief and the amount the University is to pay pursuant to the settlement is less than $250,000 or, if the University is to receive a payment, the amount the University claimed is less than $250,000.[10]

3. Authority to approve the political activities of employees of the University who are candidates for or serving in public office.[11]

C. Reports. The authority to approve and submit any report the University or the Board of Governors is required to submit to the General Assembly, the State Board of Education or any other state or federal agency or officer.

D. Real Property

1. The power to authorize acquisition or disposition of the following interests in real property without obtaining approval of the Board of Governors, subject to any necessary approvals from state officials and agencies:

a. Any interest in real property, other than a leasehold, with a value less than $750,000; and

b. A leasehold interest in real property with annual value less than $750,000 and a term of not more than 10 years.

The president's authority may be exercised on behalf of the University of North Carolina System Office, affiliated entities, or the constituent institutions in the president's discretion.[12]

2. Authority to approve capital improvement projects funded entirely with non-General Fund money[13] that are projected to cost less than $750,000.[14]

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3. Authority to approve advance planning of capital improvement projects, where the advance planning effort is to be funded entirely with non-General Fund money.

E. Institutional Trust Funds. Authority to delegate to the chancellors management of institutional trust funds.[15]

F. Chancellors' Incentive Compensation Program

1. Authority to establish and implement an incentive compensation program to provide the president an opportunity to award performance-based compensation to the chancellors.

2. Authority to grant performance-based compensation awards to the chancellors as provided under the incentive compensation program. Awards granted under this authority shall be one-time payments per year, cannot exceed 20 percent of the chancellor's base salary, and are the responsibility of the constituent institution to fund.

3. Authority to modify the incentive compensation program as necessary to maintain alignment between performance goals established by the Board of Governors for the president and those established by the president for the chancellors.

II. The president will report all actions taken under the authority of the delegations in sections I.B., through I.F., above, to the appropriate committee of the Board of Governors either in writing before the next regular meeting of the Board of Governors or at the next regular meeting of the Board of Governors.

III. These delegations will remain in effect unless and until the Board of Governors rescinds them in whole or in part.

IV. Other Matters

A. Effective Date. The requirements of this policy shall be effective on the date of adoption of this policy by the Board of Governors.

B. Relation to State Laws. The foregoing policy as adopted by the Board of Governors is meant to supplement, and does not purport to supplant or modify, those statutory enactments which may govern or relate to the subject matter of this policy.

C. Regulations and Guidelines. This policy shall be implemented and applied in accordance with such regulations and guidelines as may be adopted from time to time by the president.

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[1]The secretary of the University is authorized to annotate the referenced policies and regulations to cross-reference these delegations.
[2]G.S. Chapter 126.
[3]Sections 300.1.1, 300.1.2, and 300.2.1 of the UNC Policy Manual.
[4]Section 600.3.4 of the UNC Policy Manual.
[5]Section 500 of *The Code*; Sections 300.1.1 and 1200.1 of the UNC Policy Manual; and G.S. 116-37(c) and 37.1(c).

[6]Section 1100.3 of the UNC Policy Manual.
[7]G.S.135-5.1
[8]Section 300.7.2 of the UNC Policy Manual.
[9]Section 200.5 of the UNC Policy Manual.
[10]Section 200.5 of the UNC Policy Manual.
[11] Section 300.5.1 of the UNC Policy Manual.
[12]The Board of Governors may delegate additional authority to the president or boards of trustees for real property transactions consistent with Sections 600.1.3 and 600.1.3[R] of the UNC Policy Manual.
[13]This delegation shall be interpreted consistent with G.S. 143C-8-12.
[14]The Board of Governors may delegate additional authority to the president or boards of trustees for approval of capital improvement projects consistent with Section 600.1.1 of the UNC Policy Manual.
[15]Sections 600.2.4 and 600.2.4.1 of the UNC Policy Manual.

