



BOARD OF TRUSTEES
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**BOARD OF TRUSTEES
MIAMI UNIVERSITY
Minutes of the Finance and Audit Committee Meeting
February 20, 2020
Room 180-6, Marcum Conference Center**

Chair Michael Armstrong called the meeting to order at 1:30 p.m., with a majority of members present, constituting a quorum. Roll was called; attending with Chair Armstrong were Committee members; Trustees David Budig, Sandra Collins, Mark Ridenour, and Rod Robinson; and National Trustees Robert Coletti, and Mark Sullivan. Also attending were Trustees Zachary Haines, John Pascoe, Mary Schell, and Robert Shroder, along with National Trustee Diane Perlmutter, and Student Trustees Megan Cremeans and Will Kulis.

In addition to the Trustees, President Gregory Crawford, Provost Jason Osborne, Senior Vice President David Creamer, Senior Vice President Tom Herbert; Vice Presidents Jayne Brownell, David Seidl, Brent Shock (interim), Ron Scott, and Michele Sparks; General Counsel Robin Parker, and Director of Institutional Relations Randi Thomas, were present. Also present to address or assist the Committee were; David Ellis, Associate Vice President for Budgeting and Analysis; Cody Powell, Associate Vice President for Facilities Planning and Operations; Bruce Guiot, Chief Treasury Officer; and Ted Pickerill, Executive Assistant to the President, and Secretary to the Board of Trustees; along with many members of the Miami University community who were in attendance to observe, present and/or assist.

Executive Session

Trustee Robinson moved, Trustee Budig seconded, and by unanimous roll call vote, with eight voting in favor and none opposed, the Committee convened to Executive Session to consult with counsel, as provided by the Open Meetings Act, Ohio Revised Code Section 121.22.

Public Business Session

Chair Armstrong welcomed everyone and opened the meeting.

Approval of the Minutes

Trustee Ridenour moved, Trustee Robinson seconded and by unanimous voice vote, with all voting in favor and none opposed, the minutes from the prior meeting of the Finance and Audit Committee were approved.

Advancement Report

Senior Vice President Herbert update the Committee on campaign progress to date. He stated that this year, Advancement has currently raised over \$50 million, towards a \$100 million goal for the year. Last year, \$84.5 million was raised (the second-best calendar year ever), with over \$40 million in cash received,

He reviewed campaign drivers, which include:

- Honors College
- Clinical Health Building – Board to consider on February 21, 2020 for approval
- Possible Alumni Center
- Possible Digital Innovation Center
- Farmer School of Business Dean’s Search
- College of Engineering and Computing Dean’s Search
- Training Deans for fundraising through a CASE conference
- Continued exploration of corporate partnerships, Cleveland Clinic, etc.

He concluded by summarizing the campaign volunteer structure.

Associated Materials are included as Attachment A.

Budget Planning

Chair Armstrong outlined many of the current challenges, including maintaining enrollment, net tuition revenue (NTR), and the potential impact of the coronavirus in China.

Senior Vice President Creamer then reviewed the current budget which illustrated Miami’s dependence on tuition and fees, and the change in year-to-year increases in state aid and tuition. From the late 1970s to the 1990s, state appropriations to higher education increased by 10% annually, and tuition increased at 6%, these annual rates have slowed significantly, to 1.6% for the state and 0.2% for tuition from 2006 to 2019.

He reviewed the trends in enrollment, which have increased overall, with growth in the nonresident portion. However, the number of international students peaked in 2015 at over 600 in the entering class, and was under 200 for the Fall of 2019. While enrollment is up, scholarships awarded have risen as well, which has reduced the NTR per incoming student, creating challenges in achieving target overall NTR.

SVP Creamer then outlined potential future issues. Which included:

- Growing revenue (new degrees, optimal size, growing applications, selectivity vs. access)
- The organizational structure for the future
- The balance between higher education quality and price

- Preparing for the next recession

Associated materials are included as Attachment B.

Capital Projects

Senior Vice President Creamer reviewed new debt to fund the two anticipated major projects, the Clinical Health Sciences building, and a potential Digital Innovation building. Explained the process to issue bonds, which is several months long. He reviewed financing scenarios, and provided an overview of currently existing bond debt and service requirements. He also reviewed the 2020 Fitch rating, which is AA: Very High Credit Quality.

Capital projects were then reviewed and resolutions discussed for the construction of the Clinical Health Sciences and Wellness building and the issuance of debt to fund the construction.

Associated materials are included as Attachment C.

Room and Board Ordinance

Senior Vice President Creamer presented the proposed room and board rates for academic year 2020-2021. For those students already attending Miami, the Miami Promise applies and their rates remain unchanged. For entering students, the proposed room and board rates do not exceed 2% over those approved for the prior Fall's entering class.

Associated materials are included as Attachment D.

Quasi Endowment

Senior Vice President Creamer next explained a proposed quasi-endowment. He stated the quasi-endowment is to support the Ecology Research Center (ERC). A cellular phone tower is located at the Center, and it is recommended that the proceeds from a recently agreed upon lump sum, long-term lease with the cellular company, be invested for the ERC's use, through the quasi-endowment.

Associated materials are included as Attachment E.

Patent Policy

Senior Vice President Creamer explained that Miami's patent policy was last reviewed and amended in 1983. Recently, the research of Professor Andrew Jones in Methods of Production of Psilocybin, has generated considerable commercial interest and a provisional patent has been filed. The resolution authorizes the filing of a patent, and entering into licensing and other agreements for commercial development. And into

agreements with Professor Jones and any other named inventors for the division of net royalties and other proceeds.

Associated materials are included as Attachment F.

E-Sports

Senior Vice President Creamer informed the Committee regarding the proposed e-sports resolution. The resolution would allow Miami to join an e-sports conference to compete on an intercollegiate basis with other universities in the Mid-American Conference. The resolution also allows for the President, or any other University employee, to serve on the conference board of directors.

Associated materials are included as Attachment G.

Investment Subcommittee

Subcommittee Chair Ridenour relayed that Strategic Investment group (SIG) provided the Subcommittee with an update, and reviewed the long-term capital portfolio investment performance, and stress tests.

He also informed the Committee that the Investment Subcommittee reviewed the proposed quasi-endowment resolution, and he recommends its approval.

The minutes from the meeting of the Investment Subcommittee are included as Attachment H.

Ordinance and Resolutions

Chair Armstrong proposed that all ordinances and resolutions before the Committee be considered in a single vote. Hearing no objections, a motion was made to recommend approval, was seconded, and by unanimous voice vote, with all in favor and none opposed, the Committee recommend approval of all ordinances and resolutions presented.

Forward Agenda

In June the committee will receive the FY2021 budget for consideration.

Additional Reports

The following written reports were provided for the Committee's information and review:

Financial Highlights, Attachment I
Enrollment Update, Attachment J

Internal Audit Reporting Update, Attachment K
Cash and Investments, Attachment L
Lean Project Update, Attachment M

Adjournment

With no more business to come before the Committee, following a motion, second, and unanimous voice vote, with all in favor and none opposed, the Committee adjourned at 4:30 p.m.



Theodore O. Pickerill II
Secretary to the Board of Trustees

University Advancement Report

Tom Herbert, J.D.

Senior Vice President, University Advancement

President, Miami University Foundation

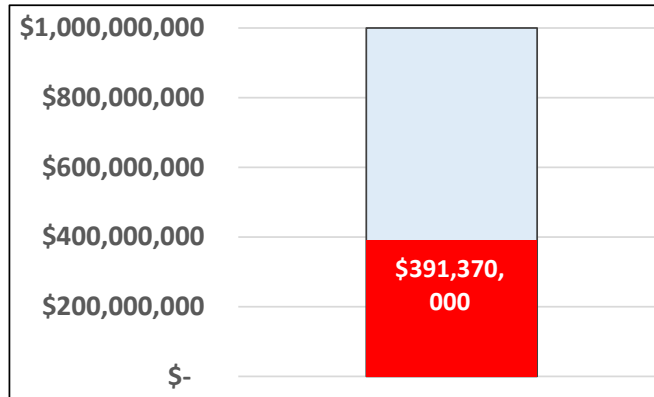


MIAMI UNIVERSITY

\$1B Campaign Progress Report

- » Goal: \$1 billion
- » Raised to date: **\$391.4 million (39% of goal)**

\$1B Campaign Progress Report



FY'20 Fundraising To Date

- » Goal: \$100 million
- » Raised to date: \$52.2 million (51% of goal)
 - » Last FY: \$25.5 million
- » Solicitation activity in FY20:
 - » 17 asks of \$1M+ (\$75 million)
 - » 381 asks of \$50-999k (\$45 million)
 - » In addition, expected close on \$48 million of previous asks

FY'20 Cash Received

- » Goal: \$40 million
- » Raised to date: \$26.6 million (67% of goal)
 - » Last FY: \$25.3 million
- » Cash to Endowment: \$16.7 million
 - » Last FY: \$9.7 million

CY'19 Totals

- » Fundraising Commitments: \$84.5 million (second-best calendar year)

- » Cash Received: \$42.1 million (fourth-best calendar year)

Farmer School of Business Campaign

- » Seven year campaign for \$250 million
- » Timeline: July 1, 2016 - June 30, 2023
- » Raised to date: \$73.8 million
- » Cash received: \$25.6 million

Campaign Drivers

- » Honors College in refinement
- » Clinical Health Building – schematics in hand
- » Alumni Center – schematics in refinement; naming explored
- » Digital Innovation Center – location in place; further schematics to be developed

Campaign Drivers

- » Farmer School of Business Dean's Search
- » College of Engineering and Computing Dean's Search
- » Training Deans for fundraising through a CASE conference
- » Continued exploration of corporate partnerships
 - » Cleveland Clinic, etc.

Campaign Volunteer Future Structure

- » Early stages– fully in place when campaign “Goes Public”
 - » National Campaign Steering Committee
 - » Regional Campaign Committees
 - » Corporate and Foundation Committee

Campaign Volunteers Now

- » Working with the Foundation Board for high level prospect identification
- » Working with a Scholarship Task Force
- » Asking all board volunteers across Miami for a campaign gift and their contacts

Thank you!

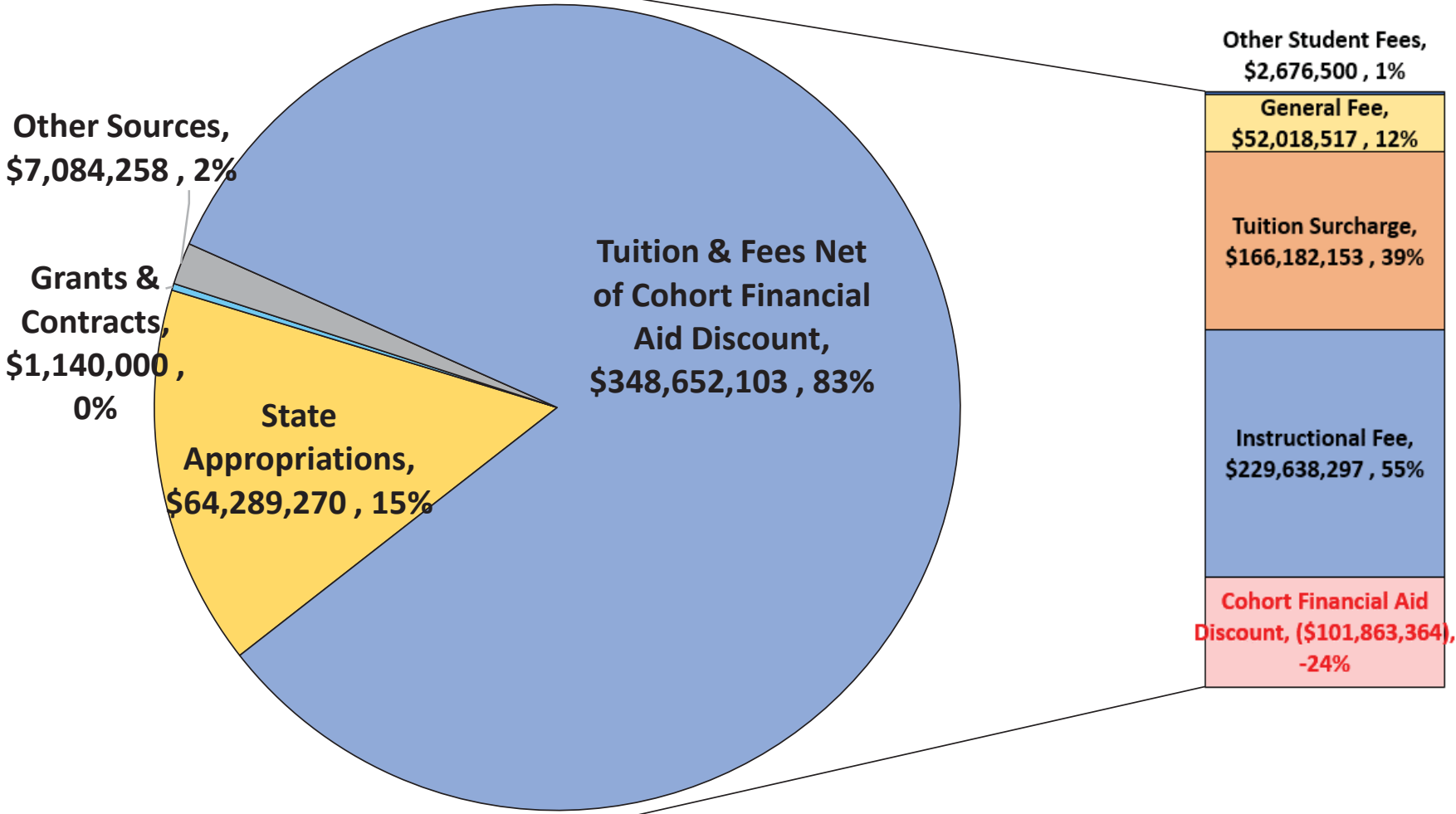


**Background
Information on
Miami University's Budget**

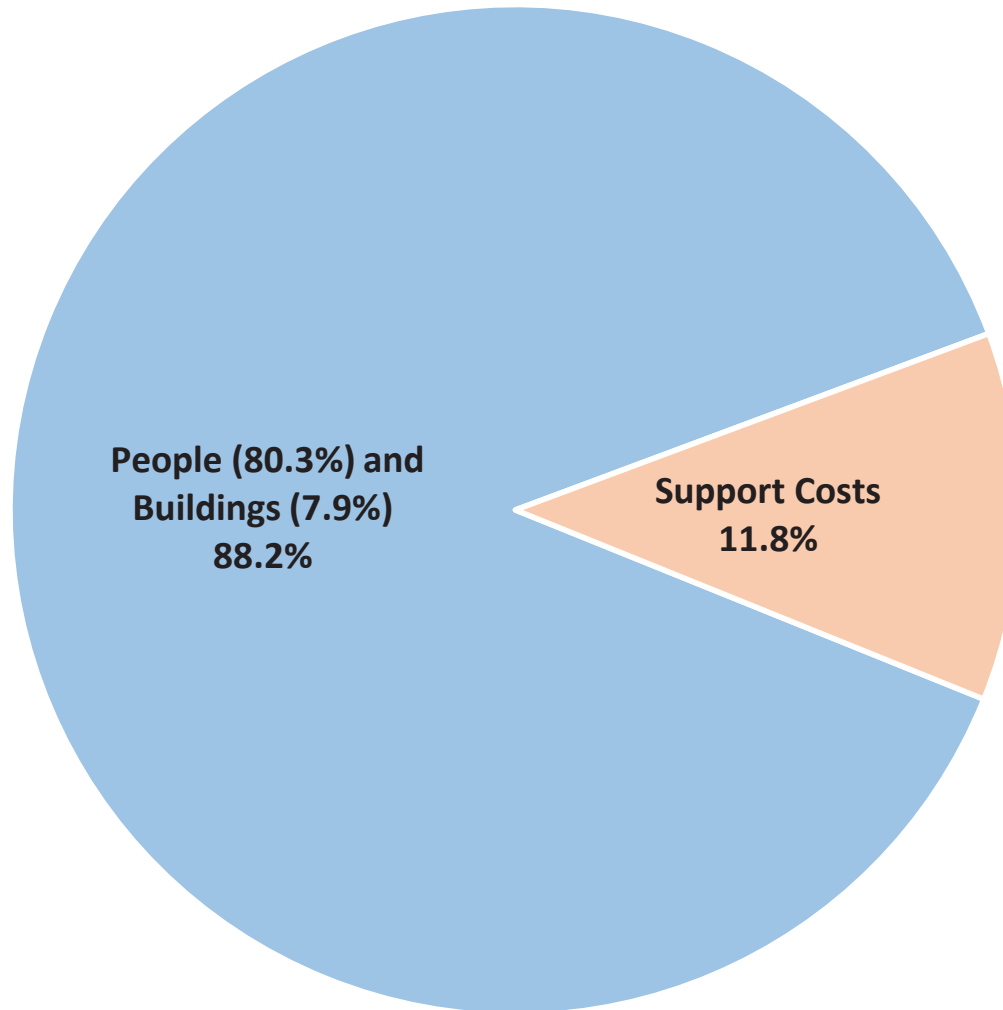


MIAMI UNIVERSITY

Miami University 2019-2020 Budget Oxford Campus General Fund Revenue \$421,165,631



Miami University - Oxford Campus 2019-2020 General Fund Expenditure Budget Excluding Scholarships and Fee Waivers



Miami University- Oxford Campus General Fund Budget Comparison

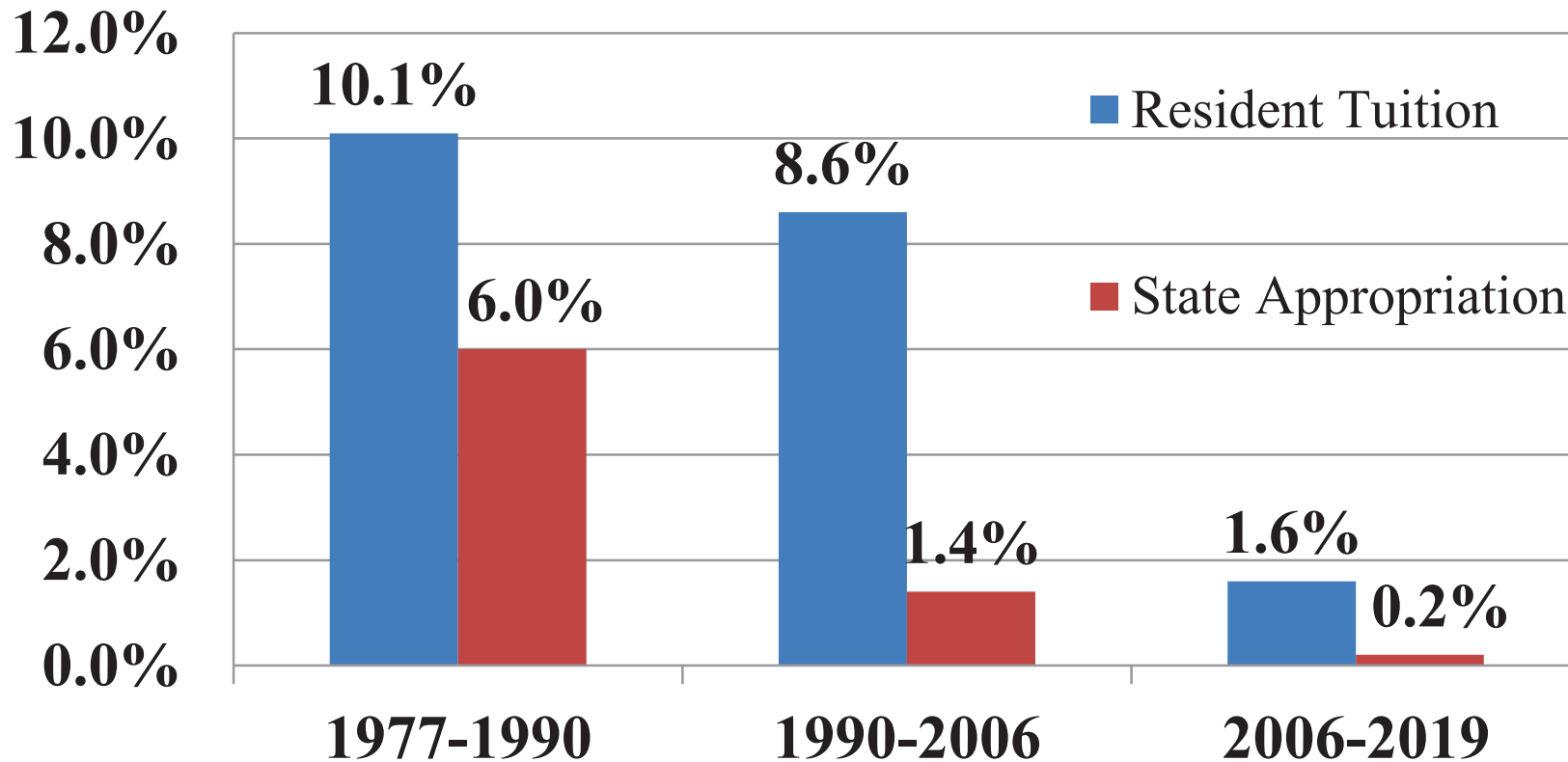
Fiscal Year 1997-80 to 2019-2020

| | <u>1979-80</u> | <u>2019-20</u> | <u>Growth</u> | <u>Annual Rate of Growth</u> |
|------------------------------|----------------|----------------|---------------|--|
| Total Budget | \$53,275,475 | \$515,285,630 | 9.7 times | 5.9% |
| Tuition and Fees (Gross) | 23,701,600 | 450,515,467 | 19.0 times | 7.9% |
| State Appropriation | 28,118,500 | 64,289,270 | 2.3 times | 2.1% |
| Scholarships and Fee Waivers | 536,000 | 120,177,042 | 224.2 times | 14.5% (25.5%) |
| CPI | 72.6 | 258 | 3.6 times | 3.2% |
| Enrollment | 14,758 | 19,716 | 1.3 times | 0.9% (2.3%) |



How has University Funding Changed Over Time?

Annualized Rates of Increase in Historic Revenue Sources



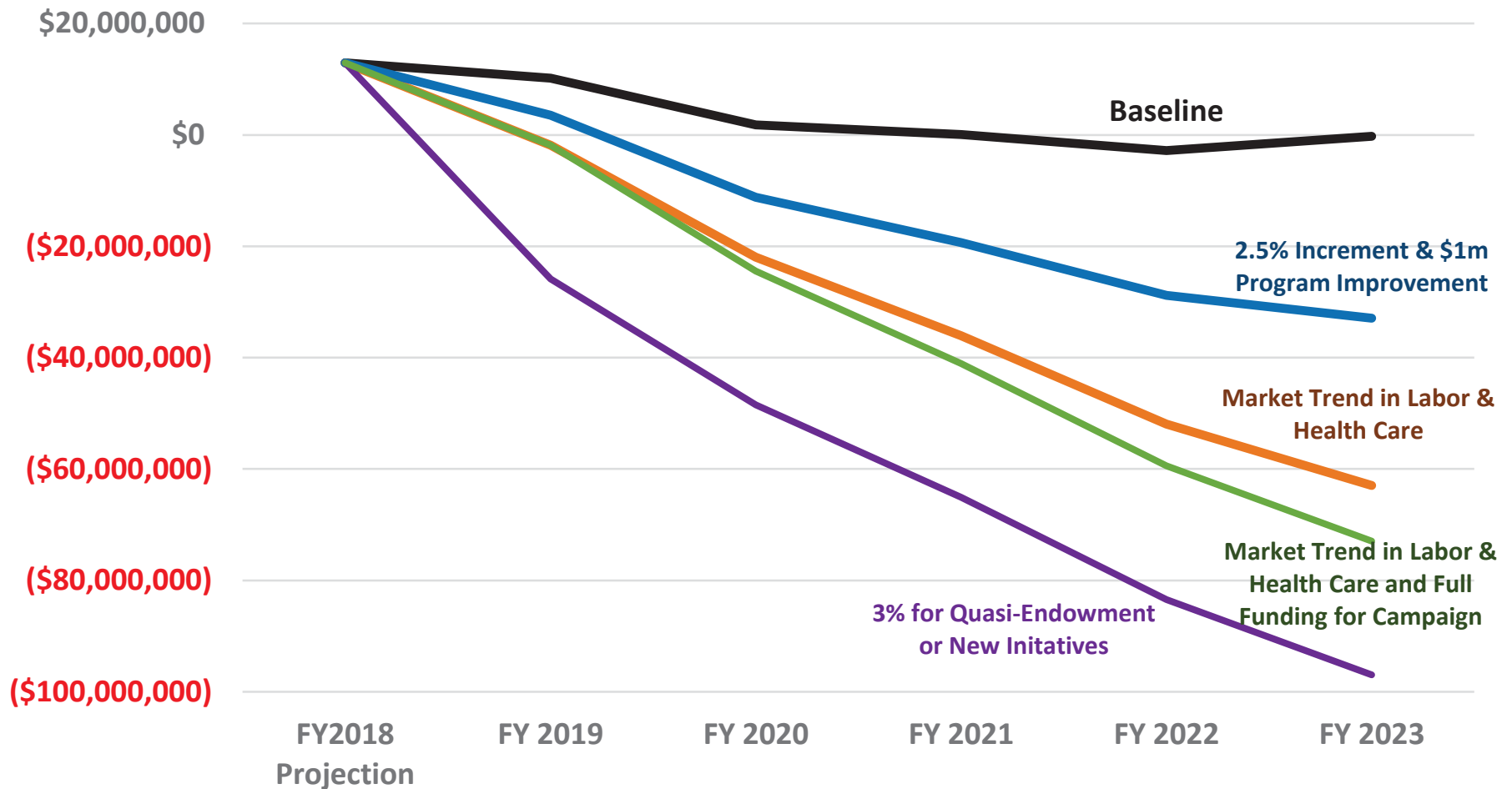
Long-Term Budget Planning



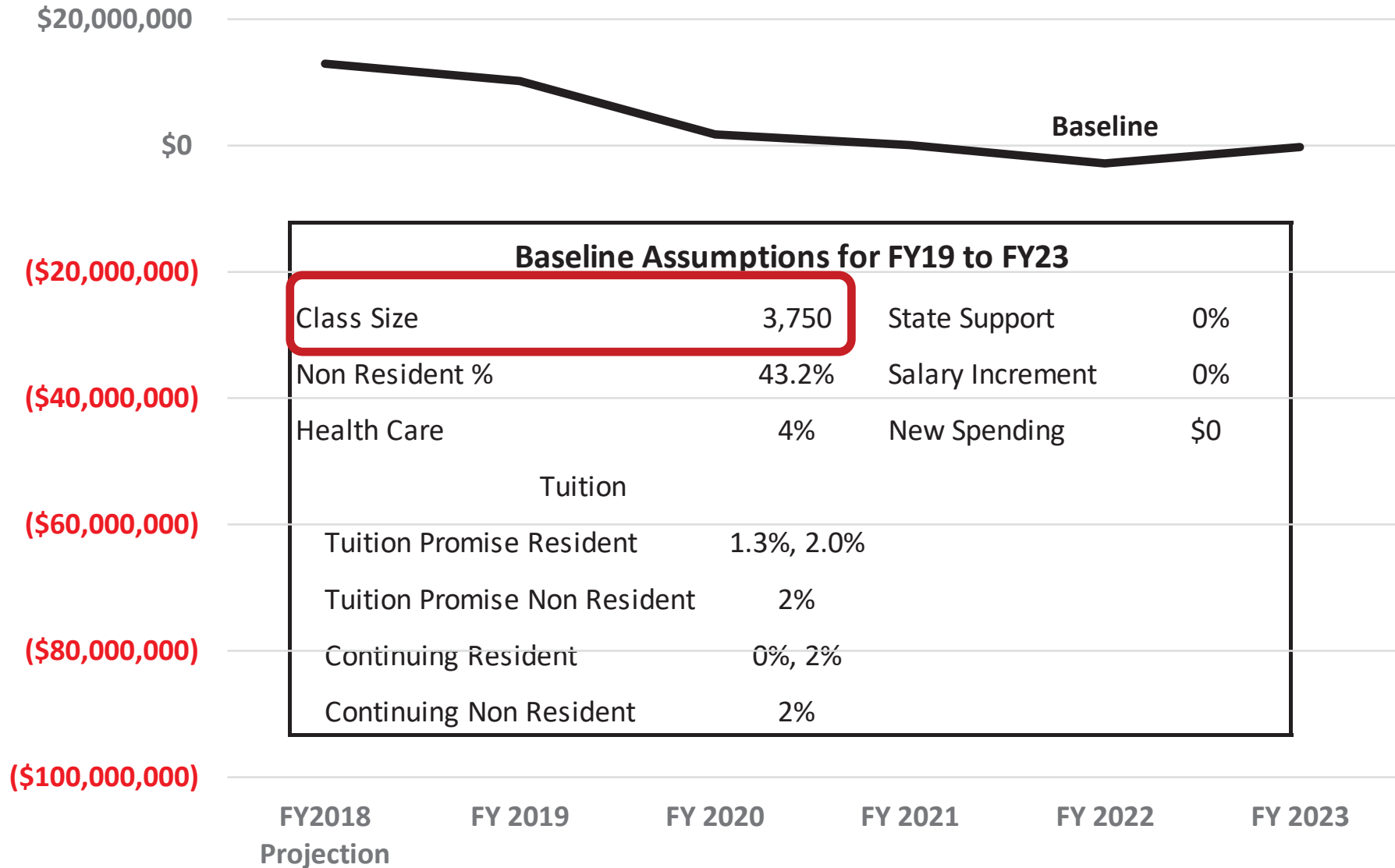
MIAMI UNIVERSITY

Budget Planning June 2017

Oxford Campus Financial Forecast

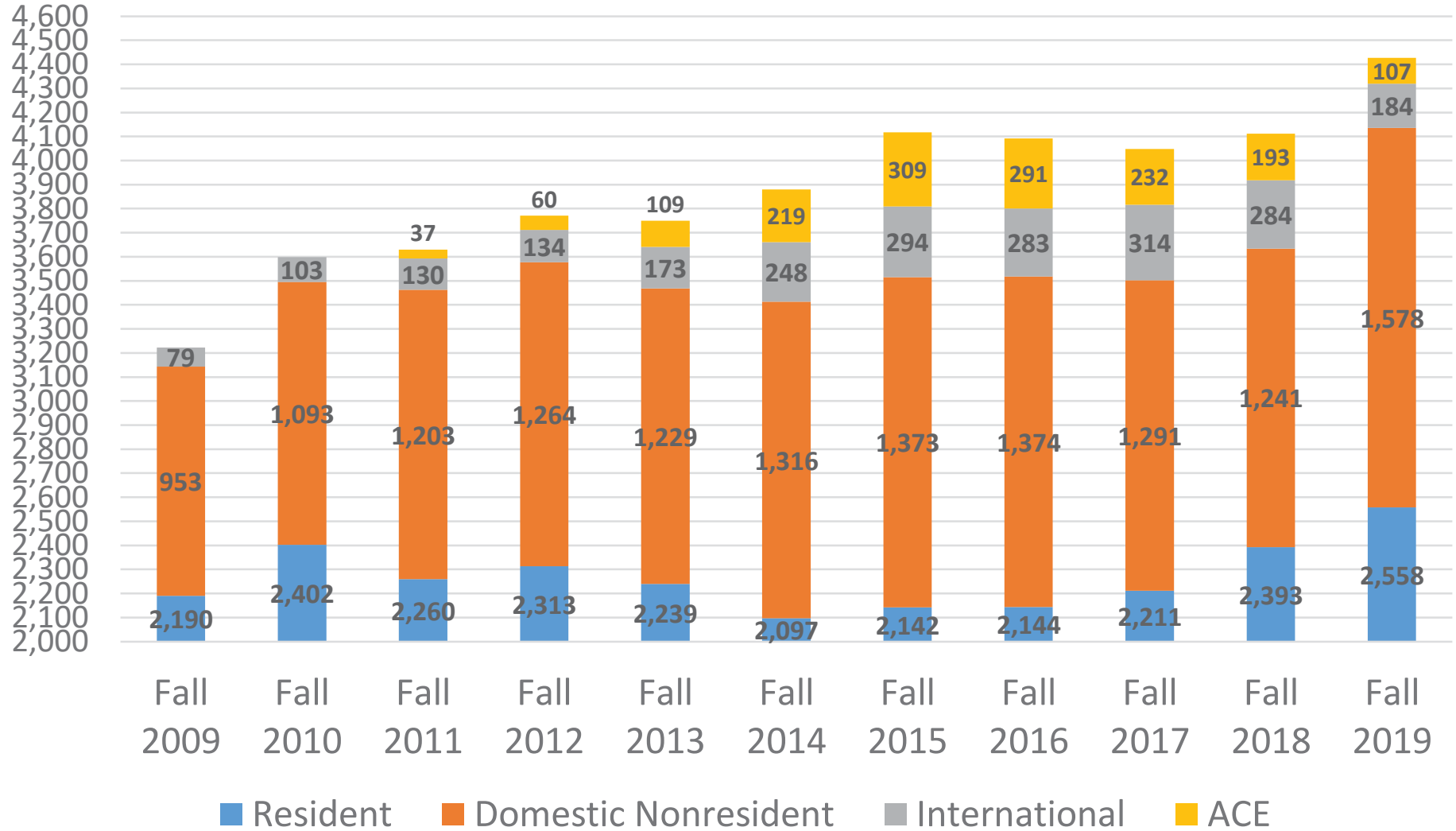


Oxford Campus Financial Forecast

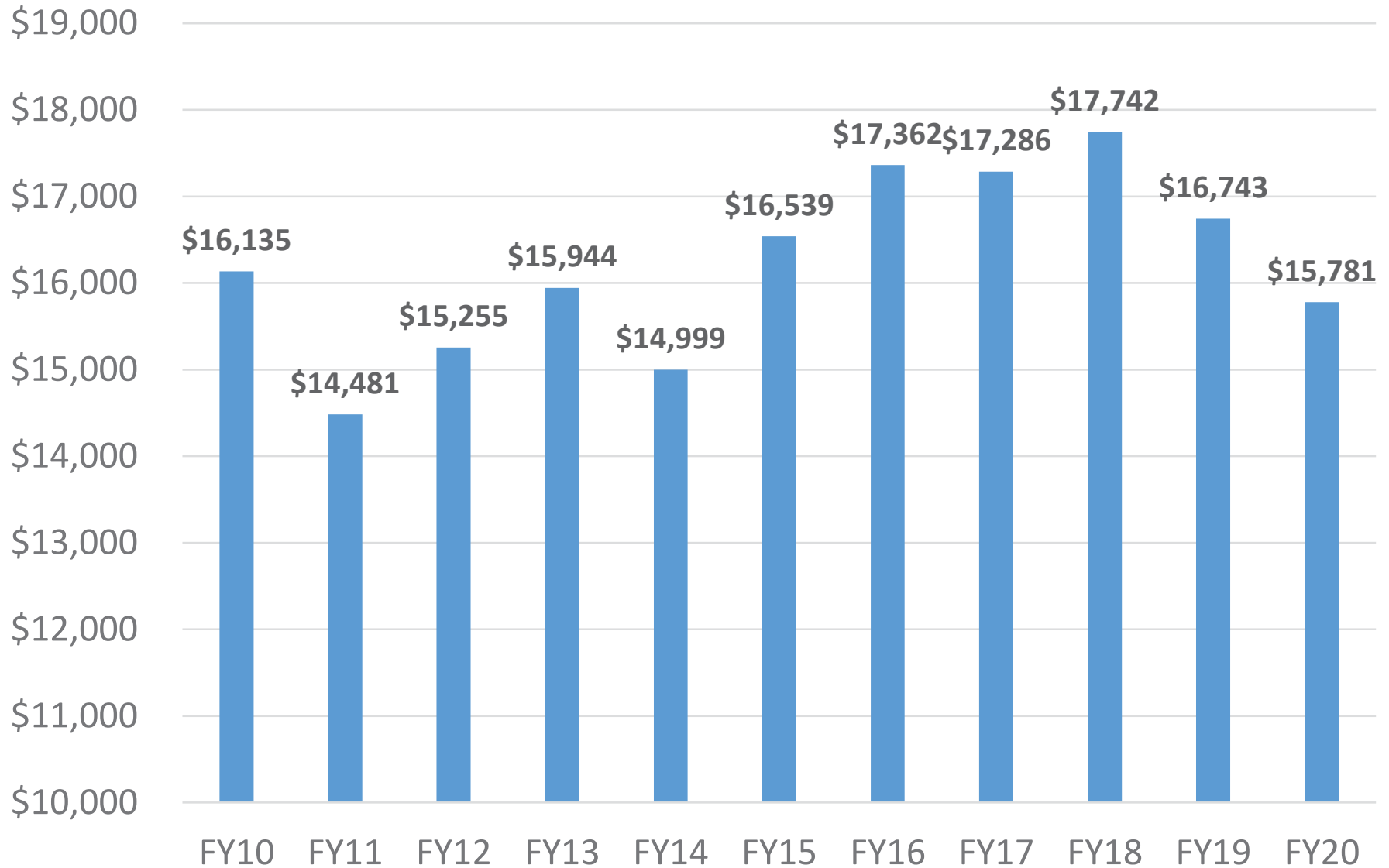


Actual First Year Enrollment Trend

Fall 2009 - Fall 2019



NTR Per First Year Student

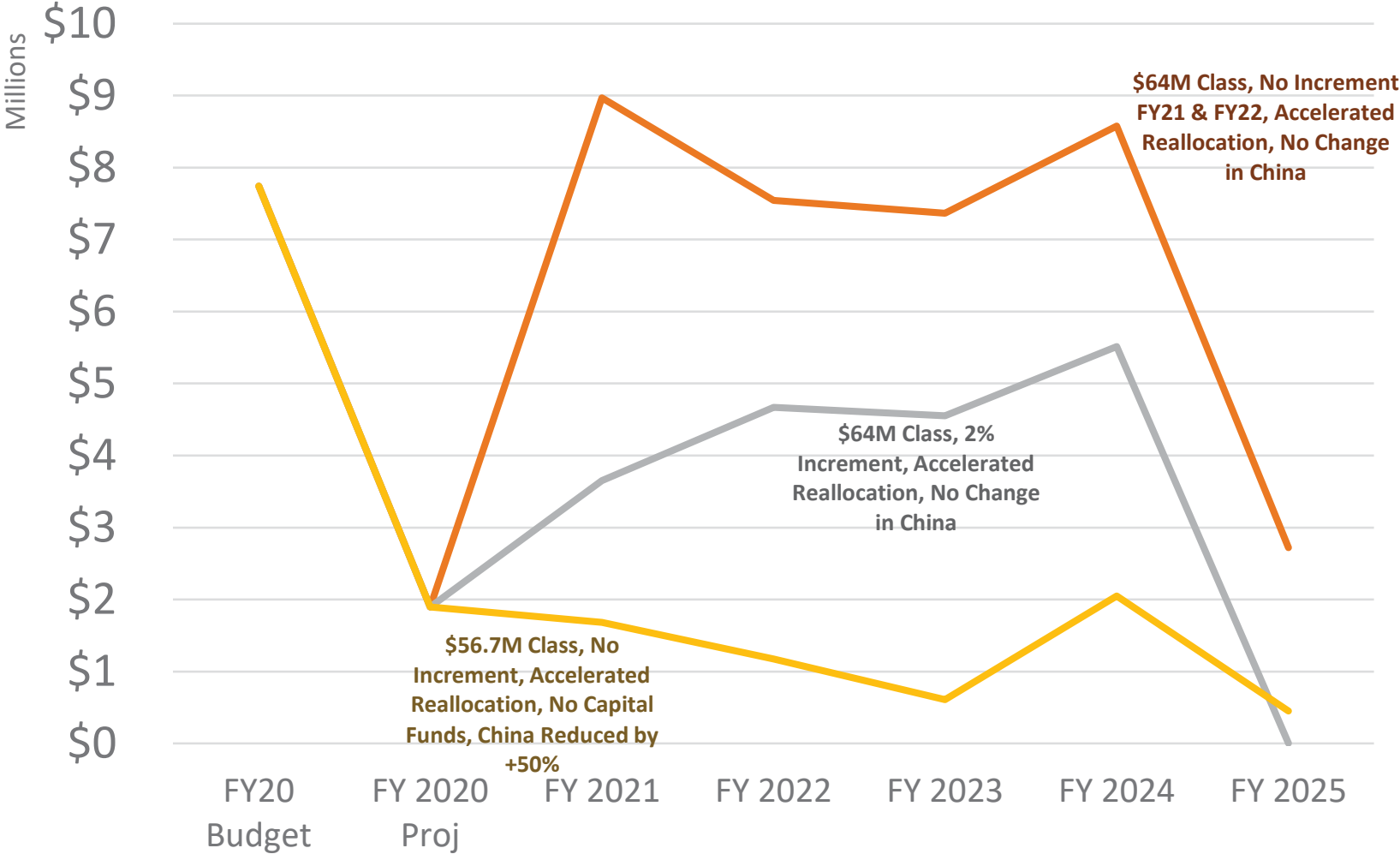


Current Budget Outlook FY 2021 through FY 2025



MIAMI UNIVERSITY

Oxford Campus Projected Financial Performance FY 2020 through FY 2025



Revised Budget Plan

Stacked & Accelerated Reallocations

| Administrative Unit Reduction (10.5%) | FY20 | FY21 | FY22 | FY23 | FY24 | Total |
|--|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|
| President's Office | \$166,139 | \$621,456 | \$165,542 | \$89,595 | \$88,251 | \$1,130,983 |
| Finance Business Services | \$237,775 | \$1,380,870 | \$0 | \$0 | \$0 | \$1,618,645 |
| Physical Facilities | \$509,230 | \$2,157,331 | \$0 | \$0 | \$800,000 | \$3,466,561 |
| Enrollment Mgmt & Student Success | \$251,883 | \$1,043,246 | \$314,575 | \$0 | \$104,979 | \$1,714,683 |
| Student Life | \$112,483 | \$355,396 | \$218,267 | \$79,577 | | \$765,723 |
| IT Services | \$244,501 | \$481,667 | \$474,442 | \$233,663 | \$230,158 | \$1,664,432 |
| University Advancement | \$221,506 | \$1,286,385 | \$0 | \$0 | \$0 | \$1,507,891 |
| CLAAS Departments | \$278,320 | \$1,662,502 | \$0 | \$0 | \$0 | \$1,940,822 |
| Total Administrative Unit Reductions | \$2,021,837 | \$8,988,853 | \$1,172,826 | \$402,835 | \$1,223,388 | \$13,809,739 |
| Provost Offices' Reduction (10.5%) | \$490,411 | \$2,848,040 | \$0 | \$0 | \$0 | \$3,338,451 |
| Academic Deans' Reduction (10.5%) | FY20 | FY21 | FY22 | FY23 | FY24 | Total |
| CAS Dean's Office | \$59,410 | \$345,022 | \$0 | \$0 | \$0 | \$404,432 |
| EH&S Dean's Office | \$43,570 | \$253,029 | \$0 | \$0 | \$0 | \$296,599 |
| FSB Dean's Office | \$57,132 | \$331,789 | \$0 | \$0 | \$0 | \$388,921 |
| CEC Dean's Office | \$29,306 | \$170,194 | \$0 | \$0 | \$0 | \$199,500 |
| CCA Dean's Office | \$18,044 | \$104,790 | \$0 | \$0 | \$0 | \$122,834 |
| CLAAS Dean's Office | \$43,621 | \$263,287 | \$0 | \$0 | \$0 | \$306,908 |
| Total Deans' Reductions | \$251,083 | \$1,468,111 | \$0 | \$0 | \$0 | \$1,719,194 |
| Auxiliary Reductions (14.0%) | FY20 | FY21 | FY22 | FY23 | FY24 | Total |
| Intercollegiate Athletics | \$382,588 | \$749,873 | \$734,876 | \$360,089 | \$352,887 | \$2,580,314 |
| Recreational Sports Center | \$78,566 | \$451,312 | \$0 | \$0 | \$0 | \$529,878 |
| Goggin Ice Center | \$9,436 | \$54,205 | \$0 | \$0 | \$0 | \$63,642 |
| Shriver Center | \$18,470 | \$106,097 | \$0 | \$0 | \$0 | \$124,567 |
| Transportation Services | \$4,334 | \$24,897 | \$0 | \$0 | \$0 | \$29,232 |
| Residence Life | \$34,137 | \$95,097 | \$71,033 | \$36,227 | \$11,494 | \$247,988 |
| Residence & Dining Halls | \$262,273 | \$535,038 | \$545,739 | \$278,327 | \$283,893 | \$1,905,270 |
| Total Auxiliary Reductions | \$789,805 | \$2,016,519 | \$1,351,647 | \$674,642 | \$648,274 | \$5,480,889 |
| Total Reductions for All Units | \$3,553,135 | \$15,321,524 | \$2,524,473 | \$1,077,477 | \$1,871,662 | \$24,348,272 |



**Budget Planning
for
Fiscal Year 2021**



MIAMI UNIVERSITY

FY21 Budget Planning

| <u>FY 2021 Budget Assumptions</u> | Oxford | Hamilton & Middletown |
|--|-------------------|-----------------------|
| Fall Class Tuition | \$56.7M - \$64M | \$6.5M - \$7.1M |
| Fall Class - First Time Students | 4,164 - 4,480 | 704 - 777 |
| Fall Class - Other Incoming Students | 358 - 463 | 477 - 527 |
| Fall Enrollment Mix - Non-Resident | 40.8% | N/A |
| Tuition Increase - Tuition Promise Non-Resident | 2.0% | 2.0% |
| Tuition Increase - Tuition Promise Resident (4% Cap) | 2.0% | 4.0% |
| Tuition Increase - Continuing Non-Resident | 2.0% | 2.0% |
| Tuition Increase - Continuing Resident (2% Cap) | 2.0% | 2.0% |
| Tuition Increase - Non-Resident Lower / Upper Division | N/A | 2.0% |
| Tuition Increase - Resident Lower / Upper Division | N/A | 2.0% |
| Tuition Increase - Graduate Resident & Non-Resident | 2.0% | 2.0% |
| State Share of Instruction - Change from FY20 Actuals | 1% | 1% |
| Change in Investment Income | No Change | No Change |
| Salary Increment Pool & Market Adjustments | 0% to 2% | 0% to 2% |
| Staff Benefit Rate | 38.5% - 39.5% | 38.5% - 39.5% |
| Utilities Trend | 3.0% | 2.0% |
| Non-Personnel Inflation | 2.0% | 0.0% |
| Undergraduate Cohort Scholarships Increase | \$12.9M - \$15.6M | N/A |
| Vacancy Used to Balance Divisonal Budgets | \$6.1M | \$2.3M |
| Strategic Priorities Initiatives | | |
| New Revenue | \$1.2M | \$1.0M |
| Budget Reallocation Targets | -\$13.4M | -\$1.9M |
| Reserves for One-Time Severence Pay | \$250K | \$0 |



Future Issues



MIAMI UNIVERSITY

Critical Questions to be Answered in Defining a 21st Century University

- How does the University grow revenue every year?
 - Will new in-demand academic programs assist with this goal?
 - What size is optimal for growing revenue?
 - How does Miami grow applications again and what markets will generate this growth?
 - What is the right balance between selectivity and access?
- If universities must be more flexible and nimble, what does the organization need to look like?
- If higher education is increasingly viewed as a commodity by families, what is the right balance between quality and efficiency?
- How does Miami University prepare for a recession that is likely to bring investment losses, enrollment loss, and cuts in state support?