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

MEETING OF THE BOARD OF GOVERNORS
May 27, 2021

Roll Call Vote Substitute Motion – Allow applicants a waiver of the SAT/ACT Testing Requirements for fall 2022 if applicant was unable to take two standardized tests	
Bissette	*Non-voting*
Blue	No
Burris-Floyd	No
Byers	No
Clark	No
Coward	No
Daughtry	*Absent*
Ford	Yes
Goolsby	*Absent*
Holley	No
Holmes	No
Holton	No
Hutchens	Yes
Kotis	Yes
Long	Yes
Mitchell	*Absent*
Murphy	No
Nelson	No
Palma	*Non-voting*
Parrish	No
Pope	Yes
Powers	No
Ramsey	No
Sloan	No
Stone	*Absent*
Williford	Yes

Motion failed with 14 votes against and 6 in favor.

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

MEETING OF THE BOARD OF GOVERNORS
May 27, 2021

Roll Call Vote Approval of Consent Agenda Item 6L. Section 700.1.1 of the UNC Policy Manual Waiver of the SAT/ACT Requirement	
Bissette	*Non-voting*
Blue	Yes
Burris-Floyd	Yes
Byers	Yes
Clark	Yes
Coward	Yes
Daughtry	*Absent*
Ford	No
Goolsby	*Absent*
Holley	Yes
Holmes	Yes
Holton	Yes
Hutchens	No
Kotis	No
Long	No
Mitchell	*Absent*
Murphy	Yes
Nelson	Yes
Palma	*Non-voting*
Parrish	Yes
Pope	No
Powers	Yes
Ramsey	Yes
Sloan	Yes
Stone	*Absent*
Williford	No

Motion carried with 14 votes in favor and 6 against.

RESOLUTION HONORING

W. MARTY KOTIS, III

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

WHEREAS, W. MARTY KOTIS, III has been a valued member of the Board of Governors of the University of North Carolina System and has served with exceptional commitment since 2013; and

WHEREAS, Mr. Kotis served with distinction on five of the standing committees of the Board of Governors: the Committee on Audit, Risk Management, and Compliance from 2013-15, serving as its secretary from 2014-15; the Committee on Budget and Finance from 2013-14, from 2016-17 serving as its secretary, and from 2018-21; the Committee on Educational Planning, Policies, and Programs from 2015-18; the Committee on Personnel and Tenure from 2014-15; and the Committee on Public Affairs from 2016-17 and from 2019-20 serving as its vice chair; and

WHEREAS, he has served this Board in many ways, as a member of the special committees on the Oliver Max Gardner Award; the Governor James E. Holshouser, Jr., Award for Excellence in Public Service; the UNC Working Group on the Cost of Capital Construction, serving as its secretary and then as its chair; the UNC Board of Governors Capital Construction Task Force; and the UNC Board of Governors Task Force on Board Meetings; and

WHEREAS, this respected citizen and business leader has brought his decades of experience and business acumen addressing issues regarding construction projects and facility management on the UNC System's campuses; and

WHEREAS, in all his endeavors, Mr. Kotis has been a strong advocate for fiscal discipline while supporting the need to develop and fund innovative business strategies; and

WHEREAS, he has consistently demonstrated his passion for making decisions that support a student-focused environment and has always taken a straight-forward approach to issues before the Board; and

WHEREAS, Mr. Kotis has been a tireless champion of Article IX, Section 9 of the North Carolina Constitution, which calls for the benefits of the University of North Carolina, as far as practicable, to be extended to the people of the State free of expense, and

WHEREAS, Mr. Kotis has carried out his duties as a member of the Board of Governors with dignity and resolve, providing valued leadership and counsel throughout his service; and

(over)

WHEREAS, the Board of Governors gratefully acknowledges the vigorous advocacy and heartfelt concern that Mr. Kotis has demonstrated on behalf of students and commends him for his outstanding service.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Governors of the University of North Carolina extends its deepest appreciation and gratitude to **W. Marty Kotis, III** for his dedicated, sound leadership and loyal service to the University of North Carolina and to the State of North Carolina.

This the 27th day of May 2021.

Randall C. Ramsey
Chair, UNC Board of Governors

Pearl Burris-Floyd

Pearl Burris-Floyd
Secretary, UNC Board of Governors

RESOLUTION HONORING

STEVEN B. LONG

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

WHEREAS, STEVEN B. LONG has been a valued member of the Board of Governors of the University of North Carolina System and has served with exceptional commitment since 2013; and

WHEREAS, Mr. Long served with distinction on four of the standing committees of the Board of Governors: the Committee on Educational Planning, Policies, and Programs from 2013-15, serving as its vice chair from 2014-15 and from 2018-20, and from 2020-21, serving as its secretary; the Committee on Personnel and Tenure from 2015-17, serving as its vice chair from 2016-17; the Committee on University Governance from 2017-18, serving as its chair; and the Committee on Public Affairs from 2016-17 and from 2019-20; and

WHEREAS, he has served on numerous special committees and subcommittees of the Board of Governors, providing effective leadership to the Committee on Historically Minority-Serving Institutions, serving as its vice chair from 2018-19; the Committee on Strategic Planning; the Committee on Teacher Quality; the Subcommittee for the Oliver Max Gardner Award; and the Subcommittee for the Governor James E. Holshouser Jr., Award for Excellence in Public Service; and

WHEREAS, during his eight years as a member of the Board, Mr. Long advanced policies consistent with his personal commitment to support and promote successful student outcomes, particularly in his work helping to design the Higher Education Expectations Strategic Plan. He tirelessly advocated for policies and programs that ensured student preparation, high-quality teaching, and academic rigor; and

WHEREAS, at a time when our smallest university, Elizabeth City State University (ECSU), was experiencing financial and enrollment challenges, Mr. Long served admirably on the first ECSU Task Force and then on the chancellor search committee; and

WHEREAS, his work helped pave the way for the now-thriving university and his dedication to ECSU has left a lasting impact on its students, faculty, staff, and community; and

WHEREAS, Mr. Long served as a model for effective board membership by his respectful, deliberate, and prepared work in service to the university and the state; and

(over)

WHEREAS, his outstanding service on the Board of Governors will conclude on June 30, 2021; and

WHEREAS, the Board of Governors gratefully acknowledges the vigorous advocacy and heartfelt concerns that Mr. Long has demonstrated on behalf of higher education and commends him for his outstanding service.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Governors of the University of North Carolina extends its deepest appreciation and gratitude to **Steven B. Long** for the dedicated, sound leadership he provided this Board and for his steadfast devotion to the University of North Carolina and to the State of North Carolina.

This the 27th day of May 2021.

Randall C. Ramsey
Chair, UNC Board of Governors

Pearl Burris-Floyd
Secretary, UNC Board of Governors

RESOLUTION HONORING

R. DOYLE PARRISH

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

WHEREAS, R. DOYLE PARRISH has been a valued member of the Board of Governors of the University of North Carolina System and has served with exceptional commitment since 2013; and

WHEREAS, Mr. Parrish served with distinction on five of the standing committees of the Board of Governors: the Committee on Budget and Finance from 2019-20, serving as its vice chair; the Committee on Educational Planning, Policies, and Programs from 2014-15; the Committee on Personnel and Tenure from 2013-14 and from 2016-19, serving as its chair from 2016-18, and again serving the committee from 2020-21, as its secretary; the Committee on University Governance from 2015-16, serving as its secretary; and the Committee on Public Affairs from 2018-20; and

WHEREAS, Mr. Parrish provided effective leadership to several special committees of the Board, including the Committee on Strategic Planning from 2017-18; the Committee on Historically Minority-Service Institutions from 2020-21, serving as its vice chair; the Committee on Military and Veterans Affairs from 2015-16, serving as its secretary, and again from 2018-19, serving as its secretary; and the Committee on UNC Health Care/Carolinas Healthcare System Partnership Review in 2017; and

WHEREAS, his participation on a variety of committees has been characterized by his dedication to excellence and his high level of commitment to education; and