Questions?

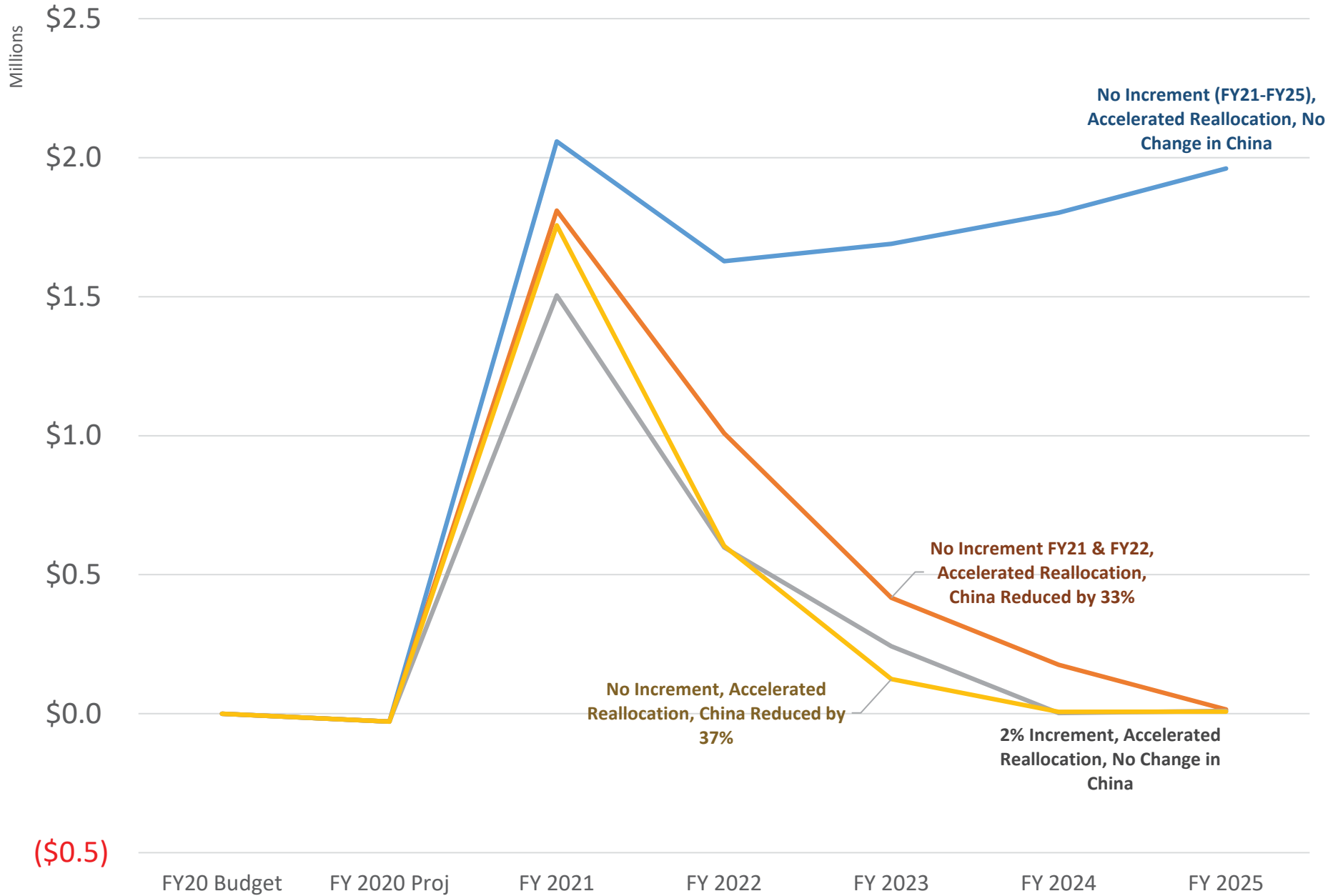
| Oxford Campus Long Range Model Assumptions - Goal Seek to \$64M NIR Class 2% Increment | | | | | | | |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | FY2020 | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
| | Budget | Proj | | | | | |
| Enrollment | | | | | | | |
| First Time Incoming Class Size | 4,202 | 4,231 | 4,403 | 4,342 | 4,273 | 4,213 | 4,150 |
| First Time Nursing Cohort Incoming Class Size | 98 | 89 | 80 | 80 | 80 | 80 | 80 |
| First Time Students from China | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Total First Time Incoming Class Size | 4,300 | 4,320 | 4,483 | 4,422 | 4,353 | 4,293 | 4,230 |
| % Non Resident | 41.0% | 40.8% | 40.8% | 40.8% | 40.9% | 40.9% | 40.9% |
| Relocate Incoming Class Size | 178 | 159 | 159 | 159 | 159 | 159 | 159 |
| Transfer Incoming Class Size | 175 | 199 | 199 | 199 | 199 | 199 | 199 |
| ACE Incoming Class Size | 105 | 107 | 105 | 105 | 105 | 105 | 105 |
| Total Undergraduate Enrollment | 17,231 | 16,919 | 17,170 | 17,688 | 17,870 | 17,897 | 17,716 |
| Overall Non Resident Percentage | 43.5% | 43.1% | 41.7% | 40.9% | 40.8% | 40.8% | 40.8% |
| First Time Cohort Retention Rates: | | | | | | | |
| Term 1 to Term 3 | 91.7% | 87.2% | 87.2% | 87.2% | 87.2% | 87.2% | 87.2% |
| Term 1 to Term 5 | 82.3% | 79.0% | 79.0% | 79.0% | 79.0% | 79.0% | 79.0% |
| Term 1 to Term 7 | 81.5% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% |
| Revenue | | | | | | | |
| UG Tuition Promise New Cohort - Non-Resident | 3.0% | 3.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Tuition Promise New Cohort - Resident | 4.0% | 3.5% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Cohort Discount Rate Growth | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |
| Cross Campus Activity | \$5.7M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M |
| GR Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| GR Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| State Support | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Investment Income | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M |
| Other Student Charges & Other Revenue | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Expense | | | | | | | |
| Salary & Benefit Increment | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Health Care Trend | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Salary Equity & Benefits | \$1.4M | \$1.4M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| University Advancement Campaign Support | \$2.6M | \$2.6M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Budgeted Vacancy to Balance Divisional Budgets | (\$11.6M) | (\$11.6M) | (\$13.6M) | (\$13.6M) | (\$13.6M) | (\$13.6M) | (\$13.6M) |
| Utilities Trend | 0.0% | 0.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| Support Expense Inflation | 1.0% | 1.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Productivity & Reallocation & Initiatives | | | | | | | |
| Administrative Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Provost Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Academic Dean's Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Auxiliary Productivity Savings | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | 0.0% |
| Scholarship Offsets from Fundraising | \$99K | \$99K | \$1.2M | \$2.2M | \$3.3M | \$4.5M | \$4.5M |
| Net Revenue Initiative Target | 0.0% | 0.0% | 0.0% | \$4.8M | \$11.7M | \$14M | \$14M |
| Academic Reallocation Assessment | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 0.0% |

| Oxford Campus Long Range Model Assumptions - Goal Seek to \$64M NIR Class No Increment in FY21 & FY22 | | | | | | | |
|--|--------------------------|------------------------|---------------|---------------|---------------|---------------|---------------|
| | FY2020 Budget | FY2020 Proj | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
| Enrollment | | | | | | | |
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| Term 1 to Term 7 | 81.5% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% |
| Revenue | | | | | | | |
| UG Tuition Promise New Cohort - Non-Resident | 3.0% | 3.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Tuition Promise New Cohort - Resident | 4.0% | 3.5% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Cohort Discount Rate Growth | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |
| Cross Campus Activity | \$5.7M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M |
| GR Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| GR Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| State Support | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Investment Income | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M |
| Other Student Charges & Other Revenue | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Expense | | | | | | | |
| Salary & Benefit Increment | 2.0% | 2.0% | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% |
| Health Care Trend | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Salary Equity & Benefits | \$1.4M | \$1.4M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| University Advancement Campaign Support | \$2.6M | \$2.6M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Budgeted Vacancy to Balance Divisional Budgets | (\$11.6M) | (\$11.6M) | (\$6.1M) | (\$6.1M) | (\$6.1M) | (\$6.1M) | (\$6.1M) |
| Utilities Trend | 0.0% | 0.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| Support Expense Inflation | 1.0% | 1.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Productivity & Reallocation & Initiatives | | | | | | | |
| Administrative Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Provost Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Academic Dean's Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Auxiliary Productivity Savings | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | 0.0% |
| Scholarship Offsets from Fundraising | \$99K | \$99K | \$1.2M | \$2.2M | \$3.3M | \$4.5M | \$4.5M |
| Net Revenue Initiative Target | 0.0% | 0.0% | 0.0% | \$4.8M | \$11.7M | \$14M | \$14M |
| Academic Reallocation Assessment | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 0.0% |

| Oxford Campus Long Range Model Assumptions - Goal Seek to \$56.7M NIR Class No Increment, No Capital | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | FY2020 | FY2020 | | | | | |
| | Budget | Proj | FY2021 | FY2022 | FY2023 | FY2024 | FY2025 |
| Enrollment | | | | | | | |
| First Time Incoming Class Size | 4,202 | 4,231 | 4,084 | 4,027 | 3,972 | 3,915 | 3,861 |
| First Time Nursing Cohort Incoming Class Size | 98 | 89 | 80 | 80 | 80 | 80 | 80 |
| First Time Students from China | 79 | 79 | 79 | 79 | 79 | 79 | 79 |
| Total First Time Incoming Class Size | 4,300 | 4,320 | 4,164 | 4,107 | 4,052 | 3,995 | 3,941 |
| % Non Resident | 41.0% | 40.8% | 40.8% | 40.9% | 40.9% | 41.0% | 41.0% |
| Relocate Incoming Class Size | 178 | 159 | 159 | 159 | 159 | 159 | 159 |
| Transfer Incoming Class Size | 175 | 199 | 199 | 199 | 199 | 199 | 199 |
| ACE Incoming Class Size | 105 | 107 | 0 | 0 | 0 | 0 | 0 |
| Total Undergraduate Enrollment | 17,231 | 16,919 | 16,746 | 16,890 | 16,754 | 16,477 | 16,269 |
| Overall Non Resident Percentage | 43.5% | 43.1% | 41.4% | 40.2% | 39.9% | 39.5% | 39.4% |
| First Time Cohort Retention Rates: | | | | | | | |
| Term 1 to Term 3 | 91.7% | 87.2% | 87.2% | 87.2% | 87.2% | 87.2% | 87.2% |
| Term 1 to Term 5 | 82.3% | 79.0% | 79.0% | 79.0% | 79.0% | 79.0% | 79.0% |
| Term 1 to Term 7 | 81.5% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% | 76.2% |
| Revenue | | | | | | | |
| UG Tuition Promise New Cohort - Non-Resident | 3.0% | 3.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Tuition Promise New Cohort - Resident | 4.0% | 3.5% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Continuing Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| UG Cohort Discount Rate Growth | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% | 0.5% |
| Cross Campus Activity | \$5.7M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M | \$5.0M |
| GR Students - Non-Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| GR Students - Resident | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| State Support | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Investment Income | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M | \$0M |
| Other Student Charges & Other Revenue | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Expense | | | | | | | |
| Salary & Benefit Increment | 2.0% | 2.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Health Care Trend | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Salary Equity & Benefits | \$1.4M | \$1.4M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| University Advancement Campaign Support | \$2.6M | \$2.6M | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Budgeted Vacancy to Balance Divisional Budgets | (\$11.6M) | (\$11.6M) | (\$6.1M) | (\$6.1M) | (\$6.1M) | (\$6.1M) | (\$6.1M) |
| Utilities Trend | 0.0% | 0.0% | 3.0% | 3.0% | 3.0% | 3.0% | 3.0% |
| Support Expense Inflation | 1.0% | 1.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Productivity & Reallocation & Initiatives | | | | | | | |
| Administrative Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Provost Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Academic Dean's Offices Productivity Savings | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | -1.5% | 0.0% |
| Auxiliary Productivity Savings | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | -2.0% | 0.0% |
| Scholarship Offsets from Fundraising | \$99K | \$99K | \$1.2M | \$2.2M | \$3.3M | \$4.5M | \$4.5M |
| Net Revenue Initiative Target | 0.0% | 0.0% | 0.0% | \$4.8M | \$11.7M | \$14M | \$14M |
| Academic Reallocation Assessment | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 1.0% | 0.0% |

Regional Budget Model

Regional Budget Forecast



(\$0.5)

| Miami University - Regionals | | | | | | | |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast with 2% Increment, Accelerated Reallocation | | | | | | | |
| | FY20 | Projection FY20 | FY21 | FY22 | FY23 | FY24 | FY25 |
| Revenue: | | | | | | | |
| UG Instructional Revenue | | | | | | | |
| Total UG Instructional Fee | \$32,868,843 | \$32,376,019 | \$32,226,654 | \$31,767,519 | \$31,730,053 | \$32,260,437 | \$33,039,755 |
| Total UG Financial Aid | \$2,092,658 | \$1,746,769 | \$2,087,869 | \$2,140,344 | \$2,172,799 | \$2,204,004 | \$2,236,084 |
| Total UG Net Instructional Revenue | \$30,776,185 | \$30,629,251 | \$30,138,785 | \$29,627,175 | \$29,557,254 | \$30,056,432 | \$30,803,671 |
| Total GR Instructional Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Financial Aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Net Instructional Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | | | | | | | |
| UG General Fees | \$1,545,291 | \$1,553,608 | \$1,545,562 | \$1,544,852 | \$1,566,421 | \$1,610,434 | \$1,664,515 |
| GR General Fees | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 |
| State Share in Instruction | \$10,883,076 | \$11,045,152 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 |
| Other from State (PSEOP) | \$952,730 | \$1,047,292 | \$1,059,628 | \$1,068,391 | \$1,068,939 | \$1,068,747 | \$1,068,747 |
| All Other Revenue | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 |
| Total Other Revenue | \$13,845,200 | \$14,110,155 | \$14,224,896 | \$14,232,949 | \$14,255,066 | \$14,298,887 | \$14,352,968 |
| Total Revenue | \$44,621,385 | \$44,739,405 | \$44,363,681 | \$43,860,123 | \$43,812,320 | \$44,355,320 | \$45,156,639 |
| Expenditures | | | | | | | |
| Salaries | \$26,945,035 | \$26,945,035 | \$27,824,809 | \$28,423,388 | \$29,034,235 | \$29,657,263 | \$30,292,715 |
| Promotion & Tenure | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 |
| Allowance for Unspent Salaries | (\$1,580,267) | (\$1,580,267) | (\$1,612,154) | (\$1,645,024) | (\$1,678,653) | (\$1,713,094) | (\$1,748,388) |
| Staff Benefits | \$5,310,096 | \$5,310,096 | \$5,547,208 | \$5,674,030 | \$5,803,503 | \$5,935,552 | \$6,070,228 |
| Allowance for Unspent Benefits | (\$719,335) | (\$719,335) | (\$733,722) | (\$748,396) | (\$763,364) | (\$778,632) | (\$794,204) |
| Anticipated Benefit Redistribution | (\$281,250) | (\$281,250) | (\$210,938) | (\$158,203) | (\$118,652) | (\$88,989) | (\$66,742) |
| Healthcare | \$4,104,773 | \$4,104,773 | \$4,268,964 | \$4,439,723 | \$4,617,312 | \$4,802,004 | \$4,994,084 |
| Operating Expense | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 |
| Utilities | \$1,029,000 | \$1,029,000 | \$1,049,580 | \$1,070,572 | \$1,091,983 | \$1,113,823 | \$1,136,099 |
| Other Transfers | \$1,027,676 | \$1,044,479 | \$871,143 | \$900,748 | \$905,221 | \$931,797 | \$968,091 |
| Debt Service | \$61,741 | \$61,741 | \$61,651 | \$61,646 | \$61,331 | \$61,331 | \$61,331 |
| Branch Campus Indirect Charge | \$3,222,347 | \$3,222,347 | \$3,144,947 | \$3,112,758 | \$3,111,645 | \$3,151,853 | \$3,210,191 |
| Subtotal Expenses | \$45,155,521 | \$45,172,324 | \$46,247,193 | \$47,166,946 | \$48,100,266 | \$49,108,614 | \$50,159,111 |
| New commitments & investments | \$404,770 | \$404,770 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Expenditures | \$45,560,291 | \$45,577,094 | \$46,247,193 | \$47,166,946 | \$48,100,266 | \$49,108,614 | \$50,159,111 |
| Surplus/(Deficit) before Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,883,512) | (\$3,306,823) | (\$4,287,946) | (\$4,753,294) | (\$5,002,472) |
| Transfer from Fund Balance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Surplus/(Deficit) after Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,883,512) | (\$3,306,823) | (\$4,287,946) | (\$4,753,294) | (\$5,002,472) |
| Sublease or Sell Greentree Health Science Academy | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase allowance for unspent salaries/benefits | \$288,136 | \$288,136 | \$298,856 | \$309,636 | \$320,615 | \$351,471 | \$556,625 |
| Productivity | \$322,057 | \$322,057 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 |
| National Pathways Program (net of expense) | \$277,887 | \$47,692 | \$281,700 | \$284,646 | \$288,074 | \$291,535 | \$295,028 |
| National Pathways Program General Fee | \$71,755 | \$71,755 | \$72,760 | \$73,778 | \$74,811 | \$75,858 | \$76,920 |
| National Pathways Program General Fee Transfer | (\$71,755) | (\$71,755) | (\$72,760) | (\$73,778) | (\$74,811) | (\$75,858) | (\$76,920) |
| Increased Oxford Nursing Students (net of expense) | (\$286,942) | (\$346,250) | (\$225,319) | \$88,060 | \$553,912 | \$691,670 | \$698,276 |
| Expand ELC program to Hamilton (net of expense) | \$222,966 | \$460,437 | \$555,773 | \$727,287 | \$864,841 | \$912,657 | \$950,817 |
| Early Childhood Education (net of expense) | \$114,802 | \$36,875 | \$229,399 | \$247,521 | \$255,675 | \$260,154 | \$264,108 |
| Total Opportunities | \$938,906 | \$808,946 | \$3,388,139 | \$3,904,880 | \$4,530,847 | \$4,755,217 | \$5,012,585 |
| Net Adjusted Surplus / (Deficit) | (\$0) | (\$28,742) | \$1,504,627 | \$598,057 | \$242,901 | \$1,923 | \$10,113 |

Miami University - Regionals

College of Liberal Arts and Applied Science

Five year budget forecast assumptions with 2% Increment, Accelerated Reallocation

| | FY20 | FY20 Projection | FY21 | FY22 | FY23 | FY24 | FY25 |
|--|--------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| Assumptions | | | | | | | |
| Continuing Student Instructional Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student Out of State Surcharge % Change | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Instructional Fee % Change | 4.0% | 3.5% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Tuition Promise Out of State Surcharge % Change | 0.0% | 0.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Tuition Promise General Fee % Change | 2.0% | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| ELC Contract Rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Incoming Cohorts - Fall Only | | | | | | | |
| First Time | 753 | 777 | 777 | 777 | 777 | 777 | 777 |
| Transfer | 211 | 204 | 204 | 204 | 204 | 204 | 204 |
| Relocate | 34 | 9 | 9 | 9 | 9 | 9 | 9 |
| College Credit Plus | 168 | 157 | 157 | 157 | 157 | 157 | 157 |
| Other Non-ELC | 3 | 8 | 8 | 8 | 8 | 8 | 8 |
| ELC | 150 | 149 | 149 | 149 | 149 | 149 | 149 |
| Total Incoming Cohorts | 1,319 | 1,304 | 1,304 | 1,304 | 1,304 | 1,304 | 1,304 |
| Total Continuing Students | 2,473 | 2,483 | 2,399 | 2,290 | 2,205 | 2,178 | 2,166 |
| Total UG Students | 3,792 | 3,787 | 3,703 | 3,594 | 3,509 | 3,482 | 3,470 |
| State Share of Instruction | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cross Campus True Up | \$5,665,798 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| Increment | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Healthcare | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Benefit Redistribution | -25% | -25% | -25% | -25% | -25% | -25% | -25% |
| Operating Expense | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 0% | 2% | 2% | 2% | 2% | 2% |
| Branch Campus Indirect Charge | 7% | 7% | 7% | 7% | 7% | 7% | 7% |

| Miami University - Regionals | | | | | | | |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast with No Increment in FY21 & FY22, Accelerated Reallocation, Reduced China | | | | | | | |
| | FY20 | Projection FY20 | FY21 | FY22 | FY23 | FY24 | FY25 |
| Revenue: | | | | | | | |
| UG Instructional Revenue | | | | | | | |
| Total UG Instructional Fee | \$32,868,843 | \$32,376,019 | \$32,015,818 | \$31,438,156 | \$31,437,394 | \$32,008,267 | \$32,828,464 |
| Total UG Financial Aid | \$2,092,658 | \$1,746,769 | \$2,087,869 | \$2,140,344 | \$2,172,799 | \$2,204,004 | \$2,236,084 |
| Total UG Net Instructional Revenue | \$30,776,185 | \$30,629,251 | \$29,927,949 | \$29,297,812 | \$29,264,595 | \$29,804,263 | \$30,592,380 |
| Total GR Instructional Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Financial Aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Net Instructional Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | | | | | | | |
| UG General Fees | \$1,545,291 | \$1,553,608 | \$1,545,562 | \$1,524,950 | \$1,542,617 | \$1,586,972 | \$1,641,377 |
| GR General Fees | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 |
| State Share in Instruction | \$10,883,076 | \$11,045,152 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 |
| Other from State (PSEOP) | \$952,730 | \$1,047,292 | \$1,059,628 | \$1,068,391 | \$1,068,939 | \$1,068,747 | \$1,068,747 |
| All Other Revenue | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 |
| Total Other Revenue | \$13,845,200 | \$14,110,155 | \$14,224,896 | \$14,213,046 | \$14,231,262 | \$14,275,425 | \$14,329,829 |
| Total Revenue | \$44,621,385 | \$44,739,405 | \$44,152,845 | \$43,510,859 | \$43,495,857 | \$44,079,687 | \$44,922,209 |
| Expenditures | | | | | | | |
| Salaries | \$26,945,035 | \$26,945,035 | \$27,270,823 | \$27,303,497 | \$27,891,946 | \$28,492,128 | \$29,104,277 |
| Promotion & Tenure | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 |
| Allowance for Unspent Salaries | (\$1,580,267) | (\$1,580,267) | (\$1,574,786) | (\$1,569,540) | (\$1,601,660) | (\$1,634,561) | (\$1,668,284) |
| Staff Benefits | \$5,310,096 | \$5,310,096 | \$5,435,521 | \$5,448,101 | \$5,573,055 | \$5,700,495 | \$5,830,470 |
| Allowance for Unspent Benefits | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$733,722) | (\$748,396) | (\$763,364) |
| Anticipated Benefit Redistribution | (\$281,250) | (\$281,250) | (\$210,938) | (\$158,203) | (\$118,652) | (\$88,989) | (\$66,742) |
| Healthcare | \$4,104,773 | \$4,104,773 | \$4,186,869 | \$4,270,606 | \$4,441,430 | \$4,619,088 | \$4,803,851 |
| Operating Expense | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 |
| Utilities | \$1,029,000 | \$1,029,000 | \$1,049,580 | \$1,070,572 | \$1,091,983 | \$1,113,823 | \$1,136,099 |
| Other Transfers | \$1,027,676 | \$1,044,479 | \$888,197 | \$915,296 | \$916,557 | \$944,177 | \$981,512 |
| Debt Service | \$61,741 | \$61,741 | \$61,651 | \$61,646 | \$61,331 | \$61,331 | \$61,331 |
| Branch Campus Indirect Charge | \$3,222,347 | \$3,222,347 | \$3,130,189 | \$3,088,310 | \$3,089,493 | \$3,132,559 | \$3,193,781 |
| Subtotal Expenses | \$45,155,521 | \$45,172,324 | \$45,553,477 | \$45,746,653 | \$46,647,466 | \$47,627,359 | \$48,648,636 |
| New commitments & investments | \$404,770 | \$404,770 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Expenditures | \$45,560,291 | \$45,577,094 | \$45,553,477 | \$45,746,653 | \$46,647,466 | \$47,627,359 | \$48,648,636 |
| Surplus/(Deficit) before Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,400,631) | (\$2,235,794) | (\$3,151,609) | (\$3,547,672) | (\$3,726,427) |
| Transfer from Fund Balance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Surplus/(Deficit) after Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,400,631) | (\$2,235,794) | (\$3,151,609) | (\$3,547,672) | (\$3,726,427) |
| Sublease or Sell Greentree Health Science Academy | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase allowance for unspent salaries/benefits | \$288,136 | \$288,136 | \$298,856 | \$309,636 | \$320,615 | \$331,471 | \$336,625 |
| Productivity | \$322,057 | \$322,057 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 |
| National Pathways Program (net of expense) | \$277,887 | \$47,692 | \$281,700 | \$284,646 | \$288,074 | \$291,535 | \$295,028 |
| National Pathways Program General Fee | \$71,755 | \$71,755 | \$72,760 | \$73,778 | \$74,811 | \$75,858 | \$76,920 |
| National Pathways Program General Fee Transfer | (\$71,755) | (\$71,755) | (\$72,760) | (\$73,778) | (\$74,811) | (\$75,858) | (\$76,920) |
| Increased Oxford Nursing Students (net of expense) | (\$286,942) | (\$346,250) | (\$225,319) | \$88,060 | \$553,912 | \$691,670 | \$698,276 |
| Expand ELC program to Hamilton (net of expense) | \$222,966 | \$460,437 | \$377,815 | \$67,237 | (\$97,030) | (\$98,728) | (\$100,459) |
| Early Childhood Education (net of expense) | \$114,802 | \$36,875 | \$229,399 | \$247,521 | \$255,675 | \$260,154 | \$264,108 |
| Total Opportunities | \$938,906 | \$808,946 | \$3,210,181 | \$3,244,830 | \$3,568,976 | \$3,723,832 | \$3,741,308 |
| Net Adjusted Surplus / (Deficit) | (\$0) | (\$28,742) | \$1,809,549 | \$1,009,036 | \$417,366 | \$176,160 | \$14,881 |

| Miami University - Regionals | | | | | | | |
|---|--------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast assumptions with No Increment in FY21 & FY22, Accelerated Reallocation, Reduced China | | | | | | | |
| | FY20 | FY20 Projection | FY21 | FY22 | FY23 | FY24 | FY25 |
| Assumptions | | | | | | | |
| Continuing Student Instructional Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student Out of State Surcharge % Change | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Instructional Fee % Change | 4.0% | 3.5% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Tuition Promise Out of State Surcharge % Change | 0.0% | 0.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| Tuition Promise General Fee % Change | 2.0% | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 4.0% |
| ELC Contract Rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Incoming Cohorts - Fall Only | | | | | | | |
| First Time | 753 | 777 | 777 | 777 | 777 | 777 | 777 |
| Transfer | 211 | 204 | 204 | 204 | 204 | 204 | 204 |
| Relocate | 34 | 9 | 9 | 9 | 9 | 9 | 9 |
| College Credit Plus | 168 | 157 | 157 | 157 | 157 | 157 | 157 |
| Other Non-ELC | 3 | 8 | 8 | 8 | 8 | 8 | 8 |
| ELC | 150 | 149 | 100 | 115 | 115 | 115 | 115 |
| Total Incoming Cohorts | 1,319 | 1,304 | 1,255 | 1,270 | 1,270 | 1,270 | 1,270 |
| Total Continuing Students | 2,473 | 2,483 | 2,399 | 2,244 | 2,149 | 2,123 | 2,115 |
| Total UG Students | 3,792 | 3,787 | 3,654 | 3,514 | 3,419 | 3,393 | 3,385 |
| State Share of Instruction | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cross Campus True Up | \$5,665,798 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| Increment | 2% | 2% | 0% | 0% | 2% | 2% | 2% |
| Healthcare | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Benefit Redistribution | -25% | -25% | -25% | -25% | -25% | -25% | -25% |
| Operating Expense | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 0% | 2% | 2% | 2% | 2% | 2% |
| Branch Campus Indirect Charge | 7% | 7% | 7% | 7% | 7% | 7% | 7% |

| Miami University - Regional Campuses | | | | | | | |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast with No Increment, Accelerated Reallocation | | | | | | | |
| | FY20 | Projection FY20 | FY21 | FY22 | FY23 | FY24 | FY25 |
| Revenue: | | | | | | | |
| UG Instructional Revenue | | | | | | | |
| Total UG Instructional Fee | \$32,868,843 | \$32,376,019 | \$32,091,871 | \$31,393,555 | \$31,033,303 | \$31,173,763 | \$31,516,760 |
| Total UG Financial Aid | \$2,092,658 | \$1,746,769 | \$2,087,869 | \$2,140,344 | \$2,172,799 | \$2,204,004 | \$2,236,084 |
| Total UG Net Instructional Revenue | \$30,776,185 | \$30,629,251 | \$30,004,003 | \$29,253,210 | \$28,860,504 | \$28,969,759 | \$29,280,676 |
| Total GR Instructional Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Financial Aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Net Instructional Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | | | | | | | |
| UG General Fees | \$1,545,291 | \$1,553,608 | \$1,536,204 | \$1,516,119 | \$1,515,613 | \$1,534,057 | \$1,559,171 |
| GR General Fees | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 |
| State Share in Instruction | \$10,883,076 | \$11,045,152 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 |
| Other from State (PSEOP) | \$952,730 | \$1,047,292 | \$1,059,628 | \$1,068,391 | \$1,068,939 | \$1,068,747 | \$1,068,747 |
| All Other Revenue | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 |
| Total Other Revenue | \$13,845,200 | \$14,110,155 | \$14,215,538 | \$14,204,215 | \$14,204,258 | \$14,222,509 | \$14,247,624 |
| Total Revenue | \$44,621,385 | \$44,739,405 | \$44,219,540 | \$43,457,426 | \$43,064,762 | \$43,192,268 | \$43,528,300 |
| Expenditures | | | | | | | |
| Salaries | \$26,945,035 | \$26,945,035 | \$27,270,823 | \$27,303,497 | \$27,336,280 | \$27,368,843 | \$27,401,181 |
| Promotion & Tenure | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 |
| Allowance for Unspent Salaries | (\$1,580,267) | (\$1,580,267) | (\$1,574,786) | (\$1,569,540) | (\$1,564,292) | (\$1,559,077) | (\$1,553,923) |
| Staff Benefits | \$5,310,096 | \$5,310,096 | \$5,435,521 | \$5,448,101 | \$5,460,722 | \$5,473,259 | \$5,485,709 |
| Allowance for Unspent Benefits | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) |
| Anticipated Benefit Redistribution | (\$281,250) | (\$281,250) | (\$210,938) | (\$158,203) | (\$118,652) | (\$88,989) | (\$66,742) |
| Healthcare | \$4,104,773 | \$4,104,773 | \$4,186,869 | \$4,270,606 | \$4,356,018 | \$4,443,139 | \$4,532,001 |
| Operating Expense | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 |
| Utilities | \$1,029,000 | \$1,029,000 | \$1,049,580 | \$1,070,572 | \$1,091,983 | \$1,113,823 | \$1,136,099 |
| Other Transfers | \$1,027,676 | \$1,044,479 | \$878,839 | \$906,465 | \$906,608 | \$925,712 | \$951,502 |
| Debt Service | \$61,741 | \$61,741 | \$61,651 | \$61,646 | \$61,331 | \$61,331 | \$61,331 |
| Branch Campus Indirect Charge | \$3,222,347 | \$3,222,347 | \$3,134,857 | \$3,084,569 | \$3,059,316 | \$3,070,440 | \$3,096,207 |
| Subtotal Expenses | \$45,155,521 | \$45,172,324 | \$45,548,787 | \$45,734,081 | \$45,905,684 | \$46,124,850 | \$46,359,735 |
| New commitments & investments | \$404,770 | \$404,770 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Expenditures | \$45,560,291 | \$45,577,094 | \$45,548,787 | \$45,734,081 | \$45,905,684 | \$46,124,850 | \$46,359,735 |
| Surplus/(Deficit) before Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,329,247) | (\$2,276,656) | (\$2,840,922) | (\$2,932,582) | (\$2,831,435) |
| Transfer from Fund Balance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Surplus/(Deficit) after Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,329,247) | (\$2,276,656) | (\$2,840,922) | (\$2,932,582) | (\$2,831,435) |
| Sublease or Sell Greentree Health Science Academy | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase allowance for unspent salaries/benefits | \$288,136 | \$288,136 | \$298,856 | \$309,636 | \$320,615 | \$331,471 | \$336,625 |
| Productivity | \$322,057 | \$322,057 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 |
| National Pathways Program (net of expense) | \$277,887 | \$47,692 | \$281,700 | \$284,646 | \$288,074 | \$291,535 | \$295,028 |
| National Pathways Program General Fee | \$71,755 | \$71,755 | \$72,760 | \$73,778 | \$74,811 | \$75,858 | \$76,920 |
| National Pathways Program General Fee Transfer | (\$71,755) | (\$71,755) | (\$72,760) | (\$73,778) | (\$74,811) | (\$75,858) | (\$76,920) |
| Increased Oxford Nursing Students (net of expense) | (\$286,942) | (\$346,250) | (\$225,319) | \$88,060 | \$553,912 | \$691,670 | \$698,276 |
| Expand ELC program to Hamilton (net of expense) | \$222,966 | \$460,437 | \$555,773 | \$727,287 | \$864,841 | \$912,657 | \$950,817 |
| Early Childhood Education (net of expense) | \$114,802 | \$36,875 | \$229,399 | \$247,521 | \$255,675 | \$260,154 | \$264,108 |
| Total Opportunities | \$938,906 | \$808,946 | \$3,388,139 | \$3,904,880 | \$4,530,847 | \$4,735,217 | \$4,792,585 |
| Net Adjusted Surplus / (Deficit) | (\$0) | (\$28,742) | \$2,058,892 | \$1,628,224 | \$1,689,925 | \$1,802,636 | \$1,961,150 |

| Miami University - Regional Campuses | | | | | | | |
|--|--------------|----------------------------|--------------|--------------|--------------|--------------|--------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast assumptions with No Increment, Accelerated Reallocation | | | | | | | |
| | FY20 | FY20 Projection | FY21 | FY22 | FY23 | FY24 | FY25 |
| Assumptions | | | | | | | |
| Continuing Student Instructional Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student Out of State Surcharge % Change | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Instructional Fee % Change | 4.0% | 3.5% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Out of State Surcharge % Change | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| ELC Contract Rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Incoming Cohorts - Fall Only | | | | | | | |
| First Time | 753 | 777 | 777 | 777 | 777 | 777 | 777 |
| Transfer | 211 | 204 | 204 | 204 | 204 | 204 | 204 |
| Relocate | 34 | 9 | 9 | 9 | 9 | 9 | 9 |
| College Credit Plus | 168 | 157 | 157 | 157 | 157 | 157 | 157 |
| Other Non-ELC | 3 | 8 | 8 | 8 | 8 | 8 | 8 |
| ELC | 150 | 149 | 149 | 149 | 149 | 149 | 149 |
| Total Incoming Cohorts | 1,319 | 1,304 | 1,304 | 1,304 | 1,304 | 1,304 | 1,304 |
| Total Continuing Students | 2,473 | 2,483 | 2,399 | 2,290 | 2,205 | 2,178 | 2,166 |
| Total UG Students | 3,792 | 3,787 | 3,703 | 3,594 | 3,509 | 3,482 | 3,470 |
| State Share of Instruction | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cross Campus True Up | \$5,665,798 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| Increment | 2% | 2% | 0% | 0% | 0% | 0% | 0% |
| Healthcare | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Benefit Redistribution | -25% | -25% | -25% | -25% | -25% | -25% | -25% |
| Operating Expense | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 0% | 2% | 2% | 2% | 2% | 2% |
| Branch Campus Indirect Charge | 7% | 7% | 7% | 7% | 7% | 7% | 7% |

| Miami University - Regional Campuses | | | | | | | |
|---|---------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| College of Liberal Arts and Applied Science | | | | | | | |
| Five year budget forecast with China Enrollment Decline, No Increment, Accelerated Reallocation | | | | | | | |
| | FY20 | Projection FY20 | FY21 | FY22 | FY23 | FY24 | FY25 |
| Revenue: | | | | | | | |
| UG Instructional Revenue | | | | | | | |
| Total UG Instructional Fee | \$32,868,843 | \$32,376,019 | \$31,766,171 | \$30,532,217 | \$29,813,092 | \$29,751,411 | \$30,019,520 |
| Total UG Financial Aid | \$2,092,658 | \$1,746,769 | \$2,087,869 | \$2,140,344 | \$2,172,799 | \$2,204,004 | \$2,236,084 |
| Total UG Net Instructional Revenue | \$30,776,185 | \$30,629,251 | \$29,678,302 | \$28,391,873 | \$27,640,293 | \$27,547,407 | \$27,783,436 |
| Total GR Instructional Fee | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Financial Aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total GR Net Instructional Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | | | | | | | |
| UG General Fees | \$1,545,291 | \$1,553,608 | \$1,536,204 | \$1,494,877 | \$1,481,863 | \$1,494,080 | \$1,516,509 |
| GR General Fees | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Student Fees | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 | \$274,200 |
| State Share in Instruction | \$10,883,076 | \$11,045,152 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 | \$11,155,604 |
| Other from State (PSEOP) | \$952,730 | \$1,047,292 | \$1,059,628 | \$1,068,391 | \$1,068,939 | \$1,068,747 | \$1,068,747 |
| All Other Revenue | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 | \$189,902 |
| Total Other Revenue | \$13,845,200 | \$14,110,155 | \$14,215,538 | \$14,182,974 | \$14,170,508 | \$14,182,533 | \$14,204,962 |
| Total Revenue | \$44,621,385 | \$44,739,405 | \$43,893,840 | \$42,574,847 | \$41,810,800 | \$41,729,940 | \$41,988,398 |
| Expenditures | | | | | | | |
| Salaries | \$26,945,035 | \$26,945,035 | \$27,270,823 | \$27,303,497 | \$27,336,280 | \$27,368,843 | \$27,401,181 |
| Promotion & Tenure | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 | \$42,000 |
| Allowance for Unspent Salaries | (\$1,580,267) | (\$1,580,267) | (\$1,574,786) | (\$1,569,540) | (\$1,564,292) | (\$1,559,077) | (\$1,553,923) |
| Staff Benefits | \$5,310,096 | \$5,310,096 | \$5,435,521 | \$5,448,101 | \$5,460,722 | \$5,473,259 | \$5,485,709 |
| Allowance for Unspent Benefits | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) | (\$719,335) |
| Anticipated Benefit Redistribution | (\$281,250) | (\$281,250) | (\$210,938) | (\$158,203) | (\$118,652) | (\$88,989) | (\$66,742) |
| Healthcare | \$4,104,773 | \$4,104,773 | \$4,186,869 | \$4,270,606 | \$4,356,018 | \$4,443,139 | \$4,532,001 |
| Operating Expense | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 | \$5,993,705 |
| Utilities | \$1,029,000 | \$1,029,000 | \$1,049,580 | \$1,070,572 | \$1,091,983 | \$1,113,823 | \$1,136,099 |
| Other Transfers | \$1,027,676 | \$1,044,479 | \$878,839 | \$885,223 | \$872,857 | \$885,736 | \$908,839 |
| Debt Service | \$61,741 | \$61,741 | \$61,651 | \$61,646 | \$61,331 | \$61,331 | \$61,331 |
| Branch Campus Indirect Charge | \$3,222,347 | \$3,222,347 | \$3,112,058 | \$3,022,789 | \$2,971,539 | \$2,968,077 | \$2,988,414 |
| Subtotal Expenses | \$45,155,521 | \$45,172,324 | \$45,525,988 | \$45,651,059 | \$45,784,156 | \$45,982,510 | \$46,209,280 |
| New commitments & investments | \$404,770 | \$404,770 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total Expenditures | \$45,560,291 | \$45,577,094 | \$45,525,988 | \$45,651,059 | \$45,784,156 | \$45,982,510 | \$46,209,280 |
| Surplus/(Deficit) before Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,632,148) | (\$3,076,212) | (\$3,973,356) | (\$4,252,571) | (\$4,220,882) |
| Transfer from Fund Balance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Surplus/(Deficit) after Transfer from Fund Balance | (\$938,906) | (\$837,689) | (\$1,632,148) | (\$3,076,212) | (\$3,973,356) | (\$4,252,571) | (\$4,220,882) |
| Sublease or Sell Greentree Health Science Academy | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Increase allowance for unspent salaries/benefits | \$288,136 | \$288,136 | \$298,856 | \$309,636 | \$320,615 | \$331,471 | \$336,625 |
| Productivity | \$322,057 | \$322,057 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 | \$2,247,730 |
| National Pathways Program (net of expense) | \$277,887 | \$47,692 | \$281,700 | \$284,646 | \$288,074 | \$291,535 | \$295,028 |
| National Pathways Program General Fee | \$71,755 | \$71,755 | \$72,760 | \$73,778 | \$74,811 | \$75,858 | \$76,920 |
| National Pathways Program General Fee Transfer | (\$71,755) | (\$71,755) | (\$72,760) | (\$73,778) | (\$74,811) | (\$75,858) | (\$76,920) |
| Increased Oxford Nursing Students (net of expense) | (\$286,942) | (\$346,250) | (\$225,319) | \$88,060 | \$553,912 | \$691,670 | \$698,276 |
| Expand ELC program to Hamilton (net of expense) | \$222,966 | \$460,437 | \$556,304 | \$502,249 | \$431,568 | \$436,872 | \$386,505 |
| Early Childhood Education (net of expense) | \$114,802 | \$36,875 | \$229,399 | \$247,521 | \$255,675 | \$260,154 | \$264,108 |
| Total Opportunities | \$938,906 | \$808,946 | \$3,388,670 | \$3,679,842 | \$4,097,574 | \$4,259,432 | \$4,228,273 |
| Net Adjusted Surplus / (Deficit) | (\$0) | (\$28,742) | \$1,756,521 | \$603,629 | \$124,217 | \$6,861 | \$7,391 |

Miami University - Regional Campuses

College of Liberal Arts and Applied Science

Five year budget forecast with China Enrollment Decline, No Increment, Accelerated Reallocation

| | FY20 | FY20 Projection | FY21 | FY22 | FY23 | FY24 | FY25 |
|--|--------------|--------------------|--------------|--------------|--------------|--------------|--------------|
| Assumptions | | | | | | | |
| Continuing Student Instructional Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student Out of State Surcharge % Change | 0.0% | 0.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Continuing Student General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Instructional Fee % Change | 4.0% | 3.5% | 4.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise Out of State Surcharge % Change | 0.0% | 0.0% | 0.9% | 2.0% | 2.0% | 2.0% | 2.0% |
| Tuition Promise General Fee % Change | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| ELC Contract Rate | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Incoming Cohorts - Fall Only | | | | | | | |
| First Time | 753 | 777 | 777 | 777 | 777 | 777 | 777 |
| Transfer | 211 | 204 | 204 | 204 | 204 | 204 | 204 |
| Relocate | 34 | 9 | 9 | 9 | 9 | 9 | 9 |
| College Credit Plus | 168 | 157 | 157 | 157 | 157 | 157 | 157 |
| Other Non-ELC | 3 | 8 | 8 | 8 | 8 | 8 | 8 |
| ELC | 150 | 149 | 94 | 94 | 94 | 94 | 89 |
| Total Incoming Cohorts | 1,319 | 1,304 | 1,249 | 1,249 | 1,249 | 1,249 | 1,244 |
| Total Continuing Students | 2,473 | 2,483 | 2,399 | 2,239 | 2,123 | 2,079 | 2,062 |
| Total UG Students | 3,792 | 3,787 | 3,648 | 3,488 | 3,372 | 3,328 | 3,306 |
| State Share of Instruction | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| Cross Campus True Up | \$5,665,798 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 | \$5,000,000 |
| Increment | 2% | 2% | 0% | 0% | 0% | 0% | 0% |
| Healthcare | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Benefit Redistribution | -25% | -25% | -25% | -25% | -25% | -25% | -25% |
| Operating Expense | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Utilities | 0% | 0% | 2% | 2% | 2% | 2% | 2% |
| Branch Campus Indirect Charge | 7% | 7% | 7% | 7% | 7% | 7% | 7% |

Funding Plan for New Academic Buildings

| <u>Project or Source</u> | <u>Cost</u> |
|---|--------------------|
| Clinical Health Science Building | \$96,000,000 |
| Digital Innovation Building | <u>60,000,000</u> |
| Total Commitment | \$156,000,000 |
| Existing Source of Funding: | |
| Previous Funding | \$5,000,000 |
| Ohio Appropriation | 21,000,000 |
| Current Tri-Health Commitment | 3,000,000 |
| Funds Designated for Health Center Renovation | <u>4,500,000</u> |
| Current Unmet Cost of Construction | \$ 122,500,000 |
| New Debt | <u>125,000,000</u> |
| Funds Available for Contingency or Other Projects | <u>\$2,500,000</u> |

New Building Financing Scenarios

| <u>Description</u> | <u>Risk Assumptions</u> | Base Case | Best Case | Worst Case |
|---------------------------------------|---|------------------|------------------|-------------------|
| Plan A-Issue Debt Spring 2020 | Lowest Interest Rate Volatility but Highest Carrying Cost | — | — | — |
| -Annual Debt Service Assumption | | \$7.0 million | \$6.75 million | \$7.25 million |
| -Draw Against Reserves or New Revenue | | \$26.04 million | \$13.27 million | \$54.42 million |
| -Philanthropy/Sponsorships | | \$25 million | \$50 million | \$-0- |
| Plan B-Delay Debt Unitl Spring 2021 | Greatest Interest Rate Volatility but Lower Carrying Cost | — | — | — |
| -Annual Debt Service Assumption | | \$7.0 million | \$6.50 million | \$7.50 million |
| -Draw Against Reserves or New Revenue | | \$19.04 million | \$6.02 million | \$47.54 million |
| -Philanthropy/Sponsorships | | \$25 million | \$50 million | \$-0- |

Debt Service Analysis

Plan A- Base Case

(Millions)

| <u>Sources</u> | FY <u>21</u> | FY <u>22</u> | FY <u>23</u> | FY <u>24</u> | FY <u>25</u> | FY <u>26</u> | FY <u>27</u> | FY <u>28</u> |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| New Costs: | | | | | | | | |
| Debt Service | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 |
| Health Science Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$7.0 | \$7.0 | \$7.7 | \$8.2 | \$8.2 | \$8.2 | \$8.2 | \$8.2 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$25 million Pledge) | | \$5.0 | \$5.0 | \$5.0 | \$5.0 | \$5.0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 7.0 | 2.0 | 2.72 | 3.2 | 3.2 | .9 | 5.76 | 1.26 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 7.0 | 7.0 | 7.72 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| Budget Variance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Debt Service Analysis Plan A- Best Case (Millions)

| <u>Sources</u> | <u>FY</u> <u>21</u> | <u>FY</u> <u>22</u> | <u>FY</u> <u>23</u> | <u>FY</u> <u>24</u> | <u>FY</u> <u>25</u> | <u>FY</u> <u>26</u> | <u>FY</u> <u>27</u> | <u>FY</u> <u>28</u> |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| New Costs: | | | | | | | | |
| Debt Service | \$6.75 | \$6.75 | \$6.75 | \$6.75 | \$6.75 | \$6.75 | \$6.75 | \$6.75 |
| Health Sceince Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$6.75 | \$6.75 | 7.47 | \$7.95 | \$7.95 | \$7.95 | \$7.95 | \$7.95 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$50 million Pledge) | | \$10.0 | \$10.0 | \$10.0 | \$10.0 | \$10.0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 6.75 | 0 | 0 | 0 | 0 | 0.0 | 5.51 | 1.01 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 6.75 | 10.0 | 10.0 | 10.0 | 10.0 | 12.3 | 7.95 | 7.95 |
| Budget Variance/Available for Other Capital Projects | | | | | | | | |
| | \$0 | \$3.25 | \$2.53 | \$2.05 | \$2.05 | \$4.35 | \$0 | \$0 |

Debt Service Analysis Plan A- Worst Case (Millions)

| <u>Sources</u> | FY <u>21</u> | FY <u>22</u> | FY <u>23</u> | FY <u>24</u> | FY <u>25</u> | FY <u>26</u> | FY <u>27</u> | FY <u>28</u> |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| New Costs: | | | | | | | | |
| Debt Service | \$7.25 | \$7.25 | \$7.25 | \$7.25 | \$7.25 | \$7.25 | \$7.25 | \$7.25 |
| Health Sceince Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$7.25 | \$7.25 | \$7.97 | \$8.45 | \$8.45 | \$8.45 | \$8.45 | \$8.45 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$0 million Pledge) | | \$0 | \$0 | \$0 | \$0 | \$0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 7.25 | 7.25 | 7.97 | 8.45 | 8.45 | 6.15 | 6.01 | 1.51 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 7.25 | 7.25 | 7.97 | 8.45 | 8.45 | 8.45 | 8.45 | 8.45 |
| Budget Variance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Debt Service Analysis

Plan B- Base Case

(Millions)

| <u>Sources</u> | FY <u>21</u> | FY <u>22</u> | FY <u>23</u> | FY <u>24</u> | FY <u>25</u> | FY <u>26</u> | FY <u>27</u> | FY <u>28</u> |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| New Costs: | | | | | | | | |
| Debt Service | \$0.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 | \$7.0 |
| Health Sceince Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$0.0 | \$7.0 | \$7.7 | \$8.2 | \$8.2 | \$8.2 | \$8.2 | \$8.2 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$25 million Pledge) | | \$5.0 | \$5.0 | \$5.0 | \$5.0 | \$5.0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 0.0 | 2.0 | 2.72 | 3.2 | 3.2 | 0.9 | 5.76 | 1.26 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 0.0 | 7.0 | 7.72 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| Budget Variance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Debt Service Analysis

Plan B- Best Case

(Millions)

| <u>Sources</u> | FY <u>21</u> | FY <u>22</u> | FY <u>23</u> | FY <u>24</u> | FY <u>25</u> | FY <u>26</u> | FY <u>27</u> | FY <u>28</u> |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| New Costs: | | | | | | | | |
| Debt Service | \$0.0 | \$6.5 | \$6.5 | \$6.5 | \$6.5 | \$6.5 | \$6.5 | \$6.5 |
| Health Sceince Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$0.0 | \$6.5 | \$7.22 | \$7.7 | \$7.7 | \$7.7 | \$7.7 | \$7.7 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$50 million Pledge) | | \$10.0 | \$10.0 | \$10.0 | \$10.0 | \$10.0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.26 | 0.76 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 0.0 | 10.0 | 10.0 | 10.0 | 10.0 | 12.3 | 7.7 | 7.7 |
| Budget Variance/Available for Other Capital Projects | \$0 | \$3.5 | \$2.78 | \$2.78 | \$2.3 | \$4.6 | \$0 | \$0 |

Debt Service Analysis

Plan B- Worst Case

(Millions)

| <u>Sources</u> | FY <u>21</u> | FY <u>22</u> | FY <u>23</u> | FY <u>24</u> | FY <u>25</u> | FY <u>26</u> | FY <u>27</u> | FY <u>28</u> |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| New Costs: | | | | | | | | |
| Debt Service | \$0.0 | \$7.5 | \$7.5 | \$7.5 | \$7.5 | \$7.5 | \$7.5 | \$7.5 |
| Health Sceince Operating Cost | | | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 | 0.72 |
| Digital Building Operating Cost | | | | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 |
| Subtotal | \$0.0 | \$7.5 | \$8.22 | \$8.2 | \$8.7 | \$8.7 | \$8.7 | \$8.7 |
| Funding Sources: | | | | | | | | |
| Philanthropy/Partnerships (\$0 million Pledge) | | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | | |
| Retired Debt Service | | | | | | 2.3 | 2.3 | 6.8 |
| Provost from New Revenue or Existing Reserves | 0.0 | 7.5 | 8.22 | 8.7 | 8.7 | 6.4 | 6.26 | 1.76 |
| Facility Savings | | | | | | | 0.14 | 0.14 |
| Subtotal | 0.0 | 7.5 | 8.22 | 8.7 | 8.7 | 8.7 | 8.7 | 8.7 |
| Budget Variance | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |



Debt Capacity and Market Opportunities Update

September 12, 2019

www.bluroseadvisors.com



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I. Debt Profile Update



Debt Profile Summary

Summary



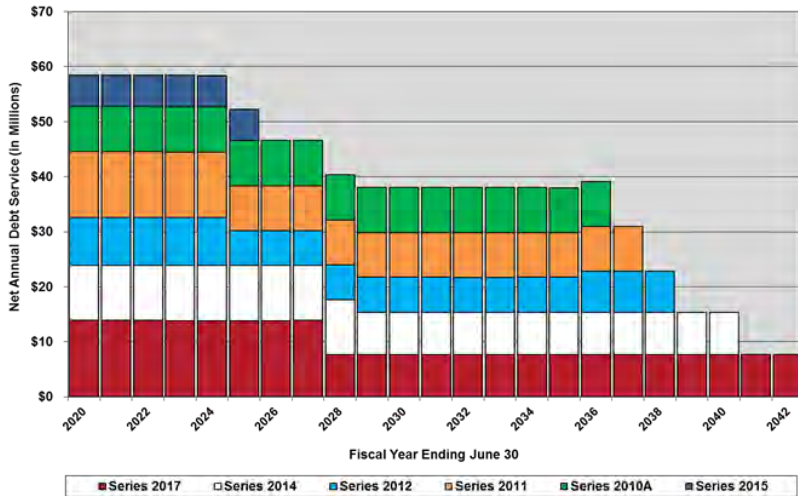
Miami University Summary of Outstanding Debt as of September 1, 2019

| Delivery Date | Issue | Original Par Amount | Par Amount as of 6/30/2019 | Par Amount as of 9/1/2019 | Final Maturity | Remaining Interest Rates | Bond Insurance | Purpose & Type | 1st Call | Premium at 1st Call | Lead Underwriter (Purchaser) | Co-Managers | Bond Counsel | Financial Advisor |
|--|--|----------------------|----------------------------|---------------------------|----------------|--------------------------|----------------|---|--------------------------------|---------------------|------------------------------|---|------------------|----------------------------|
| General Receipts Revenue Bonds | | | | | | | | | | | | | | |
| 2/14/2017 | General Receipts Revenue and Refunding Bonds, Series 2017 | \$154,635,000 | \$146,065,000 | \$139,260,000 | 9/1/2041 | 4.000 - 5.000% | - | Various New Money & Adv. Refunding of Series 2007 | 9/1/2026 | 100% | Barclays | Fifth Third Stifel Wells Fargo | Dinsmore & Shohl | Blue Rose Capital Advisors |
| 7/30/2015 | General Receipts Revenue and Refunding Bonds, Series 2015 (Direct Bank Purchase) | 52,335,000 | 32,130,000 | 27,020,000 | 9/1/2024 | 1.880% | - | Current Refunding Series 2005 | None | - | Huntington Bank (Purchaser) | - | Dinsmore & Shohl | Blue Rose Capital Advisors |
| 6/5/2014 | General Receipts Revenue and Refunding Bonds, Series 2014 | 135,035,000 | 121,300,000 | 116,895,000 | 9/1/2039 | 3.500 - 5.000% | - | Various New Money | 9/1/2024; 9/1/2020 (2036 only) | 100% | Barclays | Wells Fargo Fifth Third Edward Jones | Dinsmore & Shohl | JSV & Company |
| 11/27/2012 | General Receipts Revenue Bonds, Series 2012 | 116,065,000 | 98,735,000 | 93,845,000 | 9/1/2037 | 3.000 - 5.000% | - | Various New Money | 9/1/2022; 3/1/2018 (2037 only) | 100% | Fifth Third Securities | Barclays Morgan Stanley Stifel Nicolaus | Peck Shaffer | JSV & Company |
| 12/21/2011 | General Receipts Revenue and Refunding Bonds, Series 2011 | 148,775,000 | 114,400,000 | 107,820,000 | 9/1/2036 | 4.000 - 5.000% | - | Various New Money & Adv. Refunding of Series 2003 | 9/1/2021 | 100% | Morgan Stanley | Barclays Fifth Third Stifel Nicolaus | Peck Shaffer | JSV & Company |
| 12/22/2010 | General Receipts Revenue Bonds, Series 2010A (Build America Bonds) | 105,445,000 | 97,735,000 | 93,680,000 | 9/1/2035 | 5.413 - 6.772% | - | Various New Money | Anytime | Make-Whole Price | Morgan Stanley | - | Peck Shaffer | JSV & Company |
| General Receipts Revenue Bonds Total: | | \$712,290,000 | \$610,365,000 | \$578,520,000 | | | | | | | | | | |
| Capital Leases Payable | | | | | | | | | | | | | | |
| - | Capital Leases Payable ¹ | - | \$1,880,000 | \$1,880,000 | - | - | - | - | - | - | - | - | - | - |
| Grand Total: | | - | \$612,245,000 | \$580,400,000 | | | | | | | | | | |

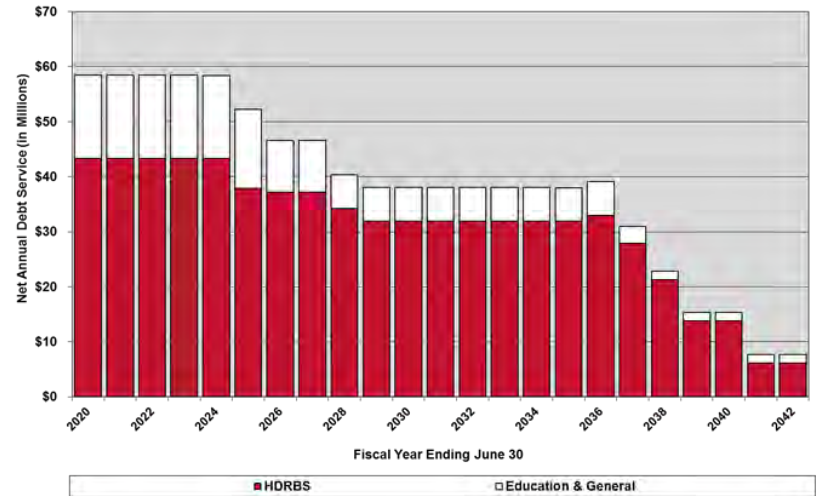
¹ Outstanding balances for capital leases are shown as of June 30, 2019.

Debt Service Cash Flow Graphs

Miami University
General Receipts Revenue Bonds
Outstanding Annual Debt Service Requirements
by Series



Miami University
General Receipts Revenue Bonds
Outstanding Annual Debt Service Requirements
HDRBS & General Fund Principal & Interest Allocation



- Net Maximum Annual DS (FY2020) = \$58,482,723
- Average Annual DS (FY2020-2025):
 - All Bonds = \$57,405,771
 - HDRBS = \$42,396,676
- Weighted Average Maturity = 9.9 years

Debt Service Cash Flows – Series by Series

Table A1

Miami University General Receipts Revenue Bonds

Summary of Outstanding Net Debt Service Requirements - by Series (Annual)

| Fiscal Year Ending | Series 2017 ¹ | Series 2015 ¹ | Series 2014 ¹ | Series 2012 ¹ | Series 2011 ¹ | Series 2010A ¹ | Gross Combined Debt Service | Ser. 2010A U.S. Govt Interest Subsidy ² | Net Combined Debt Service | Principal Outstanding |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------------|--|---------------------------------|--------------------------|
| 6/30/2020 | 13,879,875 | 5,666,010 | 9,997,988 | 8,700,288 | 11,974,163 | 10,326,602 | 60,544,924 | (2,062,202) | 58,482,723 | 578,520,000 |
| 6/30/2021 | 13,871,125 | 5,664,049 | 9,997,113 | 8,699,613 | 11,962,038 | 10,249,891 | 60,443,828 | (1,990,885) | 58,452,943 | 545,315,000 |
| 6/30/2022 | 13,874,625 | 5,660,302 | 9,999,613 | 8,697,363 | 11,972,663 | 10,162,296 | 60,366,860 | (1,910,986) | 58,455,874 | 510,625,000 |
| 6/30/2023 | 13,849,875 | 5,659,722 | 9,999,863 | 8,701,613 | 11,957,013 | 10,071,601 | 60,239,685 | (1,825,126) | 58,414,559 | 474,435,000 |
| 6/30/2024 | 13,851,000 | 5,657,262 | 9,997,363 | 8,701,938 | 11,960,613 | 9,972,124 | 60,140,298 | (1,729,787) | 58,410,511 | 436,680,000 |
| 6/30/2025 | 13,836,750 | 5,667,781 | 9,996,488 | 6,348,538 | 8,132,738 | 9,861,588 | 53,843,881 | (1,625,865) | 52,218,016 | 403,625,000 |
| 6/30/2026 | 13,836,125 | | 9,996,488 | 6,350,238 | 8,131,363 | 9,747,311 | 48,061,524 | (1,517,418) | 46,544,106 | 374,855,000 |
| 6/30/2027 | 13,866,875 | | 9,996,613 | 6,350,638 | 8,133,363 | 9,625,180 | 47,972,667 | (1,403,090) | 46,569,577 | 344,655,000 |
| 6/30/2028 | 7,632,625 | | 9,996,113 | 6,351,463 | 8,124,463 | 9,499,220 | 41,603,883 | (1,282,561) | 40,321,321 | 319,420,000 |
| 6/30/2029 | 7,631,125 | | 7,732,238 | 6,350,788 | 8,134,063 | 9,362,082 | 39,210,294 | (1,156,704) | 38,053,590 | 295,325,000 |
| 6/30/2030 | 7,629,875 | | 7,735,113 | 6,351,388 | 8,130,313 | 9,220,041 | 39,066,729 | (1,024,292) | 38,042,436 | 270,085,000 |
| 6/30/2031 | 7,633,250 | | 7,735,988 | 6,350,825 | 8,132,563 | 9,071,960 | 38,924,585 | (884,950) | 38,039,635 | 243,655,000 |
| 6/30/2032 | 7,630,750 | | 7,731,363 | 6,348,563 | 8,130,063 | 8,914,918 | 38,755,656 | (739,364) | 38,016,292 | 215,995,000 |
| 6/30/2033 | 7,631,875 | | 7,731,331 | 6,348,163 | 8,129,781 | 8,753,068 | 38,594,218 | (587,253) | 38,006,964 | 187,025,000 |
| 6/30/2034 | 7,631,000 | | 7,732,425 | 6,349,563 | 8,133,750 | 8,585,393 | 38,432,131 | (428,285) | 38,003,846 | 156,675,000 |
| 6/30/2035 | 7,632,500 | | 7,731,175 | 6,348,544 | 8,133,500 | 8,406,049 | 38,251,767 | (262,179) | 37,989,589 | 124,895,000 |
| 6/30/2036 | 7,630,750 | | 7,727,700 | 7,464,225 | 8,130,375 | 8,219,187 | 39,172,237 | (88,657) | 39,083,580 | 90,535,000 |
| 6/30/2037 | 7,630,000 | | 7,734,100 | 7,460,625 | 8,133,375 | | 30,958,100 | | 30,958,100 | 62,970,000 |
| 6/30/2038 | 7,631,125 | | 7,734,600 | 7,463,363 | | | 22,829,088 | | 22,829,088 | 42,540,000 |
| 6/30/2039 | 7,633,500 | | 7,733,900 | | | | 15,367,400 | | 15,367,400 | 28,845,000 |
| 6/30/2040 | 7,629,875 | | 7,731,600 | | | | 15,361,475 | | 15,361,475 | 14,530,000 |
| 6/30/2041 | 7,634,375 | | | | | | 7,634,375 | | 7,634,375 | 7,445,000 |
| 6/30/2042 | 7,631,125 | | | | | | 7,631,125 | | 7,631,125 | |
| 6/30/2043 | | | | | | | | | | |
| 6/30/2044 | | | | | | | | | | |
| 6/30/2045 | | | | | | | | | | |
| 6/30/2046 | | | | | | | | | | |
| 6/30/2047 | | | | | | | | | | |
| 6/30/2048 | | | | | | | | | | |
| 6/30/2049 | | | | | | | | | | |
| | 225,340,000 | 33,975,126 | 182,769,169 | 135,737,731 | 165,536,194 | 160,048,509 | 903,406,729 | (20,519,604) | 882,887,125 | |

¹ Principal comes due on the preceding September 1.

² U.S. Government interest subsidy calculated at a rate of 32.83% assuming 6.2% federal sequestration for the 9/1/19 payment (U.S. FY 2019) and 32.935% assuming 5.9% federal sequestration thereafter.

DS Cash Flows – HDRBS and E&G Allocation

Miami University General Receipts Revenue Bonds

Summary of Outstanding Net Debt Service Requirements - Principal & Interest (Annual)

| Fiscal Year Ending | HDRBS Allocation | | | | | | Education & General Allocation | | | | | | Aggregate |
|-----------------------|------------------------|-------------|-----------------------------------|--|---------------------------------|--------------------------|--------------------------------|------------|-----------------------------------|--|---------------------------------|--------------------------|---------------------------------|
| | Principal ¹ | Interest | Gross Combined Debt Service | Ser. 2010A U.S. Govt Interest Subsidy ² | Net Combined Debt Service | Principal Outstanding | Principal ¹ | Interest | Gross Combined Debt Service | Ser. 2010A U.S. Govt Interest Subsidy ² | Net Combined Debt Service | Principal Outstanding | Net Combined Debt Service |
| 6/30/2020 | 21,809,550 | 22,822,077 | 44,631,627 | (1,299,187) | 43,332,440 | 459,708,000 | 10,035,450 | 5,877,848 | 15,913,298 | (763,015) | 15,150,283 | 118,812,000 | 58,482,723 |
| 6/30/2021 | 22,830,950 | 21,735,482 | 44,566,432 | (1,254,258) | 43,312,175 | 436,877,050 | 10,374,050 | 5,503,346 | 15,877,396 | (736,627) | 15,140,768 | 108,437,950 | 58,452,943 |
| 6/30/2022 | 23,955,500 | 20,565,911 | 44,521,411 | (1,203,921) | 43,317,490 | 412,921,550 | 10,734,500 | 5,110,949 | 15,845,449 | (707,065) | 15,138,384 | 97,703,450 | 58,455,874 |
| 6/30/2023 | 25,098,200 | 19,346,953 | 44,445,153 | (1,149,829) | 43,295,323 | 387,823,350 | 11,091,800 | 4,702,732 | 15,794,532 | (675,297) | 15,119,235 | 86,611,650 | 58,414,559 |
| 6/30/2024 | 26,274,800 | 18,108,933 | 44,383,733 | (1,089,766) | 43,293,967 | 361,548,550 | 11,480,200 | 4,276,365 | 15,756,565 | (640,021) | 15,116,544 | 75,131,450 | 58,410,511 |
| 6/30/2025 | 21,906,550 | 16,946,408 | 38,852,958 | (1,024,295) | 37,828,663 | 339,642,000 | 11,148,450 | 3,842,473 | 14,990,923 | (601,570) | 14,389,353 | 63,983,000 | 52,218,016 |
| 6/30/2026 | 22,318,000 | 15,839,835 | 38,157,835 | (955,973) | 37,201,861 | 317,324,000 | 6,452,000 | 3,451,689 | 9,903,689 | (561,445) | 9,342,244 | 57,531,000 | 46,544,106 |
| 6/30/2027 | 23,413,550 | 14,683,207 | 38,096,757 | (883,947) | 37,212,810 | 293,910,450 | 6,786,450 | 3,089,460 | 9,875,910 | (519,143) | 9,356,767 | 50,744,550 | 46,569,577 |
| 6/30/2028 | 21,446,100 | 13,572,898 | 35,018,998 | (808,014) | 34,210,985 | 272,464,350 | 3,788,900 | 2,795,984 | 6,584,884 | (474,548) | 6,110,337 | 46,955,650 | 40,321,321 |
| 6/30/2029 | 20,130,900 | 12,543,727 | 32,674,627 | (728,724) | 31,945,903 | 252,333,450 | 3,964,100 | 2,571,567 | 6,535,667 | (427,981) | 6,107,687 | 42,991,550 | 38,053,590 |
| 6/30/2030 | 21,088,400 | 11,496,179 | 32,584,579 | (645,304) | 31,939,275 | 231,245,050 | 4,151,600 | 2,330,550 | 6,482,150 | (378,988) | 6,103,162 | 38,839,950 | 38,042,436 |
| 6/30/2031 | 22,078,550 | 10,417,573 | 32,496,123 | (557,519) | 31,938,604 | 209,166,500 | 4,351,450 | 2,077,012 | 6,428,462 | (327,432) | 6,101,031 | 34,488,500 | 38,039,635 |
| 6/30/2032 | 23,102,100 | 9,284,174 | 32,386,274 | (465,799) | 31,920,475 | 186,064,400 | 4,557,900 | 1,811,482 | 6,369,382 | (273,565) | 6,095,817 | 29,930,600 | 38,016,292 |
| 6/30/2033 | 24,196,150 | 8,088,399 | 32,284,549 | (369,970) | 31,914,580 | 161,868,250 | 4,773,850 | 1,535,818 | 6,309,668 | (217,284) | 6,092,385 | 25,156,750 | 38,006,964 |
| 6/30/2034 | 25,348,850 | 6,835,073 | 32,183,923 | (269,819) | 31,914,104 | 136,519,400 | 5,001,150 | 1,247,058 | 6,248,208 | (158,465) | 6,089,743 | 20,155,600 | 38,003,846 |
| 6/30/2035 | 26,540,100 | 5,529,564 | 32,069,664 | (165,173) | 31,904,492 | 109,979,300 | 5,239,900 | 942,203 | 6,182,103 | (97,006) | 6,085,097 | 14,915,700 | 37,989,589 |
| 6/30/2036 | 28,870,950 | 4,189,267 | 33,060,217 | (55,854) | 33,004,363 | 81,108,350 | 5,489,050 | 622,970 | 6,112,020 | (32,803) | 6,079,217 | 9,426,650 | 39,083,580 |
| 6/30/2037 | 24,892,350 | 2,994,409 | 27,886,759 | | 27,886,759 | 56,216,000 | 2,672,650 | 398,691 | 3,071,341 | | 3,071,341 | 6,754,000 | 30,958,100 |
| 6/30/2038 | 19,211,000 | 2,091,863 | 21,302,863 | | 21,302,863 | 37,005,000 | 1,219,000 | 307,225 | 1,526,225 | | 1,526,225 | 5,535,000 | 22,829,088 |
| 6/30/2039 | 12,413,000 | 1,427,700 | 13,840,700 | | 13,840,700 | 24,592,000 | 1,282,000 | 244,700 | 1,526,700 | | 1,526,700 | 4,253,000 | 15,367,400 |
| 6/30/2040 | 12,968,000 | 867,500 | 13,835,500 | | 13,835,500 | 11,624,000 | 1,347,000 | 178,975 | 1,525,975 | | 1,525,975 | 2,906,000 | 15,361,475 |
| 6/30/2041 | 5,668,000 | 439,500 | 6,107,500 | | 6,107,500 | 5,956,000 | 1,417,000 | 109,875 | 1,526,875 | | 1,526,875 | 1,489,000 | 7,634,375 |
| 6/30/2042 | 5,956,000 | 148,900 | 6,104,900 | | 6,104,900 | | 1,489,000 | 37,225 | 1,526,225 | | 1,526,225 | | 7,631,125 |
| 6/30/2043 | | | | | | | | | | | | | |
| 6/30/2044 | | | | | | | | | | | | | |
| 6/30/2045 | | | | | | | | | | | | | |
| 6/30/2046 | | | | | | | | | | | | | |
| 6/30/2047 | | | | | | | | | | | | | |
| 6/30/2048 | | | | | | | | | | | | | |
| 6/30/2049 | | | | | | | | | | | | | |
| | 481,517,550 | 239,975,532 | 721,493,082 | (12,927,351) | 708,565,731 | | 128,847,450 | 53,066,197 | 181,913,647 | (7,592,254) | 174,321,394 | | 882,887,125 |

¹ Principal comes due on the preceding September 1.

² U.S. Government interest subsidy calculated at a rate of 32.83% assuming 6.2% federal sequestration for the 9/1/19 payment (U.S. FY 2019) and 32.935% assuming 5.9% federal sequestration thereafter.



II. Moody's Credit Update & Peer Comps



Recent Moody's Rating Update

- In May, Moody's affirmed Miami's Aa3 rating on its outstanding debt. The outlook remains stable.
- In affirming the rating, Moody's continued to cite consistent credit strengths of the University, including the following:
 - Strong absolute wealth of > \$1 billion between the University and foundation, providing strong coverage of debt and operating expenses
 - Significant monthly liquidity of 285 days cash on hand, well above that of similarly rated peers
 - Excellent operational performance, with a 6th straight year with an operating cash flow margin above 20%.
- Offsetting credit factors mentioned include the following:
 - Elevated total debt to operating revenue of 0.9x, indicating a relatively high debt burden.
 - Significant pension obligations through the state of Ohio's two state-administered pension plans.
 - Limited geographic diversity, a potential challenge given the stagnating number of high school graduates in Ohio
 - A 2018 4-year freeze on increases to tuition, fees, room, and board, potentially limiting net tuition revenue growth going forward.

Miami U Credit Trend Analysis

| | Miami University (Aa3) | | | | | CAGR | Desired Trend |
|--|------------------------|----------|----------|----------|-------------|-------|---------------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | | |
| Total Debt (\$, in Millions) | \$622 | \$597 | \$674 | \$644 | \$612 | -0.4% | ↓ |
| Total Cash & Investments (\$, in Millions) | \$1,177 | \$1,188 | \$1,293 | \$1,387 | \$1,442 | 5.2% | ↑ |
| Spendable Cash & Investments (\$, in Millions) | \$895 | \$904 | \$992 | \$1,069 | \$1,125 | 5.9% | ↑ |
| Operating Revenue (\$, in Millions) | \$632 | \$650 | \$670 | \$692 | \$690 | 2.2% | ↑ |
| Operating Expenses (\$, in Millions) | \$539 | \$559 | \$578 | \$602 | \$614 | 3.3% | ↓ |
| Monthly Days Cash on Hand (x) | 266x | 284x | 295x | 285x | 298x | 2.9% | ↑ |
| Total FTE Enrollment (#) | 21,077 | 21,769 | 21,894 | 22,243 | Unavailable | 1.8% | ↑ |
| Net Tuition per Student (\$) | \$16,072 | \$16,720 | \$16,962 | \$17,485 | \$16,849 | 1.2% | ↑ |
| Spendable Cash & Investments to Total Debt (x) | 1.44x | 1.51x | 1.47x | 1.66x | 1.84x | 6.3% | ↑ |
| Total Cash & Investments to Total Debt (x) | 1.89x | 1.99x | 1.92x | 2.15x | 2.36x | 5.6% | ↑ |
| Total Debt to Cash Flow (x) | 3.79x | 3.68x | 3.91x | 3.66x | 3.70x | -0.6% | ↓ |
| Total Debt to Operating Revenue (x) | 0.98x | 0.92x | 1.01x | 0.93x | 0.89x | -2.6% | ↓ |
| Operating Cash Flow Margin (%) | 26.0% | 24.9% | 25.8% | 25.5% | 24.0% | -2.0% | ↑ |
| Debt Service to Operating Expenses (%) | 9.2% | 8.6% | 9.2% | 9.4% | 9.4% | 0.6% | ↓ |
| Spendable Cash & Investments to Operating Expenses (x) | 1.66x | 1.62x | 1.72x | 1.77x | 1.83x | 2.5% | ↑ |
| Annual Debt Service Coverage (x) | 3.3x | 3.4x | 3.2x | 3.1x | 2.9x | -3.5% | ↑ |
| Maximum Single Contribution (%) | 76.1% | 76.6% | 76.5% | 75.7% | 75.3% | -0.3% | ↓ |

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.

*FY 2019 calculations for Miami are estimates based on Moody's methodology - some metrics may change slightly as a result of Moody's adjustments and additional data not available in the draft audit.

- The University's operating performance and cash flow remain significant strengths, and Miami has been able to consistently maintain stable, strong cash flow margins over an extended period of time.
- Cash and liquidity metrics, another credit strength, have continued to grow steadily in recent years.
- Enrollment has held fairly steady and even improved each year, a positive given growing competition for students both in Ohio and nationally within the higher education sector.

Miami U vs. Moody's Medians (FY 2018)

| | Miami University (Aa3) | | Aa2 Medians | Aa3 Medians | A1 Medians |
|--|------------------------|-------------|-------------|-------------|------------|
| | FY 2018 | FY 2019 | FY 2018 | | |
| Total Debt (\$, in Millions) | \$644 | \$612 | \$875 | \$441 | \$155 |
| Total Cash & Investments (\$, in Millions) | \$1,387 | \$1,442 | \$1,966 | \$726 | \$216 |
| Spendable Cash & Investments (\$, in Millions) | \$1,069 | \$1,125 | \$1,307 | \$523 | \$164 |
| Operating Revenue (\$, in Millions) | \$692 | \$690 | \$1,487 | \$697 | \$247 |
| Operating Expenses (\$, in Millions) | \$602 | \$614 | \$1,389 | \$661 | \$241 |
| Annual Change in Operating Revenue (%) | 3.2% | -0.3% | 4.5% | 2.6% | 1.7% |
| Monthly Days Cash on Hand (x) | 285x | 298x | 156x | 154x | 171x |
| Total FTE Enrollment (#) | 22,243 | Unavailable | 38,151 | 20,439 | 10,981 |
| Net Tuition per Student (\$) | \$17,485 | \$16,849 | \$10,710 | \$10,822 | \$8,818 |
| Spendable Cash & Investments to Total Debt (x) | 1.66x | 1.84x | 1.3x | 1.3x | 1.2x |
| Total Cash & Investments to Total Debt (x) | 2.15x | 2.36x | 1.9x | 1.7x | 1.6x |
| Total Debt to Cash Flow (x) | 3.66x | 3.70x | 4.7x | 5.3x | 5.6x |
| Total Debt to Operating Revenue (x) | 0.93x | 0.89x | 0.6x | 0.6x | 0.6x |
| Operating Cash Flow Margin (%) | 25.5% | 24.0% | 11.6% | 10.5% | 11.8% |
| Debt Service to Operating Expenses (%) | 9.4% | 9.4% | 3.9% | 4.4% | 4.8% |
| Spendable Cash & Investments to Operating Expenses (x) | 1.77x | 1.83x | 0.7x | 0.7x | 0.7x |
| Annual Debt Service Coverage (x) | 3.1x | 2.9x | 3.0x | 2.7x | 2.2x |
| Maximum Single Contribution (%) | 75.7% | 75.3% | 45.9% | 51.4% | 57.6% |
| Median Population Size | - | - | 30 | 45 | 45 |

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.

*FY 2019 calculations for Miami are estimates based on Moody's methodology - some metrics may change slightly as a result of Moody's adjustments and additional data not available in the draft audit.

- The University's operating performance continues to dramatically exceed all median results across the sector.
- Revenue diversity, a credit challenge highlighted by Moody's in 2016, remains quite limited compared to similarly-rated institutions.
- Debt service accounts for a very high percentage of Miami's operating expenses – although this is partially due to the University's strong efforts to reduce overall costs, it is one potential limiting factor on the University's debt capacity from a credit rating perspective.
- The University's cash and liquidity metrics remain very strong compared to other Aa3-rated institutions.

Moody's Scorecard Analysis

Miami University

Historical Moody's Scorecard Analysis

| Factor Weight | Fiscal Year 2015 | | Fiscal Year 2016 | | Fiscal Year 2017 | | Fiscal Year 2018 | | Fiscal Year 2019 | | |
|---|---------------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|------|
| | Factor | Score | Factor | Score | Factor | Score | Factor | Score | Factor | Score | |
| Factor 1: Market Profile (30%) | | | | | | | | | | | |
| Operating Revenue (\$, in Millions) | 15% | 632 | 4.2 | 650 | 4.2 | 670 | 4.1 | 692 | 4.1 | 690 | 4.1 |
| Annual Change in Operating Revenue (%) | 5% | 5.40% | 5.4 | 2.90% | 9.2 | 3.10% | 8.9 | 3.20% | 8.7 | (0.30%) | 13.7 |
| Strategic Positioning ¹ | 10% | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 4.0 |
| Factor 2: Operating Performance (25%) | | | | | | | | | | | |
| Operating Cash Flow Margin (%) | 10% | 26.0% | 0.5 | 24.9% | 0.5 | 25.8% | 0.5 | 25.5% | 0.5 | 24.0% | 0.7 |
| Maximum Single Contribution (%) | 15% | 76.1% | 11.0 | 76.6% | 11.2 | 76.5% | 11.1 | 75.7% | 10.8 | 75.3% | 10.6 |
| Factor 3: Wealth & Liquidity (25%) | | | | | | | | | | | |
| Total Cash & Investments (\$, in Millions) | 10% | 1,177 | 3.2 | 1,188 | 3.1 | 1,293 | 3.0 | 1,387 | 2.9 | 1,442 | 2.8 |
| Spendable C&I to Operating Expenses (x) | 10% | 1.66x | 0.8 | 1.62x | 0.9 | 1.72x | 0.8 | 1.77x | 0.7 | 1.83x | 0.7 |
| Monthly Days Cash on Hand (x) | 5% | 266x | 1.3 | 284x | 0.9 | 295x | 0.6 | 285x | 0.9 | 298x | 0.5 |
| Factor 4: Leverage (20%) | | | | | | | | | | | |
| Spendable C&I to Total Debt (x) | 10% | 1.44x | 3.6 | 1.51x | 3.5 | 1.47x | 3.5 | 1.66x | 3.3 | 1.84x | 3.1 |
| Total Debt-to-Cash Flow (x) | 10% | 3.79x | 1.4 | 3.68x | 1.4 | 3.91x | 1.5 | 3.66x | 1.4 | 3.70x | 1.4 |
| Weighted Total Score: | | 3.96 | | 4.15 | | 4.10 | | 4.00 | | 4.19 | |
| Estimated Scorecard Rating Outcome: | | Aa3 | | Aa3 | | Aa3 | | Aa3 | | Aa3 | |
| Current Moody's Rating: | | Aa3 | | Aa3 | | Aa3 | | Aa3 | | Aa3 | |

¹The Strategic Positioning factor incorporates qualitative evaluation of broad criteria related to an institution's ability to maintain its market relevance and protect and strengthen its reputation. In this analysis, the University is assigned the score of its current Aa3 Moody's Rating.

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.

- The University's indicative scorecard results have remained consistently within a narrow band over the past 5 years, showing Miami as stably within the Aa3 category on an indicative basis.
- There have been few significant swings in performance for the University within the scorecard metrics, with perhaps the most relatively notable being a minor decline in operating revenue for FY 2019.

Moody's Peer Scorecard Comparison (FY 2018)

Miami University

Moody's Scorecard Comparison to Public Peers

| Factor | Weight | Miami University (OH) | | Indiana University | | Ohio State University (OH) | | Clemson University (SC) | | Michigan State University (MI) | | Ball State University (IN) | |
|---|--------|-----------------------|-------|--------------------|-------|----------------------------|-------|-------------------------|-------|--------------------------------|-------|----------------------------|-------|
| Factor 1: Market Profile (30%) | | Factor | Score | Factor | Score | Factor | Score | Factor | Score | Factor | Score | Factor | Score |
| Operating Revenue (\$, in Millions) | 15% | 692 | 4.1 | 3,152 | 0.5 | 6,709 | 0.5 | 1,032 | 3.7 | 2,512 | 1.7 | 502 | 4.4 |
| Annual Change in Operating Revenue (%) | 5% | 3.20% | 8.7 | 2.80% | 9.3 | 5.40% | 5.4 | 4.50% | 6.8 | 2.70% | 9.5 | 3.30% | 8.6 |
| Strategic Positioning ¹ | 10% | Qualitative | 4.0 | Qualitative | 1.0 | Qualitative | 2.0 | Qualitative | 3.0 | Qualitative | 3.0 | Qualitative | 4.0 |
| Factor 2: Operating Performance (25%) | | | | | | | | | | | | | |
| Operating Cash Flow Margin (%) | 10% | 25.5% | 0.5 | 9.8% | 5.1 | 15.2% | 3.1 | 13.7% | 3.6 | 9.7% | 5.1 | 10.5% | 4.7 |
| Maximum Single Contribution (%) | 15% | 75.7% | 10.8 | 51.8% | 4.8 | 54.1% | 5.2 | 59.3% | 6.1 | 49.2% | 4.3 | 56.5% | 5.6 |
| Factor 3: Wealth & Liquidity (25%) | | | | | | | | | | | | | |
| Total Cash & Investments (\$, in Millions) | 10% | 1,387 | 2.9 | 4,282 | 0.8 | 7,904 | 0.5 | 1,064 | 3.3 | 3,711 | 1.0 | 527 | 4.0 |
| Spendable C&I to Operating Expenses (x) | 10% | 1.77x | 0.7 | 0.90x | 2.1 | 1.00x | 1.5 | 0.70x | 3.3 | 1.20x | 1.3 | 0.90x | 2.1 |
| Monthly Days Cash on Hand (x) | 5% | 285x | 0.9 | 210x | 2.7 | 211x | 2.7 | 221x | 2.5 | 252x | 1.7 | 221x | 2.5 |
| Factor 4: Leverage (20%) | | | | | | | | | | | | | |
| Spendable C&I to Total Debt (x) | 10% | 1.66x | 3.3 | 2.80x | 1.8 | 2.00x | 2.8 | 1.10x | 4.0 | 2.50x | 2.2 | 1.40x | 3.6 |
| Total Debt-to-Cash Flow (x) | 10% | 3.66x | 1.4 | 3.00x | 1.3 | 3.10x | 1.3 | 4.50x | 1.8 | 4.80x | 1.9 | 6.30x | 2.7 |
| Weighted Total Score: | | 4.00 | | 2.60 | | 2.39 | | 3.83 | | 2.92 | | 4.16 | |
| Estimated Scorecard Rating Outcome: | | Aa3 | | Aa2 | | Aa1 | | Aa3 | | Aa2 | | Aa3 | |
| Current Moody's Rating: | | Aa3 | | Aaa | | Aa1 | | Aa2 | | Aa2 | | Aa3 | |

Miami University

Moody's Scorecard Comparison to Public Peers

| Factor | Weight | Miami University (OH) | | Kent State University (OH) | | Ohio University (OH) | | University of Cincinnati (OH) | | Bowling Green State University (OH) | | University of Toledo (OH) | |
|---|--------|-----------------------|-------|----------------------------|-------|----------------------|-------|-------------------------------|-------|-------------------------------------|-------|---------------------------|-------|
| Factor 1: Market Profile (30%) | | Factor | Score | Factor | Score | Factor | Score | Factor | Score | Factor | Score | Factor | Score |
| Operating Revenue (\$, in Millions) | 15% | 692 | 4.1 | 634 | 4.2 | 743 | 4.1 | 1,222 | 3.4 | 362 | 4.8 | 850 | 3.9 |
| Annual Change in Operating Revenue (%) | 5% | 3.20% | 8.7 | (7.30%) | 17.3 | (4.40%) | 15.7 | 2.60% | 9.6 | 1.90% | 10.7 | (1.40%) | 14.2 |
| Strategic Positioning ¹ | 10% | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 4.0 | Qualitative | 5.0 | Qualitative | 5.0 |
| Factor 2: Operating Performance (25%) | | | | | | | | | | | | | |
| Operating Cash Flow Margin (%) | 10% | 25.5% | 0.5 | 6.9% | 6.4 | 15.5% | 3.0 | 14.1% | 3.5 | 9.0% | 5.4 | 3.8% | 8.1 |
| Maximum Single Contribution (%) | 15% | 75.7% | 10.8 | 63.4% | 6.9 | 63.5% | 6.9 | 49.3% | 4.4 | 67.9% | 7.8 | 44.7% | 3.4 |
| Factor 3: Wealth & Liquidity (25%) | | | | | | | | | | | | | |
| Total Cash & Investments (\$, in Millions) | 10% | 1,387 | 2.9 | 682 | 3.8 | 1,019 | 3.4 | 1,564 | 2.7 | 396 | 4.1 | 564 | 3.9 |
| Spendable C&I to Operating Expenses (x) | 10% | 1.77x | 0.7 | 0.90x | 2.1 | 1.10x | 1.4 | 0.70x | 3.3 | 0.80x | 2.7 | 0.50x | 4.5 |
| Monthly Days Cash on Hand (x) | 5% | 285x | 0.9 | 271x | 1.2 | 237x | 2.1 | 148x | 4.3 | 214x | 2.6 | 73x | 6.7 |
| Factor 4: Leverage (20%) | | | | | | | | | | | | | |
| Spendable C&I to Total Debt (x) | 10% | 1.66x | 3.3 | 1.40x | 3.6 | 1.30x | 3.8 | 0.70x | 4.8 | 1.00x | 4.2 | 1.40x | 3.6 |
| Total Debt-to-Cash Flow (x) | 10% | 3.66x | 1.4 | 10.40x | 4.7 | 5.30x | 2.2 | 7.30x | 3.2 | 9.00x | 4.0 | 9.90x | 4.5 |
| Weighted Total Score: | | 4.00 | | 5.04 | | 4.30 | | 4.00 | | 5.11 | | 5.11 | |
| Estimated Scorecard Rating Outcome: | | Aa3 | | A1 | | Aa3 | | Aa3 | | A1 | | A1 | |
| Current Moody's Rating: | | Aa3 | | Aa3 | | Aa3 | | Aa3 | | A1 | | A1 | |

¹The Strategic Positioning factor incorporates qualitative evaluation of broad criteria related to an institution's ability to maintain its market relevance and protect and strengthen its reputation. In this analysis, each institution is assigned the score of their current Moody's rating.

Source: Moody's Investor Services MFRA Database as of September 2019. All results are based on FY 2018 operating data.

Moody's Peer & Medians Comparison

| Moody's Rating Fiscal Year Ended | Miami University | | Indiana University | Ohio State University | Aa2 Medians | Clemson University | Michigan State University |
|--|------------------|-------------|--------------------|-----------------------|-------------|--------------------|---------------------------|
| | Aa3 2018 | Aa3 2019 | Aaa 2018 | Aa1 2018 | - 2018 | Aa2 2018 | Aa2 2018 |
| Total Debt (\$, in Millions) | \$644 | \$612 | \$936 | \$3,164 | \$875 | \$644 | \$1,180 |
| Total Cash & Investments (\$, in Millions) | \$1,387 | \$1,442 | \$4,282 | \$7,904 | \$1,966 | \$1,064 | \$3,711 |
| Spendable Cash & Investments (\$, in Millions) | \$1,069 | \$1,125 | \$2,639 | \$6,352 | \$1,307 | \$684 | \$3,000 |
| Operating Revenue (\$, in Millions) | \$691.8 | \$689.9 | \$3,151.8 | \$6,708.8 | \$1,486.8 | \$1,031.7 | \$2,511.9 |
| Annual Change in Operating Revenue (%) | 3.2% | -0.3% | 2.8% | 5.4% | 4.5% | 4.5% | 2.7% |
| Operating Expenses (\$, in Millions) | \$602.3 | \$614.2 | \$3,032.2 | \$6,207.3 | \$1,389.1 | \$970.5 | \$2,573.0 |
| Monthly Days Cash on Hand (x) | 284.7x | 298.3x | 210.4x | 210.9x | 156.4x | 221.4x | 251.8x |
| Total FTE Enrollment (#) | 22,243 | Unavailable | 81,870 | 62,214 | 38,151 | 22,944 | 46,025 |
| Net Tuition per Student (\$) | \$17,485 | \$16,849 | \$15,491 | \$14,487 | \$10,710 | \$20,028 | \$18,887 |
| Spendable Cash & Investments to Total Debt (x) | 1.7x | 1.8x | 2.8x | 2.0x | 1.3x | 1.1x | 2.5x |
| Total Cash & Investments to Total Debt (x) | 2.2x | 2.4x | 4.6x | 2.5x | 1.9x | 1.7x | 3.1x |
| Total Debt to Cash Flow (x) | 3.7x | 3.7x | 3.0x | 3.1x | 4.7x | 4.5x | 4.8x |
| Operating Cash Flow (\$, in Millions) | \$176 | \$166 | \$309 | \$1,021 | \$209 | \$142 | \$244 |
| Operating Cash Flow Margin (%) | 25.5% | 24.0% | 9.8% | 15.2% | 11.6% | 13.7% | 9.7% |
| Debt Service to Operating Expenses (%) | 9.4% | 9.4% | 3.5% | 4.2% | 3.9% | 4.4% | 2.7% |
| Spendable Cash & Investments to Operating Expenses (x) | 1.8x | 1.8x | 0.9x | 1.0x | 0.7x | 0.7x | 1.2x |
| Annual Debt Service Coverage (x) | 3.1x | 2.9x | 2.9x | 3.9x | 3.0x | 3.3x | 3.5x |
| Maximum Single Contribution (%) | 75.7% | 75.3% | 51.8% | 54.1% | 45.9% | 59.3% | 49.2% |
| Median Population Size | - | - | - | - | 30 | - | - |

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.