WHEREAS, he has freely given his time and talents to strengthen the UNC System and further its progress toward reaching its institutional goals focused on access, student success, affordability and efficiency, economic impact and community engagement, and excellent and diverse institutions; and

WHEREAS, during his tenure, he demonstrated exemplary leadership by providing thoughtful advice and counsel to the Board on a range of issues and concerns, and has worked tirelessly to ensure that the UNC System fulfills its educational mission; and

(over)

WHEREAS, he has employed his resolute commitment to speak often and confidently regarding challenging issues of cost containment, effective oversight and the freedom of academic inquiry, and he has done so collegially and with the best interest of the University at heart; and

WHEREAS, his service on the Board will conclude on June 30, 2021, the Board of Governors is deeply grateful to R. Doyle Parrish for the time he invested and the valuable contributions he has made.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Governors of the University of North Carolina extends its deepest appreciation and gratitude to **R. Doyle Parrish** for his long standing and loyal service to the University of North Carolina and to the State of North Carolina.

This the 27th day of May 2021.

Randall C. Ramsey
Chair, UNC Board of Governors

Pearl Burris-Floyd
Secretary, UNC Board of Governors

RESOLUTION HONORING

DWIGHT D. STONE

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

WHEREAS, DWIGHT D. STONE has been a valued member of the Board of Governors of the University of North Carolina System and has served with exceptional commitment since 2019; and

WHEREAS, Mr. Stone served with distinction on three of the standing committees of the Board of Governors: the Committee on Educational Planning, Policies, and Programs from 2019-20; the Committee on Personnel and Tenure from 2020-21; and the Committee on Public Affairs from 2020-21, serving as its vice chair; and

WHEREAS, Mr. Stone provided effective leadership to special committees and subcommittees of the Board, including the Committee on Strategic Initiatives from 2019-20 and the Subcommittee for the Oliver Max Gardner Award in 2020; and

WHEREAS, he formally began his service to the University when he was elected to the Board of Trustees at the University of North Carolina at Chapel Hill – his beloved alma mater – where he served from 2013 until 2019, including leading as its chair from 2015 until 2017; and

WHEREAS, Mr. Stone has been a strong advocate for higher education throughout his public life and is well respected for his dedicated and personal commitment to improving education for all students in North Carolina while providing thoughtful input about the challenging issues facing the University; and

WHEREAS, since his appointment, Mr. Stone has carried out his duties as a member of the Board of Governors with dignity and resolve, providing valued leadership and insightful perspectives throughout his service; and

WHEREAS, his service on the Board will conclude on June 30, 2021, the Board of Governors is deeply grateful to Mr. Stone for the time he invested and the valuable contributions he has made.

(over)

NOW, THEREFORE, BE IT RESOLVED, that the Board of Governors of the University of North Carolina extends its deepest appreciation and gratitude to **Dwight D. Stone** for his longstanding and loyal service to the University of North Carolina and to the State of North Carolina.

This the 27th day of May 2021.

Randall C. Ramsey
Chair, UNC Board of Governors

Pearl Burris-Floyd
Secretary, UNC Board of Governors

THE UNIVERSITY OF NORTH CAROLINA SYSTEM

MEETING OF THE BOARD OF GOVERNORS
May 27, 2021

Closed Session Motion

Motion to go into closed session to:

➢ Prevent the disclosure of information that is privileged or confidential under Article 7 of Chapter 126 and § 143-748 of the North Carolina General Statutes, or not considered a public record within the meaning of Chapter 132 of the General Statutes.

➢ Consult with our attorney to protect attorney-client privilege; and

To consider and give instructions concerning a potential or actual claim, administrative procedure, or judicial action for the following cases:

- *Lannan v. University of North Carolina Board of Governors*
- *Dieckhaus v. University of North Carolina Board of Governors*

➢ Consider the qualifications, competence, performance, or condition of appointment of a public officer or employee or prospective public officer or employee.

Pursuant to: G.S. 143-318.11(a)(1), (3), and (6).