Moody's Peer Comparison *(continued)*

| Moody's Rating Fiscal Year Ended | Miami University | | Aa3 Medians | Ball State University | Kent State University | Ohio University | University of Cincinnati |
|--|------------------|-------------|-------------|-----------------------|-----------------------|-----------------|--------------------------|
| | Aa3 2018 | Aa3 2019 | - 2018 | Aa3 2018 | Aa3 2018 | Aa3 2018 | Aa3 2018 |
| Total Debt (\$, in Millions) | \$644 | \$612 | \$441 | \$332 | \$455 | \$610 | \$1,260 |
| Total Cash & Investments (\$, in Millions) | \$1,387 | \$1,442 | \$726 | \$527 | \$682 | \$1,019 | \$1,564 |
| Spendable Cash & Investments (\$, in Millions) | \$1,069 | \$1,125 | \$523 | \$448 | \$618 | \$776 | \$868 |
| Operating Revenue (\$, in Millions) | \$691.8 | \$689.9 | \$697.1 | \$502.0 | \$634.4 | \$743.2 | \$1,222.5 |
| Annual Change in Operating Revenue (%) | 3.2% | -0.3% | 2.6% | 3.3% | -7.3% | -4.4% | 2.6% |
| Operating Expenses (\$, in Millions) | \$602.3 | \$614.2 | \$661.2 | \$487.2 | \$661.2 | \$709.1 | \$1,214.4 |
| Monthly Days Cash on Hand (x) | 284.7x | 298.3x | 154.3x | 221.1x | 270.6x | 237.2x | 148.3x |
| Total FTE Enrollment (#) | 22,243 | Unavailable | 20,439 | 18,501 | 30,232 | 28,875 | 39,950 |
| Net Tuition per Student (\$) | \$17,485 | \$16,849 | \$10,822 | \$11,197 | \$10,817 | \$12,349 | \$12,212 |
| Spendable Cash & Investments to Total Debt (x) | 1.7x | 1.8x | 1.3x | 1.4x | 1.4x | 1.3x | 0.7x |
| Total Cash & Investments to Total Debt (x) | 2.2x | 2.4x | 1.7x | 1.6x | 1.5x | 1.7x | 1.2x |
| Total Debt to Cash Flow (x) | 3.7x | 3.7x | 5.3x | 6.3x | 10.4x | 5.3x | 7.3x |
| Operating Cash Flow (\$, in Millions) | \$176 | \$166 | \$80 | \$53 | \$44 | \$115 | \$173 |
| Operating Cash Flow Margin (%) | 25.5% | 24.0% | 10.5% | 10.5% | 6.9% | 15.5% | 14.1% |
| Debt Service to Operating Expenses (%) | 9.4% | 9.4% | 4.4% | 5.0% | 6.1% | 6.2% | 7.1% |
| Spendable Cash & Investments to Operating Expenses (x) | 1.8x | 1.8x | 0.7x | 0.9x | 0.9x | 1.1x | 0.7x |
| Annual Debt Service Coverage (x) | 3.1x | 2.9x | 2.7x | 2.2x | 1.1x | 2.6x | 2.0x |
| Maximum Single Contribution (%) | 75.7% | 75.3% | 51.4% | 56.5% | 63.4% | 63.5% | 49.3% |
| Median Population Size | - | - | 45 | - | - | - | - |

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.

Moody's Peer Comparison *(continued)*

| Moody's Rating Fiscal Year Ended | Miami University | | A1 Medians | Bowling Green State University | University of Toledo |
|--|------------------|-------------|------------|--------------------------------|----------------------|
| | Aa3 2018 | Aa3 2019 | - 2018 | A1 2018 | A1 2018 |
| Total Debt (\$, in Millions) | \$644 | \$612 | \$155 | \$294 | \$321 |
| Total Cash & Investments (\$, in Millions) | \$1,387 | \$1,442 | \$216 | \$396 | \$564 |
| Spendable Cash & Investments (\$, in Millions) | \$1,069 | \$1,125 | \$164 | \$299 | \$440 |
| Operating Revenue (\$, in Millions) | \$691.8 | \$689.9 | \$246.6 | \$362.2 | \$850.1 |
| Annual Change in Operating Revenue (%) | 3.2% | -0.3% | 1.7% | 1.9% | -1.4% |
| Operating Expenses (\$, in Millions) | \$602.3 | \$614.2 | \$241.2 | \$374.2 | \$887.2 |
| Monthly Days Cash on Hand (x) | 284.7x | 298.3x | 171.2x | 214.3x | 72.6x |
| Total FTE Enrollment (#) | 22,243 | Unavailable | 10,981 | 16,395 | 17,433 |
| Net Tuition per Student (\$) | \$17,485 | \$16,849 | \$8,818 | \$9,934 | \$11,057 |
| Spendable Cash & Investments to Total Debt (x) | 1.7x | 1.8x | 1.2x | 1.0x | 1.4x |
| Total Cash & Investments to Total Debt (x) | 2.2x | 2.4x | 1.6x | 1.3x | 1.8x |
| Total Debt to Cash Flow (x) | 3.7x | 3.7x | 5.6x | 9.0x | 9.9x |
| Operating Cash Flow (\$, in Millions) | \$176 | \$166 | \$27 | \$33 | \$32 |
| Operating Cash Flow Margin (%) | 25.5% | 24.0% | 11.8% | 9.0% | 3.8% |
| Debt Service to Operating Expenses (%) | 9.4% | 9.4% | 4.8% | 4.6% | 3.1% |
| Spendable Cash & Investments to Operating Expenses (x) | 1.8x | 1.8x | 0.7x | 0.8x | 0.5x |
| Annual Debt Service Coverage (x) | 3.1x | 2.9x | 2.2x | 1.9x | 1.2x |
| Maximum Single Contribution (%) | 75.7% | 75.3% | 57.6% | 67.9% | 44.7% |
| Median Population Size | - | - | 45 | - | - |

Source: Moody's Investor Services MFRA Database as of September 2019, Miami University FY 2019 Draft Audit as of September 3, 2019.



III. Debt Capacity Study



Overview of Debt Capacity Methodology

- As Miami considers issuing debt to finance new money projects, both in the short term (calendar year 2020) and over a longer-term capital plan, it will be important to consider how such new issuance(s) may impact the University's credit ratings.
- Due to the availability and transparency of Moody's quantitative weightings for various financial metrics through their scorecard model, we have elected to utilize a Moody's-based framework for our initial examination of the University's debt capacity.
- Our model provides a tailored stress test of six key Moody's metrics that are responsive to additional debt.
 - This provides a more responsive barometer of the impact of new borrowing than Moody's scorecard model, which only weights debt and leverage as 20% of the overall score outcome.
 - All scenarios assume a conservative 2% annual growth rate for both total and spendable cash and investments. All scenarios except Scenario 3 assume stable operations (0% growth in operating revenue and expenses).
- This model is structured to allow for significant customization, with the option to project the impact of a single debt issue or a series of issues over time while simultaneously factoring in potential growth or deterioration in operational performance, cash and investments, and liquidity.

Debt Capacity Scenarios

- Initially, given the likelihood of additional borrowing in 2020, we ran 3 spot scenarios showing the impact of \$100M, \$150M, and \$200M of new level debt service borrowing in March 2020 on the University's debt-based ratios.
- For additional context, we then expanded the analysis to consider a longer-term capital planning horizon, assuming \$150M of new money in 2020 and then similar \$150M new money issues each 3 years thereafter (2023 and 2026).
- Finally, we elected to run a “stress test” scenario relating to the longer-term capital plan.
 - This scenario examines the effect of a deterioration in Miami's operating performance, assuming a 4% reduction in operating cash flow margin in FY 2020 and 2021 until it stabilizes at 16% (down from an estimated 24% in FY 2019) and maintains that level going forward.
- The results of these scenarios are shown on the following slides, with the projected impacts on each financial metric shown on an annual basis along with a weighted overall score, similar conceptually to that generated by the Moody's scorecard.

Scenario 1A: \$100M Issuance in FY 2020

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University +\$100MM New Money in FY 2020 | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|---|------|-------|-------|-------|-------|------|------|------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Spendable Cash & Investments to Total Debt | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.74 | 1.87 | 2.02 | 2.20 | 2.42 | 2.64 | 2.88 | 3.16 | 3.45 |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 1.44 | 1.37 | 1.47 | 1.59 | 1.73 | 1.90 | 2.08 | 2.26 | 2.48 | 2.71 |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 3.99 | 3.78 | 3.57 | 3.34 | 3.10 | 2.89 | 2.71 | 2.52 | 2.36 |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.64 | 2.60 | 2.60 | 2.60 | 2.88 | 3.19 | 3.19 | 3.63 |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 0.96 | 0.91 | 0.86 | 0.80 | 0.74 | 0.69 | 0.65 | 0.60 | 0.57 |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.14 | 10.35 | 10.37 | 10.40 | 9.41 | 8.51 | 8.53 | 7.52 |
| | | | | | | | | Weighted Score | | | | | | | | | |
| | | | | | | | | 5.24 | 5.35 | 5.54 | 5.55 | 5.48 | 5.35 | 4.84 | 4.45 | 4.44 | 4.11 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | |

- Unsurprisingly, the addition of \$100M of additional debt does not significantly stress Miami's debt capacity given its strong balance sheet and the rapid pace at which the University amortizes its existing debt portfolio.

Scenario 1B: \$150M Issuance in FY 2020

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University +\$150MM New Money in FY 2020 | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|---|------|-------|-------|-------|-------|------|------|------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Spendable Cash & Investments to Total Debt | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.64 | 1.76 | 1.90 | 2.06 | 2.25 | 2.45 | 2.66 | 2.91 | 3.16 |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 1.44 | 1.29 | 1.38 | 1.49 | 1.62 | 1.77 | 1.93 | 2.09 | 2.29 | 2.48 |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 4.23 | 4.02 | 3.80 | 3.57 | 3.33 | 3.12 | 2.93 | 2.73 | 2.57 |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.56 | 2.50 | 2.50 | 2.50 | 2.76 | 3.04 | 3.04 | 3.44 |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 1.01 | 0.97 | 0.91 | 0.86 | 0.80 | 0.75 | 0.70 | 0.66 | 0.62 |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.43 | 10.73 | 10.76 | 10.78 | 9.80 | 8.90 | 8.92 | 7.92 |
| | | | | | | | | Weighted Score | | | | | | | | | |
| | | | | | | | | 5.24 | 5.44 | 5.72 | 5.77 | 5.70 | 5.63 | 5.09 | 4.64 | 4.58 | 4.26 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | |

- \$150M of added debt begins to add a bit more pressure to the University's financial metrics, with the weighted score increasing from 5.24 in FY 2019 to a peak of 5.77 in FY 2022.

Scenario I C: \$200M Issuance in FY 2020

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University +\$200MM New Money in FY 2020 | | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|---|------|-------|-------|-------|-------|-------|------|------|------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | |
| Spendable Cash & Investments to Total Debt | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.55 | 1.66 | 1.79 | 1.93 | 2.11 | 2.29 | 2.48 | 2.70 | 2.92 | |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 1.44 | 1.22 | 1.30 | 1.40 | 1.52 | 1.66 | 1.80 | 1.95 | 2.12 | 2.30 | |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 4.46 | 4.26 | 4.04 | 3.80 | 3.56 | 3.34 | 3.15 | 2.95 | 2.78 | |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.49 | 2.40 | 2.41 | 2.41 | 2.64 | 2.91 | 2.91 | 3.26 | |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 1.07 | 1.02 | 0.97 | 0.91 | 0.85 | 0.80 | 0.76 | 0.71 | 0.67 | |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.72 | 11.11 | 11.13 | 11.16 | 10.19 | 9.29 | 9.31 | 8.31 | |
| | | | | | | | | Weighted Score | 5.24 | 5.58 | 5.92 | 6.00 | 5.94 | 5.87 | 5.38 | 4.93 | 4.79 | 4.40 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | | |

- The University's already highly leveraged debt portfolio begins to show additional strain under \$200M of additional debt, with Total Debt to Operating Revenue exceeding 1.0x in 2020 and 2021 and Debt Service to Operating Expenses surpassing 11% in 2022-2024.

Scenario 2: \$150M Issuances in FY 2020, 2023, and 2026

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University Scenario 2 - Capital Plan w/ \$150M Level DS New Money Issuances in FY 2020, 2023, and 2026 | | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|---|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | |
| Spendable Cash & Investments to Total Debt | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.64 | 1.76 | 1.90 | 1.71 | 1.85 | 2.00 | 1.80 | 1.92 | 2.06 | |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 1.44 | 1.29 | 1.38 | 1.49 | 1.35 | 1.45 | 1.57 | 1.41 | 1.51 | 1.61 | |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 4.23 | 4.02 | 3.80 | 4.29 | 4.05 | 3.83 | 4.35 | 4.14 | 3.95 | |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.56 | 2.50 | 2.50 | 2.29 | 2.44 | 2.67 | 2.43 | 2.61 | |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 1.01 | 0.97 | 0.91 | 1.03 | 0.97 | 0.92 | 1.04 | 0.99 | 0.95 | |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.43 | 10.73 | 10.76 | 11.64 | 10.95 | 10.06 | 10.95 | 10.24 | |
| | | | | | | | | Weighted Score | 5.24 | 5.44 | 5.72 | 5.77 | 5.88 | 6.22 | 5.84 | 5.59 | 5.91 | 5.55 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | | |

- While this scenario of graduated debt issuance does not increase the University's weighted score as rapidly as Scenario 1C, it remains elevated for an extended period of time compared to FY 2019 levels.
- Miami's rapid amortization of principal allows for relative stability in absorbing the new debt at this pace – while the sheer level of added debt makes a negative rating outlook or a single downgrade possible, further rating deterioration is unlikely under this scenario.

Scenario 3: \$150M Issuances in FY 2020, 2023, and 2026 with Deteriorating Operating Performance

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University Scenario 3 - \$150M New Money Issuances in FY 2020, 2023, and 2026 (Assumes Operating Cash Flow Deteriorates to 16%) | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|--|------|------|-------|-------|-------|-------|------|-------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Spendable Cash & Investments to Total Debt | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.64 | 1.76 | 1.90 | 1.71 | 1.85 | 2.00 | 1.80 | 1.92 | 2.06 |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 1.44 | 1.29 | 1.38 | 1.49 | 1.35 | 1.45 | 1.57 | 1.41 | 1.51 | 1.61 |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 5.20 | 6.30 | 5.95 | 6.72 | 6.34 | 5.99 | 6.81 | 6.48 | 6.18 |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.29 | 1.64 | 1.59 | 1.60 | 1.46 | 1.56 | 1.70 | 1.55 | 1.66 |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 1.04 | 1.01 | 0.95 | 1.08 | 1.02 | 0.96 | 1.09 | 1.04 | 0.99 |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.33 | 9.95 | 10.24 | 10.26 | 11.11 | 10.44 | 9.59 | 10.45 | 9.77 |
| | | | | | | | | Weighted Score | | | | | | | | | |
| | | | | | | | | 5.24 | 5.82 | 6.98 | 6.97 | 7.30 | 7.49 | 7.05 | 7.01 | 7.24 | 6.78 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | |

- With 3 additional \$150M debt issues along with (relatively) deteriorating credit performance, Miami’s debt service coverage and cash flow metrics are drastically impacted relative to current norms.
- In this hypothetical downside scenario, a rating downgrade is almost certain, with the potential for a second notch downgrade depending on the severity of the downturn and the effectiveness of the University’s efforts to mitigate the negative credit developments.



VI. Refunding Opportunities



Refunding Opportunities

- Tax-exempt advance refundings are currently prohibited as a result of 2017 tax reform.
- In the current low-yield environment, taxable advance refundings are generating attractive debt service savings for many issuers.

| Refunding Opportunities to Consider | | | |
|-------------------------------------|--------------------------|------------------------------|----------------|
| Series | Outstanding Par (\$000s) | Call Date(s) | Final Maturity |
| 2011 | 114,400 | 9/1/2021 | 9/1/2036 |
| 2012 | 98,735 | 9/1/2022; 3/1/2018 (2037) | 9/1/2037 |
| 2014 | 121,300 | 9/1/2024; 9/1/2020 (2036) | 9/1/2039 |

| Refunding Opportunities by Series | | | | | | | |
|-----------------------------------|-----------|---------------|--------|---------------------|---------------------|--------------|--|
| Series | Call Date | Maturity Date | Coupon | Par Amount (\$000s) | PV Savings (\$000s) | PV Savings % | |
| 2011 | 9/1/2021 | 9/1/2022 | 4.00% | 3,270 | (16) | -0.50% | |
| 2011 | 9/1/2021 | 9/1/2022 | 5.00% | 4,340 | \$63 | 1.44% | |
| 2011 | 9/1/2021 | 9/1/2023 | 4.00% | 5,300 | 65 | 1.23% | |
| 2011 | 9/1/2021 | 9/1/2023 | 5.00% | 2,660 | 110 | 4.13% | |
| 2011 | 9/1/2021 | 9/1/2024 | 5.00% | 4,415 | 282 | 6.38% | |
| 2011 | 9/1/2021 | 9/1/2025 | 5.00% | 4,640 | 386 | 8.31% | |
| 2011 | 9/1/2021 | 9/1/2026 | 5.00% | 4,880 | 481 | 9.85% | |
| 2011 | 9/1/2021 | 9/1/2027 | 4.00% | 5,095 | 346 | 6.78% | |
| 2011 | 9/1/2021 | 9/1/2031 | 5.00% | 23,050 | 3,102 | 13.46% | |
| 2011 | 9/1/2021 | 9/1/2032 | 4.38% | 3,950 | 414 | 10.49% | |
| 2011 | 9/1/2021 | 9/1/2033 | 5.00% | 9,245 | 1,131 | 12.23% | |
| 2011 | 9/1/2021 | 9/1/2036 | 5.00% | 22,800 | 3,418 | 14.99% | |
| 2012 | 9/1/2022 | 9/1/2023 | 4.00% | 5,915 | -91 | -1.54% | |
| 2012 | 9/1/2022 | 9/1/2024 | 4.00% | 3,755 | -11 | -0.30% | |
| 2012 | 9/1/2022 | 9/1/2025 | 4.00% | 3,910 | 33 | 0.85% | |
| 2012 | 9/1/2022 | 9/1/2026 | 4.00% | 4,070 | 78 | 1.92% | |
| 2012 | 9/1/2022 | 9/1/2027 | 3.00% | 1,365 | -8 | -0.61% | |
| 2012 | 9/1/2022 | 9/1/2027 | 4.00% | 2,865 | 83 | 2.91% | |
| 2012 | 9/1/2022 | 9/1/2028 | 4.00% | 4,395 | 168 | 3.83% | |
| 2012 | 9/1/2022 | 9/1/2029 | 4.00% | 4,575 | 214 | 4.67% | |
| 2012 | 9/1/2022 | 9/1/2030 | 3.13% | 4,740 | 49 | 1.02% | |
| 2012 | 9/1/2022 | 9/1/2031 | 4.00% | 4,910 | 302 | 6.16% | |
| 2012 | 9/1/2022 | 9/1/2032 | 4.00% | 5,110 | 348 | 6.81% | |
| 2012 | 9/1/2022 | 9/1/2033 | 4.00% | 5,320 | 394 | 7.41% | |
| 2012 | 9/1/2022 | 9/1/2034 | 3.25% | 5,515 | 168 | 3.05% | |
| 2012 | Current | 9/1/2037 | 3.50% | 21,255 | 1,637 | 7.70% | |
| 2014 | 9/1/2024 | 9/1/2025 | 5.00% | 5,945 | -230 | -3.86% | |
| 2014 | 9/1/2024 | 9/1/2026 | 5.00% | 6,250 | -133 | -2.13% | |
| 2014 | 9/1/2024 | 9/1/2027 | 5.00% | 6,570 | -35 | -0.54% | |
| 2014 | 9/1/2024 | 9/1/2028 | 5.00% | 4,585 | 43 | 0.94% | |
| 2014 | 9/1/2024 | 9/1/2029 | 3.50% | 400 | -9 | -2.23% | |
| 2014 | 9/1/2024 | 9/1/2029 | 5.00% | 4,420 | 102 | 2.30% | |
| 2014 | 9/1/2024 | 9/1/2030 | 5.00% | 5,065 | 180 | 3.56% | |
| 2014 | 9/1/2024 | 9/1/2031 | 5.00% | 5,320 | 251 | 4.72% | |
| 2014 | 9/1/2024 | 9/1/2032 | 3.75% | 435 | 1 | 0.33% | |
| 2014 | 9/1/2024 | 9/1/2032 | 5.00% | 5,155 | 298 | 5.78% | |
| 2014 | 9/1/2024 | 9/1/2033 | 5.00% | 5,875 | 397 | 6.75% | |
| 2014 | 9/1/2024 | 9/1/2034 | 5.00% | 6,175 | 472 | 7.64% | |
| 2014 | 9/1/2020 | 9/1/2036 | 4.00% | 10,040 | 886 | 8.83% | |
| 2014 | 9/1/2024 | 9/1/2039 | 4.00% | 25,005 | 1,036 | 4.14% | |
| TOTAL | | | | | \$16,405 | | |

| Refunding Assumptions | |
|-----------------------|-----------|
| Interest Rates as of | 9/3/2019 |
| Dated Date | 10/1/2019 |

Cashflow Savings

- Cashflow savings generated from these refundings could provide relief in the operating budget to ease the debt service impact of a new money borrowing.
- However, the University will want to be strategic about executing its call options at the most advantageous opportunity.

| Cashflow Savings Provided by Refundings (\$000s) | | | | | | | | | | | | |
|--|-------------|---------------------|------------|-------------|---------------------|------------|-------------|---------------------|------------|------------------|----------------------|------------|
| FY | Series 2011 | | | Series 2012 | | | Series 2014 | | | Total CF Savings | Scen. 2 Pro Forma DS | Difference |
| | New DS | Old DS ¹ | CF Savings | New DS | Old DS ¹ | CF Savings | New DS | Old DS ¹ | CF Savings | | | |
| 2020 | 971 | 2,260 | 1,289 | 833 | 1,453 | 619 | 1,103 | 2,100 | 997 | 2,906 | 2,525 | -381 |
| 2021 | 3,612 | 4,521 | 909 | 2,628 | 2,905 | 277 | 4,066 | 4,200 | 134 | 1,320 | 6,060 | 4,740 |
| 2022 | 3,610 | 4,521 | 911 | 2,630 | 2,905 | 275 | 3,849 | 4,200 | 351 | 1,537 | 6,060 | 4,523 |
| 2023 | 11,049 | 11,957 | 908 | 2,627 | 2,905 | 278 | 3,845 | 4,200 | 355 | 1,540 | 6,060 | 4,520 |
| 2024 | 11,051 | 11,961 | 909 | 8,425 | 8,702 | 277 | 3,851 | 4,200 | 349 | 1,535 | 6,060 | 4,524 |
| 2025 | 7,224 | 8,133 | 908 | 6,072 | 6,349 | 277 | 3,851 | 4,200 | 349 | 1,534 | 6,060 | 4,526 |
| 2026 | 7,223 | 8,131 | 908 | 6,072 | 6,350 | 278 | 9,735 | 9,996 | 261 | 1,447 | 6,060 | 4,612 |
| 2027 | 7,226 | 8,133 | 908 | 6,071 | 6,351 | 279 | 9,739 | 9,997 | 257 | 1,444 | 6,060 | 4,615 |
| 2028 | 7,216 | 8,124 | 909 | 6,070 | 6,351 | 281 | 9,739 | 9,996 | 257 | 1,447 | 6,060 | 4,613 |
| 2029 | 7,224 | 8,134 | 910 | 6,069 | 6,351 | 282 | 7,445 | 7,732 | 287 | 1,479 | 6,060 | 4,581 |
| 2030 | 7,220 | 8,130 | 910 | 6,071 | 6,351 | 280 | 7,449 | 7,735 | 286 | 1,477 | 6,060 | 4,583 |
| 2031 | 7,223 | 8,133 | 909 | 6,073 | 6,351 | 278 | 7,455 | 7,736 | 281 | 1,468 | 6,060 | 4,592 |
| 2032 | 7,222 | 8,130 | 908 | 6,066 | 6,349 | 282 | 7,453 | 7,731 | 279 | 1,469 | 6,060 | 4,591 |
| 2033 | 7,222 | 8,130 | 908 | 6,073 | 6,348 | 275 | 7,452 | 7,731 | 279 | 1,462 | 6,060 | 4,598 |
| 2034 | 7,225 | 8,134 | 909 | 6,070 | 6,350 | 279 | 7,455 | 7,732 | 278 | 1,466 | 6,060 | 4,594 |
| 2035 | 7,221 | 8,134 | 912 | 6,073 | 6,349 | 276 | 7,457 | 7,731 | 275 | 1,463 | 6,060 | 4,597 |
| 2036 | 7,222 | 8,130 | 908 | 7,337 | 7,464 | 127 | 7,429 | 7,728 | 299 | 1,334 | 6,060 | 4,726 |
| 2037 | 7,223 | 8,133 | 910 | 7,337 | 7,461 | 123 | 7,442 | 7,734 | 292 | 1,326 | 6,060 | 4,734 |
| 2038 | | | | 7,337 | 7,463 | 127 | 7,534 | 7,735 | 200 | 327 | 6,060 | 5,733 |
| 2039 | | | | | | | 7,536 | 7,734 | 198 | 198 | 6,060 | 5,862 |
| 2040 | | | | | | | 7,536 | 7,732 | 195 | 195 | 6,060 | 5,865 |

¹Old DS excludes debt service on existing bonds

About the Blue Rose / Disclaimer



About the Blue Rose

The blue rose, which does not exist in nature, symbolizes that which is rare and difficult to obtain. The color blue represents opportunities and new beginnings, and so the blue rose conveys the excitement and possibilities of a new venture. Blue also is the color associated with those who are analytical, intelligent, responsible, optimistic and practical, traits we value and encourage in our professionals. At Blue Rose Capital Advisors, it is our goal to seek out new opportunities for our clients, and with meticulous and enthusiastic service, help them create optimal solutions and overcome their most formidable challenges.

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Fitch Affirms Miami University, OH Revs at 'AA'; Outlook Stable

Fitch Ratings - New York - 11 February 2020:

Fitch has assigned an Issuer Default Rating (IDR) of 'AA' to Miami University, and has affirmed the 'AA' ratings on approximately \$578.5 million of the university's outstanding general receipts revenue bonds.

The Rating Outlook is Stable.

SECURITY

General receipts revenue bonds are secured by a pledge of the university's general receipts, which are primarily composed of tuition and fees, net auxiliary revenues, revenues from educational activities, unrestricted gifts and investment income.

ANALYTICAL CONCLUSION

The 'AA' IDR and bond rating reflect Fitch's expectation that Miami will maintain very strong credit quality despite slowing revenue growth trends that are expected to continue. The university has very strong demand with a broad student draw, excellent cost management resulting in robust cash flow, and decreasing capex needs after a period of heightened campus and strategic investment. These strengths give Miami ample flexibility to address revenue challenges including unfavorable population growth trends in key markets and constraints on tuition rate increases. MU's financial profile also supports the 'AA' rating; the university has a strong leverage position for its operating profile, and a large resource base offsets its relatively high debt load.

KEY RATING DRIVERS

Revenue Defensibility: 'a'

Very Strong Demand but Slowing Revenue Growth

Miami has very strong student demand with generally stable enrollment, a wide draw and very high student quality. However, unfavorable regional population trends and limitations on tuition increases for Ohio residents will constrain revenue growth. Strategic investment in new programs and Miami's nearly 40% non-resident student base should support continued but more modest revenue growth compared to robust historical trends.

Other funding sources add stability to Miami's revenue base but would not fully counter potential volatility in net student fees, which account for 78% of revenues.

Operating Risk:: 'aa'

Robust Cash Flow Supports Capital and Debt Costs

Fitch expects the university will maintain robust cash flow, which should support capital and strategic investments while limiting new debt. Miami has a track record of exceptional cost management and is currently accelerating a longer-term cost reduction strategy to offset the expected slowdown in revenue growth. Capital spending needs are manageable and should not drive an increase in leverage. The university invested heavily in campus facilities in recent years and now has good flexibility to address most spending requirements from cash flow.

Financial Profile:: 'aa'

Large Resource Base Supports Debt Load

Miami's financial position has improved steadily over time, and its resource base provides a strong cushion to weather changes in its business environment. Available funds (cash and investments across the university and foundation, less certain restricted net assets and unspent bond proceeds) equal a strong 74% of adjusted debt (including Fitch-adjusted pension liabilities). Fitch expects Miami's leverage position will hold generally steady due to slowing capital debt issuance, front-loaded principal amortization and efforts by the state to contain costs and liabilities related to its defined benefit pension plans.

Asymmetric Additional Risk Considerations

No asymmetric additional risk considerations affected the ratings.

RATING SENSITIVITIES

Developments That May, Individually or Collectively, Lead to a Negative Rating Action:

--Intensifying pricing constraints or pressure driving sustained declines in net tuition-per-FTE or total net student revenues could weaken financial performance and the rating over time if not offset by development of new revenue sources and continued proactive cost management. A decline in cash flow margins toward the 12%-15% range or lower could also trigger negative rating action.

--Deterioration of Miami's leverage position such that available funds-to-adjusted debt falls sustainably below about 55%, potentially driven by a notable and unexpected expansion of capital and/or debt plans without commensurate resource growth.

Developments That May, Individually or Collectively, Lead to a Positive Rating Action:

--Although unlikely in the medium term, improvement in the university's leverage position such that available funds-to-adjusted debt would consistently exceed 100% or better through a stress scenario could support positive rating action over time.

CREDIT PROFILE

MU is the second oldest public university in the state of Ohio, opened in 1824. The university serves nearly 20,000 students, primarily traditional full-time undergraduates and approximately 40% from outside Ohio, at its well-maintained main campus in Oxford, OH. The university serves over 24,000 students in total at Oxford, at its two regional campuses in Hamilton and Middletown, OH, learning center in West Chester, OH and campus in Luxembourg.

Revenue Defensibility

The university maintains generally stable enrollment, with fall 2019 FTE totaling 22,094 at all campuses and 18,642 at Oxford. Enrollment at Oxford, which drives financial results, fell slightly (less than 1%) in fall 2019, after a long trend of incremental growth, due to softer international enrollment and an increasing trend of early graduations. However, Fitch expects continued stable enrollment over time based on larger incoming classes and strong retention.

A strong enrollment track record drives Fitch's opinion of very strong student demand despite more moderate admissions metrics including acceptance and matriculation rates around 80% and 20%, respectively. These metrics reflect some self-selection among applicants due to Miami's strong reputation and differentiated role within Ohio as a well-known liberal arts institution, as well as competition for non-resident students with other highly regarded institutions. In addition, the university has maintained a trend of larger incoming classes in recent years while maintaining very high student quality and retention rates.

Miami's very strong market position along with strategic program development should support generally stable enrollment despite a shrinking traditional student population in Ohio and in certain key out-of-state regions. Key strategies to offset unfavorable demographic trends include developing new programs and tracks, offering four-year degrees at the regional campuses and diversifying the school's international student draw.

Incremental growth in new programs and continued moderate tuition increases should drive continued though slower growth in net student revenues, which account for 78% of operating revenue. Growth in in-state student fees is constrained somewhat by the Miami Tuition Promise program, which guarantees flat tuition, room and board and other fees for four years for first-time undergraduates and ties increases between cohorts to inflation. The regulatory environment also limits pricing power, as the legislature has in recent years imposed explicit

freezes or in-practice constraints on tuition and fee rates that would have applied to Miami had it not already implemented a four-year price guarantee. Other sources including state appropriations (11% of revenue), gifts and investment returns (including a sustainable endowment draw) help stabilize Miami's revenue base. However, these sources are unlikely to fully counter potential volatility in net student fee revenues.

Miami has produced robust and very consistent operating cash flow margins ranging from 19% to 22% over the past five years. Margins may compress slightly in coming years as revenue growth slows, but Fitch expects the university will maintain very strong financial performance based on its demonstrated cost management capabilities and effective financial planning. To align expense growth with expectations for slower revenue growth going forward, the university recently accelerated a previously five-year plan to achieve further cost savings and maintain operating flexibility.

The university has invested heavily in capital improvements over the past five years, especially in replacing and renovating housing and dining facilities to support its freshman and sophomore residency requirement. Capital investment has totaled 270% of depreciation over this period, driving Miami's average age of plant down toward 12 years in 2019 compared to 14 years in 2015. After accelerating certain debt-funded projects for its housing and dining master plan as part of the series 2017 issuance, the pace of debt issuance is now set to slow. Work to address deferred maintenance needs, including further needs related to the housing and dining master plan, will continue, but MU has made substantial progress and now has flexibility to cover annual spending requirements largely from cash flow.

Financial Profile

Miami's resource base has grown over time from retained cash flow, fundraising and investment returns. Available funds totaled \$902 million at June 30, 2019, up approximately 21% since 2015 despite heavy capital investment over that period. These resources provide a sound cushion relative to adjusted debt of 74%. The university's adjusted debt was \$1.2 billion in 2019, effectively flat to 2015 levels due to significant amortization that offset the series 2017 new money issuance. Adjusted debt consists of \$659 million of general receipts bonds, premium and capital leases, and approximately \$554 million of Fitch-adjusted net pension liability.

Fitch expects the university's leverage position will remain generally stable due to continued strong cash flow and fundraising efforts, an expected slower rate of capital debt issuance and an aggressive amortization schedule for existing debt. Potential new money debt plans over the next two years are moderate, related to academic projects expected to total around \$150 million. Miami does not expect material drawdowns of available funds for capital or strategic projects, and Fitch does not expect the university's participation in two of Ohio's statewide multiemployer plans to affect its overall leverage position materially. Plan reforms in recent years, including eliminating COLAs, lowering benefits and shifting statutory contributions to pensions from OPEB, have contained liabilities and raised the likelihood of funding improvement if assumptions are met.

Liquidity and debt service coverage are sound and present no asymmetric risk to the university's financial profile. Available funds covered operating expenses by a strong 138% in fiscal 2019, and Miami's robust cash flow generates solid debt service coverage consistently above 2x despite its front-loaded principal amortization and resulting higher carrying costs.

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of 3 - ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity.

For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

| RATING ACTIONS | | |
|---|------------------------------|-------|
| ENTITY/DEBT | RATING | PRIOR |
| Miami University (OH) | LT IDR AA ● New Rating | |
| Miami University (OH) /General Revenues/1 LT | LT AA ● Affirmed | AA ● |

Additional information is available on www.fitchratings.com

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Applicable Criteria

U.S. Public Finance College and University Rating Criteria (pub. 03 Jun 2019)
Public Sector, Revenue-Supported Entities Rating Criteria (pub. 07 Nov 2019)

Additional Disclosures

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New Debt Authorization



MIAMI UNIVERSITY

Funding Plan for New Academic Buildings

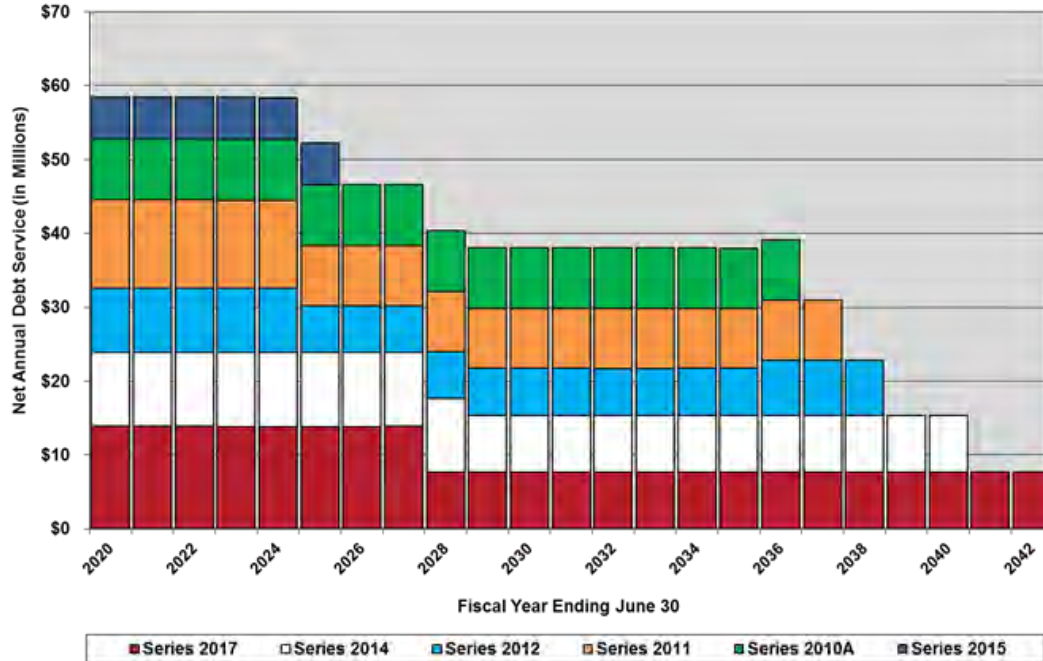
| <u>Project or Source</u> | <u>Cost</u> |
|---|--------------------|
| Clinical Health Science Building | \$96,000,000 |
| Digital Innovation Building | <u>60,000,000</u> |
| Total Commitment | \$156,000,000 |
| Existing Source of Funding: | |
| Previous Funding | \$5,000,000 |
| Ohio Appropriation | 21,000,000 |
| Current Tri-Health Commitment | 3,000,000 |
| Funds Designated for Health Center Renovation | <u>4,500,000</u> |
| Current Unmet Cost of Construction | \$ 122,500,000 |
| New Debt | <u>125,000,000</u> |
| Funds Available for Contingency or Other Projects | <u>\$2,500,000</u> |

New Building Financing Scenarios

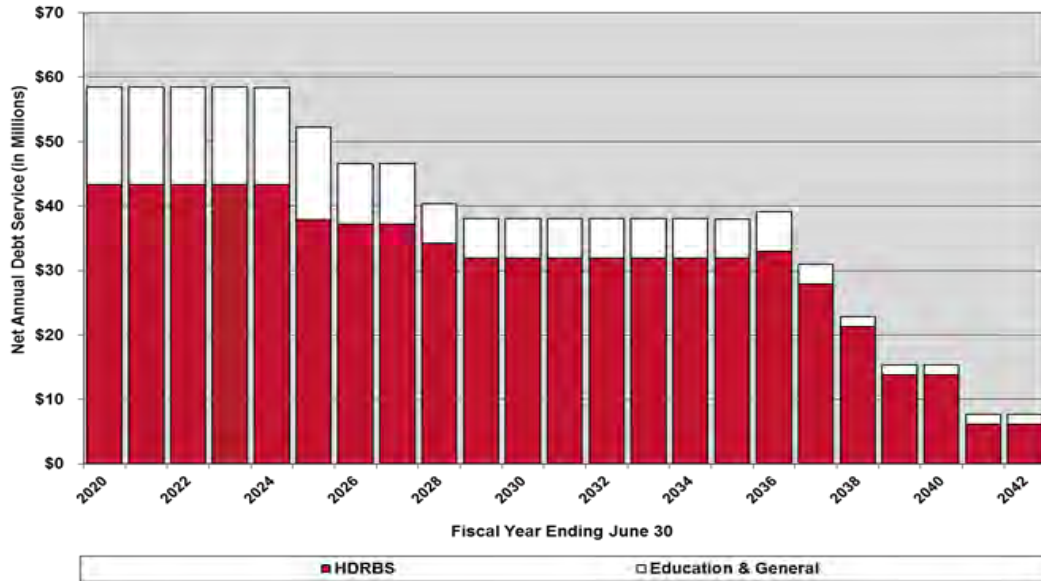
| <u>Description</u> | <u>Risk Assumptions</u> | Base Case | Best Case | Worst Case |
|---------------------------------------|---|------------------|------------------|-------------------|
| Plan A-Issue Debt Spring 2020 | Lowest Interest Rate Volatility but Highest Carrying Cost | _____ | _____ | _____ |
| -Annual Debt Service Assumption | | \$7.0 million | \$6.75 million | \$7.25 million |
| -Draw Against Reserves or New Revenue | | \$26.04 million | \$13.27 million | \$54.42 million |
| -Philanthropy/Sponsorships | | \$25 million | \$50 million | \$-0- |
| Plan B-Delay Debt Until Spring 2021 | Greatest Interest Rate Volatility but Lower Carrying Cost | _____ | _____ | _____ |
| -Annual Debt Service Assumption | | \$7.0 million | \$6.50 million | \$7.50 million |
| -Draw Against Reserves or New Revenue | | \$19.04 million | \$6.02 million | \$47.54 million |
| -Philanthropy/Sponsorships | | \$25 million | \$50 million | \$-0- |



**Miami University
General Receipts Revenue Bonds
Outstanding Annual Debt Service Requirements
by Series**



Miami University
General Receipts Revenue Bonds
Outstanding Annual Debt Service Requirements
HDRBS & General Fund Principal & Interest Allocation



Prepared By
Blue Rose Capital Advisors, LLC

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University +\$150MM New Money in FY 2020 | | | | | | | | | |
|--|---------------|---|------|------|------|------|----------------|---|------|-------|-------|-------|-------|------|------|------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Spendable Cash & Investments to Total Debt (x) | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.64 | 1.76 | 1.90 | 2.06 | 2.25 | 2.45 | 2.66 | 2.91 | 3.16 |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 2.36 | 2.10 | 2.25 | 2.43 | 2.64 | 2.89 | 3.15 | 3.41 | 3.73 | 4.06 |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 4.23 | 4.02 | 3.80 | 3.57 | 3.33 | 3.12 | 2.93 | 2.73 | 2.57 |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.56 | 2.50 | 2.50 | 2.50 | 2.76 | 3.04 | 3.04 | 3.44 |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 1.01 | 0.97 | 0.91 | 0.86 | 0.80 | 0.75 | 0.70 | 0.66 | 0.62 |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.43 | 10.73 | 10.76 | 10.78 | 9.80 | 8.90 | 8.92 | 7.92 |
| | | | | | | | Weighted Score | 4.95 | 5.14 | 5.41 | 5.50 | 5.48 | 5.46 | 4.99 | 4.60 | 4.58 | 4.26 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | |

*In some cases, the Aa2 and A3 median ratios do not follow the same linear progression as the other rating medians. Therefore when estimating the rating outcome, a subjective view was implemented. Median data is sourced from Moody's MFR database as of September 2019.



Prepared By
Blue Rose Capital Advisors, LLC

| Key Capital Ratios | Desired Trend | Moody's Public Higher Education Medians Fiscal Year 2018 | | | | | | Miami University +\$100MM New Money in FY 2020 | | | | | | | | | |
|--|---------------|---|------|------|------|------|------|---|------|-------|-------|-------|-------|------|------|------|------|
| | | Aa1 | Aa2 | Aa3 | A1 | A2 | A3 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Spendable Cash & Investments to Total Debt (x) | ↑ | 2.20 | 1.30 | 1.30 | 1.20 | 0.50 | 0.80 | 1.84 | 1.74 | 1.87 | 2.02 | 2.20 | 2.42 | 2.64 | 2.88 | 3.16 | 3.45 |
| Total Cash & Investments to Total Debt (x) | ↑ | 2.90 | 1.90 | 1.70 | 1.60 | 0.70 | 1.20 | 2.36 | 2.23 | 2.39 | 2.59 | 2.82 | 3.10 | 3.39 | 3.69 | 4.05 | 4.42 |
| Total Debt to Cash Flow (x) | ↓ | 3.30 | 4.70 | 5.30 | 5.60 | 8.70 | 8.90 | 3.70 | 3.99 | 3.78 | 3.57 | 3.34 | 3.10 | 2.89 | 2.71 | 2.52 | 2.36 |
| Annual Debt Service Coverage (x) | ↑ | 3.90 | 3.00 | 2.70 | 2.20 | 1.70 | 1.90 | 2.86 | 2.82 | 2.64 | 2.60 | 2.60 | 2.60 | 2.88 | 3.19 | 3.19 | 3.63 |
| Total Debt to Operating Revenue (x) | ↓ | 0.40 | 0.60 | 0.60 | 0.60 | 0.90 | 0.70 | 0.89 | 0.96 | 0.91 | 0.86 | 0.80 | 0.74 | 0.69 | 0.65 | 0.60 | 0.57 |
| Debt Service to Operating Expenses (%) | ↓ | 3.40 | 3.90 | 4.40 | 4.80 | 6.30 | 4.60 | 9.43 | 9.54 | 10.14 | 10.35 | 10.37 | 10.40 | 9.41 | 8.51 | 8.53 | 7.52 |
| | | | | | | | | Weighted Score | | | | | | | | | |
| | | | | | | | | 4.95 | 5.04 | 5.26 | 5.32 | 5.30 | 5.23 | 4.80 | 4.45 | 4.44 | 4.11 |
| Median Population Size (#) | | 12 | 30 | 47 | 50 | 21 | 11 | | | | | | | | | | |

*In some cases, the Aa2 and A3 median ratios do not follow the same linear progression as the other rating medians. Therefore when estimating the rating outcome, a subjective view was implemented. Median data is sourced from Moody's MFRA database as of September 2019.



Miami University

Fitch Rating

February 2020

- AA – Stable Outlook
- “Miami will maintain a very strong credit quality despite slowing revenue growth.”
- “Robust cash flow supports capital and debt costs. Resource base provides a strong cushion to weather changes.”
- “Intensifying pricing constraints or pressure driving sustained declines in net tuition revenue per FTE or total net student revenues could weaken financial performance and the rating over time.”

Miami University

History of Total Issuance Cost Rates

Maturity = 25 years

| <u>2011</u> | <u>2012</u> | <u>2014</u> | <u>2017</u> | <u>2020</u> |
|-------------|-------------|-------------|-------------|-------------|
| 4.266% | 3.130% | 3.570% | 3.638% | 2.750% |

Estimate of Insurance Cost = 53 basis points times proceeds
for issuance of \$125 million

Opportunity Cost = 6.5 % to 7.5% rate of return on
non-endowment long-term pool

New Debit Authorization

Issues to Consider in Timing New Debt

- Cash Flow Requirements
 - As early as summer 2020 or as late as spring 2021
 - Carry costs for early issuance due to low short-term rates
- Market Risks
 - Rates very near historic low
 - Enrollment declines across higher education could affect the outlook for the industry and Miami specifically
 - Artificially low rates are more vulnerable to market changes
- Other Factors
 - Refunding opportunities
 - Debt service impact on reserves
 - Size of the issue(s) and impact on issuance costs

Questions?

Finance & Audit Committee Presentation

February 20, 2020



MIAMI UNIVERSITY

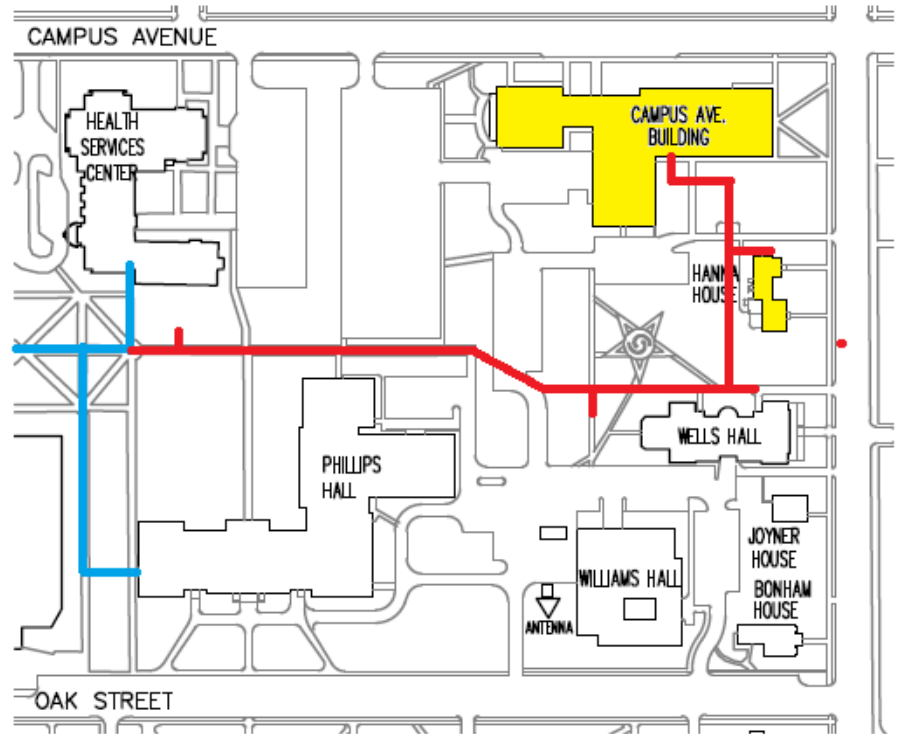
Capital Projects



MIAMI UNIVERSITY

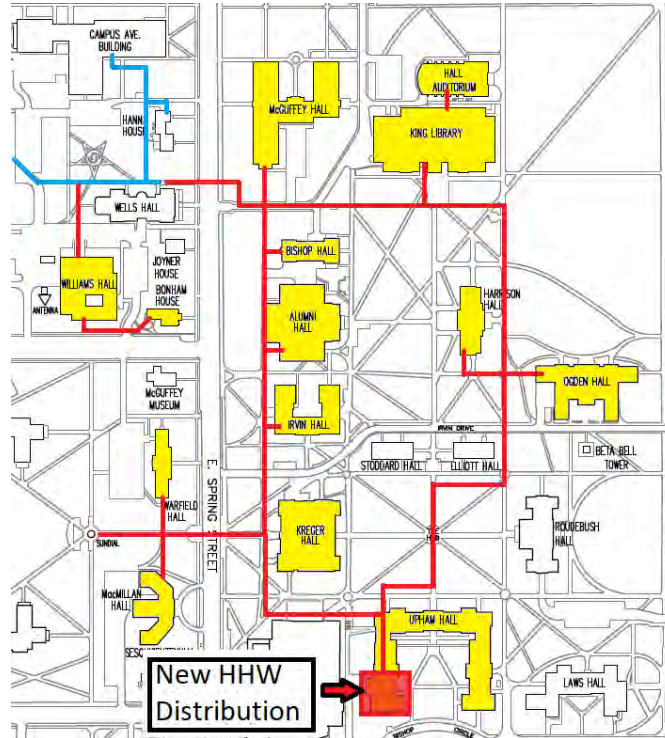
South Quad Hot Water Conversion Phase 2 - 2020

- Addresses deferred maintenance
- Replaces roof top chiller
- Replaces failing steam piping
- Reduces maintenance labor
- Improves energy efficiency

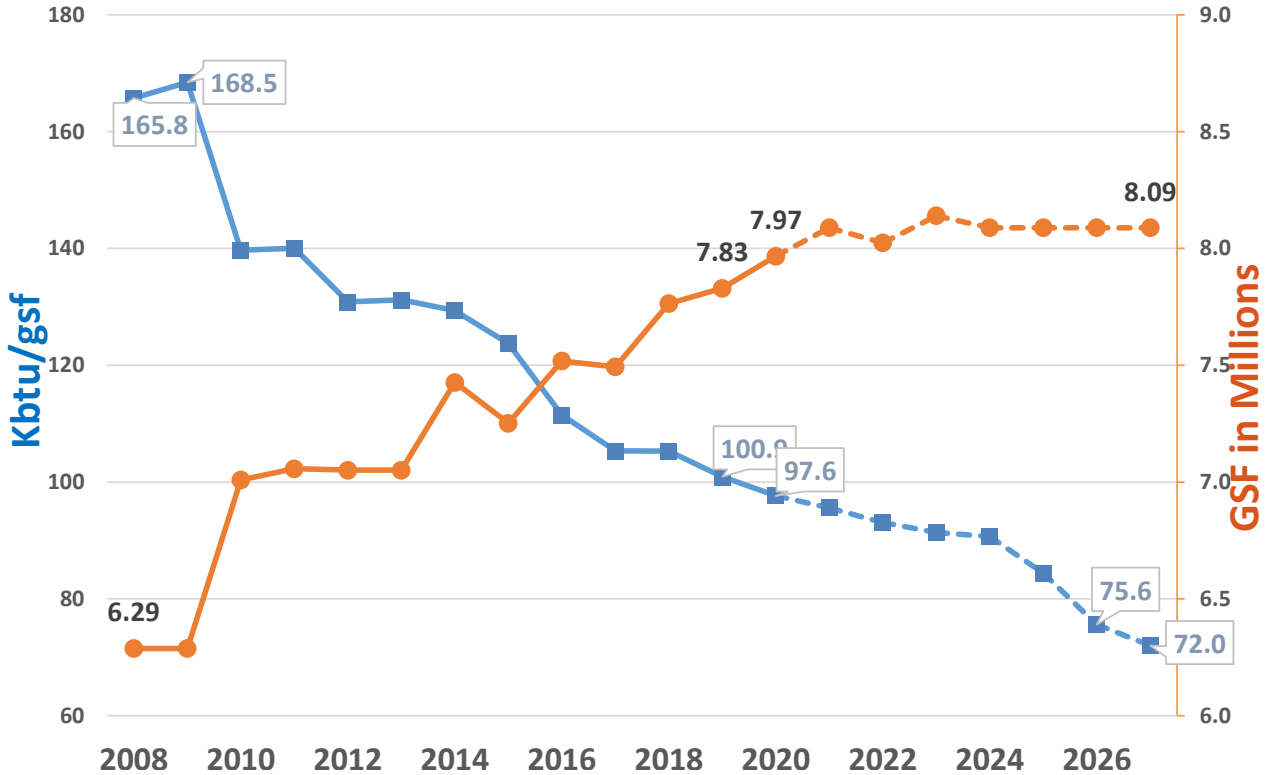


Central Campus Hot Water Conversion - 2022

- Addresses deferred maintenance in campus buildings
- Improves redundancy in infrastructure
- Reduces energy consumption
 - 100.9 KBTU/GSF in 2019
 - Anticipate 92 KBTU/GSF in 2022



KBTU/GSF Future Progress Chart





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Finance and Audit
February 21, 2020

RESOLUTION R2020-33

WHEREAS, a five year campus master plan has been developed that aligns with Miami University's strategic plan and academic program priorities; and

WHEREAS, the campus master plan includes the construction of new buildings for planned growth in clinical health and digital science programs and renovated spaces that will better meet the needs of the University's liberal arts and honors programs; and

WHEREAS, the University continues to experience strong demand for the Oxford campus' nursing and speech pathology and audiology programs; and

WHEREAS, the Provost through the Boldly Creative initiative has awarded funding to establish a Physician's Assistant program on the Oxford campus; and

WHEREAS, a comprehensive facility programming effort has identified value in co-locating clinical health programs and other services such as the Health Services Center in a health district; and

WHEREAS, a new Clinical Health Sciences facility would house Nursing, Physician's Assistant, Speech Pathology and Audiology, and a student and employee Health Services Center; and

WHEREAS, Miami University has determined that reduced costs, speed of implementation, and coordination may be gained by using the Design Build project delivery method; and

WHEREAS, the total project budget of \$96,000,000 includes the cost to renovate Harris Hall as swing space for the existing Health Service Center which Miami University's Board of Trustees previously approved with a budget of \$6,200,000; and

WHEREAS, the receipt of the Guaranteed Maximum Price (GMP) for the Clinical Health Sciences Facility will occur in phases with the earliest package planned for February 2020;

NOW, THEREFORE, BE IT RESOLVED: that the Board of Trustees authorizes the Senior Vice President for Finance and Business Services and Treasurer, to proceed with the award of the contracts for the Clinical Health Sciences facility project for a total budget not to exceed \$96,000,000, including the Harris Hall swing space renovation; and

BE IT FURTHER RESOLVED: that the construction of this building and the completion of the balance of the five-year campus master plan will require Miami University to issue additional debt and while such debt is expected to be authorized by the Board of Trustees, the Senior Vice President for Finance and Business Services shall consult with both the Chair of the Board of Trustees and the Chair of the Finance and Audit Committee on the sizing and timing of each new debt obligation, up to the amount authorized, prior to proceeding with any new debt.

*Approved by the Board of Trustees
February 21, 2020*

T. O. Pickerill II
Secretary to the Board of Trustees

Executive Summary
for the
Clinical Health Science Facility
February 20, 2020

The U.S. Department of Labor’s Bureau of Labor Statistics and Ohio’s Department of Job and Family Services 2026 Employment Projections identified health care professions “to be among the fastest growing occupational groups during the decade.” In recognition of this trend, the recently completed strategic plan established health science fields as a priority for the University with a nursing major once again being offered on the Oxford campus and planning for a Physician’s Assistant Program now underway.

A committee of representatives from Biology, Chemistry, Kinesiology and Health, Gerontology, Nursing, Speech Pathology and Audiology was formed to recommend how to advance the Clinical Health Sciences on the Oxford campus. The committee identified synergies among programs and a set of common goals including a focus on holistic human health and a desire for students to have an inter-professional experience that could be accomplished through a health district that includes an additional building to house new and growing programs in the health sciences. These programs include Nursing, Physician’s Assistant, Speech Pathology and Audiology, and the University’s existing Health Services Center.

The evaluation of the site analysis data in conjunction with future program goals has identified an optimal building site near Phillips Hall, the South Campus Parking Garage, the Recreational Sports Center, and the Goggin Ice Center. The site complements a vision of a new health district on the Oxford campus.

The building is expected to be about 170,000 gross square feet in size and offer state of the art opportunities for students and faculty in the clinical health sciences. Construction is expected to begin in the late spring or early summer of 2020 and be complete by the summer of 2022.

| <u>Project component:</u> | <u>Budget:</u> | <u>Funding Source:</u> |
|---------------------------------|---------------------|-------------------------|
| Est. Cost of Harris Hall Reno: | \$6,200,000 | Local Funding |
| Est. Design and Administration: | \$ 5,675,000 | Local Funding |
| Est. Cost of Work: | \$ 70,125,000 | State and Local Funding |
| Est. Owner’s Costs: | \$ 7,000,000 | Local Funding |
| Est. Contingency: | <u>\$ 7,000,000</u> | Local Funding |
| Est. Total: | \$ 96,000,000 | |



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Finance and Audit
February 21, 2020

RESOLUTION R2020-34

WHEREAS, the South Chiller Plant Conversion Phase 2 project is the next phase of the Utility Master Plan and a necessary step in fulfilling the University's Sustainability Commitments and Goals; and

WHEREAS, Miami University has identified local funds in the amount of \$4,000,000 for this project; and

WHEREAS, the \$4,000,000 budget includes a cost of work estimate of approximately \$3,200,000; and

WHEREAS, the receipt of Guaranteed Maximum Price is planned for February 2020; and

WHEREAS, the Board of Trustees previously awarded a contract for Phase 1 to the most responsive and responsible Design Build Firm;

NOW, THEREFORE, BE IT RESOLVED: that the Board of Trustees hereby authorizes the Senior Vice President for Finance and Business Services and Treasurer, to proceed with the award of contracts for the South Chiller Plant Conversion Phase 2 project with a total project budget not to exceed \$4,000,000.

*Approved by the Board of Trustees
February 21, 2020*

A handwritten signature in black ink, appearing to read 'T. O. Pickerill II', with a long horizontal flourish extending to the right.

T. O. Pickerill II
Secretary to the Board of Trustees

Executive Summary
for the
South Chiller Plant Conversion Phase 2
February 20, 2020

As part of the Campus utility master Plan, Miami University recently converted the South Chiller Plant to simultaneous heating and cooling. Several buildings were converted to accept heating-hot water and chilled water as part of Phase 1. The second phase of this project will address the remaining buildings in this region of campus. This project is a key step in the Utility Master Plan to meet strategic energy reduction and campus sustainability goals of decommissioning the coal-fired steam systems by 2026.

This project includes further conveyance of hot water and chilled water piping in an existing tunnel and direct buried piping from Phase 1 north to Spring Street. This infrastructure improvement is the next step in creating a redundant loop to the central quadrangle of campus and supports future building sites in the newly created Health District.

The Campus Avenue Building will be connected to hot water and chilled water piping and its mechanical equipment will be converted to accept this form of heating and cooling. Currently, the Campus Avenue Building is cooled by a large roof-top chiller that is past its useful life and has been unreliable. Converting the building to central simultaneous heating and cooling will improve the energy efficiency, reduce the carbon footprint, and improve the reliability of service. The project is also currently budgeted to convert Hanna House to simultaneous heating and cooling. The engineering team will evaluate the life cycle cost of this work and determine if an appropriate return on investment exists as part of the design effort.

| <u>Project component:</u> | <u>Budget:</u> | <u>Funding Source:</u> |
|---------------------------------|------------------|------------------------|
| Est. Design and Administration: | \$350,000 | Local Funding |
| Est. Cost of Work: | \$3,200,000 | Local Funding |
| Est. Owner's Costs: | \$140,000 | Local Funding |
| Est. Contingency: | <u>\$310,000</u> | Local Funding |
| Est. Total: | \$ 4,000,000 | |



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Finance and Audit
February 21, 2020

RESOLUTION R2020-35

WHEREAS, Miami University's Strategic Plan has identified the need to expand and enhance health sciences program offerings; and

WHEREAS, the University continues to experience strong demand for the nursing program on the Hamilton Campus, where the Department has just celebrated its 50th year; and

WHEREAS, the renovation of University Hall will provide state-of-the-art educational and laboratory spaces for nursing students on the Hamilton Campus that will align with those in the new Clinical Health Sciences facility being constructed on the Oxford Campus; and

WHEREAS, Miami University has determined that reduced costs, speed of implementation, and coordination may be gained by using the Design-Build project delivery method; and

WHEREAS, Miami University has identified funds in the amount of \$10,000,000 for the University Hall Renovation project; and

WHEREAS, the receipt of Guaranteed Maximum Price (GMP) for the University Hall Renovation is planned for February 2020;

NOW, THEREFORE, BE IT RESOLVED: that the Board of Trustees authorizes the Senior Vice President for Finance and Business Services and Treasurer, to proceed with signing of the GMP for the University Hall Renovation with a budget not to exceed \$10,000,000.

*Approved by the Board of Trustees
February 21, 2020*

A handwritten signature in black ink, appearing to read 'T. O. Pickerill II', with a long horizontal flourish extending to the right.

T. O. Pickerill II
Secretary to the Board of Trustees

Executive Summary
for the
University Hall
February 20, 2020

Miami University's Nursing Department is centered on the Hamilton Campus. The program is 50 years old and has recently consolidated its regional presence in Hamilton and simultaneously expanded to the Oxford Campus. This project will bring the regional location up-to-date and more closely aligned with the facility being designed on the Oxford campus.

This project will renovate University Hall to provide students and faculty a state-of-the-art educational facility with high fidelity simulation and skills laboratory spaces, flexible and technologically-integrated classrooms and study spaces, as well as the necessary administrative and faculty spaces needed to support the program now and into the future.

The renovation of University Hall will focus on three primary priorities, building infrastructure upgrades and deferred maintenance, interior renovations and improvements, and exterior enhancement. This two-phased project is planned to begin in May 2020 and complete in February 2021.

| <u>Project component:</u> | <u>Budget:</u> | <u>Funding Source:</u> |
|---------------------------------|-------------------|------------------------|
| Est. Design and Administration: | \$ 600,000 | Local Funding |
| Est. Cost of Work: | \$ 7,900,000 | Local Funding |
| Est. Owner's Costs: | \$ 800,000 | Local Funding |
| Est. Contingency: | <u>\$ 700,000</u> | Local Funding |
| Est. Total: | \$ 10,000,000 | |



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Approved by the Board of Trustees, February 21, 2020

T. O. Pickerill II
Secretary to the Board of Trustees

Finance and Audit
February 20, 2021

SERIES RESOLUTION R-2020-36

PROVIDING FOR THE AUTHORIZATION, ISSUANCE AND SALE OF NOT TO EXCEED \$125,000,000 OF GENERAL RECEIPTS REVENUE BONDS, SERIES 2020, OF MIAMI UNIVERSITY, APPROVING A SUPPLEMENTAL TRUST AGREEMENT AND AUTHORIZING THE FISCAL OFFICER TO TAKE CERTAIN ACTIONS.

WHEREAS, Resolution 2004-8 adopted by this Board on September 26, 2003 (the “General Bond Resolution”), and the Amended and Restated Trust Agreement dated as of October 1, 2003, as amended (the “Trust Agreement”), by and between the University and The Bank of New York Mellon Trust Company, N.A., as trustee (the “Trustee”) provide for the issuance from time to time of Bonds of the University, with each issuance to be authorized by a Series Resolution adopted by the Board; and

WHEREAS, the General Bond Resolution was adopted and the Trust Agreement was authorized by the Board pursuant to the Act which authorizes the University to issue its Bonds to pay costs of certain capital facilities, defined as “auxiliary facilities,” “education facilities” and “housing and dining facilities” in Section 3345.12 of the Revised Code and collectively called “University Facilities” in the General Bond Resolution and in this Resolution; and

WHEREAS, the University has determined, and hereby confirms, that it is necessary and appropriate to issue its General Receipts Revenue Bonds to fund (i) the renovation and construction of academic facilities, including, but not limited to, Bachelor Hall and Upham Hall which are located on the Oxford campus; (ii) the acquisition, construction, equipping and/or furnishing of a new health sciences building and a new digital innovation multidisciplinary building at the Oxford campus; (iii) other eligible capital projects approved by the Board; and (iv) payment of a portion of the costs associated with such issuance (the above-listed projects are collectively referred to as the “Series 2020 University Facilities Project” or “Project”); and

WHEREAS, for the above purposes, the University has determined to issue not to exceed \$125,000,000 in aggregate principal amount of General Receipts Revenue Bonds (the “Series 2020 Bonds”) to pay a portion of the costs of the Project, including the reimbursement to the University of moneys advanced to finance the cost of University Facilities in anticipation of being reimbursed from the proceeds of such Series 2020 Bonds; and

WHEREAS, the Board anticipates that it will authorize the issuance of the University’s refunding bonds (the “General Receipts Revenue Refunding Bonds”) to refund all or a portion of its outstanding Bonds; and

WHEREAS, the Board hereby determines that it is in the best interest of the University to provide for maximum flexibility in structuring the Series 2020 Bonds to achieve maximum cost savings, and therefore, has provided that certain terms of the Series 2020 Bonds, including combining all or a portion of the Series 2020 Bonds with all or a portion of the General Receipts

Revenue Refunding Bonds, shall be determined in the Certificate of Award authorized pursuant to Section 5 hereof (the “Certificate of Award”);

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF MIAMI UNIVERSITY, as follows:

Section 1. Definitions and Interpretations. Where used in this Resolution, in the Supplemental Trust Agreement authorized hereby and in the Certificate of Award, and in addition to words and terms defined elsewhere in this Resolution (including its preambles), the Supplemental Trust Agreement authorized hereby, the General Bond Resolution or the Trust Agreement, the following terms shall have the following meanings:

“*Act*” means Sections 3345.11 and 3345.12 of the Ohio Revised Code.

“*Annual Bond Service Charge*” for any Fiscal Year (as defined in the Trust Agreement) means, in connection with the Series 2020 Bonds, an amount equal to the scheduled principal and interest due on the Series 2020 Bonds in that Fiscal Year.

“*Bond Counsel*” means Dinsmore & Shohl LLP or such other firm of nationally recognized experts on the issuance of state and local obligations designated as such by the Fiscal Officer.

“*Bond Purchase Agreement*” means the Bond Purchase Agreement between the Original Purchaser and the University to be dated as of its date of execution.

“*Bond Year*” means the annual period relevant to the application of Section 148 of the Code to the Series 2020 Bonds.

“*Certificate of Award*” means the Certificate of Award authorized by Section 5 hereof.

“*Code*” means the Internal Revenue Code of 1986, as amended, the regulations (whether proposed, temporary or final) under that Code or the statutory predecessor of that Code, and any amendments of, or successor provisions to, the foregoing and any official rulings, announcements, notices, procedures and judicial determinations regarding any of the foregoing, all as and to the extent applicable. Unless otherwise indicated, reference to a section of the Code includes that section and such applicable regulations, rulings, announcements, notices, procedures and determinations pertinent to that section.

“*Debt Service*” means principal of and interest and any redemption premium on the Series 2020 Bonds.

“*Delivery Date*” means the date on which the Series 2020 Bonds are delivered to the Original Purchaser in exchange for payment.

“*Fiscal Officer*” means the Senior Vice President for Finance and Business Services and Treasurer of Miami University.

“*General Counsel*” means the chief legal officer of the University.

“Interest Payment Dates” means the first day of March and September in each year, commencing September 1, 2020 or such other date as may be provided in the Certificate of Award.

“Issuance Date” means the date of physical delivery of the Series 2020 Bonds by the University or the date of the “fast closing” in exchange for the purchase price of the Series 2020 Bonds.

“Letter of Instructions” means a letter addressed to the Trustee dated the Issuance Date and signed by the Fiscal Officer.

“Original Purchaser” means the investment banking firm selected by the Fiscal Officer.

“Proceeds” means any Original Proceeds from the sale of the Series 2020 Bonds and any Transferred Proceeds, as defined in Regulations 1.148-8(d)(2).

“Securities Depository” means initially The Depository Trust Company (a limited purpose trust company), New York, New York.

“Series 2020 Bonds” means the series of General Receipts Revenue Bonds authorized by this Resolution and issued pursuant to this Resolution, the General Bond Resolution, the Trust Agreement and the Certificate of Award.

“Series 2020 University Facilities Project” or *“Project”* means the University has determined, and hereby confirms, that it is necessary and appropriate to issue its General Receipts Bonds to fund (i) renovation and construction of housing facilities, dining facilities and other auxiliary buildings and related improvements including, but not limited to, Bachelor Hall and Upham Hall which are located on the Oxford campus; (ii) the acquisition, construction, equipping and/or furnishing of a new health sciences building and a new digital innovation multidisciplinary building at the Oxford campus; (iii) other eligible capital projects approved by the Board; and (iv) payment of a portion of the costs associated with such issuance.

“Series 2020 Resolution” or *“Resolution”* means this Resolution authorizing the issuance and sale of the Series 2020 Bonds.

“Special Record Date” means the date established by the Trustee in connection with the payment of any overdue interest on any Bond pursuant to Section 4(e)(ii) of this Resolution.

“Supplemental Trust Agreement” means the Supplemental Trust Agreement between the University and the Trustee, authorized pursuant to Section 7.01 of the Trust Agreement and this Resolution.

“Tax Certificates” means, collectively, the Certificate Regarding Issuance, Use of Proceeds and Arbitrage Compliance of the University to Bond Counsel and the Trustee and the Certificate Under Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended, of the University.

“Trustee” means The Bank of New York Mellon Trust Company, N.A., as successor to J.P. Morgan Trust Company, National Association as trustee under the Trust Agreement.

“2020 University Facilities Costs of Issuance Fund” or “2020 Costs of Issuance Fund” means the fund established and held by the University used to pay certain costs related to the issuance of obligations for the Project that constitute “costs of facilities” as defined in the Act.

“2020 University Facilities Project Fund” or “2020 Project Fund” means the fund established and held by the University used to pay costs of the Project that constitute “costs of facilities” as defined in the Act.

Unless the context shall otherwise indicate, words importing the singular number shall include the plural number, and vice versa, and the terms “hereof,” “herein,” “hereby,” “hereto,” “hereunder,” and similar terms, mean this Resolution and the Supplemental Trust Agreement. References to sections, unless otherwise stated, are to sections of this Resolution.

Section 2. Authority. This Resolution is adopted pursuant to the General Bond Resolution, the Trust Agreement and the Act.

Section 3. Authorization, Designation and Purpose of Series 2020 Bonds. It is hereby declared to be necessary to, and the University shall, issue, sell and deliver, as provided and authorized by this Resolution, General Receipts Bonds of the University, which shall be designated “Miami University General Receipts Revenue Bonds, Series 2020” (or such other designation set forth in the Certificate of Award) in the maximum original aggregate principal amount of not to exceed \$125,000,000 (the actual original aggregate principal amount to be as provided by the Certificate of Award), for the purpose of paying a portion of the costs of the University Facilities that comprise the Series 2020 University Facilities Project and paying a portion of the costs associated with the issuance. For that purpose, the proceeds from the sale of the Series 2020 Bonds shall be allocated and deposited as provided in Section 6 of this Resolution.

Section 4. Terms and Provisions Applicable to the Series 2020 Bonds.

(a) **Form and Numbering.** The Series 2020 Bonds shall be issued, unless otherwise subsequently provided in the Supplemental Trust Agreement entered into pursuant to the Trust Agreement, only in the form of fully registered Bonds, substantially in the form set forth in Exhibit A to the Supplemental Trust Agreement with such changes as may be necessary to reflect the terms of the Series 2020 Bonds set forth in the Certificate of Award. The Series 2020 Bonds shall be fully registered and numbered as determined by the Fiscal Officer in such manner as to distinguish each Series 2020 Bond from each other Series 2020 Bond.

The Series 2020 Bonds shall be initially issued only to a Securities Depository to be held in a book entry system and: (i) the Series 2020 Bonds shall be registered in the name of the Securities Depository or its nominee, as registered owner, and immobilized in the custody of the Securities Depository; and (ii) the Series 2020 Bonds as such shall be transferable or exchangeable in accordance with Section 2.06 of the Trust Agreement, provided, however that so long as a book entry system is used for the Series 2020 Bonds, they may only be transferred to another Securities Depository or to another nominee of a Securities Depository without further action by the University pursuant to subparagraph (e)(iii) of this Section. Notwithstanding Section 2.06 of the Trust Agreement, the University may, and may require the Trustee to, transfer the Series 2020 Bonds from one Securities Depository to another Securities Depository at any time.

(b) Terms.

(i) Denomination and Dates. The Series 2020 Bonds shall be issued in the denomination of \$5,000 and any integral multiple of \$5,000, and shall be dated as of the Delivery Date or such other date as may be provided in the Certificate of Award. Each Series 2020 Bond shall have only one principal maturity date, except for interim certificates or receipts which may be issued pending preparation of definitive Bonds.

(ii) Interest. The Series 2020 Bonds shall bear interest from the later of (i) their date or (ii) the most recent date to which interest has been paid or provided for, payable on the Interest Payment Dates at the respective rates per annum set forth in the Certificate of Award.

(iii) Maturities. The Series 2020 Bonds shall mature on March 1 and/or September 1 in the years and in the principal amounts as provided in the Certificate of Award, with the initial maturity and final maturity as set forth in section (c) below.

(iv) Prior Redemption.

(A) The Series 2020 Bonds may be subject to redemption at the option of the University prior to their stated maturities on the redemption dates and at the redemption prices specified in the Certificate of Award. The Fiscal Officer may determine in the Certificate of Award that some or all of the Series 2020 Bonds are not to be callable prior to stated maturity. The Fiscal Officer further may determine in the Certificate of Award that a premium shall be payable to the bondholder upon early redemption of a Series 2020 Bond and that such premium may be calculated in a manner to make the bondholder whole for the loss of the investment or may be calculated as a percentage of the principal amount to be redeemed.

(B) The Series 2020 Bonds of one or more maturities may be subject to mandatory redemption pursuant to Mandatory Sinking Fund Requirements by the University at a redemption price equal to 100% of the principal amount redeemed, plus accrued interest to the date of redemption, on September 1 in the years and in the principal amounts provided in the Certificate of Award.

(v) Construction Period. Due to the complexity of the Series 2020 University Facilities Project, it is reasonably expected that the Series 2020 University Facilities Project, which involves a substantial amount of construction expenditures, will take longer than three (3) years to complete. In connection therewith, the University shall obtain a certificate from a licensed architect or engineer.

(c) Maturities: Bond Service Charges. The first maturity or mandatory sinking fund payment and the final maturity of the Series 2020 Bonds shall not be later than the dates specified in the Certificate of Award. Principal shall be payable in each year from the first maturity or mandatory sinking fund payment year to the final maturity year either at stated maturity or pursuant to Mandatory Sinking Fund Requirements. The weighted net interest cost on the Series 2020

Bonds shall not exceed 5% per annum. Annual Bond Service Charges on all the Series 2020 Bonds shall be in accordance with the Certificate of Award.

(d) Redemption Prior to Maturity.

(i) If fewer than all of the outstanding Series 2020 Bonds are called for optional redemption at one time, the Series 2020 Bonds to be called shall be designated by the Fiscal Officer in his sole discretion and in any manner the Fiscal Officer determines, without regard to the order of their maturities or their interest rates. If fewer than all of the outstanding Series 2020 Bonds of one maturity and interest rate are to be called for redemption, the selection of the Series 2020 Bonds, or portions of those Series 2020 Bonds (in integral multiples of \$5,000), of that maturity to be called for redemption shall be made in the manner provided in the Supplemental Trust Agreement. If optional redemption of any Series 2020 Bonds at a redemption price above 100% of the principal amount to be redeemed is to take place on any applicable mandatory sinking fund redemption date, the selection of the Series 2020 Bonds to be optionally redeemed shall be selected prior to the selection of the Series 2020 Bonds to be redeemed by mandatory sinking fund redemption.

(ii) Notice of call for redemption of Series 2020 Bonds, setting forth the information provided for in Section 3.03 of the Trust Agreement, shall be given by the Trustee on behalf of the University. Failure to receive notice by mailing, or any defect in that notice, as to any Series 2020 Bond shall not affect the validity of the proceedings for the redemption of any other Series 2020 Bond.

(e) Places and Manner of Payment and Paying Agents.

(i) The principal of and any redemption premium on Series 2020 Bonds shall be payable when due only to the registered owners, upon presentation and surrender of the Series 2020 Bonds at the principal corporate trust office of the Trustee.

(ii) Interest on any Series 2020 Bond due on each Interest Payment Date shall be payable by check or draft which the Trustee shall cause to be mailed on the Interest Payment Date to the person who is the registered owner of the Bond (or one or more predecessor Bonds) at the close of business on the Regular Record Date applicable to that Interest Payment Date, at the address then appearing on the Register. If and to any extent, however, that the University shall make neither payment nor provision for payment of interest on any Series 2020 Bond on any Interest Payment Date, that interest shall cease to be payable to the person who was the registered owner of that Bond (or of one or more predecessor Bonds) as of the applicable Regular Record Date; when moneys become available for payment of that interest the Trustee shall, subject to Section 2.05 of the Trust Agreement, establish a Special Record Date for the payment of that interest which shall be not more than 15 or fewer than 10 days prior to the date of the proposed payment, and the Trustee shall cause notice of the proposed payment and of the Special Record Date to be mailed to the person who is the registered owner of that Bond on a date not fewer than 10 days prior to the Special Record Date, at the address as then appears on the Register, and thereafter that interest shall be payable to the person who is the registered owner of that Bond (or a predecessor Bond) at the close of business on the Special Record Date.

(iii) Notwithstanding any other provision of this Resolution or any provision of the General Bond Resolution, the Trust Agreement, the Supplemental Trust Agreement or any Series 2020 Bond to the contrary, with the written approval of the University, the Trustee may enter into an agreement with a Securities Depository, or the nominee of a Securities Depository that is the registered owner of a Series 2020 Bond in the custody of that Securities Depository providing for making all payments to that registered owner of principal of and interest and any premium on that Series 2020 Bond or any portion of that Series 2020 Bond (other than any payment of its entire unpaid principal amount) at a place and in a manner (including wire transfer of federal funds) other than as provided above in this Resolution, without prior presentation or surrender of the Series 2020 Bond, upon any conditions which shall be satisfactory to the Trustee and the University. That payment in any event shall be made to the person who is the registered owner of that Series 2020 Bond on the date that principal and premium is due, or, with respect to the payment of interest, as of the applicable Regular Record Date or Special Record Date or other date agreed upon, as the case may be. The Trustee will furnish a copy of each of those agreements, certified to be correct by an officer of the Trustee, to other authenticating agents and paying agents for Series 2020 Bonds, if any, and to the University. Any payment of principal, premium, or interest pursuant to such an agreement shall constitute payment thereof pursuant to, and for all purposes of, this Resolution and the Supplemental Trust Agreement.

(iv) Alternate Paying Agents may be designated in the Certificate of Award by the Fiscal Officer.

(f) Execution and Authentication. The Series 2020 Bonds shall be executed and authenticated in the manner provided in the Trust Agreement. Alternate Authenticating Agents may be designated by the Fiscal Officer in the Certificate of Award.

(g) Multiple Series; Combine with General Receipts Revenue Refunding Bonds. The Series 2020 Bonds may be issued in one or more series as approved by the Fiscal Officer and all or a portion of the Series 2020 Bonds may be combined with and issued as part of the same series of Bonds authorized by a separate Series Resolution, including, but not limited to the General Receipts Revenue Refunding Bonds.

Section 5. Sale of Series 2020 Bonds.

(a) General. The Fiscal Officer is authorized to determine:

- (i) that the Series 2020 Bonds shall be issued;
- (ii) the Principal Amount of Series 2020 Bonds to be issued provided that the aggregate amount of Series 2020 Bonds shall not to exceed \$125,000,000;
- (iii) the interest rates on the Series 2020 Bonds;
- (iv) the amount of any original issue discount and/or premium on the Series 2020 Bonds;
- (v) the maturities of the Series 2020 Bonds, as limited by Section 4(c) herein;

(vi) the optional and mandatory redemption dates, if any, and redemption prices for the Series 2020 Bonds; and

(vii) the purchase price for the Series 2020 Bonds.

The Series 2020 Bonds shall be sold by the Fiscal Officer to the Original Purchaser on such terms not inconsistent with this Resolution as are provided in the Certificate of Award and the Bond Purchase Agreement.

The Fiscal Officer is authorized and directed to execute the Certificate of Award and the Bond Purchase Agreement, in order to provide for the definitive terms and terms of sale of the Series 2020 Bonds as provided in this Resolution, and to award and provide for sale of the Series 2020 Bonds to the Original Purchaser. The Bond Purchase Agreement shall not be materially adverse to the University as shall be approved by the Fiscal Officer, his execution of the Bond Purchase Agreement to constitute conclusive approval of any such changes on behalf of the University. The Certificate of Award shall be incorporated in and form a part of the Supplemental Trust Agreement.

(b) Official Statement. The Fiscal Officer is authorized and directed, on behalf of the University, and in his official capacity, to prepare or cause to be prepared, a preliminary official statement relating to the original issuance of the Series 2020 Bonds; to determine, and to certify or otherwise represent, when such preliminary official statement is “deemed final” for purposes of Securities and Exchange Commission Rule 15c2-12(b)(1); and to use and distribute, or authorize the use and distribution of such preliminary official statement in connection with the original issuance of the Series 2020 Bonds until an official statement is prepared. All actions previously taken by the Fiscal Officer in this regard relating to a preliminary official statement are hereby approved, ratified and confirmed.

The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to prepare or cause to be prepared an official statement, and any necessary supplements thereto, relating to the original issuance of the Series 2020 Bonds; to determine, and to certify or otherwise represent, when such official statement is a final official statement for purposes of Securities and Exchange Commission Rule 15c2-12(b)(3) and (4); to use and distribute, or authorize the use and distribution of such official statement, and any supplements thereto, in connection with the sale of the Series 2020 Bonds; and to sign and deliver the official statement.

The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to sign and deliver such certificates in connection with the accuracy of the preliminary official and the final official statements and any supplements thereto as may, in his judgment, be necessary or appropriate.

(c) Further Authorization. The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to sign and deliver on the Issuance Date, such other certificates, agreements and documents as may be reasonably necessary in the opinion of Bond Counsel to complete the sale of the Series 2020 Bonds. The General Counsel in her official

capacity is hereby authorized and directed to sign and deliver on the Issuance Date a legal opinion in form and substance acceptable to Bond Counsel.

Section 6. Allocation of Proceeds of Series 2020 Bonds.

(a) Allocation. All of the proceeds from the sale of the Series 2020 Bonds shall be received and receipted for by the Fiscal Officer or by his authorized representative for that purpose, and shall be allocated, deposited and credited as follows:

(i) To the Bond Service Account in the Bond Service Fund, any portion of the proceeds representing accrued or capitalized interest, if any;

(ii) To the 2020 Costs of Issuance Fund an amount, to be determined by the Fiscal Officer, to pay the costs of issuance of the Series 2020 Bonds; and

(iii) To the 2020 Project Fund, hereby established, the balance of the proceeds, to be applied to pay costs of the 2020 University Facilities Project as determined by the Fiscal Officer and as described in the preambles.

(b) 2020 Project Fund.

(i) The 2020 Project Fund shall be held by the University in a separate deposit account or accounts (except when invested as provided below) set up in a bank or banks that are members of the Federal Deposit Insurance Corporation, and used to pay costs of the Series 2020 University Facilities Project that constitute “costs of facilities” as defined in the Act (the “Project Costs”).

(ii) The Fiscal Officer shall apply the 2020 Project Fund pursuant to the provisions of this Section 6 to the payment of the Project Costs, including, without limitation, the reimbursement of the University for moneys heretofore advanced to pay Project Costs in anticipation of the issuance of the Series 2020 Bonds.

(iii) Moneys to the credit of the 2020 Project Fund, pending their application as above set forth, shall be subject to a lien and charge in favor of the holders of the Series 2020 Bonds, and the University covenants that it will not cause or permit to be paid from the 2020 Project Fund any moneys except in compliance with the provisions of this Resolution, the Trust Agreement and the Supplemental Trust Agreement.

(iv) Moneys on deposit in the 2020 Project Fund may be invested by or at the direction of the Fiscal Officer in Eligible Investments (as defined in the Supplemental Trust Agreement) maturing or redeemable at the option of the holder prior to the time needed for the purposes thereof. The investments and the proceeds of their sale shall constitute part of the 2020 Project Fund, and earnings from any of those investments shall be credited to the 2020 Project Fund. The investments may be sold, exchanged or collected from time to time by or at the direction of the Fiscal Officer.

(v) Any balance remaining in the 2020 Project Fund after the Fiscal Officer has certified to the Trustee that payment of Project Costs has been accomplished or provided

for to the satisfaction of the University shall be deposited in the Bond Service Account and used for payment of principal on the Series 2020 Bonds, or expended for costs of University Facilities with the approval of the Board if that payment or expenditure shall not, in the opinion of Bond Counsel to the University, adversely affect the exclusion of interest on the Series 2020 Bonds from gross income for federal income tax purposes.

(c) 2020 Costs of Issuance Fund.

(i) The 2020 Costs of Issuance Fund shall be held by the University in a separate deposit account or accounts set up in a bank or banks that are members of the Federal Deposit Insurance Corporation, and used to pay costs of issuance of the Series 2020 Bonds that constitute “costs of facilities” as defined in the Act (the “Costs of Issuance”).

(ii) The Fiscal Officer shall apply the 2020 Costs of Issuance Fund pursuant to the provisions of this Section 6 to the payment of the Costs of Issuance, including, without limitation, the reimbursement of the University for moneys heretofore advanced to pay Costs of Issuance in anticipation of the issuance of the Series 2020 Bonds.

(iii) Moneys to the credit of the 2020 Costs of Issuance Fund, pending their application as above set forth, shall be subject to a lien and charge in favor of the holders of the Series 2020 Bonds, and the University covenants that it will not cause or permit to be paid from the 2020 Costs of Issuance Fund any moneys except in compliance with the provisions of this Resolution, the Trust Agreement and the Supplemental Trust Agreement.

(iv) Moneys on deposit in the 2020 Costs of Issuance Fund may be invested by or at the direction of the Fiscal Officer in Eligible Investments (as defined in the Supplemental Trust Agreement) maturing or redeemable at the option of the holder prior to the time needed for the purposes thereof. The investments and the proceeds of their sale shall constitute part of the 2020 Costs of Issuance Fund, and earnings from any of those investments shall be credited to the 2020 Costs of Issuance Fund. The investments may be sold, exchanged or collected from time to time by or at the direction of the Fiscal Officer.

(v) Any balance remaining in the 2020 Costs of Issuance Fund after the Fiscal Officer has certified to the Trustee that payment of Costs of Issuance has been accomplished or provided for to the satisfaction of the University shall be deposited in the Bond Service Account and used for payment of principal on the Series 2020 Bonds, or expended for costs of University Facilities with the approval of the Board if that payment or expenditure shall not, in the opinion of Bond Counsel to the University, adversely affect the exclusion of interest on the Series 2020 Bonds from gross income for federal income tax purposes.

Section 7. Tax Covenants; Rebate Fund. This Board hereby finds and determines that all proceeds from the sale of the Series 2020 Bonds will be needed for the purposes set forth in Section 6 hereof.

(a) This Board hereby covenants for and on behalf of the University, that it will restrict the use of the proceeds of the Series 2020 Bonds in such manner and to such extent, if any, and

take such other actions as may be necessary, in view of reasonable expectations at the time of issuance of the Series 2020 Bonds, so that the Series 2020 Bonds will not constitute obligations the interest on which is subject to federal income taxation or “arbitrage bonds” under Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended (the “Code”), and regulations prescribed under such Sections, provided that, at the discretion of the Fiscal Officer, the University may issue Series 2020 Bonds which are subject to federal income taxation. However, if the Series 2020 Bonds are designated as some type of tax-advantaged bond on which the interest is excludable from gross income for federal income tax purposes (“Tax-Advantaged Bonds”), the Board will take, or cause to be taken, all activities required to maintain the status of said Series 2020 Bonds as Tax-Advantaged Bonds, and will not take, or permit to be taken, any actions which would jeopardize the status of the Series 2020 Bonds as Tax-Advantaged Bonds. The Fiscal Officer or any other officer of the University having responsibility with respect to issuance of the Series 2020 Bonds is hereby authorized and directed to give an appropriate certificate for inclusion in the transcript of proceedings with respect to the Series 2020 Bonds, setting forth the facts, estimates and reasonable expectations pertinent under said Sections 103(b)(2) and 148 of the Code and regulations prescribed under such Sections.

(b) Rebate Fund. There is hereby created the Series 2020 Bonds Rebate Fund (the Rebate Fund), to be in the custody of the Trustee, which shall be continuously invested in Eligible Investments by the Trustee at the oral direction (confirmed in writing) of the Fiscal Officer. The Rebate Fund shall be held, administered and disposed of in accordance with the provisions of the Supplemental Trust Agreement and/or the Tax Certificates. Amounts credited to the Rebate Fund are not General Receipts and shall be free and clear of any lien under the Supplemental Trust Agreement or under the Trust Agreement.

Section 8. Credit Enhancement; Other Agreements. If he determines it to be in the best interest of the University in order to achieve maximum cost savings on the Series 2020 Bonds, the Fiscal Officer may obtain credit enhancement for all or any portion of the Series 2020 Bonds.

The Fiscal Officer is authorized to enter into such agreements and to make such changes to the Supplemental Trust Agreement and the Series 2020 Bond form as may be required in connection with such credit enhancement. The Fiscal Officer is further authorized to enter into such agreements and execute such certificates as may be required in connection with the issuance, sale and delivery of the Series 2020 Bonds.

Section 9. Supplemental Trust Agreement. The Chairman of the Board or the President of the University, and the Fiscal Officer, or any one or more of them, are authorized and directed to execute and deliver to the Trustee, in the name of and on behalf of the University, and the Secretary to the Board is authorized and directed to attest, a Supplemental Trust Agreement pursuant to the Trust Agreement and in connection with the issuance of the Series 2020 Bonds.

Section 10. Open Meeting. It is found and determined that all formal actions of this Board concerning and relating to the adoption of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and of any of its committees that resulted in those formal actions were taken in meetings open to the public, in full compliance with applicable legal requirements including Section 121.22 of the Revised Code.

BOARD OF TRUSTEES OF MIAMI UNIVERSITY

By: _____
Theodore O. Pickerill
Secretary to the Board of Trustees

Adopted: _____, 2020

I attest that this is a true and accurate copy of the original resolution R-2020-_____ passed by the Miami University Board of Trustees on _____, 2020 and remains in effect.

Theodore O. Pickerill
Secretary to the Board of Trustees
_____, 2020

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Approved by the Board of Trustees, February 21, 2020

T. O. Pickerill II
Secretary to the Board of Trustees

BOARD OF TRUSTEES
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Finance and Audit
February 20, 2021

SERIES RESOLUTION R-2020-37

PROVIDING FOR OPTIONAL REDEMPTION OF THE UNIVERSITY'S GENERAL RECEIPTS REVENUE BONDS AND THE AUTHORIZATION, ISSUANCE AND SALE OF GENERAL RECEIPTS REVENUE AND REFUNDING BONDS, OF MIAMI UNIVERSITY, APPROVING A SUPPLEMENTAL TRUST AGREEMENT AND AUTHORIZING THE FISCAL OFFICER TO TAKE CERTAIN ACTIONS.

WHEREAS, Resolution 2004-8 adopted by this Board on September 26, 2003 (the "General Bond Resolution"), and the Amended and Restated Trust Agreement dated as of October 1, 2003, as amended (the "Trust Agreement"), by and between Miami University (the "University") and The Bank of New York Mellon Trust Company, N.A., as trustee (the "Trustee") provide for the issuance from time to time of General Receipts Revenue Bonds of the University (the "Bonds"), with each issuance to be authorized by a Series Resolution adopted by the Board; and

WHEREAS, the General Bond Resolution was adopted and the Trust Agreement was authorized by the Board pursuant to the Act which authorizes the University to issue its Bonds to pay costs of certain capital facilities, defined as "auxiliary facilities," "education facilities" and "housing and dining facilities" in Section 3345.12 of the Revised Code and called "University Facilities" in the General Bond Resolution and in this Resolution; and

WHEREAS, Section 3345.12 of the Revised Code also authorizes the University to issue its Bonds to refund its previously issued Bonds; and

WHEREAS, the University has determined that it may be advantageous to refund (together with other lawfully available funds of the University) all or a portion of the Bonds; and

WHEREAS, such refunding of Bonds is sometimes referred to herein as the "Refunding"; and

WHEREAS, in order to lower interest costs to the University and/or to manage and/or improve the University's cash flow and/or to react to market conditions and/or to deal with the change in status of certain outstanding Bonds with respect to their tax-exemption, the Board desires to provide for issuance and sale of the General Receipts Revenue and Refunding Bonds (the "Refunding Bonds"), the proceeds of which Refunding Bonds (exclusive of accrued interest received upon sale thereof) together with any moneys contributed by the University will be used to purchase (if necessary) United States Treasury Obligations or other obligations satisfactory to the Trustee, sufficient (without reinvestment) to refund those series and/or specific maturities or portions of maturities of the Bonds selected by the Fiscal Officer for redemption or payment, which obligations of the United States of America shall forthwith be deposited with the Trustee, in order

to effect (but only if all outstanding Bonds of a particular series are refunded and/or defeased) satisfaction, cancellation and discharge of the Supplemental Trust Agreement which secures such series of Bonds which have been refunded in their entirety and for other matters in connection therewith, by the adoption of this Resolution, to pay costs of issuance and to fund a reserve (if necessary); and

WHEREAS, the Board desires to provide for issuance and sale of additional Bonds (which shall be Refunding Bonds) and for other matters in connection therewith, by the adoption of this Resolution;

WHEREAS, the Board anticipates that it will authorize the issuance of the University's Bonds (the "General Receipts Revenue Bonds") to fund all or a portion of certain University Facilities (as defined in the Trust Agreement); and

WHEREAS, the Board hereby determines that it is in the best interest of the University to provide for maximum flexibility in structuring the Refunding Bonds to achieve maximum cost savings, and therefore, has provided that certain terms of the Refunding Bonds, including combining all or a portion of the Refunding Bonds with all or a portion of the General Receipts Revenue Bonds, shall be determined in the Certificate of Award authorized pursuant to Section 5 hereof (the "Certificate of Award");

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF MIAMI UNIVERSITY, as follows:

Section 1. Definitions and Interpretations. Where used in this Resolution, in the Supplemental Trust Agreement and in the Certificate of Award, and in addition to words and terms defined elsewhere in this Resolution (including its preambles), the Supplemental Trust Agreement, the General Bond Resolution or the Trust Agreement, the following terms shall have the following meanings:

"Act" means Sections 3345.11 and 3345.12 of the Ohio Revised Code.

"Annual Bond Service Charge" for any Fiscal Year (as defined in the Trust Agreement) means, in connection with the Refunding Bonds, an amount equal to the scheduled principal and interest due on the Refunding Bonds in that Fiscal Year.

"Bond Purchase Agreement" means the Bond Purchase Agreement or similar agreement between the Original Purchaser and the University to be dated as of its date of execution.

"Bond Counsel" means Dinsmore & Shohl LLP or such other firm of nationally recognized experts on the issuance of state and local obligations designated as such by the Fiscal Officer.

"Bond Year" means the annual period relevant to the application of Section 148 of the Code to the Refunding Bonds.

"Certificate of Award" means the Certificate of Award authorized by Section 5 hereof.

“*Code*” means the Internal Revenue Code of 1986, as amended, the regulations (whether proposed, temporary or final) under that Code or the statutory predecessor of that Code, and any amendments of, or successor provisions to, the foregoing and any official rulings, announcements, notices, procedures and judicial determinations regarding any of the foregoing, all as and to the extent applicable. Unless otherwise indicated, reference to a section of the Code includes that section and such applicable regulations, rulings, announcements, notices, procedures and determinations pertinent to that section.

“*Debt Service*” means principal of and interest and any redemption premium on the Refunding Bonds.

“*Delivery Date*” means the date on which the Refunding Bonds are delivered to the Original Purchaser in exchange for payment.

“*Escrow Deposit Agreement*” means the Escrow Deposit Agreement between the University and the Escrow Trustee authorized pursuant to this Resolution, prepared in connection with the issuance of the Refunding Bonds.

“*Escrow Trustee*” means the Trustee acting as escrow trustee under the Escrow Deposit Agreement.

“*Fiscal Officer*” means the Senior Vice President for Finance and Business Services and Treasurer of Miami University or such other official of the University designated in writing as the Fiscal Officer.

“*General Counsel*” means the chief legal officer of the University.

“*Interest Payment Dates*” means the first day of March and September in each year, commencing such date as may be provided in the Certificate of Award.

“*Issuance Date*” means the date of physical delivery of the Refunding Bonds by the University or the date of the “fast closing” in exchange for the purchase price of the Refunding Bonds.

“*Letter of Instructions*” means a letter addressed to the Trustee dated the Issuance Date and signed by the Fiscal Officer.

“*Original Purchaser*” means the investment banking firm, bank or other entity selected by the Fiscal Officer to be the initial purchaser of the Refunding Bonds.

“*Refundable Bonds*” means those series or specific maturities of series of Bonds related to be refunded by the Fiscal Officer pursuant to Section 4(a) of this Resolution.

“*Refunding Bonds*” means the series of General Receipts Revenue and Refunding Bonds authorized by this Resolution and issued pursuant to the Trust Agreement, as supplemented, this Resolution and the Certificate of Award.

“*Refunding Bonds Costs of Issuance Fund*” means the fund established by the University used to pay certain costs related to the issuance of the Refunding Bonds.

“*Securities Depository*” means initially The Depository Trust Company (a limited purpose trust company), New York, New York and thereafter any such entity to which the Trustee has no reasonable objection designated to act as a securities depository by the University.

“*Series 2020 Resolution*” or “*Resolution*” means this Resolution authorizing the issuance and sale of the Refunding Bonds.

“*Special Record Date*” means the date established by the Trustee in connection with the payment of any overdue interest on any Bond pursuant to Section 4(e)(ii) of this Resolution.

“*Supplemental Trust Agreement*” means the Supplemental Trust Agreement between the University and the Trustee, authorized pursuant to Section 7.01 of the Trust Agreement and this Resolution.

“*Tax Certificates*” means, collectively, the Certificate Regarding Issuance, Use of Proceeds and Arbitrage Compliance of the University to Bond Counsel and the Trustee and the Certificate Under Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended, of the University.

“*Trustee*” means The Bank of New York Mellon Trust Company, N.A., as successor to J.P. Morgan Trust Company, National Association as trustee under the Trust Agreement.

Unless the context shall otherwise indicate, words importing the singular number shall include the plural number, and vice versa, and the terms “hereof,” “herein,” “hereby,” “hereto,” “hereunder,” and similar terms, mean this Resolution and the Supplemental Trust Agreement. References to sections, unless otherwise stated, are to sections of this Resolution.

Section 2. Authority. This Resolution is adopted pursuant to the General Bond Resolution, the Trust Agreement and the Act.

Section 3. Authorization of Refunding and Designation and Purpose of Refunding Bonds. It is hereby declared to be necessary to cause the refunding of the Refundable Bonds prior to maturity. To that end, the University may and the University is hereby authorized to cause such redemption either by the deposit of (a) its lawfully available funds, or (b) proceeds of the Refunding Bonds. The determination of which method to use and whether to proceed with the Refunding will be made by the Fiscal Officer based on market conditions and other factors he believes are relevant. In the event the Fiscal Officer determines to use Refunding Bond proceeds to accomplish the Refunding, the University shall, issue, sell and deliver, as provided and authorized by this Resolution, General Receipts Bonds of the University, which shall be designated either “Miami University General Receipts Revenue and Refunding Bonds, with the appropriate series designation” as appropriate, in the original aggregate principal amount to be as provided by the Certificate of Award, for the purpose of refunding the Refundable Bonds and paying a portion of the costs associated with the issuance. For that purpose, the proceeds from the sale of the Refunding Bonds shall be allocated and deposited as provided in Section 6 of this Resolution.

Section 4. Terms and Provisions Applicable to the Refunding Bonds.

(a) Criteria for Issuance. The following criteria shall be used when determining to refund all or a portion of a series of the outstanding Bonds and an issue of Refunding Bonds may be issued if:

(i) (A) the net present value of refunded savings of such particular series of Refundable Bonds shall be at least three percent (3%), (B) the weighted average maturity of such particular series of the Refunding Bonds shall not be greater than 120% of the weighted average maturity of Refundable Bonds to be refunded, and (C) the maximum annual debt service based on all outstanding Bonds of the University issued under the Restated Trust Agreement does not increase as a result of the issuance of the Refunding Bonds; provided, however, it shall be at the discretion of the Fiscal Officer to make exceptions to (A), (B) and/or (C); or

(ii) when other clear advantages to the University would be realized as a result of the refunding, as determined by the Fiscal Officer.

(b) Form and Numbering. The Refunding Bonds shall be issued, unless otherwise subsequently provided in the Supplemental Trust Agreement entered into pursuant to the Trust Agreement, only in the form of fully registered Bonds, substantially in the form set forth in Exhibit A to the Supplemental Trust Agreement with such changes as may be necessary to reflect the terms of the Refunding Bonds set forth in the Certificate of Award. The Refunding Bonds shall be fully registered and numbered as determined by the Fiscal Officer in such manner as to distinguish each Refunding Bond from each other Refunding Bond.

The Refunding Bonds may be registered in the name of either the Original Purchaser or a Securities Depository to be held in a book entry system and the Refunding Bonds as such shall be transferable or exchangeable in accordance with Section 2.06 of the Trust Agreement, provided, however that so long as a book entry system is used for the Refunding Bonds, they may only be transferred to another Securities Depository or to another nominee of a Securities Depository without further action by the University pursuant to subparagraph (e)(iii) of this Section. Notwithstanding Section 2.06 of the Trust Agreement, the University may, and may require the Trustee to, transfer the Refunding Bonds from one Securities Depository to another Securities Depository at any time.

(c) Terms.

(i) Denomination and Dates. The Refunding Bonds shall be issued in such denominations as set forth in the Certificate of Award and shall be dated as of the Delivery Date or such other date as may be provided in the Certificate of Award. Each Refunding Bond shall have only one principal maturity date, except for interim certificates or receipts which may be issued pending preparation of definitive Refunding Bonds.

(ii) Interest. The Refunding Bonds shall bear interest from the later of (i) their date or (ii) the most recent date to which interest has been paid or provided for, payable on the Interest Payment Dates at the respective rates per annum set forth in the Certificate of Award.

(iii) Maturities. The Refunding Bonds shall mature on March 1 and/or September 1 in the years and in the principal amounts as provided in the Certificate of Award, with the initial maturity and final maturity as set forth in section (c) below.

(iv) Prior Redemption.

(A) The Refunding Bonds may be subject to redemption at the option of the University prior to their stated maturities on the redemption dates and at the redemption prices specified in the Certificate of Award. The Fiscal Officer may determine in the Certificate of Award that some or all of the Refunding Bonds are not to be callable prior to stated maturity. The Fiscal Officer further may determine in the Certificate of Award that a premium shall be payable to the bondholder upon early redemption of a Refunding Bond and that such premium may be calculated in a manner to make the bondholder whole for the loss of the investment or may be calculated as a percentage of the principal amount to be redeemed.

(B) The Refunding Bonds of one or more maturities may be subject to mandatory redemption pursuant to mandatory sinking fund requirements by the University at a redemption price equal to 100% of the principal amount redeemed, plus accrued interest to the date of redemption, on March 1 and/or September 1 in the years and in the principal amounts provided in the Certificate of Award.

(d) Maturities: Bond Service Charges. The first maturity or mandatory sinking fund payment and the final maturity of the Refunding Bonds shall not be later than the dates specified in the Certificate of Award. Principal shall be payable in each year from the first maturity or mandatory sinking fund payment year to the final maturity year either at stated maturity or pursuant to mandatory sinking fund requirements. The weighted net interest cost on the Refunding Bonds shall not exceed 5% per annum. Annual Bond Service Charges on all the Refunding Bonds shall be in accordance with the Certificate of Award.

(e) Redemption Prior to Maturity.

(i) If fewer than all of the outstanding Refunding Bonds are called for optional redemption at one time, the Refunding Bonds to be called shall be designated by the Fiscal Officer in his sole discretion and in any manner the Fiscal Officer determines, without regard to the order of their maturities or their interest rates. If fewer than all of the outstanding Refunding Bonds of one maturity and interest rate are to be called for redemption, the selection of the Refunding Bonds, or portions of those Refunding Bonds (in integral multiples of \$5,000), of that maturity to be called for redemption shall be made in the manner provided in the Supplemental Trust Agreement. If optional redemption of any Refunding Bonds at a redemption price above 100% of the principal amount to be redeemed is to take place on any applicable mandatory sinking fund redemption date, the selection of the Refunding Bonds to be optionally redeemed shall be selected prior to the selection of the Refunding Bonds to be redeemed by mandatory sinking fund redemption.

(ii) Notice of call for redemption of Refunding Bonds, setting forth the information provided for in Section 3.03 of the Trust Agreement, shall be given by the Trustee on behalf of the University. Failure to receive notice by mailing, or any defect in that notice, as to any Refunding Bond shall not affect the validity of the proceedings for the redemption of any other Refunding Bond.

(f) Places and Manner of Payment and Paying Agents.

(i) The principal of and any redemption premium on Refunding Bonds shall be payable when due only to the registered owners, upon presentation and surrender of the Refunding Bonds at the principal corporate trust office of the Trustee, unless provided otherwise in the Supplemental Trust Agreement.

(ii) Interest on any Refunding Bond due on each Interest Payment Date shall be payable by check or draft which the Trustee shall cause to be mailed on the Interest Payment Date to the person who is the registered owner of the Bond (or one or more predecessor Bonds) at the close of business on the Regular Record Date applicable to that Interest Payment Date, at the address then appearing on the Register. If and to any extent, however, that the University shall make neither payment nor provision for payment of interest on any Refunding Bond on any Interest Payment Date, that interest shall cease to be payable to the person who was the registered owner of that Bond (or of one or more predecessor Bonds) as of the applicable Regular Record Date; when moneys become available for payment of that interest the Trustee shall, subject to Section 2.05 of the Trust Agreement, establish a Special Record Date for the payment of that interest which shall be not more than 15 or fewer than 10 days prior to the date of the proposed payment, and the Trustee shall cause notice of the proposed payment and of the Special Record Date to be mailed to the person who is the registered owner of that Bond on a date not fewer than 10 days prior to the Special Record Date, at the address as then appears on the Register, and thereafter that interest shall be payable to the person who is the registered owner of that Bond (or a predecessor Bond) at the close of business on the Special Record Date.

(iii) Notwithstanding any other provision of this Resolution or any provision of the General Bond Resolution, the Trust Agreement, the Supplemental Trust Agreement or any Refunding Bond to the contrary, with the written approval of the University, the Trustee may enter into an agreement with a Securities Depository, or the nominee of a Securities Depository that is the registered owner of a Refunding Bond in the custody of that Securities Depository providing for making all payments to that registered owner of principal of and interest and any premium on that Refunding Bond or any portion of that Refunding Bond (other than any payment of its entire unpaid principal amount) at a place and in a manner (including wire transfer of federal funds) other than as provided above in this Resolution, without prior presentation or surrender of the Refunding Bond, upon any conditions which shall be satisfactory to the Trustee and the University. That payment in any event shall be made to the person who is the registered owner of that Refunding Bond on the date that principal and premium is due, or, with respect to the payment of interest, as of the applicable Regular Record Date or Special Record Date or other date agreed upon, as the case may be. The Trustee will furnish a copy of each of those agreements, certified to be correct by an officer of the Trustee, to other authenticating agents and paying agents

for Refunding Bonds, if any, and to the University. Any payment of principal, premium, or interest pursuant to such an agreement shall constitute payment thereof pursuant to, and for all purposes of, this Resolution and the Supplemental Trust Agreement.

(iv) Alternate Paying Agents may be designated in the Certificate of Award by the Fiscal Officer.

(f) Execution and Authentication. The Refunding Bonds shall be executed and authenticated in the manner provided in the Trust Agreement. Alternate Authenticating Agents may be designated by the Fiscal Officer in the Certificate of Award.

(g) Multiple Series; Combine with other General Receipts Revenue Bonds. The Refunding Bonds may be issued in one or more series as approved by the Fiscal Officer and all or a portion of the Refunding Bonds may be combined with and issued as part of the same series of Bonds authorized by a separate Series Resolution including, but not limited to the General Receipts Revenue Bonds.

Section 5. Refunding; Sale of Refunding Bonds.

(a) General. The Fiscal Officer is authorized to determine:

(i) whether to proceed with the Refunding, and, if so, by a deposit of the University's lawfully available funds, the deposit of the proceeds of the Refunding Bonds, or a combination of the two;

(ii) the principal amount of Refunding Bonds to be issued;

(iii) the interest rates on the Refunding Bonds;

(iv) the amount of any original issue discount and/or premium on the Refunding Bonds;

(v) the maturities of the Refunding Bonds, including mandatory sinking fund payment amounts, as limited by Section 4(c) herein;

(vi) the optional and mandatory redemption dates, if any, and redemption prices for the Refunding Bonds; and

(vii) the purchase price for the Refunding Bonds.

The Refunding Bonds shall be sold by the Fiscal Officer to the Original Purchaser on such terms not inconsistent with this Resolution as are provided in the Certificate of Award and the Bond Purchase Agreement.

The Fiscal Officer is authorized and directed to execute the Certificate of Award and the Bond Purchase Agreement, in order to provide for the definitive terms and terms of sale of the Refunding Bonds as provided in this Resolution, and to award and provide for sale of the Refunding Bonds to the Original Purchaser. The Bond Purchase Agreement shall not be materially

adverse to the University as shall be approved by the Fiscal Officer, his execution of the Bond Purchase Agreement to constitute conclusive approval of any such changes on behalf of the University. The Certificate of Award shall be incorporated in and form a part of the Supplemental Trust Agreement.

(b) Official Statement. The Fiscal Officer is authorized and directed, on behalf of the University, and in his official capacity, to prepare or cause to be prepared, if the Fiscal Officer determines that it is necessary, a preliminary official statement relating to the original issuance of the Refunding Bonds; to determine, and to certify or otherwise represent, when such preliminary official statement is “deemed final” for purposes of Securities and Exchange Commission Rule 15c2-12(b)(1); and to use and distribute, or authorize the use and distribution of such preliminary official statement in connection with the original issuance of the Refunding Bonds until an official statement is prepared. All actions previously taken by the Fiscal Officer in this regard relating to a preliminary official statement are hereby approved, ratified and confirmed.

The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to prepare or cause to be prepared, if the Fiscal Officer determines that it is necessary, an official statement, and any necessary supplements thereto, relating to the original issuance of the Refunding Bonds; to determine, and to certify or otherwise represent, when such official statement is a final official statement for purposes of Securities and Exchange Commission Rule 15c2-12(b)(3) and (4); to use and distribute, or authorize the use and distribution of such official statement, and any supplements thereto, in connection with the sale of the Refunding Bonds; and to sign and deliver the official statement.

The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to sign and deliver such certificates in connection with the accuracy of the preliminary official and the final official statements and any supplements thereto as may, in his judgment, be necessary or appropriate.

(c) Further Authorization. The Fiscal Officer is further authorized and directed, on behalf of the University, and in his official capacity, to sign and deliver on the Issuance Date, such other certificates and documents as may be reasonably necessary in the opinion of Bond Counsel to complete the sale of the Refunding Bonds. The General Counsel in her official capacity is hereby authorized and directed to sign and deliver on the Issuance Date a legal opinion in form and substance acceptable to Bond Counsel.

Section 6. Allocation of Proceeds of Refunding Bonds.

(a) Allocation. All University funds to be used for the Refunding and the proceeds from the sale of the Refunding Bonds shall be received and receipted for by the Fiscal Officer or by his authorized representative for that purpose, and shall be allocated, deposited and credited as follows:

(i) To the Bond Service Account in the Bond Service Fund, any portion of the proceeds representing accrued interest, if any;

(ii) To the Refunding Bonds Costs of Issuance Fund an amount, to be determined by the Fiscal Officer, to pay the costs of issuance of the Refundable Bonds; and

(iii) To the appropriate account created in the Escrow Deposit Agreement (the “Refunding Account”) to be applied to the refunding of the Refunding Bonds.

(b) Refunding Bonds Costs of Issuance Fund.

(i) The Refunding Bonds Costs of Issuance Fund shall be held by the University in a separate deposit account or accounts set up in a bank or banks that are members of the Federal Deposit Insurance Corporation, and used to pay costs of issuance of the Refunding Bonds that constitute “costs of facilities” as defined in the Act (the “Costs of Issuance”).

(ii) The Fiscal Officer shall apply the Refunding Bonds Costs of Issuance Fund pursuant to the provisions of this Section 6 to the payment of the Costs of Issuance, including, without limitation, the reimbursement of the University for moneys heretofore advanced to pay Costs of Issuance in anticipation of the issuance of the Refunding Bonds.

(iii) Moneys to the credit of the Refunding Bonds Costs of Issuance Fund, pending their application as above set forth, shall be subject to a lien and charge in favor of the holders of the Refunding Bonds, and the University covenants that it will not cause or permit to be paid from the Refunding Bonds Costs of Issuance Fund any moneys except in compliance with the provisions of this Resolution, the Trust Agreement and the Supplemental Trust Agreement.

(iv) Moneys on deposit in the Refunding Bonds Costs of Issuance Fund may be invested by or at the direction of the Fiscal Officer in Eligible Investments (as defined in the Supplemental Trust Agreement) maturing or redeemable at the option of the holder prior to the time needed for the purposes thereof. The investments and the proceeds of their sale shall constitute part of the Refunding Bonds Costs of Issuance Fund, and earnings from any of those investments shall be credited to the Refunding Bonds Costs of Issuance Fund. The investments may be sold, exchanged or collected from time to time by or at the direction of the Fiscal Officer.

(v) Any balance remaining in the Refunding Bonds Costs of Issuance Fund after the payment of all Costs of Issuance has been accomplished or provided for to the satisfaction of the University shall be deposited in the Bond Service Account and used for payment of interest on the Refunding Bonds.

(c) Refunding Account.

(i) The Refunding Account shall be held by the Escrow Trustee and invested and used as set forth in the Escrow Deposit Agreement.

Section 7. Tax Covenants; Rebate Fund.

(a) This Board hereby covenants for and on behalf of the University, that it will restrict the use of the proceeds of the Series 2020 Bonds in such manner and to such extent, if any, and take such other actions as may be necessary, in view of reasonable expectations at the time of issuance of the Series 2020 Bonds, so that the Series 2020 Bonds will not constitute obligations the interest on which is subject to federal income taxation or “arbitrage bonds” under Sections 103(b)(2) and 148 of the Internal Revenue Code of 1986, as amended (the “Code”), and regulations prescribed under such Sections, provided that, at the discretion of the Fiscal Officer, the University may issue Series 2020 Bonds which are subject to federal income taxation. However, if the Series 2020 Bonds are designated as some type of tax-advantaged bond on which the interest is not excludable from gross income for federal income tax purposes (“Tax-Advantaged Bonds”), the Board will take, or cause to be taken, all activities required to maintain the status of said Series 2020 Bonds as Tax-Advantaged Bonds, and will not take, or permit to be taken, any actions which would jeopardize the status of the Series 2020 Bonds as Tax-Advantaged Bonds. The Fiscal Officer or any other officer of the University having responsibility with respect to issuance of the Series 2020 Bonds is hereby authorized and directed to give an appropriate certificate for inclusion in the transcript of proceedings with respect to the Series 2020 Bonds, setting forth the facts, estimates and reasonable expectations pertinent under said Sections 103(b)(2) and 148 of the Code and regulations prescribed under such Sections.

This Board hereby finds and determines that all proceeds from the sale of the Series 2020 Bonds will be needed for the purposes set forth in Section 6 hereof. It will restrict the use of the proceeds of the Refunding Bonds in such manner and to such extent, if any, as may be necessary so that the Refunding Bonds will not constitute arbitrage bonds under Section 148 of the Code. The Fiscal Officer, or any other officer of the University having responsibility for the issuance of the Refunding Bonds, alone or in conjunction with any other officer or employee of or any consultant to the University, shall give an appropriate certificate of the University, for inclusion in the transcript of proceedings for the Refunding Bonds, setting forth the reasonable expectations of the University regarding the amount and use of all the proceeds of the Refunding Bonds, the facts, circumstances and estimates on which they are based, and other facts and circumstances relevant to the tax treatment of the interest on the Refunding Bonds.

(ii) It (a) will take or cause to be taken such actions that may be required of it for the Refunding Bonds to be and remain Tax-Exempt Bonds at the time of their delivery to the Original Purchaser, and (b) will not take or authorize to be taken any actions that would adversely affect that status under the Code, and that it, or persons acting for it, will, among other acts of compliance, (1) apply the proceeds of the Refunding Bonds to the governmental purpose of the borrowing, (2) restrict the yield on investment property acquired with those proceeds, (3) make timely rebate payments to the federal government, (4) maintain books and records and make calculations and reports, and (5) refrain from certain uses of those proceeds, all in such manner and to the extent necessary to assure such exclusion of that interest under the Code. The Fiscal Officer and other appropriate officers are authorized and directed to take any and all actions, make calculations and rebate payments to the federal government, and make or give reports and certifications, as may be appropriate to assure such exclusion of that interest.

(b) Rebate Fund. There is hereby created the Refunding Bonds Rebate Fund (the Rebate Fund), to be in the custody of the Trustee, which shall be continuously invested in Eligible

Investments by the Trustee at the oral direction (confirmed in writing) of the Fiscal Officer. The Rebate Fund shall be held, administered and disposed of in accordance with the provisions of the Supplemental Trust Agreement. Amounts credited to the Rebate Fund are not General Receipts and shall be free and clear of any lien under the Supplemental Trust Agreement or under the Trust Agreement.

Section 8. Credit Enhancement; Escrow Deposit Agreement; Other Agreements. If he determines it to be in the best interest of the University in order to achieve maximum cost savings on the Refunding Bonds, the Fiscal Officer may obtain credit enhancement for all or any portion of the Refunding Bonds.

The Fiscal Officer is authorized to enter into such agreements and to make such changes to the Supplemental Trust Agreement and the Refunding Bond form as may be required in connection with such credit enhancement. The Fiscal Officer is further authorized to enter into such agreements and execute such certificates as may be required in connection with the issuance, sale and delivery of the Refunding Bonds.

The Fiscal Officer is authorized and directed to execute and deliver to the Escrow Trustee, in the name of and on behalf of the University, an Escrow Deposit Agreement in connection with the refunding of the Refunding Bonds.

Section 9. Supplemental Trust Agreement. The Chairman of the Board or the President of the University, and the Fiscal Officer, or any one or more of them, are authorized and directed to execute and deliver to the Trustee, in the name of and on behalf of the University, and the Secretary to the Board is authorized and directed to attest, a Supplemental Trust Agreement pursuant to the Trust Agreement and in connection with the issuance of the Refunding Bonds.

Section 10. Open Meeting. It is found and determined that all formal actions of this Board concerning and relating to the adoption of this Resolution were taken in an open meeting of this Board, and that all deliberations of this Board and of any of its committees that resulted in those formal actions were taken in meetings open to the public, in full compliance with applicable legal requirements including Section 121.22 of the Revised Code.

BOARD OF TRUSTEES OF MIAMI
UNIVERSITY

By: _____
Theodore O. Pickerill
Secretary to the Board of Trustees

Adopted: _____, 2020

I attest that this is a true and accurate copy of the original resolution R-2020-_____ passed by the Miami University Board of Trustees on _____, 2020 and remains in effect.

Theodore O. Pickerill
Secretary to the Board of Trustees

_____, 2020

15886049.2



BOARD OF TRUSTEES
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Finance and Audit
February 21, 2020

Resolution R2020-38
Authorization to Seek Ohio Department of Higher Education Approval for
Bond Issue

WHEREAS, the Board of Trustees has approved the issuance of bonds for future construction projects with an estimated cost not to exceed \$125 million; and

WHEREAS, the approval of the Ohio Department of Higher Education is required prior to the issuance of new debt;

NOW, THEREFORE, BE IT RESOLVED: that the Board of Trustees hereby authorizes the Senior Vice President for Finance and Business Services and Treasurer to request approval of the Ohio Department of Higher Education to issue bonds in an amount not to exceed \$125 million; and

BE IT FURTHER RESOLVED: that, upon approval of the Ohio Department of Higher Education, the Senior Vice President for Finance and Business Services and Treasurer is hereby authorized to take all actions necessary to execute the issuance of bonds in an amount not to exceed \$125 million.

Approved by the Board of Trustees
February 21, 2020

A handwritten signature in black ink, appearing to read 'T. O. Pickerill II', with a horizontal line extending to the right.

T. O. Pickerill II
Secretary to the Board of Trustees

Approved by the Board of Trustees, February 21, 2020



Finance and Audit
 February 20, 2021

T. O. Pickerill II
 Secretary to the Board of Trustees

ORDINANCE O2020-02
Room and Board

I. 2020-2021 Cohort Tuition Promise Students and Non-Tuition Promise Students

BE IT ORDAINED: that the Board of Trustees hereby establishes the following charges to be levied and collected for students admitted under the 2020-2021 Miami Tuition Promise cohort beginning first semester of the academic year 2020-2021 and to remain in effect for four (4) years as part of the Miami Tuition Promise unless otherwise indicated;

BE IT FURTHER ORDAINED: that the Board of Trustees further establishes the following charges to be levied and collected for students who are not guaranteed rates under Miami Tuition Promise beginning with the first semester of the academic year 2020-2021 unless otherwise indicated;

| | <u>2019-20</u> | <u>2020-21</u> | <u>% change</u> |
|---|----------------|----------------|-----------------|
| A. Residence Halls (Fall/Spring, per semester per student) | | | |
| Non-Renovated Single | \$4,383 | \$4,471 | 2% |
| Non-Renovated Double | \$3,521 | \$3,591 | 2% |
| Non-Renovated Triple or Quad | \$3,461 | \$3,530 | 2% |
| Single | \$5,093 | \$5,195 | 2% |
| Double | \$4,249 | \$4,334 | 2% |
| Modified Double | \$3,807 | \$3,883 | 2% |
| Triple or Quad | \$3,570 | \$3,641 | 2% |
| Heritage Commons | \$5,272 | \$5,377 | 2% |
| B. Meal Plans (Fall/Spring, per semester per student) | | | |
| Diplomat Minimum | \$2,117 | \$2,159 | 2% |
| Diplomat Standard | \$2,674 | \$2,727 | 2% |
| Diplomat Plus | \$2,785 | \$2,841 | 2% |
| Diplomat Premium | \$3,259 | \$3,324 | 2% |
| Diplomat Premium C * | \$2,080 | \$2,080 | 0% |
| <i>*Disability Accommodations Only</i> | | | |
| C. Residential Fee (Fall/Spring, per semester per student) | | | |
| Fall and Spring Residents | \$445 | \$454 | 2% |
| D. Residence & Meal Plan Fall/Spring Increase (Common Experience per Semester) | | | |
| Non-Renovated Double + Board + Fee | \$6,640 | \$6,772 | 2% |
| Double + Board + Fee | \$7,368 | \$7,515 | 2% |

II. Previously Approved Tuition Promise Cohorts

Previously approved Room and Board rates for continuing Tuition Promise Cohorts will not be changed and will remain in effect for the originally approved four (4) years.

III. All Students, Sororities, and Refund Policies

| | <u>2019-20</u> | <u>2020-21</u> | <u>% change</u> |
|--|----------------|----------------|-----------------|
| A. Summer Housing Weekly | | | |
| Double Occupancy | \$135 | \$138 | 2% |
| Single Occupancy | \$197 | \$201 | 2% |
| B. Winter Term Housing Block Rate (24 days) | | | |
| (Available for students enrolled in class) | \$466 | \$466 | 0% |
| C. Sorority Suites (Per suite per semester) | | | |
| Less than 500 square feet | \$1,500 | \$1,500 | 0% |
| 500 to 899 square feet | \$5,926 | \$6,045 | 2% |
| 900 to 999 square feet | \$10,000 | \$10,200 | 2% |
| 1,000 to 1,099 square feet | \$11,033 | \$11,254 | 2% |
| 1,100 to 1,199 square feet | \$12,064 | \$12,305 | 2% |
| 1,200 to 1,299 square feet | \$13,589 | \$13,861 | 2% |
| 1,300 to 1,399 square feet | \$15,333 | \$15,640 | 2% |
| 1,400 to 1,499 square feet | \$16,724 | \$17,058 | 2% |

- Suites sized 500 square feet and larger include use of Hamilton Hall Multi-Purpose Meeting Room.
- Through negotiation with the Division of Student Life, sorority suite rental rates are adjusted to provide better affordability for very small chapters in suites less than 500 square feet in size.

D. Residence Halls Room Refund Policy

The refund policy for room rent and residential fee for first and second semester will be as follows:

| | | |
|-----|--|--------------------|
| (1) | Withdrawal during the first five class days of the term | 100 % of room rent |
| (2) | Withdrawal during the sixth through eighth class days of the term | 90 % of room rent |
| (3) | Withdrawal during the ninth through twentieth class days of the term | 50 % of room rent |
| (4) | Withdrawal during the twenty-first through thirtieth class days of the term | 35 % of room rent |
| (5) | Withdrawal during the thirty-first through the fortieth class days of the term | 25 % of room rent |
| (6) | Withdrawal after fortieth class day of the term | No Refund |

The refund policy for room rent for the summer terms will be as follows:

| | | |
|------|--|-------------------|
| (7) | Withdrawal during the first three class days of the term | 100% of room rent |
| (8) | Withdrawal during the fourth through eighth class days of the term | 50% of room rent |
| (9) | Withdrawal during the ninth through fifteenth class days of the term | 25% of room rent |
| (10) | Withdrawal after the fifteenth class day of the term | No Refund |

Provided further that no room rental charges will be returned upon withdrawal until thirty days have elapsed from the date of withdrawal. In the event of an emergency, the Vice President for Finance and Business Services or his designee is authorized to make exceptions to the above stated refund policy.

An advance Oxford Campus university contract confirmation deposit of \$330.00 and an admission fee of \$95.00 are charged to all incoming residential students. Generally speaking, the \$330 university contract confirmation deposit will be returned to the student after their final semester at Miami University. If the student pays the university contract confirmation deposit and fails to matriculate, or matriculates and withdraws mid-semester the deposit is forfeited.

E. Meal Plan Change and Refund Policy

Meal Plan holders are permitted to change their selected level until the first day of class during each semester. Meal plan holders may continue to add additional declining balance dollars at any time, but are not permitted to lower their plan level after the first day of class.

Unused declining balance dollars at the end of each semester roll forward to the next semester. Unused buffet meals do not carry forward. When a student moves off campus, any remaining declining balance dollars are converted to the meal plan for off campus students.

Students who withdraw from the university within the first five days of a class term receive a full credit of their current term declining balance deposit (less any used amounts), and a full credit of their buffet meals based on the percentage schedule defined in Section D (1-6) of this document.

Students who withdraw from the university after the fifth day of the term, and up to the fortieth day of the term will receive a refund of 80% of any unused declining balance dollars, and a calculated credit for unused buffet meals (if applicable), based on the same percentage schedule defined in Section D (1-6) of this document. There is no refund or credit for students who graduate or withdraw after the fortieth day of the term.

In the event of an emergency, the Vice President for Finance and Business Services or his designee is authorized to make exceptions to the above stated refund policy.

Finance And Audit
 February 21, 2020

Resolution R2020-39 Quasi-Endowment

WHEREAS, Miami University has renegotiated a lease with a wireless telecommunication infrastructure company for the use of Miami University property; and

WHEREAS, the new lease replaces monthly payments with a one-time lump sum payment of \$383,000; and

WHEREAS, the leased property consists of a portion of the land occupied and used by the Miami University Ecology Research Center (ERC); and

WHEREAS, the ERC has relied on the monthly lease payments since the original lease in 1999 to support upgrades and enhancements to the facility and to supplement its operating budget; and

WHEREAS, Resolution R2019-28 established the Miami University Quasi-Endowment Policy and the University has since cumulatively established \$48 million in new quasi-endowments; and

WHEREAS, the College of Arts and Science requests that this new lump sum lease payment be used to establish a quasi-endowment to support the ERC; and

WHEREAS, the Provost and the Senior Vice President for Finance and Business Services recommend approval of this plan;

NOW, THEREFORE BE IT RESOLVED that the Board of Trustees approves the creation of the Ecology Research Center Fund with \$383,000.00 from the lump sum lease payment with American Towers LLC; and

BE IT FURTHER ESOLVED that the annual distributions of the Ecology Research Center Fund be used for support of the ERC as determined by the Director of the ERC.

Approved by the Board of Trustees
Hgdwt { '43. '4242



T. O. Pickerill II
 Secretary to the Board of Trustees



FINANCE AND BUSINESS SERVICES
Investments & Treasury Services Office

107 Roudebush Hall
501 E High Street
Oxford, OH 45056
(513) 529-6110 office
(513) 529-6124 fax
MiamiOH.edu

To: Jason Osborne and David Creamer
From: Bruce Guiot *BG*
Subject: Ecology Research Center Quasi-endowment
Date: January 7, 2020

Since 1999, Miami University has leased a portion of its property used by the Ecology Research Center (ERC) to a wireless telecommunications infrastructure company, American Towers LLC. The ERC relies on this monthly lease revenue to support upgrades and enhancements to the facility and equipment at the site and to supplement the operating budget as needed. Recently, Miami renegotiated and extended this lease and secured a one-time lump sum payment of \$383,000.00 in lieu of monthly lease payments.

Since the ERC was dependent on the monthly lease payment, it would like to create a quasi-endowment with the lump sum. This fund will create a perpetual funding source to continue to support upgrades and enhancements to the facilities and equipment at the ERC, as well as provide supplemental resources for its operating budget as needed.

In order to provide a perpetual funding source to support the ERC, the recommendation to the Board of Trustees is to create a new quasi-endowment in the amount of \$383,000. The fund will be called the Ecology Research Center Fund and will make an annual distribution to an expendable account as determined by the Miami University Endowment Spending Policy. The expendable will be used to provide support to the ERC at the discretion of the Director of the Ecology Research Center.

Approved: _____

Jason Osborne
Jason Osborne

Date: 1-23-20

Approved: _____

David D. Creamer
David Creamer

Date: 1-7-20

Finance and Audit
February 21, 2020**Resolution R2020-40**

WHEREAS, Ohio Revised Code 3345.14 awards all rights to the University in discoveries, inventions or patents which result from research or investigation conducted on University property by any University employee acting within the scope of their employment or with funding, equipment or infrastructure provided by the University; and

WHEREAS, the Board last reviewed and amended the University's Patent Policy in in September 1983 and such policy no longer meets modern standards for the division of net patent royalties; and

WHEREAS, the University has filed a Provisional Patent based on the research of Professor Andrew Jones in Methods of Production of Psilocybin; and

WHEREAS, the University has received expressions of interest from companies interested in commercializing this research and sponsoring additional research;

NOW THEREFORE BE IT RESOLVED, the Board of Trustees:

1. Authorizes the filing of a patent application for the invention by Miami University.
2. Authorizes the Senior Vice President for Finance and Business Services to enter into such licensing and other agreements for the commercial development of the invention. Such agreements upon execution will be reported to the Board at its next regularly scheduled meeting.
3. Authorizes the Senior Vice President for Finance and Business Services to grant a first option for an exclusive royalty bearing license on such terms and conditions to be mutually agreed upon for any additional discoveries, inventions or patents that may be developed as a result of subsequent research by Professor Jones relating to the commercialization of methods of production for Psilocybin.
4. Authorizes the Senior Vice President for Finance and Business Services to enter into agreements with Professor Jones and any other named inventors for the division of net royalties, stock, research fees and other proceeds of commercialization and/or sponsored research, relating to the commercialization of methods of production for Psilocybin, upon such terms and conditions as may be mutually agreed upon.

Approved by the Board of Trustees
Hgdtwct { "43. "4242



T. O. Pickerill II
Secretary to the Board of Trustees



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Finance and Audit
 February 21, 2020

Resolution R2020-41

WHEREAS, Miami and its Department of Emerging Technology in Business and Design ranked #3 among public college and universities in the Princeton Review's 2019 list of Top Schools for Game Design; and

WHEREAS, esports (short for Electronic Sports) will soon be a \$1 billion dollar business with a global audience of over 300 million fans according to the World Economic Forum; and

WHEREAS, collegiate esports competitions are exploding in popularity across the U.S.; and

WHEREAS, Miami University has a nationally recognized esports team that won the 2017 National Association of Collegiate Esports Championship; and

WHEREAS, the University along with other universities that are presently members of the Mid-American Conference believe that forming an esports conference will further the educational purposes as well as the competitive interests and opportunities for its member universities;

NOW THEREFORE BE IT RESOLVED, the Board of Trustees authorizes:

1. The University to join E-Sports Collegiate, Inc. a non-profit corporation organized under Ohio Revised Code Chapter 1702, as an initial member.
2. The President to serve on the Board of Directors or to appoint any other University employee to serve on the Board of Directors as an Initial Appointed Director.
3. The President to take any and all other actions as may be in the best interests of the University with respect to its membership in E-Sports Collegiate, Inc.

Approved by the Board of Trustees
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T. O. Pickerill II
 Secretary to the Board of Trustees



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**BOARD OF TRUSTEES
MIAMI UNIVERSITY
Minutes of the Investment Subcommittee Meeting
February 19, 2020
Roudebush Hall, Room 104**

The meeting of the Investment Subcommittee was called to order by Investment Subcommittee Chair Mark Ridenour at 3:30 p.m., with members Trustee David Budig, and National Trustee Mark Sullivan in attendance.

In addition to the Trustees, Senior Vice President David Creamer; Associate Treasurer and Miami Foundation CFO Bruce Guiot; Tim Viezer, Director of Investments; and Ted Pickerill, Executive Assistant to the President, and Secretary to the Board of Trustees were also present. Miami's OCIO, Strategic Investment Group (SIG) was represented by Nikki Kraus, Markus Krygier, along with Richard Behler, who joined by telephone.

The representatives from SIG provided a review of asset allocation and performance. They cited several key drivers impacting performance, they include: U.S. stocks being more overvalued relative to non-U.S. stocks; the valuation dislocation of value stocks relative to growth stocks, has become more pronounced; Bond yields in the U.S. have dropped to near historic low levels; and, anticipating an end to the credit cycle, active credit managers began scaling back their credit exposure. In all, they reported a calendar year performance of 16% for Long-Term Capital Tier III investments.

They also reviewed the portfolio "stress tests" which consider several major market dislocations of the recent past, including the Great Financial Crisis, and the Tech Bubble Burst, among others.

Foundation CFO Bruce Guiot updated the Subcommittee on the Foundation's consideration of ESG (Environmental, Social, and Corporate Governance), with regard to investing. He stated he anticipates the Foundation Investment Committee will propose recommended investment policy changes at the next meeting.

Mr. Guiot next updated the Subcommittee on a proposed quasi-endowment. He explained the quasi-endowment is to support the Ecology Research Center (ERC). A cellular phone tower is located at the Center, and it is proposed that the proceeds from a recently agreed upon lump sum, long-term lease with the cellular company, be invested for the ERC's use, through the proposed quasi-endowment. The consensus of the Subcommittee was that the Board of Trustees should approve the resolution.

The proposed Quasi Endowment is included as an Attachment.

Senior Vice President Creamer then updated the Subcommittee on the changes to employee retirement plans. They stated the transition was made on January 1, 2020, and it was

reasonably well-received. To answer employee questions, and to continue to inform them of the changes, communication outreach is still in progress.

With no more business to come before the subcommittee, the meeting adjourned at 5:15 p.m.



Theodore O. Pickerill II
Secretary to the Board of Trustees

Miami University
Finance and Audit Committee
FY 2020 Forecasted Operating Results
Projections Based upon Activity through December 31, 2020

OXFORD

The projection for the Oxford General Fund, based on performance prior to adjustments through December, is a surplus of approximately \$9.8 million. Details of the specific items are highlighted below.

Revenues

The Oxford campus student fee revenues (instructional, general out-of-state, and other) are forecast to be approximately \$9.5 million below the \$348.6 million budget. Gross instructional revenue (including the out of state surcharge) is forecast to be \$8.2 million under budget. The remaining revenue variance is attributable to a decrease in retention of the Fall 2018 cohort and increases in 3rd, 4th, and 5th year graduation rates for the Fall 2014, 2015 and 2016 cohorts. Preliminary results from winter term indicate revenues are below budget after a year over year revenue decline. Summer term revenues are reported on budget pending the availability of additional registration data.

The state appropriation for the Oxford campus is estimated to be \$1.8 million over the \$64.3 million budget based on the Ohio Department of Higher Education final subsidy payment schedule. The final subsidy reflects the net impact of activity across all of the institutions in the University System of Ohio.

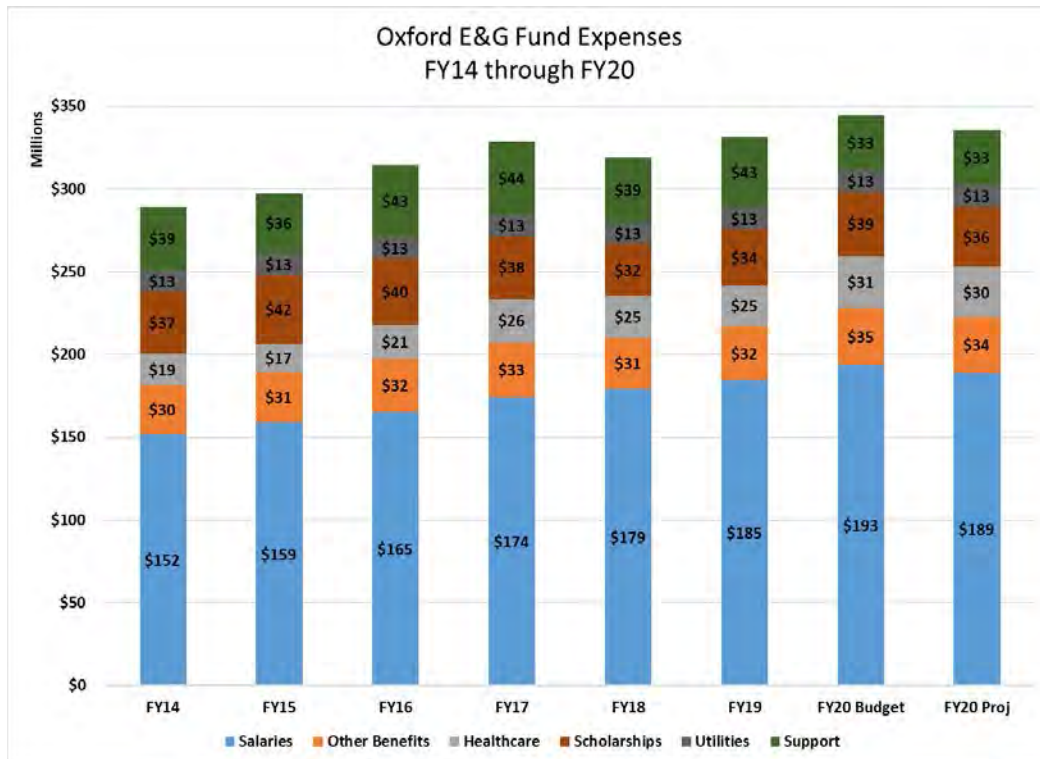
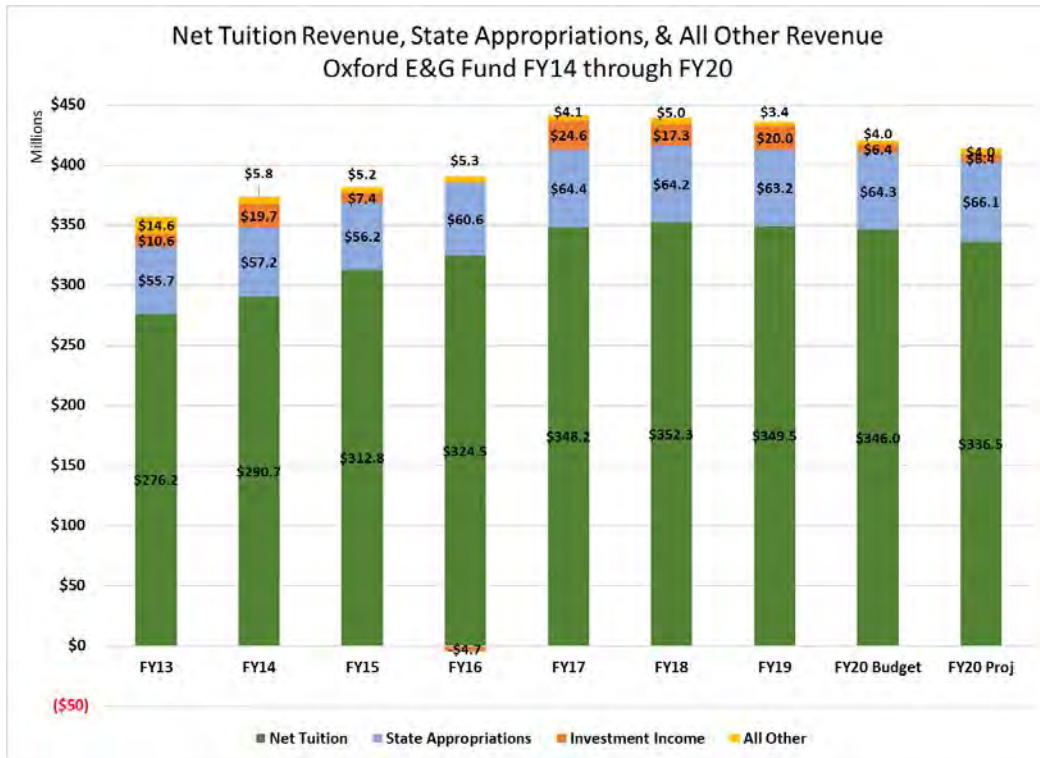
Investment income from interest, dividends, and realized capital gains/losses was \$8.5 million through December 31, 2020. This amount does not include the mark-to-market from long-term investments, which is virtually impossible to predict at this time.

Other revenue categories are projected as budgeted.

Expenditures and Transfers

Employee salaries and staff benefits are projected to be \$4.3 million below budget. Through the first six months of the fiscal year, health care claims were lower than budgeted due to position vacancy and lower medical claims costs. Medical claims slowed in the second quarter of the fiscal year while prescription drug costs have continued to increase. As a result, average monthly claims costs are less through December compared to last year. Healthcare expense is difficult to estimate due to the volatility of high cost claims. Graduate fee waiver expenses are below budget due to the growing number of students in market priced programs rather than traditional graduate programs. Departmental support costs are forecast on budget through December. The Auxiliary Unit report shows a current deficit in the Utility Enterprise which is a result of shortening the monthly accounting close causing customer billing to trail by a month.

The underspending in salaries and benefits noted above is carryforward eligible. The net effect of this activity is recorded as an increase in Departmental Budgetary Carryforward. The third and final annual transfer (\$8.3 million) was made from academic divisions' carryforward reserves to the Boldly Creative Initiatives Fund. Distributions from the fund have been made for the Nursing program on Oxford campus (\$1.4 million), Physician's Assistant program (\$0.3 million), Data Analytics & CADS (\$0.4 million), Cybersecurity (\$45,000), Microcredentials (\$60,000), and eSports (\$0.1 million). Twelve pre proposals for the fall 2019 round of awards have been submitted and are currently under review. The Boldly Creative Initiatives Fund has a balance of \$47.2 million that is available to the President and Provost for new programming.

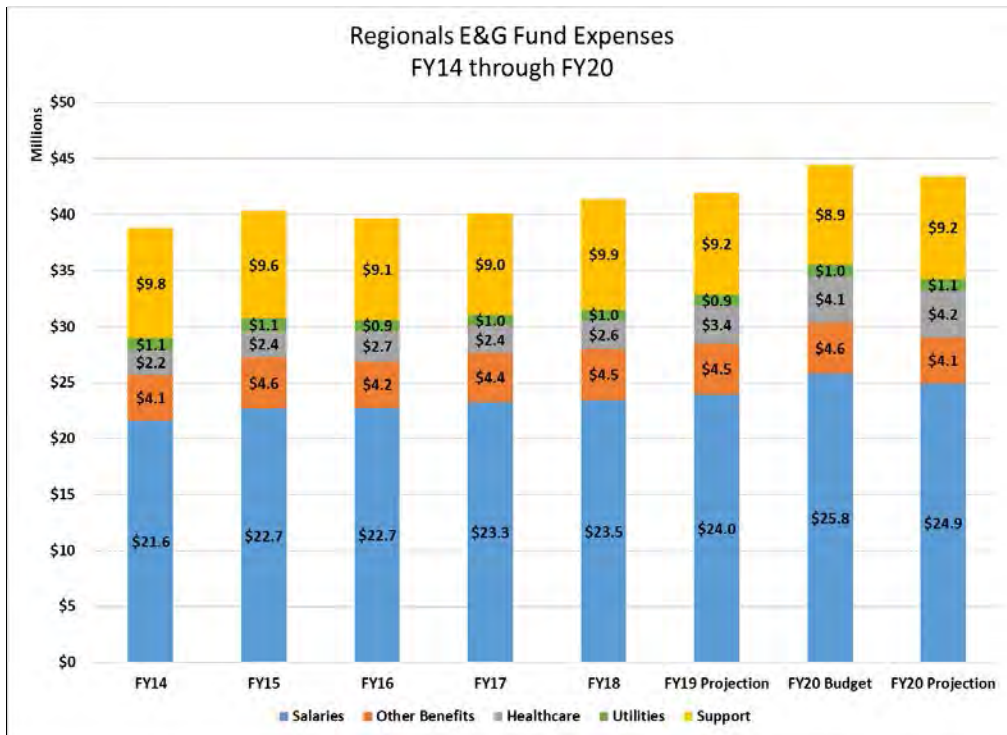
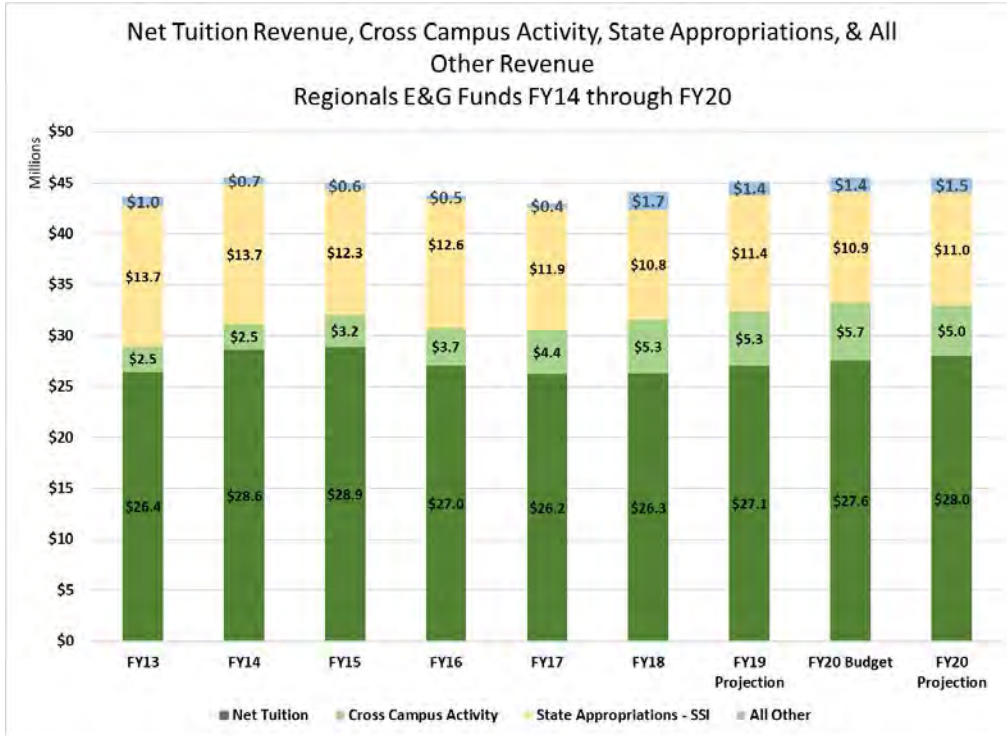


HAMILTON & MIDDLETOWN

The Hamilton campus student fee revenue (instructional, general and out-of-state) is estimated to be \$0.1 million below budget. The instructional fee, out-of-state surcharge and general fee for the Middletown campus are forecast to be \$0.2 million above budget. The tuition performance reflects a change in the distribution in the cross campus subsidy. State subsidy (SSI) and College Credit Plus program are slightly above budget for both Hamilton and Middletown. Other revenues are on budget.

Most expenditures on both campuses are tracking close to budget. However, personnel and benefit costs are \$0.2 million below budget on the Hamilton campus and \$1.3 million below budget on the Middletown campus. The actual performance in these categories has exceeded the underspending assumed in the budget. Utilities are slightly below budget on the Hamilton campus and slightly above budget on the Middletown campus.

Overall, the General Fund for Hamilton is projected to end the fiscal year with a \$0.3 million surplus prior to adjustments. The Middletown campus General Fund is projected to have an operating surplus of \$1.3 million prior to adjustments.



VOICE OF AMERICA LEARNING CENTER

The Voice of America Learning Center (VOALC) is projected to end the fiscal year on budget. As in the prior fiscal year, the funding support for the VOALC has been separately displayed for all three campuses and the VOALC. This transfer represents the budgeted financial support from each campus for funding the VOALC administrative operations.

MIAMI UNIVERSITY
FY2020 Forecast
Oxford General Fund Only
As of December 31, 2019

| | Original <u>Budget</u> | December End-of-Year <u>Forecast</u> | December Budget to <u>Forecast</u> |
|--|---------------------------|--|--|
| REVENUES: | | | |
| Instructional & OOS Surcharge | \$ 395,820,449 | \$ 387,641,451 | \$ (8,178,999) |
| Less Cohort Financial Aid Discount | 101,863,363 | 102,283,463 | 420,100 |
| Net Instructional Fee & Out-of-State Surcharge | 293,957,086 | 285,357,988 | (8,599,099) |
| General | 52,018,517 | 51,104,419 | \$ (914,098) |
| Other Student Revenue | 2,596,500 | 2,596,500 | - |
| <i>Tuition, Fees and Other Student Charges</i> | <i>348,572,103</i> | <i>339,058,907</i> | <i>(9,513,196)</i> |
| State Appropriations | 64,289,270 | 66,055,952 | \$ 1,766,682 |
| Investment Income | 6,390,000 | 6,390,000 | \$ - |
| Other Revenue | 1,450,000 | 1,450,000 | \$ - |
| Total Revenues | \$ 420,701,373 | \$ 412,954,859 | \$ (7,746,514) |
| EXPENDITURES: | | | |
| Salaries | 193,291,147 | 188,944,749 | (4,346,398) |
| Benefits | 34,888,327 | 33,723,601 | (1,164,727) |
| Healthcare Expense | 31,363,719 | 30,316,659 | (1,047,060) |
| Graduate Assistant, Fellowships & Fee Waivers | 24,027,713 | 21,728,383 | (2,299,330) |
| Undergraduate Scholarships & Student Waivers | 14,599,159 | 14,599,159 | 0 |
| Utilities | 13,360,064 | 13,360,064 | - |
| Departmental Support Expenditures | 27,596,173 | 27,596,173 | - |
| Multi-year Expenditures | 5,338,963 | 5,338,963 | - |
| Total Expenditures | \$ 344,465,265 | \$ 335,607,751 | \$ (8,857,514) |
| DEBT SERVICE AND TRANSFERS: | | | |
| General Fee | (51,528,646) | (50,614,548) | 914,098 |
| Capital, Renewal & Replacement | (5,480,000) | (5,480,000) | - |
| Debt Service | (6,779,324) | (6,779,324) | - |
| Support for VOALC (50%) | (584,244) | (584,244) | - |
| Other Miscellaneous Operational Transfers | (4,584,788) | (4,584,788) | - |
| Other Transfers (net) | 464,258 | 464,258 | - |
| Total Debt Service and Transfers | \$ (68,492,744) | \$ (67,578,646) | \$ 914,098 |
| <i>Net Revenues/(Expenditures) Before Adjustments</i> | <i>\$ 7,743,364</i> | <i>\$ 9,768,462</i> | <i>\$ 2,025,097</i> |
| ADJUSTMENTS: | | | |
| Departmental Budgetary Carryforward | | (6,558,184) | |
| Strategic Investment Funding - Unallocated Funds | | (1,315,287) | |
| Strategic Investment Funding - Divisional Carryforward | | (8,333,333) | |
| Reserve for Carry Forward | | 8,333,333 | |
| Divisional Revenue Carry Forward | | | |
| Reserve for Investment Fluctuations | | | |
| Reserve for Encumbrances | | | |
| Future Student Facilities CR&R | | | |
| Net Increase/(Decrease) in Fund Balance | \$ 7,743,364 | \$ 1,894,991 | |

MIAMI UNIVERSITY
FY2020 Forecast
Hamilton General Fund Only
As of December 31, 2019

| | Original <u>Budget</u> | December End-of-Year <u>Forecast</u> | December Budget to <u>Forecast</u> |
|--|-----------------------------|--|--|
| REVENUES: | | | |
| Instructional & OOS Surcharge - Regional Students | \$ 15,008,471 | \$ 14,635,784 | \$ (372,687) |
| Instructional & OOS Surcharge - Cross Campus | 3,962,651 | 4,027,555 | 64,904 |
| Less Continuing & New Scholarships | 852,600 | 657,930 | (194,670) |
| Net Instructional Fee & Out-of-State Surcharge | 18,118,522 | 18,005,409 | (113,113) |
| General | 944,194 | 917,458 | (26,736) |
| Other Student Revenue | 193,500 | 193,500 | - |
| <i>Tuition, Fees and Other Student Charges</i> | <u>19,256,216</u> | <u>19,116,367</u> | <u>(139,849)</u> |
| State Appropriations - SSI | 6,614,998 | 6,688,337 | 73,339 |
| State Appropriations - CCP | 314,904 | 313,228 | (1,676) |
| Investment Income | 50,000 | 50,000 | - |
| Other Revenue | 79,500 | 79,500 | - |
| Total Revenues | <u>\$ 26,315,618</u> | <u>\$ 26,247,432</u> | <u>\$ (68,186)</u> |
| EXPENDITURES: | | | |
| Salaries | 16,424,224 | 16,424,224 | - |
| Allowance for Unspent Salaries | (1,312,798) | (1,412,423) | (99,625) |
| Benefits | 3,147,068 | 3,147,068 | - |
| Allowance for Unspent Benefits | (505,427) | (628,495) | (123,068) |
| Healthcare Expense | 2,652,910 | 2,652,910 | - |
| Anticipated Benefit Recovery | (163,352) | (163,352) | - |
| Graduate Assistant Fee Waivers | - | - | - |
| Utilities | 608,000 | 472,635 | (135,365) |
| Departmental Support Expenditures | 4,902,318 | 4,902,318 | - |
| Multi-year Expenditures | - | - | - |
| Total Expenditures | <u>\$ 25,752,943</u> | <u>\$ 25,394,885</u> | <u>\$ (358,058)</u> |
| DEBT SERVICE AND TRANSFERS: | | | |
| General Fee | (281,919) | (263,670) | 18,249 |
| Capital, Renewal & Replacement | - | - | - |
| Debt Service | - | - | - |
| Support for VOALC (25%) | (280,755) | (280,755) | - |
| Other Miscellaneous Operational Transfers | - | - | - |
| Total Debt Service and Transfers | <u>\$ (562,674)</u> | <u>\$ (544,425)</u> | <u>\$ 18,249</u> |
| <i>Net Revenues/(Expenditures) Before Adjustments</i> | \$ - | \$ 308,122 | \$ 308,121 |
| ADJUSTMENTS: | | | |
| Departmental Budgetary Carryforward | | | |
| Divisional Budgetary Carryforward | | (358,058) | |
| Strategic Investment Funding - Divisional Carryforward | | (344,928) | |
| Reserve for Carry Forward | | 344,928 | |
| Transfer from Fund Balance | | | |
| Reserve for Encumbrances | | | |
| Reserve for Investment Fluctuations | | | |
| Reserve for Future Budgets | | | |
| Net Increase/(Decrease) in Fund Balance | <u>\$ -</u> | <u>\$ (49,936)</u> | <u>\$ 308,121</u> |

MIAMI UNIVERSITY
FY2020 Forecast
Middletown General Fund Only
As of December 31, 2019

| | Original <u>Budget</u> | December End-of-Year <u>Forecast</u> | December Budget to <u>Forecast</u> |
|--|-----------------------------|--|--|
| REVENUES: | | | |
| Instructional & OOS Surcharge - Regional Students | \$ 13,104,988 | \$ 13,520,688 | \$ 415,700 |
| Instructional & OOS Surcharge - Cross Campus | 1,703,147 | 972,445 | (730,702) |
| Less Continuing & New Scholarships | 1,240,058 | 1,088,838 | (151,220) |
| Net Instructional Fee & Out-of-State Surcharge | 13,568,077 | 13,404,295 | (163,782) |
| General | 601,098 | 630,614 | 29,516 |
| Other Student Revenue | 80,700 | 80,700 | - |
| <i>Tuition, Fees and Other Student Charges</i> | <u>14,249,875</u> | <u>14,115,609</u> | <u>(134,266)</u> |
| State Appropriations - SSI | 4,268,078 | 4,356,815 | 88,737 |
| State Appropriations - CCP | 637,826 | 734,064 | 96,238 |
| Investment Income | 50,000 | 50,000 | - |
| Other Revenue | 10,402 | 10,402 | - |
| Total Revenues | <u>\$ 19,216,181</u> | <u>\$ 19,266,890</u> | <u>\$ 50,709</u> |
| EXPENDITURES: | | | |
| Salaries | 11,275,065 | 11,275,065 | - |
| Allowance for Unspent Salaries | (555,607) | (1,542,315) | (986,708) |
| Benefits | 2,126,176 | 2,126,176 | - |
| Allowance for Unspent Benefits | (213,908) | (567,533) | (353,625) |
| Healthcare Expense | 1,762,933 | 1,762,933 | - |
| Anticipated Benefit Recovery | (117,898) | (117,898) | - |
| Graduate Assistant Fee Waivers | - | - | - |
| Utilities | 421,000 | 531,884 | 110,884 |
| Departmental Support Expenditures | 3,991,676 | 3,991,676 | - |
| Multi-year Expenditures | - | - | - |
| Total Expenditures | <u>\$ 18,689,437</u> | <u>\$ 17,459,988</u> | <u>\$ (1,229,449)</u> |
| DEBT SERVICE AND TRANSFERS: | | | |
| General Fee | (184,247) | (213,763) | (29,516) |
| Capital, Renewal & Replacement | - | - | - |
| Debt Service | (61,741) | (61,741) | - |
| Support for VOALC (25%) | (280,755) | (280,755) | - |
| Other Miscellaneous Operational Transfers | - | - | - |
| Total Debt Service and Transfers | <u>\$ (526,743)</u> | <u>\$ (556,259)</u> | <u>\$ (29,516)</u> |
| <i>Net Revenues/(Expenditures) Before Adjustments</i> | \$ - | \$ 1,250,643 | \$ 1,250,642 |
| ADJUSTMENTS: | | | |
| Departmental Budgetary Carryforward | | | |
| Divisional Budgetary Carryforward | | (1,229,449) | |
| Strategic Investment Funding - Divisional Carryforward | | (392,982) | |
| Reserve for Carry Forward | | 392,982 | |
| Transfer from Fund Balance | | | |
| Reserve for Encumbrances | | | |
| Reserve for Investment Fluctuations | | | |
| Reserve for Future Budgets | | | |
| Net Increase/(Decrease) in Fund Balance | <u>\$ -</u> | <u>\$ 21,194</u> | <u>\$ 1,250,642</u> |

MIAMI UNIVERSITY
FY2020 Forecast
Voice of America Learning Center General Fund Only
As of December 31, 2019

| | <u>Original Budget</u> | <u>December End-of-Year Forecast</u> | <u>December Budget to Forecast</u> |
|--|----------------------------|--|--|
| REVENUES: | | | |
| Instructional & OOS Surcharge - Regional Students | | | \$ - |
| Instructional & OOS Surcharge - Cross Campus | | | - |
| Less Continuing & New Scholarships | | | - |
| Net Instructional Fee & Out-of-State Surcharge | - | - | - |
| General | | | - |
| Other Student Revenue | | | - |
| <i>Tuition, Fees and Other Student Charges</i> | - | - | - |
| State Appropriations - SSI | | | - |
| State Appropriations - CCP | | | - |
| Investment Income | | | - |
| Other Revenue | 35,000 | - | (35,000) |
| Total Revenues | \$ 35,000 | \$ - | \$ (35,000) |
| EXPENDITURES: | | | |
| Salaries | 214,504 | 178,876 | (35,628) |
| Allowance for Unspent Salaries | | | - |
| Benefits | 43,069 | 35,862 | (7,207) |
| Allowance for Unspent Benefits | | | - |
| Healthcare Expense | 39,517 | 32,905 | (6,612) |
| Anticipated Benefit Recovery | | | - |
| Graduate Assistant Fee Waivers | | | - |
| Utilities | 62,320 | 62,320 | - |
| Departmental Support Expenditures | 265,718 | 265,718 | - |
| Multi-year Expenditures | | | - |
| Total Expenditures | \$ 625,128 | \$ 575,681 | \$ (49,447) |
| DEBT SERVICE AND TRANSFERS: | | | |
| General Fee | | | - |
| Capital, Renewal & Replacement | (100,706) | (100,706) | - |
| Debt Service | (432,186) | (432,186) | - |
| Support for VOALC (25%) | 1,123,020 | 1,123,020 | - |
| Other Miscellaneous Operational Transfers | | | - |
| Total Debt Service and Transfers | \$ 590,128 | \$ 590,128 | \$ - |
| <i>Net Revenues/(Expenditures) Before Adjustments</i> | \$ - | \$ 14,447 | \$ 14,447 |
| ADJUSTMENTS: | | | |
| Departmental Budgetary Carryforward | | | |
| Divisional Budgetary Carryforward | | | |
| Strategic Investment Funding - Divisional Carryforward | | | |
| Reserve for Carry Forward | | | |
| Transfer from Fund Balance | | | |
| Reserve for Encumbrances | | | |
| Reserve for Investment Fluctuations | | | |
| Reserve for Future Budgets | | | |
| Net Increase/(Decrease) in Fund Balance | \$ - | \$ 14,447 | \$ 14,447 |

Financial Analysis - by Operational Unit (Oxford Campus)
FY2020 / FY2019 / FY2018

| | FY2018 | FY2019 | FY2020 | Thru December Year To Date | | | % of '20 Budget | % Change from '19 YTD |
|---|-------------------|-------------------|-------------------|----------------------------|-------------------|-------------------|-----------------|-----------------------|
| | Year End Actual | Year End Actual | Budget | FY2020 | FY2019 | FY2018 | | |
| <u>College of Arts & Sciences</u> | | | | | | | | |
| Salary | \$ 55,391,368 | \$ 56,795,655 | \$ 46,191,905 | \$ 26,519,911 | \$ 26,750,065 | \$ 25,935,868 | 57% | -1% |
| Benefits | 16,251,298 | 16,419,805 | 14,664,180 | 8,601,657 | 8,581,738 | 8,879,243 | 59% | 0% |
| Scholarships & Fellowships | 9,715,232 | 9,506,226 | 10,622,790 | 5,288,274 | 5,336,837 | 5,760,799 | 50% | -1% |
| Departmental Support Expenses | 5,457,166 | 5,657,275 | 7,349,102 | 2,234,939 | 2,453,324 | 2,412,031 | 30% | -9% |
| Total Expenses | 86,815,064 | 88,378,961 | 78,827,977 | 42,644,781 | 43,121,964 | 42,987,941 | 54% | -1% |
| <u>College of Education, Health, and Society</u> | | | | | | | | |
| Salary | 14,558,439 | 15,216,349 | 12,502,924 | 7,135,803 | 6,912,059 | 6,500,628 | 57% | 3% |
| Benefits | 4,200,871 | 4,324,382 | 4,254,460 | 2,323,834 | 2,235,561 | 2,277,056 | 55% | 4% |
| Scholarships & Fellowships | 1,757,175 | 1,934,663 | 2,061,421 | 929,534 | 1,053,842 | 904,225 | 45% | -12% |
| Departmental Support Expenses | 1,687,944 | 1,614,142 | 2,298,200 | 716,426 | 712,522 | 619,931 | 31% | 1% |
| Total Expenses | 22,204,429 | 23,089,536 | 21,117,005 | 11,105,597 | 10,913,984 | 10,301,840 | 53% | 2% |
| <u>College of Engineering and Computing</u> | | | | | | | | |
| Salary | 8,649,691 | 9,504,455 | 8,949,495 | 4,862,235 | 4,512,701 | 4,051,602 | 54% | 8% |
| Benefits | 2,647,657 | 2,921,207 | 3,274,643 | 1,658,151 | 1,540,137 | 1,446,900 | 51% | 8% |
| Scholarships & Fellowships | 677,959 | 752,015 | 594,660 | 452,843 | 386,902 | 349,323 | 76% | 17% |
| Departmental Support Expenses | 1,236,007 | 1,381,992 | 515,313 | 762,556 | 424,639 | 531,323 | 148% | 80% |
| Total Expenses | 13,211,314 | 14,559,669 | 13,334,111 | 7,735,785 | 6,864,379 | 6,379,148 | 58% | 13% |
| <u>Farmer School of Business</u> | | | | | | | | |
| Salary | 23,599,921 | 22,574,638 | 15,436,962 | 10,504,592 | 11,133,920 | 10,975,716 | 68% | -6% |
| Benefits | 7,498,205 | 6,871,770 | 5,827,909 | 3,785,817 | 3,934,838 | 4,096,516 | 65% | -4% |
| Scholarships & Fellowships | 468,272 | 514,727 | 891,990 | 259,664 | 282,233 | 250,921 | 29% | -8% |
| Departmental Support Expenses | 2,486,473 | 2,262,502 | 3,165,197 | 992,742 | 1,173,872 | 1,143,427 | 31% | -15% |
| Total Expenses | 34,052,871 | 32,223,637 | 25,322,058 | 15,542,815 | 16,524,863 | 16,466,580 | 61% | -6% |
| <u>College of Creative Arts</u> | | | | | | | | |
| Salary | 10,254,633 | 10,841,620 | 9,678,023 | 5,338,500 | 5,193,772 | 4,757,385 | 55% | 3% |
| Benefits | 3,062,501 | 3,353,563 | 3,411,981 | 1,813,149 | 1,739,040 | 1,702,761 | 53% | 4% |
| Scholarships & Fellowships | 1,289,352 | 1,674,470 | 1,540,710 | 874,628 | 882,239 | 687,973 | 57% | -1% |
| Departmental Support Expenses | 1,093,514 | 1,260,330 | 1,191,394 | 748,978 | 694,011 | 576,201 | 63% | 8% |
| Total Expenses | 15,700,000 | 17,129,983 | 15,822,108 | 8,775,255 | 8,509,062 | 7,724,320 | 55% | 3% |
| <u>Dolibois European Center - Luxemburg</u> | | | | | | | | |
| Salary | 1,033,391 | 1,091,149 | 1,297,328 | 540,796 | 528,412 | 391,492 | 42% | 2% |
| Benefits | 169,985 | 154,416 | 499,848 | 83,281 | 79,217 | 75,172 | 17% | 5% |
| Utilities | 27,691 | 25,847 | 30,503 | 11,139 | 11,107 | 9,690 | 37% | 0% |
| Departmental Support Expenses | 212,738 | 475,074 | 248,307 | 121,806 | 301,213 | 94,402 | 49% | -60% |
| Total Expenses | 1,443,805 | 1,746,486 | 2,075,986 | 757,022 | 919,949 | 570,756 | 36% | -18% |

Financial Analysis - by Operational Unit (Oxford Campus)
FY2020 / FY2019 / FY2018

| | FY2018 | FY2019 | FY2020 | Thru December Year To Date | | | % of '20 Budget | % Change from '19 YTD |
|--|--------------------|--------------------|--------------------|----------------------------|--------------------|--------------------|-----------------|-----------------------|
| | Year End Actual | Year End Actual | Budget | FY2020 | FY2019 | FY2018 | | |
| Graduate School | | | | | | | | |
| Salary | 2,866,367 | 3,211,441 | 3,020,914 | 1,537,025 | 1,621,613 | 1,702,359 | 51% | -5% |
| Benefits | 626,370 | 716,117 | 718,763 | 394,407 | 373,591 | 372,716 | 55% | 6% |
| Scholarships & Fellowships | 5,256,660 | 5,648,783 | 6,026,172 | 8,409,124 | 8,005,549 | 7,476,519 | 140% | 5% |
| Departmental Support Expenses | 489,768 | 856,124 | 749,990 | 112,995 | 639,594 | 319,863 | 15% | -82% |
| Total Expenses | 9,239,165 | 10,432,465 | 10,515,839 | 10,453,551 | 10,640,347 | 9,871,457 | 99% | -2% |
| Other Provost Departments | | | | | | | | |
| Salary | 8,492,701 | 9,049,416 | 29,008,839 | 5,152,331 | 4,609,484 | 4,145,810 | 18% | 12% |
| Benefits | 2,941,190 | 3,156,183 | 9,641,037 | 1,884,653 | 1,678,635 | 1,664,629 | 20% | 12% |
| Scholarships & Fellowships | 964,582 | 921,259 | 1,128,548 | 610,063 | 561,219 | 610,481 | 54% | 9% |
| Utilities | 838 | - | - | - | - | 838 | 0% | 0% |
| Departmental Support Expenses | 6,173,889 | 6,852,455 | 8,897,191 | 4,999,969 | 4,311,022 | 3,828,781 | 56% | 16% |
| Total Expenses | 18,573,200 | 19,979,313 | 48,675,615 | 12,647,016 | 11,160,360 | 10,250,539 | 26% | 13% |
| Total Provost Office | | | | | | | | |
| Salary | 124,846,511 | 128,284,723 | 126,086,390 | 61,591,193 | 61,262,026 | 58,460,860 | 49% | 1% |
| Benefits | 37,398,077 | 37,917,443 | 42,292,821 | 20,544,949 | 20,162,757 | 20,514,993 | 49% | 2% |
| Scholarships & Fellowships | 20,129,232 | 20,952,143 | 22,866,291 | 16,824,130 | 16,508,821 | 16,040,241 | 74% | 2% |
| Utilities | 28,529 | 25,847 | 30,503 | 11,139 | 11,107 | 10,528 | 37% | 0% |
| Departmental Support Expenses | 18,837,499 | 20,359,894 | 24,414,694 | 10,690,411 | 10,710,197 | 9,525,959 | 44% | 0% |
| Total Expenses | 201,239,848 | 207,540,050 | 215,690,699 | 109,661,822 | 108,654,908 | 104,552,581 | 51% | 1% |
| Physical Facilities | | | | | | | | |
| Salary | 15,346,315 | 15,293,713 | 16,910,646 | 7,583,099 | 7,389,731 | 7,778,777 | 45% | 3% |
| Benefits | 5,445,823 | 5,149,978 | 6,450,694 | 2,892,198 | 2,812,516 | 3,127,740 | 45% | 3% |
| Utilities | 12,983,324 | 12,817,015 | 13,329,561 | 4,981,810 | 6,379,366 | 6,440,924 | 37% | -22% |
| Departmental Support Expenses | (3,778,347) | (4,810,428) | (4,042,799) | (2,587,417) | (2,750,677) | (2,426,243) | 64% | -6% |
| Total Expenses | 29,997,115 | 28,450,278 | 32,648,102 | 12,869,690 | 13,830,936 | 14,921,198 | 39% | -7% |
| Other Finance & Business Services Departments | | | | | | | | |
| Salary | 8,464,090 | 9,416,188 | 10,341,433 | 4,910,491 | 4,593,039 | 4,157,371 | 47% | 7% |
| Benefits | 2,843,728 | 3,334,250 | 3,893,631 | 1,851,195 | 1,737,805 | 1,676,881 | 48% | 7% |
| Departmental Support Expenses | 2,190,569 | 966,663 | 1,453,750 | 2,071,478 | 515,005 | 1,649,065 | 142% | 302% |
| Total Expenses | 13,498,387 | 13,717,101 | 15,688,814 | 8,833,164 | 6,845,849 | 7,483,317 | 56% | 29% |
| Enrollment Management & Student Success | | | | | | | | |
| Salary | 7,160,353 | 7,839,090 | 9,205,468 | 4,078,634 | 3,877,623 | 3,585,769 | 44% | 5% |
| Benefits | 2,479,666 | 2,804,825 | 3,416,501 | 1,515,735 | 1,439,793 | 1,441,578 | 44% | 5% |
| Scholarships & Fellowships | 88,791,318 | 98,712,821 | 116,975,222 | 59,913,368 | 51,546,842 | 47,126,254 | 51% | 16% |
| Departmental Support Expenses | 4,966,507 | 4,624,542 | 4,349,781 | 2,458,669 | 2,511,961 | 2,713,672 | 57% | -2% |
| Total Expenses | 103,397,844 | 113,981,278 | 133,946,972 | 67,966,406 | 59,376,219 | 54,867,273 | 51% | 14% |

Financial Analysis - by Operational Unit (Oxford Campus)
FY2020 / FY2019 / FY2018

| | FY2018 | FY2019 | FY2020 | Thru December Year To Date | | | % of '20 Budget | % Change from '19 YTD |
|---------------------------------|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------|-----------------------|
| | Year End Actual | Year End Actual | Budget | FY2020 | FY2019 | FY2018 | | |
| President | | | | | | | | |
| Salary | 4,515,020 | 4,693,790 | 5,417,076 | 2,687,898 | 2,335,656 | 2,340,352 | 50% | 15% |
| Benefits | 1,581,830 | 1,669,052 | 2,028,281 | 1,013,112 | 878,338 | 941,816 | 50% | 15% |
| Departmental Support Expenses | 3,777,969 | 4,174,574 | 4,316,976 | 1,883,308 | 1,767,988 | 1,474,955 | 44% | 7% |
| Total Expenses | 9,874,819 | 10,537,416 | 11,762,333 | 5,584,318 | 4,981,982 | 4,757,123 | 47% | 12% |
| Student Affairs | | | | | | | | |
| Salary | 8,732,695 | 6,052,876 | 9,341,329 | 4,524,057 | 4,279,730 | 2,983,279 | 48% | 6% |
| Benefits | 2,009,080 | 2,019,483 | 2,470,760 | 1,174,081 | 1,136,875 | 1,174,690 | 48% | 3% |
| Scholarships & Fellowships | 553,998 | 470,320 | 648,720 | 285,666 | 259,648 | 268,434 | 44% | 10% |
| Departmental Support Expenses | (4,231,016) | (2,168,334) | (4,146,349) | (2,512,781) | (2,375,045) | (802,809) | 61% | 6% |
| Total Expenses | 7,064,757 | 6,374,345 | 8,314,460 | 3,471,023 | 3,301,208 | 3,623,594 | 42% | 5% |
| University Advancement | | | | | | | | |
| Salary | 4,714,696 | 5,296,015 | 8,867,436 | 3,715,533 | 2,619,072 | 2,378,171 | 42% | 42% |
| Benefits | 1,638,522 | 1,675,137 | 3,386,541 | 1,416,905 | 996,191 | 950,045 | 42% | 42% |
| Departmental Support Expenses | 311,303 | 267,605 | 1,416,480 | 377,912 | 122,983 | 127,159 | 27% | 207% |
| Total Expenses | 6,664,521 | 7,238,757 | 13,670,457 | 5,510,350 | 3,738,246 | 3,455,375 | 40% | 47% |
| Information Technology | | | | | | | | |
| Salary | 8,022,967 | 7,941,268 | 9,596,103 | 3,787,567 | 4,059,261 | 4,106,975 | 39% | -7% |
| Benefits | 2,784,561 | 2,604,594 | 3,684,413 | 1,452,292 | 1,556,166 | 1,660,590 | 39% | -7% |
| Departmental Support Expenses | 2,564,626 | 2,985,095 | 3,417,394 | 2,675,652 | 3,332,120 | 2,515,245 | 78% | -20% |
| Total Expenses | 13,372,154 | 13,530,957 | 16,697,910 | 7,915,511 | 8,947,547 | 8,282,810 | 47% | -12% |
| Centrally Budgeted Funds | | | | | | | | |
| Departmental Support Expenses | 1,350,677 | 2,524,069 | 8,220,314 | 2,232,524 | 1,656,855 | 1,011,761 | 27% | 35% |
| Total Expenses | 1,350,677 | 2,524,069 | 8,220,314 | 2,232,524 | 1,656,855 | 1,011,761 | 27% | 35% |
| Grand Total | | | | | | | | |
| Salary | 179,082,941 | 184,817,663 | 195,765,881 | 92,878,472 | 90,416,138 | 85,791,554 | 47% | 3% |
| Benefits | 56,181,287 | 57,174,762 | 67,623,642 | 31,860,467 | 30,720,441 | 31,488,333 | 47% | 4% |
| Scholarships & Fellowships | 109,474,548 | 120,135,284 | 140,490,233 | 77,023,164 | 68,315,311 | 63,434,929 | 55% | 13% |
| Utilities | 13,011,853 | 12,842,862 | 13,360,064 | 4,992,949 | 6,390,473 | 6,451,452 | 37% | -22% |
| Departmental Support Expenses | 24,713,329 | 25,935,068 | 34,061,278 | 15,866,923 | 14,193,240 | 14,569,746 | 47% | 12% |
| Admin Service Charge | (8,787,536) | (9,201,335) | (10,311,434) | (5,155,721) | (4,600,665) | (4,393,770) | 50% | 12% |
| Multi Year Accounts | 3,996,164 | 2,988,612 | 5,338,963 | 1,422,833 | 1,298,147 | 1,219,018 | 27% | 10% |
| Total Expenses | \$ 377,672,586 | \$ 394,692,916 | \$ 446,328,627 | \$ 218,889,087 | \$ 206,733,085 | \$ 198,561,262 | 49% | 6% |

Note: Excludes Transfers

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|--|--------------------------|--------------------------|--------------------------|-----------------------------|---------------|---------------|----------------------------------|----------------------------|----------------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| <u>Residence & Dining Halls</u> | | | | | | | | | |
| Revenue | 110,277,109 | 115,254,088 | 131,852,229 | 123,067,376 | 112,578,525 | 107,795,158 | (8,784,853) | 93% | 9% |
| General Fee Support | - | - | - | - | - | - | - | 0% | 0% |
| Total Sources | 110,277,109 | 115,254,088 | 131,852,229 | 123,067,376 | 112,578,525 | 107,795,158 | (8,784,853) | 93% | 9% |
| Salary | 13,836,869 | 13,558,129 | 17,069,397 | 7,798,635 | 6,539,371 | 6,988,880 | (9,270,762) | 46% | 16% |
| Benefits | 3,910,901 | 4,110,196 | 5,656,925 | 2,641,265 | 2,239,378 | 2,463,283 | (3,015,660) | 47% | 15% |
| Utilites | 6,382,869 | 6,408,810 | 7,054,771 | 2,692,099 | 3,235,339 | 2,123,137 | (4,362,672) | 38% | -20% |
| Charge Outs | (2,869,051) | (304,553) | (588,654) | (396,641) | (221,342) | (989,754) | 192,013 | 67% | 44% |
| Operating Expenses | 34,415,008 | 33,342,778 | 39,958,210 | 19,027,684 | 16,565,315 | 18,352,334 | (20,930,526) | 48% | 13% |
| Inventory Purchases | 4,393,291 | 4,006,352 | 4,865,668 | 2,318,403 | 1,981,249 | 2,147,936 | (2,547,265) | 48% | 15% |
| Debt Service | 41,597,907 | 42,391,186 | 41,858,908 | 24,678,452 | 21,237,354 | 20,908,159 | (17,180,456) | 59% | 14% |
| Total Uses | 101,667,794 | 103,512,898 | 115,875,225 | 58,759,897 | 51,576,664 | 51,993,975 | (57,115,328) | 51% | 12% |
| Net Before Non-Mandatory Transfers | 8,609,315 | 11,741,190 | 15,977,004 | 64,307,479 | 61,001,861 | 55,801,183 | 48,330,475 | 403% | 5% |
| Net Transfers | (5,478,456) | (11,661,745) | (15,977,004) | (8,275,014) | (5,675,108) | (2,737,651) | 7,701,990 | 52% | 31% |
| Net Total | 3,130,859 | 79,445 | - | 56,032,465 | 55,326,753 | 53,063,532 | 56,032,465 | | 1% |
| <u>Shriver Center</u> | | | | | | | | | |
| Revenue | 15,835,073 | 14,702,961 | 10,289,440 | 5,010,933 | 7,525,576 | 8,109,364 | (5,278,507) | 49% | -50% |
| General Fee Support | 923,487 | 951,755 | 952,132 | 476,065 | 475,878 | 461,743 | (476,067) | 50% | 0% |
| Total Sources | 16,758,560 | 15,654,716 | 11,241,572 | 5,486,998 | 8,001,454 | 8,571,107 | (5,754,574) | 49% | -46% |
| Salary | 3,237,648 | 3,034,395 | 1,811,848 | 778,730 | 1,465,697 | 1,634,812 | (1,033,118) | 43% | -88% |
| Benefits | 864,833 | 803,972 | 562,290 | 233,022 | 449,716 | 535,939 | (329,268) | 41% | -93% |
| Utilities | 329,640 | 256,343 | 350,548 | 65,177 | 196,385 | 162,925 | (285,371) | 19% | -201% |
| Charge Outs | (406,563) | (693,951) | (1,032,364) | (477,180) | (585,787) | (208,112) | 555,184 | 46% | -23% |
| Operating Expenses | 2,680,015 | 2,579,117 | 1,225,422 | 648,121 | 1,448,348 | 849,283 | (577,301) | 53% | -123% |
| Inventory Purchases | 8,655,010 | 7,506,643 | 7,710,475 | 4,280,004 | 4,279,231 | 5,595,963 | (3,430,471) | 56% | 0% |
| Debt Service | 46,852 | 46,880 | 46,881 | 23,568 | 23,593 | 23,571 | (23,313) | 50% | 0% |
| Total Uses | 15,407,436 | 13,533,399 | 10,675,100 | 5,551,442 | 7,277,183 | 8,594,381 | (5,123,658) | 52% | -31% |
| Net Before Non-Mandatory Transfers | 1,351,124 | 2,121,317 | 566,472 | (64,444) | 724,271 | (23,274) | (630,916) | -11% | 1224% |
| Net Transfers | (1,629,405) | (1,169,691) | (566,472) | (188,311) | (513,828) | (688,577) | 378,161 | 33% | -173% |
| Net Total | (278,281) | 951,625 | - | (252,755) | 210,443 | (711,851) | (252,755) | | 183% |

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|---|------------------|------------------|------------------|----------------------|-------------|-------------|--------------------------|--------------------|--------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| <u>Marcum Conference Center</u> | | | | | | | | | |
| Revenue | 1,442,318 | 1,428,355 | 1,520,957 | 742,572 | 673,904 | 643,329 | (778,385) | 49% | 9% |
| General Fee Support | - | - | - | - | - | - | - | 0% | 0% |
| Total Sources | 1,442,318 | 1,428,355 | 1,520,957 | 742,572 | 673,904 | 643,329 | (778,385) | 49% | 9% |
| Salary | 454,701 | 422,577 | 302,234 | 166,340 | 201,809 | 232,654 | (135,894) | 55% | -21% |
| Benefits | 113,607 | 117,221 | 88,698 | 48,607 | 62,892 | 76,752 | (40,091) | 55% | -29% |
| Utilities | 149,648 | 150,965 | 162,531 | 57,162 | 76,053 | 75,446 | (105,369) | 35% | -33% |
| Charge Outs | 46,131 | 28,722 | 32,865 | - | - | - | (32,865) | 0% | 0% |
| Operating Expenses | 382,678 | 363,934 | 638,791 | 269,037 | 222,366 | 194,345 | (369,754) | 42% | 17% |
| Inventory Purchases | 5,637 | 8,537 | 5,628 | 7,316 | 2,952 | 2,004 | 1,688 | 130% | 60% |
| Debt Service | - | - | - | - | - | - | - | 0% | 0% |
| Total Uses | 1,152,402 | 1,091,956 | 1,230,747 | 548,462 | 566,072 | 581,201 | (682,285) | 45% | -3% |
| Net Before Non-Mandatory Transfers | 289,916 | 336,399 | 290,210 | 194,110 | 107,832 | 62,128 | (96,100) | 67% | 44% |
| Net Transfers | (326,472) | (165,182) | (290,210) | (145,104) | (82,591) | (163,236) | 145,106 | 50% | 43% |
| Net Total | (36,556) | 171,217 | - | 49,006 | 25,241 | (101,108) | 49,006 | | 48% |
| <u>Intercollegiate Athletics</u> | | | | | | | | | |
| Revenue | 7,223,469 | 7,627,686 | 7,976,430 | 1,295,393 | 3,183,446 | 1,427,546 | (6,681,037) | 16% | -146% |
| General Fee Support | 17,763,652 | 18,654,753 | 19,093,317 | 9,546,659 | 9,090,044 | 8,486,823 | (9,546,658) | 50% | 5% |
| Designated Revenue | 805,879 | 581,185 | 824,200 | 553,915 | 570,871 | 466,843 | (270,285) | 67% | -3% |
| Restricted Revenue | 2,328,012 | 1,766,163 | 2,172,751 | 1,871,073 | 1,296,824 | 794,810 | (301,678) | 86% | 31% |
| Total Sources | 28,121,012 | 28,629,787 | 30,066,698 | 13,267,040 | 14,141,185 | 11,176,022 | (16,799,658) | 44% | -7% |
| Salary | 8,763,986 | 9,271,499 | 8,887,833 | 4,984,538 | 4,591,394 | 4,374,263 | (3,903,295) | 56% | 8% |
| Benefits | 2,939,687 | 3,107,709 | 3,318,343 | 1,802,416 | 1,704,801 | 1,717,561 | (1,515,927) | 54% | 5% |
| Utilities | 4,836 | (1,517) | 2,500 | 44 | (1,401) | 3,364 | (2,456) | 2% | 3284% |
| Charge Outs | (139,306) | (167,213) | - | (33,701) | (5,589) | - | (33,701) | 0% | 83% |
| Operating Expenses | 14,775,767 | 14,932,185 | 14,811,071 | 8,708,530 | 8,919,216 | 8,624,240 | (6,102,541) | 59% | -2% |
| Inventory Purchases | - | - | - | - | - | - | - | 0% | 0% |
| Debt Service | - | - | - | - | - | - | - | 0% | 0% |
| Designated Expense | 735,643 | 692,903 | 824,200 | 682,350 | 584,944 | 577,023 | (141,850) | 83% | 14% |
| Restricted Expense | 2,029,134 | 1,236,245 | 2,172,751 | 1,018,058 | 826,597 | 648,399 | (1,154,693) | 47% | 19% |
| Total Uses | 29,109,747 | 29,071,811 | 30,016,698 | 17,162,235 | 16,619,962 | 15,944,850 | (12,854,463) | 57% | 3% |
| Net Before Non-Mandatory Transfers | (988,735) | (442,024) | 50,000 | (3,895,195) | (2,478,777) | (4,768,828) | (3,945,195) | -7790% | 36% |
| Net Transfers | 757,555 | 619,960 | (50,000) | (27,427) | 627,568 | 564,999 | 22,573 | 55% | 2388% |
| Net Total | (231,180) | 177,936 | - | (3,922,622) | (1,851,209) | (4,203,829) | (3,922,622) | | 53% |

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|------------------------------------|------------------|------------------|------------------|----------------------|-----------|-----------|--------------------------|--------------------|--------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| Recreation Center | | | | | | | | | |
| Revenue | 3,013,758 | 2,971,633 | 3,047,645 | 1,498,909 | 1,622,251 | 1,646,126 | (1,548,736) | 49% | -8% |
| General Fee Support | 3,848,807 | 3,928,304 | 3,881,561 | 1,940,779 | 1,964,153 | 1,924,404 | (1,940,782) | 50% | -1% |
| Total Sources | 6,862,565 | 6,899,937 | 6,929,206 | 3,439,688 | 3,586,404 | 3,570,530 | (3,489,518) | 50% | -4% |
| Salary | 2,826,216 | 2,562,853 | 2,652,407 | 1,187,022 | 1,324,093 | 1,433,638 | (1,465,385) | 45% | -12% |
| Benefits | 660,094 | 550,288 | 681,247 | 301,371 | 340,282 | 399,729 | (379,876) | 44% | -13% |
| Utilities | 749,916 | 708,921 | 747,269 | 294,688 | 380,328 | 354,546 | (452,581) | 39% | -29% |
| Charge Outs | - | (48) | - | (862) | - | - | (862) | 0% | 100% |
| Operating Expenses | 1,346,677 | 1,500,379 | 1,615,590 | 909,904 | 730,008 | 714,868 | (705,686) | 56% | 20% |
| Inventory Purchases | 276,142 | 255,198 | 230,000 | 105,015 | 116,290 | 113,001 | (124,985) | 46% | -11% |
| Debt Service | - | - | - | - | - | - | - | 0% | 0% |
| Total Uses | 5,859,044 | 5,577,591 | 5,926,513 | 2,797,138 | 2,891,001 | 3,015,782 | (3,129,375) | 47% | -3% |
| Net Before Non-Mandatory Transfers | 1,003,521 | 1,322,346 | 1,002,693 | 642,550 | 695,403 | 554,748 | (360,143) | 64% | -8% |
| Net Transfers | (732,362) | (950,574) | (1,002,693) | (581,971) | (455,704) | (382,641) | 420,722 | 58% | 22% |
| Net Total | 271,159 | 371,772 | - | 60,579 | 239,699 | 172,107 | 60,579 | | -296% |
| Goggin Ice Arena | | | | | | | | | |
| Revenue | 1,862,814 | 1,844,163 | 1,821,240 | 1,098,535 | 1,067,310 | 1,021,971 | (722,705) | 60% | 3% |
| General Fee Support | 4,322,497 | 4,370,401 | 4,437,263 | 2,218,632 | 2,185,200 | 2,161,250 | (2,218,631) | 50% | 2% |
| Total Sources | 6,185,311 | 6,214,564 | 6,258,503 | 3,317,167 | 3,252,510 | 3,183,221 | (2,941,336) | 53% | 2% |
| Salary | 1,304,892 | 1,063,317 | 1,124,310 | 566,317 | 551,192 | 658,857 | (557,993) | 50% | 3% |
| Benefits | 377,936 | 311,342 | 360,626 | 176,658 | 175,868 | 233,056 | (183,968) | 49% | 0% |
| Utilities | 1,073,959 | 1,025,372 | 943,989 | 401,791 | 562,160 | 548,849 | (542,198) | 43% | -40% |
| Charge Outs | - | - | - | - | - | - | - | 0% | 0% |
| Operating Expenses | 601,219 | 796,278 | 906,249 | 390,427 | 379,257 | 328,034 | (515,822) | 43% | 3% |
| Inventory Purchases | 211,756 | 224,248 | 195,000 | 121,940 | 116,794 | 116,978 | (73,060) | 63% | 4% |
| Debt Service | 1,826,892 | 1,825,522 | 1,839,992 | 922,924 | 915,732 | 916,342 | (917,068) | 50% | 1% |
| Total Uses | 5,396,654 | 5,246,079 | 5,370,166 | 2,580,057 | 2,701,003 | 2,802,116 | (2,790,109) | 48% | -5% |
| Net Before Non-Mandatory Transfers | 788,657 | 968,485 | 888,337 | 737,110 | 551,507 | 381,105 | (151,227) | 83% | 25% |
| Net Transfers | (551,161) | (800,000) | (888,337) | (442,715) | (250,086) | (292,529) | 445,622 | 50% | 44% |
| Net Total | 237,496 | 168,485 | - | 294,395 | 301,421 | 88,576 | 294,395 | | -2% |
| Student Health Services | | | | | | | | | |
| Revenue | 3,065,498 | 2,975,119 | 3,073,870 | 1,646,078 | 1,661,486 | 1,746,809 | (1,427,792) | 54% | -1% |
| General Fee Support | - | - | - | - | - | - | - | 0% | 0% |
| Total Sources | 3,065,498 | 2,975,119 | 3,073,870 | 1,646,078 | 1,661,486 | 1,746,809 | (1,427,792) | 54% | -1% |
| Salary | 651,399 | 531,573 | 458,704 | 227,622 | 270,596 | 338,336 | (231,082) | 50% | -19% |
| Benefits | 216,079 | 168,361 | 174,676 | 84,428 | 98,085 | 137,026 | (90,248) | 48% | -16% |
| Utilities | 12,250 | 1,885 | 2,942 | 434 | 1,471 | 6,482 | (2,508) | 15% | -239% |
| Charge Outs | - | - | - | - | - | - | - | 0% | 0% |
| Operating Expenses | 2,567,026 | 2,310,984 | 2,437,148 | 826,171 | 1,084,413 | 1,262,016 | (1,610,977) | 34% | -31% |
| Inventory Purchases | - | 569 | 400 | - | 346 | - | (400) | 0% | 0% |
| Debt Service | - | - | - | - | - | - | - | 0% | 0% |
| Total Uses | 3,446,755 | 3,013,372 | 3,073,870 | 1,138,655 | 1,454,911 | 1,743,860 | (1,935,215) | 37% | -28% |
| Net Before Non-Mandatory Transfers | (381,257) | (38,253) | - | 507,423 | 206,575 | 2,949 | 507,423 | 0% | 59% |
| Net Transfers | (166,474) | 28,111 | - | - | - | (83,238) | - | 0% | 0% |
| Net Total | (547,731) | (10,142) | - | 507,423 | 206,575 | (80,289) | 507,423 | | 59% |

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|------------------------------------|------------------|------------------|------------------|----------------------|--------------|--------------|--------------------------|--------------------|--------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| Transportation Services | | | | | | | | | |
| Revenue | 2,656,984 | 2,641,218 | 2,420,000 | 1,442,581 | 1,410,138 | 1,457,339 | (977,419) | 60% | 2% |
| General Fee Support | 2,567,669 | 2,585,955 | 2,657,207 | 1,328,605 | 1,292,977 | 1,283,834 | (1,328,602) | 50% | 3% |
| Total Sources | 5,224,653 | 5,227,173 | 5,077,207 | 2,771,186 | 2,703,115 | 2,741,173 | (2,306,021) | 55% | 2% |
| Salary | 221,752 | 217,458 | 263,463 | 93,197 | 99,269 | 114,399 | (170,266) | 35% | -7% |
| Benefits | 69,606 | 69,530 | 93,767 | 34,939 | 35,703 | 41,103 | (58,828) | 37% | -2% |
| Utilities | - | - | - | - | - | - | - | 0% | 0% |
| Charge Outs | (74,823) | (68,375) | (20,000) | (51,219) | (52,808) | (57,474) | (31,219) | 256% | -3% |
| Operating Expenses | 2,516,475 | 2,333,889 | 2,720,185 | 1,005,865 | 1,202,853 | 997,779 | (1,714,320) | 37% | -20% |
| Inventory Purchases | - | - | - | - | - | - | - | 0% | 0% |
| Debt Service | 1,566,244 | 1,524,074 | 1,532,588 | 769,176 | 764,696 | 811,865 | (763,412) | 50% | 1% |
| Total Uses | 4,299,253 | 4,076,576 | 4,590,003 | 1,851,958 | 2,049,713 | 1,907,672 | (2,738,045) | 40% | -11% |
| Net Before Non-Mandatory Transfers | 925,400 | 1,150,597 | 487,204 | 919,228 | 653,402 | 833,501 | 432,024 | 189% | 29% |
| Net Transfers | (435,258) | (463,961) | (487,204) | (243,600) | (231,979) | (217,631) | 243,604 | 50% | 5% |
| Net Total | 490,142 | 686,636 | - | 675,628 | 421,423 | 615,870 | 675,628 | | 38% |
| Utility Enterprise | | | | | | | | | |
| Revenue | - | - | - | - | - | - | - | 0% | 0% |
| General Fee Support | - | - | - | - | - | - | - | 0% | 0% |
| Total Sources | - | - | - | - | - | - | - | 0% | 0% |
| Salary | 1,511,017 | 1,481,032 | 1,732,255 | 750,963 | 699,857 | 748,377 | (981,292) | 43% | 7% |
| Benefits | 528,650 | 525,249 | 660,093 | 288,297 | 267,102 | 300,855 | (371,796) | 44% | 7% |
| Utilities | 9,686,460 | 9,666,479 | 10,381,187 | 4,193,406 | 4,529,140 | 3,956,058 | (6,187,781) | 40% | -8% |
| Charge Outs | (13,016) | - | (42,000) | (549) | - | (2,760) | 41,451 | 1% | 100% |
| Expense Recovery | (23,613,835) | (23,459,653) | (23,548,120) | (9,349,243) | (12,042,384) | (11,792,021) | 14,198,877 | 40% | -29% |
| Operating Expenses | 1,348,048 | 1,101,461 | 1,835,380 | 522,094 | 368,096 | 941,557 | (1,313,286) | 28% | 29% |
| Inventory Purchases | - | - | - | - | - | - | - | 0% | 0% |
| Debt Service | 2,345,921 | 2,305,610 | 2,309,864 | 1,161,727 | 1,158,867 | 1,225,556 | (1,148,137) | 50% | 0% |
| Total Uses | (8,206,755) | (8,379,822) | (6,671,341) | (2,433,305) | (5,019,322) | (4,622,378) | 4,238,036 | 36% | -106% |
| Net Before Non-Mandatory Transfers | 8,206,755 | 8,379,822 | 6,671,341 | 2,433,305 | 5,019,322 | 4,622,378 | (4,238,036) | 36% | -106% |
| Net Transfers | (6,236,363) | (6,404,334) | (6,671,341) | (3,298,170) | (3,191,374) | (3,120,599) | 3,373,171 | 49% | 3% |
| Net Total | 1,970,392 | 1,975,488 | - | (864,865) | 1,827,948 | 1,501,779 | (864,865) | | 311% |

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|---|------------------|------------------|------------------|----------------------|-----------|-------------|--------------------------|--------------------|--------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| <u>Armstrong - Student Affairs</u> | | | | | | | | | |
| Revenue | 187,793 | 181,079 | 176,960 | 85,660 | 85,352 | 78,550 | (91,300) | 48% | 0% |
| General Fee Support | 5,452,615 | 5,519,698 | 5,654,466 | 3,304,812 | 3,225,881 | 3,181,913 | (2,349,654) | 58% | 2% |
| Total Sources | 5,640,408 | 5,700,777 | 5,831,426 | 3,390,472 | 3,311,233 | 3,260,463 | (2,440,954) | 58% | 2% |
| Salary | 455,320 | 485,985 | 570,112 | 245,671 | 244,618 | 237,834 | (324,441) | 43% | 0% |
| Benefits | 94,348 | 103,410 | 110,627 | 55,460 | 53,509 | 53,944 | (55,167) | 50% | 4% |
| Utilities | 378,003 | 352,454 | 368,196 | 134,321 | 180,512 | 160,104 | (233,875) | 36% | -34% |
| Charge Outs | - | - | - | - | - | - | - | 0% | 0% |
| Operating Expenses | 763,509 | 890,961 | 1,064,930 | 854,020 | 651,805 | 706,345 | (210,910) | 80% | 24% |
| Inventory Purchases | - | - | - | - | - | - | - | 0% | 0% |
| Debt Service | 2,450,000 | 2,450,000 | 2,450,000 | 1,225,000 | 1,225,000 | 1,225,000 | (1,225,000) | 50% | 0% |
| Total Uses | 4,141,179 | 4,282,810 | 4,563,865 | 2,514,472 | 2,355,444 | 2,383,227 | (2,049,393) | 55% | 6% |
| Net Before Non-Mandatory Transfers | 1,492,439 | 1,417,967 | 1,267,561 | 876,000 | 955,789 | 877,236 | (391,561) | 69% | -9% |
| Net Transfers | (1,159,542) | (1,132,756) | (1,267,561) | (1,108,595) | (987,413) | (1,028,371) | 158,966 | 87% | 11% |
| Net Total | 332,897 | 285,211 | - | (232,595) | (31,624) | (151,135) | (232,595) | | 86% |
| <u>Miscellaneous Facilities</u> | | | | | | | | | |
| Revenue | 195,942 | 148,306 | 162,100 | 55,605 | 76,261 | 105,524 | (106,495) | 34% | -37% |
| General Fee Support | 1,211,959 | 1,213,540 | 312,206 | 312,206 | 1,213,540 | 1,010,189 | - | 100% | -289% |
| Total Sources | 1,407,901 | 1,361,846 | 474,306 | 367,811 | 1,289,801 | 1,115,713 | (106,495) | 78% | -251% |
| Salary | 70,514 | 69,336 | 10,500 | 21,765 | 34,912 | 35,287 | 11,265 | 207% | -60% |
| Benefits | 20,940 | 20,776 | 179 | 8,379 | 11,641 | 12,172 | 8,200 | 4681% | -39% |
| Utilities | - | - | - | - | - | - | - | 0% | 0% |
| Charge Outs | - | - | - | - | - | - | - | 0% | 0% |
| Operating Expenses | 535,490 | 159,582 | 151,422 | 63,999 | 73,398 | 271,559 | (87,423) | 42% | -15% |
| Inventory Purchases | - | - | - | - | - | - | - | 0% | 0% |
| Debt Service | 403,544 | 405,124 | 312,206 | 156,589 | 203,096 | 202,293 | (155,617) | 50% | -30% |
| Total Uses | 1,030,489 | 654,818 | 474,307 | 250,732 | 323,047 | 521,311 | (223,575) | 53% | -29% |
| Net Before Non-Mandatory Transfers | 377,412 | 707,028 | (1) | 117,079 | 966,754 | 594,402 | 117,080 | -11707900% | -726% |
| Net Transfers | (508,355) | (795,876) | - | - | (795,876) | (275,211) | - | 0% | 0% |
| Net Total | (130,943) | (88,848) | (1) | 117,079 | 170,878 | 319,191 | 117,080 | | -46% |
| <u>Total Auxiliary</u> | | | | | | | | | |

MIAMI UNIVERSITY
Financial Analysis - Auxiliary Units (Oxford Campus)
FY2020/FY2019/FY2018

| | FY2018 Actual | FY2019 Actual | FY2020 Budget | Through December YTD | | | FY20 Budget to Actual | % of '20 Budget | % Change from '19 YTD |
|------------------------------------|------------------|------------------|------------------|----------------------|--------------|--------------|--------------------------|--------------------|--------------------------|
| | | | | FY2020 | FY2019 | FY2018 | | | |
| Revenue | 145,760,758 | 149,774,608 | 162,340,871 | 135,943,642 | 129,884,249 | 124,031,716 | (26,397,229) | 84% | 4% |
| General Fee Support | 36,083,896 | 37,224,406 | 36,988,152 | 19,127,758 | 19,447,673 | 18,510,156 | (17,860,394) | 52% | -2% |
| Designated Revenue | 805,879 | 581,185 | 824,200 | 553,915 | 570,871 | 466,843 | (270,285) | 67% | -3% |
| Restricted Revenue | 2,328,012 | 1,766,163 | 2,172,751 | 1,871,073 | 1,296,824 | 794,810 | (301,678) | 86% | 31% |
| Total Sources | 184,978,545 | 189,346,362 | 202,325,974 | 157,496,388 | 151,199,617 | 143,803,525 | (44,829,586) | 78% | 4% |
| Salary | 33,334,314 | 32,698,154 | 34,883,063 | 16,820,800 | 16,022,808 | 16,797,337 | (18,062,263) | 48% | 5% |
| Benefits | 9,796,681 | 9,888,054 | 11,707,471 | 5,674,842 | 5,438,977 | 5,971,420 | (6,032,629) | 48% | 4% |
| Utilities | 18,767,581 | 18,569,712 | 20,013,933 | 7,839,122 | 9,159,987 | 7,390,911 | (12,174,811) | 39% | -17% |
| Charge Outs | (3,456,628) | (1,205,418) | (1,650,153) | (960,152) | (865,526) | (1,258,100) | 690,001 | 58% | 10% |
| Expense Recovery | (23,613,835) | (23,459,653) | (23,548,120) | (9,349,243) | (12,042,384) | (11,792,021) | 14,198,877 | 40% | -29% |
| Operating Expenses | 61,931,912 | 60,311,548 | 67,364,398 | 33,225,852 | 31,645,075 | 33,242,360 | (34,138,546) | 49% | 5% |
| Inventory Purchases | 13,541,836 | 12,001,547 | 13,007,171 | 6,832,678 | 6,496,862 | 7,975,882 | (6,174,493) | 53% | 5% |
| Debt Service | 50,237,360 | 50,948,396 | 50,350,439 | 28,937,436 | 25,528,338 | 25,312,786 | (21,413,003) | 57% | 12% |
| Designated Expense | 735,643 | 692,903 | 824,200 | 682,350 | 584,944 | 577,023 | (141,850) | 83% | 14% |
| Restricted Expense | 2,029,134 | 1,236,245 | 2,172,751 | 1,018,058 | 826,597 | 648,399 | (1,154,693) | 47% | 19% |
| Total Uses | 163,303,998 | 161,681,488 | 175,125,153 | 90,721,743 | 82,795,678 | 84,865,997 | (84,403,410) | 52% | 9% |
| Net Before Non-Mandatory Transfers | 21,674,547 | 27,664,874 | 27,200,821 | 66,774,645 | 68,403,939 | 58,937,528 | 39,573,824 | 245% | -2% |
| Net Transfers | (16,466,293) | (22,896,048) | (27,200,822) | (14,310,907) | (11,556,391) | (8,424,685) | 12,889,915 | 53% | 19% |
| Net Total | 5,208,254 | 4,768,825 | (1) | 52,463,738 | 56,847,548 | 50,512,843 | 52,463,739 | | -8% |

Enrollment Update

Board of Trustees Meeting

Finance and Audit Committee
February 20, 2020



MIAMI UNIVERSITY

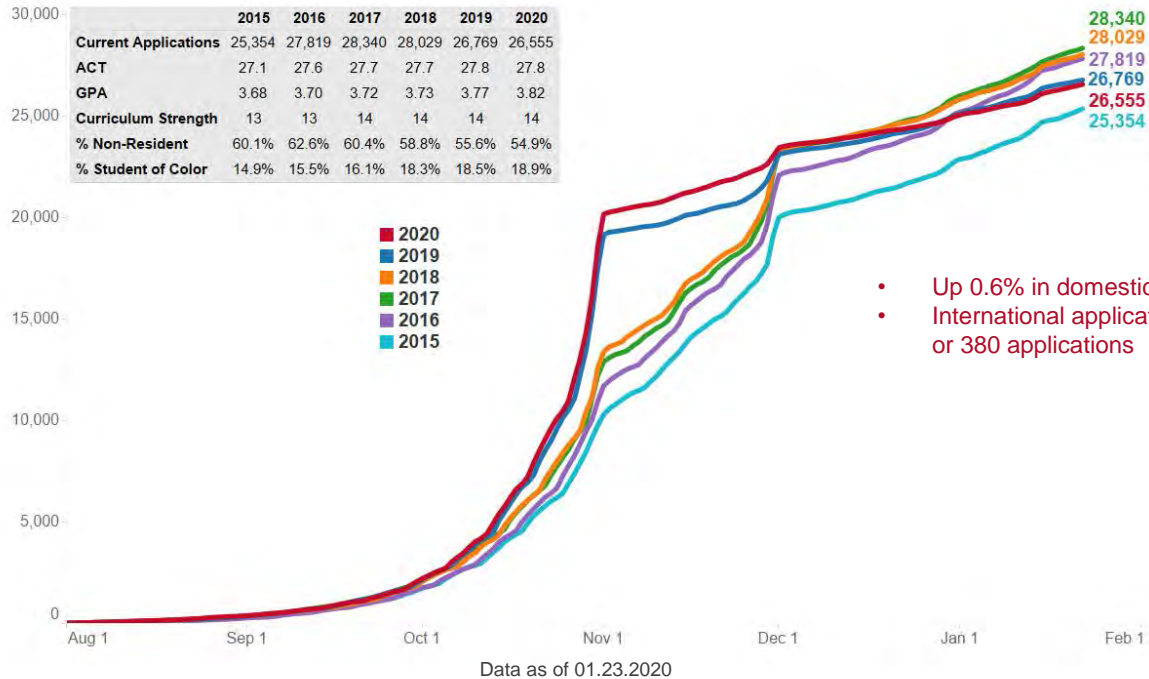
Key Enrollment Goals

Fall 2020

- » Reverse declining trend in applications to exceed 30,000
- » Enroll a cohort of 4,300 to 4,400 first-year students
 - » Increase domestic nonresident enrollments to 42% of incoming class
 - » Enroll 250 international students, including ACE
 - » Maintain diversity and academic quality metrics

Application and Key Indicator History

Fall 2020



Fall 2020 Applications

Residency

| | 2018 | 2019 | 2020 | Δ 2019 to 2020 |
|-----------------------|---------------|---------------|---------------|----------------|
| Non-Resident | 16,470 | 14,890 | 14,567 | -2.2% |
| Domestic Non-Resident | 12,829 | 12,165 | 12,210 | 0.4% |
| International | 3,641 | 2,725 | 2,357 | -13.5% |
| China | 2,917 | 1,876 | 1,278 | -31.9% |
| Ohio Resident | 11,559 | 11,879 | 11,988 | 0.9% |
| Grand Total | 28,029 | 26,769 | 26,555 | -0.8% |

- The decline is entirely from China. If not for increases in applications from other countries, international applications would be down 22% year over year.
- A new recruitment partnership kicked off January 3rd, with a new streamlined application launched on January 16th.

Data as of 01.23.2020

Fall 2020 Applications

Top Countries

| | 2018 | 2019 | 2020 | Δ 2019 to 2020 |
|--------------------|--------------|--------------|--------------|----------------|
| China | 2,917 | 1,876 | 1,278 | -31.9% |
| Vietnam | 158 | 246 | 349 | 41.9% |
| India | 132 | 142 | 128 | -9.9% |
| Nepal | 23 | 44 | 61 | 38.6% |
| Nigeria | 11 | 18 | 49 | 172.2% |
| Pakistan | 31 | 41 | 40 | -2.4% |
| South Korea | 25 | 20 | 39 | 95.0% |
| Ghana | 18 | 18 | 33 | 83.3% |
| Bangladesh | 4 | 11 | 28 | 154.5% |
| Ethiopia | 18 | 31 | 23 | -25.8% |
| Egypt | 11 | 10 | 19 | 90.0% |
| Other Countries | 293 | 268 | 310 | 15.7% |
| Grand Total | 3,641 | 2,725 | 2,357 | -13.5% |

Data as of 01.23.2020

Fall 2020 Applications

Academic Division

- CAS: Up despite 341 fewer international applications year over year. Biggest increases are in Bio, Biochem, Psych, and Speech Path.
- CCA: Nearly 95% of increase is in Games + Sim and Architecture
- CLAAS: Nursing applications are up but have limited spots.

| | 2018 | 2019 | 2020 | Δ 2019 to 2020 |
|--------------------|---------------|---------------|---------------|----------------|
| CAS | 11,382 | 11,016 | 11,186 | 1.5% |
| FSB | 7,951 | 7,178 | 6,923 | -3.6% |
| CEC | 3,920 | 3,774 | 3,518 | -6.8% |
| EHS | 2,574 | 2,366 | 2,163 | -8.6% |
| CCA | 1,328 | 1,272 | 1,457 | 14.5% |
| CLAAS | 874 | 1,163 | 1,308 | 12.5% |
| Grand Total | 28,029 | 26,769 | 26,555 | -0.8% |

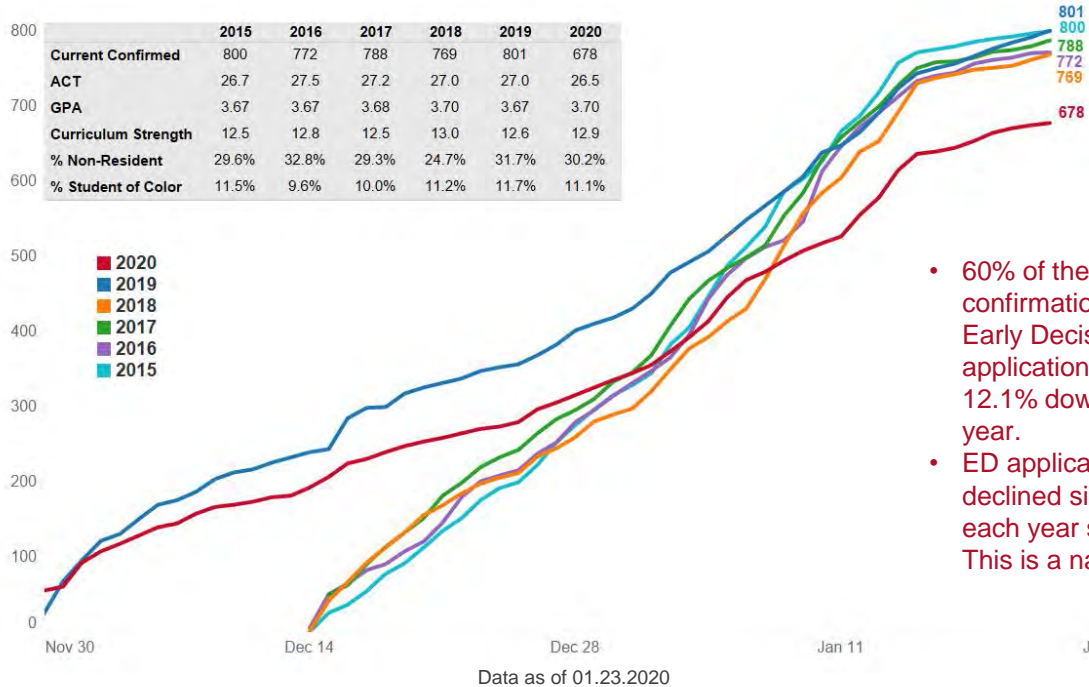
- FSB: 54% of decline is from China alone
- CEC: Declines are across the board, down 150 applications in OH alone
- EHS: Also down across the board; 35% of decline is in OH

Data as of 01.23.2020

Confirmation and Key Indicator History

Fall 2020

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------------|-------|-------|-------|-------|-------|-------|
| Current Confirmed | 800 | 772 | 788 | 769 | 801 | 678 |
| ACT | 26.7 | 27.5 | 27.2 | 27.0 | 27.0 | 26.5 |
| GPA | 3.67 | 3.67 | 3.68 | 3.70 | 3.67 | 3.70 |
| Curriculum Strength | 12.5 | 12.8 | 12.5 | 13.0 | 12.6 | 12.9 |
| % Non-Resident | 29.6% | 32.8% | 29.3% | 24.7% | 31.7% | 30.2% |
| % Student of Color | 11.5% | 9.6% | 10.0% | 11.2% | 11.7% | 11.1% |



- 60% of the decline in confirmations is from Early Decision (ED) applications, which were 12.1% down year over year.
- ED applications have declined significantly each year since 2015. This is a national trend.

Fall 2020 Confirmations

Residency

| | 2018 | 2019 | 2020 | Δ 2019 to 2020 |
|-----------------------|------------|------------|------------|----------------|
| Non-Resident | 190 | 254 | 205 | -19.3% |
| Domestic Non-Resident | 189 | 250 | 201 | -19.6% |
| International | 1 | 4 | 4 | 0.0% |
| China | 1 | 2 | 3 | 50.0% |
| Ohio Resident | 579 | 547 | 473 | -13.5% |
| Grand Total | 769 | 801 | 678 | -15.4% |

Data as of 01.23.2020

Fall 2020 Confirmations

Academic Division

| | 2018 | 2019 | 2020 | Δ 2019 to 2020 |
|--------------------|------------|------------|------------|----------------|
| CAS | 403 | 379 | 300 | -20.8% |
| FSB | 133 | 196 | 159 | -18.9% |
| CEC | 64 | 71 | 46 | -35.2% |
| EHS | 118 | 94 | 90 | -4.3% |
| CCA | 43 | 41 | 68 | 65.9% |
| CLAAS | 8 | 20 | 15 | -25.0% |
| Grand Total | 769 | 801 | 678 | -15.4% |

- ED confirmations from students not directly admitted to FSB have significantly declined year over year due to a policy change that allows these students until May 1 to confirm.
- This decline is reflected in CAS.

Data as of 01.23.2020

To: Finance and Audit Committee *Barbara K. Jena*

From: Barbara K. Jena, Chief Audit Officer

Subject: **Internal Audit & Consulting Services** - Reporting Update

Date: January 24, 2020

Since the last reporting update in November 2019, one high-risk audit issue was closed and two remain open. The closed issue, further described on page 2, arose in an outsourced IT audit. One of the two open issues pertains to IT vulnerability management. The other issue addresses the need to reconcile fundraising totals annually. Additional information can be found on page 3.

Please let me know if you have questions or comments.

Audit Issue Status



| Risk Level | Open audit issues | | Closed | Open audit issues | |
|------------|-------------------|-------|--------|-------------------|--|
| | 11/15/2019 | Added | | 1/24/2020 | |
| High | 3 | 0 | 1 | 2 | |

Attachment

Closed Internal Audit Issues

| Line | Audit Name And Date | Date Opened | Date Closed | Risk Level | Division | Recommendation | Responsible Person | Management Response and Status |
|------|--|-------------|-------------|------------|-------------|---|--|---|
| 1 | 174.1 - Outsourced Vulnerability Assessment - 5/2019 | 5/23/2019 | 12/10/2019 | High | IT Services | As part of an assessment of Miami University's overall technical security posture, IACS outsourced a web application penetration test on two web applications. The objective of the security assessment was to reveal any potential issues that could result in a breach and/or disclosure of potentially sensitive information. Two high severity issues were found that should be remediated immediately, as well as several medium and low severity vulnerabilities. | David Seidl, VP for Information Tech & CIO | The vendor engaged a third party Qualified Security Assessor to validate that the found vulnerabilities have been corrected. Miami received a copy of the Attestation of Scan Compliance dated 12/3/2019 and the audit issue was closed 12/10/2019. |

Open Internal Audit Issues

| Line | Audit Name And Date | Date Opened | Date Due | Risk Level | Division | Recommendation | Responsible Person | Management Response and Status and Percentage of Completion |
|------|--|-------------|-----------|------------|-----------------------------|--|--|---|
| 1 | 150.3 - Audit of Pledge Financial Accounting - 5/2017 | 5/26/2017 | 7/31/2020 | High | Finance & Business Services | <p>To increase reporting transparency, IACS recommends that Treasury Services work with University Advancement to prepare annual reconciliations between published financial reports and fundraising totals reported by University Advancement. Reconciliations should be prepared for both MU and MUF and address the following components:</p> <p>a. Revenue - gift revenue in the published financial reports to University Advancement's fundraising attainment (i.e., new pledges plus new outright gifts) in the fiscal year.</p> <p>b. Pledges receivable - pledges receivable in the published financial reports to University Advancement's pledges outstanding balance at fiscal year-end.</p> | Bruce Guiot, Chief Investment Treasury Officer | <p>In an 8/23/2019 status update, the Chief Investment Treasury Officer stated, "We have been successfully conducting weekly reconciliations between Advancement and Finance since June. We are preparing to replicate the process with monthly data." In further discussion, he added that the goal is to reconcile annually as recommended, but on a going-forward basis. As such, the earliest this could be accomplished would be in July 2020 for the FY 2020 fiscal year end.</p> <p>In a 11/4/2019 status update, the Chief Investment Treasury Officer stated, "We have begun conducting monthly reconciliations, but now need to create new reports that reflect changes that occur in subsequent periods so that we can achieve a year to date reconciliation."</p> <p>In a 1/22/2020 status update, the Chief Investment Treasury Officer stated, "While work is continuing, I have no changes to report since the last update."</p>  <p>85%</p> |
| 2 | 173.1 - Compliance with the Vulnerability Management Standard - 3/2019 | 3/12/2019 | 5/31/2020 | High | IT Services | <p>IACS recommends the Information Security team strengthen analysis and follow-up of cases where remediation is not taking place in accordance with the 30-day standard. Consequences of noncompliance should be re-evaluated to address problem areas.</p> | John Virden, Asst VP Sec Comp Risk Mgt CISO | <p>Management agrees with the auditor's recommendations. We acknowledge that there have been deficiencies in the following process, which will be addressed when the revised standard is rolled out. The vulnerability management standard will be revised by SCRM by the end of the 4th quarter of the fiscal year 2019. End users who receive the vulnerability report directly will be notified of the revised standard either through training and/or by email notification.</p> <p>In a 8/15/2019 update, management stated, "OpenVAS is being installed with a due date at the end of August. These changes will occur after the new scanning software is in place. This effort is on track for delivery as noted in the original management response."</p> <p>In a 11/7/2019 update, management stated that the new scanning software has been deployed in production, and reporting is scripted and automated. They are continuing to make operational improvements including remediation speed (within the 30-day standard).</p> <p>In a 1/22/2020 update, management stated, "The new scanning software has been deployed in production. Continuing to make operational and technical improvements. Implementation progress is being made but encountering technical and procedural challenges. Currently conducting scans on high value assets while we revisit the vulnerability management solution."</p>  <p>90%</p> |

REPORT ON CASH AND INVESTMENTS
Finance and Audit Committee
Miami University
February 20, 2020

Non-Endowment Fund

For the second fiscal quarter ending December 31, 2019, the non-endowment's estimated net-of-fees return excluding operating cash was +4.8%. Tier II Baseline Core Cash and Special Initiatives Fund preliminary returns were +0.5% and +0.1% respectively, while Tier III earned +6.0%. Tier III was led by public equities which collectively rose 10.2% in the quarter, followed by commodities, which rose 7.7%. The estimated return for the non-endowment's net-of-fees return excluding operating cash for the full calendar year is +13.4%.

At December 31st, the Operating Cash balance was about \$72.8 million, down from \$143.2 at the end of September. During the quarter, \$10 million was transferred from Operating Cash to Core Cash Tier II to rebalance against forecasted cash flow for the full fiscal year. Operating Cash earned an approximate 1.0% annualized yield on the average balance, in addition to a significant portion receiving earnings credit against bank fees.

| | Fair Value | % of |
|---------------------------------------|----------------------|------------------|
| Current Funds | (Millions) | Portfolio |
| Operating Cash (Tier I): | | |
| Short-term Investments* | \$72,832,710 | 10.2% |
| Core Cash (Tier II): | | |
| Short-Term Bonds | \$86,695,257 | 12.2% |
| <u>Special Initiatives</u> | <u>\$49,145,702</u> | 6.9% |
| Total Core Cash (Tier II): | \$135,840,959 | 19.0% |
| Long-Term Capital (Tier III): | | |
| Equity Investments | \$269,173,820 | 37.7% |
| Debt Investments | \$103,923,202 | 14.6% |
| Hedge Funds | \$59,526,311 | 8.3% |
| Real Assets | \$45,935,270 | 6.4% |
| Other** | \$134,435 | 0.0% |
| <u>Cash</u> | <u>\$26,086,444</u> | 3.7% |
| Total Long-Term Capital (Tier III) | \$504,779,482 | 70.8% |
| Total Current Fund Investments | \$713,453,151 | 100.0% |

*not included in performance report

**includes Cintrifuse Syndicate Fund II

(Continued on next page)

REPORT ON CASH AND INVESTMENTS
Finance and Audit Committee
Miami University
February 20, 2020

Endowment Pooled Investment Fund

The endowment's preliminary returns were +5.6% for the December quarter. This figure excludes updated values for private capital, which reports on a significant lag. The endowment benefited most from public equity's +10.4% return for the quarter, while fixed income rose only 0.9%. The preliminary return for the full calendar year is 15.3%

The Miami University Foundation Investment Committee conducted a teleconference on December 18, 2019 for an update on the Pooled Investment Fund's performance, a review on hedge funds and the portable alpha strategy, and a primer on private credit.

Bond Project Funds

There was little draw activity in the December quarter. As of December 31, 2019, the balance was as follows:

Plant Funds

| | |
|-------------------------------|-------------|
| Series 2017 Bond Project Fund | \$1,026,841 |
|-------------------------------|-------------|

Attachments

Non-endowment Performance Summary as of 12/31/2019

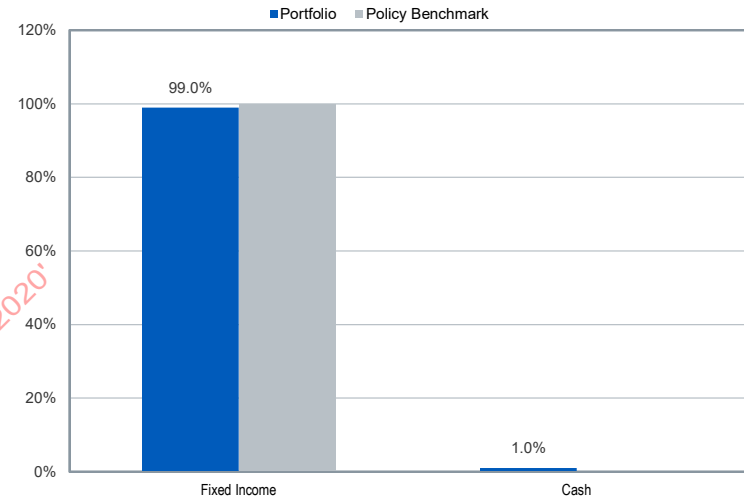
MUF Performance Summary as of 12/31/2019



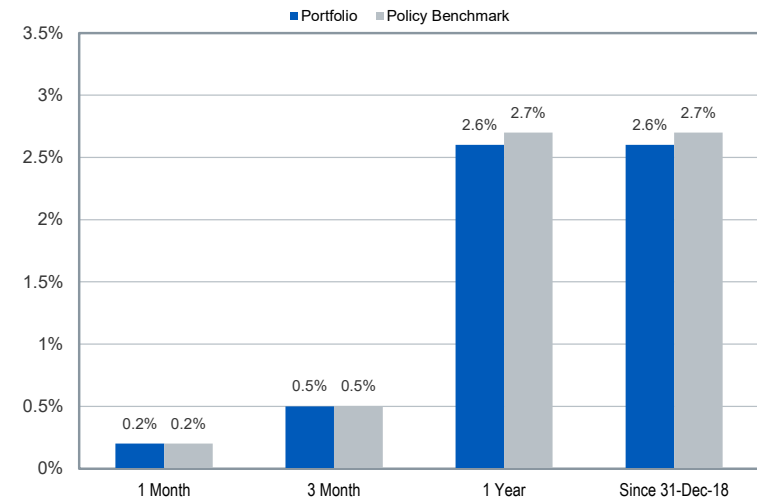
Miami University Baseline Tier II
December 31, 2019

| Asset Class <i>Benchmark</i> | Market Value (\$ mill) | Portfolio (%) | Rates of Return (%) | | | |
|--|---------------------------|---------------|---------------------|------------|---------------------|-----------------------|
| | | | 1 Month | 3 Month | Fiscal Year To Date | Calendar Year To Date |
| U.S. Fixed Income <i>U.S. Fixed Income Policy Benchmark</i> | 85.812 | 99.0% | 0.2 | 0.5 | 1.1 | 2.7 |
| Total Fixed Income | 85.812 | 99.0% | 0.2 | 0.5 | 1.1 | 2.7 |
| Total Cash, Accruals, and Pending Trades | 0.883 | 1.0% | 0.1 | 0.2 | 0.5 | 1.0 |
| Miami University - Baseline Tier II (Net of Sub-Mgr Fees) | 86.695 | 100.0% | 0.2 | 0.5 | 1.1 | 2.7 |
| Miami University - Baseline Tier II (Net of Sub-Mgr and Strategic Fees) | 86.695 | 100.0% | 0.2 | 0.5 | 1.1 | 2.6 |
| <i>Total Portfolio Policy Benchmark</i> | | | <i>0.2</i> | <i>0.6</i> | <i>1.1</i> | <i>2.9</i> |
| <i>Total Portfolio Policy Benchmark (Net of Fees)</i> | | | <i>0.2</i> | <i>0.5</i> | <i>1.1</i> | <i>2.7</i> |

ASSET ALLOCATION¹



PORTFOLIO PERFORMANCE²



Downloaded by 'Timothy Viezer' on '1/21/2020'

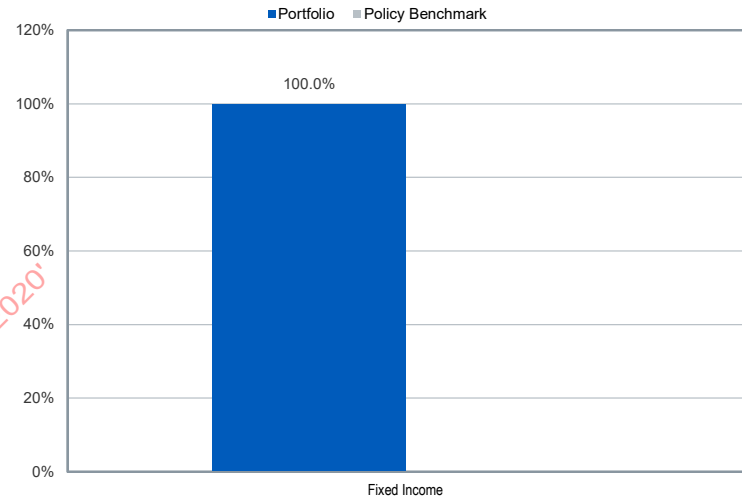
1) Asset Allocations are calculated from manager risk exposures and may result in differences from the allocations in the investment performance table above.
 2) Returns are annualized except for periods of less than one year and are net of both Strategic and sub-manager fees.
 -Strategic reports performance on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on preliminary information available at the time of this report.
 -Please refer to the footnotes in your monthly report for detail on the returns calculations, benchmarks and other important information.



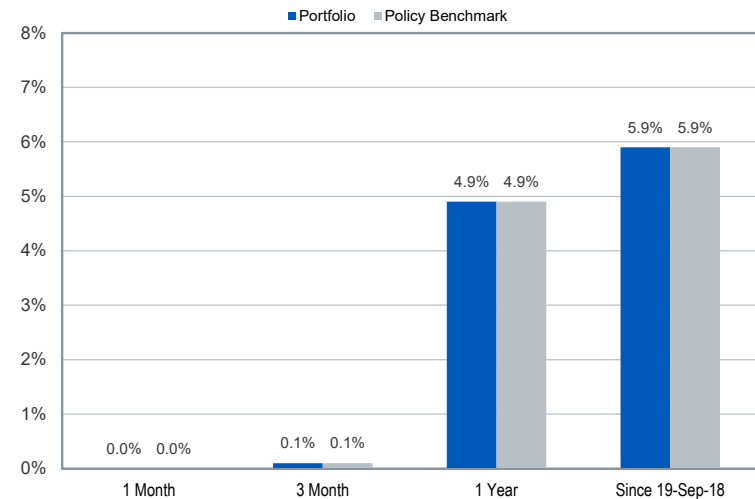
Miami University Special Initiatives Fund
December 31, 2019

| Asset Class <i>Benchmark</i> | Market Value (\$ mill) | Portfolio (%) | Rates of Return (%) | | | |
|--|---------------------------|---------------|---------------------|------------|---------------------|-----------------------|
| | | | 1 Month | 3 Month | Fiscal Year To Date | Calendar Year To Date |
| U.S. Fixed Income | 49.146 | 100.0% | 0.0 | 0.1 | 1.2 | 5.0 |
| Total Fixed Income | 49.146 | 100.0% | 0.0 | 0.1 | 1.2 | 5.0 |
| Miami University Special Initiatives Fund (Net of Sub-Mgr Fees) | 49.146 | 100.0% | 0.0 | 0.1 | 1.2 | 5.0 |
| Miami University Special Initiatives Fund (Net of Sub-Mgr and Strategic Fees) | 49.146 | 100.0% | 0.0 | 0.1 | 1.1 | 4.9 |
| <i>Total Portfolio Policy Benchmark</i> | | | 0.0 | 0.1 | 1.1 | 4.9 |

ASSET ALLOCATION¹



PORTFOLIO PERFORMANCE²



Downloaded by 'Timothy Viezer' on '1/21/2020'

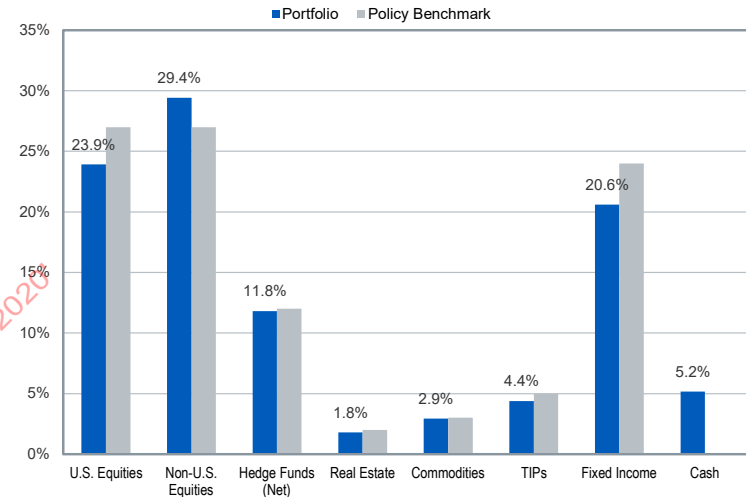
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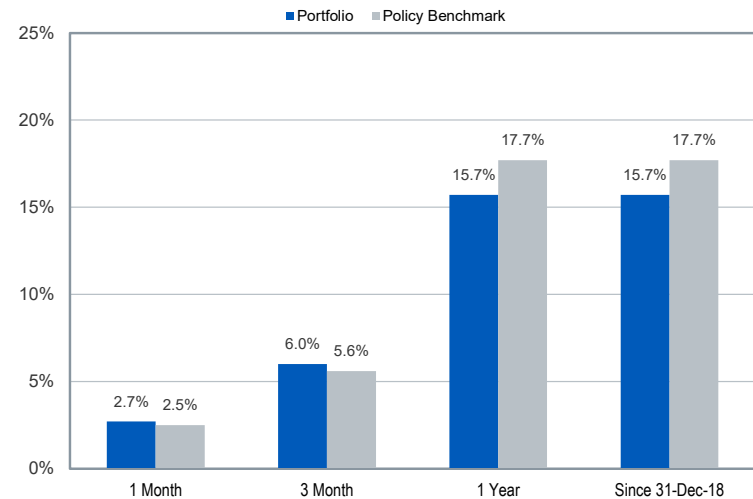
Miami University Long-Term Capital Tier III December 31, 2019

| Asset Class <i>Benchmark</i> | Market Value (\$ mill) | Portfolio (%) | Rates of Return (%) | | | |
|--|---------------------------|---------------|---------------------|-------------|---------------------|-----------------------|
| | | | 1 Month | 3 Month | Fiscal Year To Date | Calendar Year To Date |
| U.S. Equity <i>U.S. Equity Policy Benchmark</i> | 98.754 | 19.6% | 3.2 | 9.8 | 10.6 | 30.6 |
| Non-U.S. Equity <i>Non-U.S. Equity Policy Benchmark</i> | 128.824 | 25.5% | 5.1 | 10.9 | 7.7 | 21.7 |
| Global Equity <i>Global Equity Benchmark</i> | 41.596 | 8.2% | 3.6 | 9.2 | 9.6 | - |
| Total Equity | 269.174 | 53.3% | 4.2 | 10.2 | 9.1 | 25.8 |
| Hedge Funds (Net Exposure) <i>Hedge Funds Policy Benchmark</i> | 59.526 | 11.8% | 0.7 | 1.7 | 1.6 | 5.1 |
| Total Alternatives | 59.526 | 11.8% | 0.7 | 1.7 | 1.6 | 5.1 |
| Real Estate - IRR <i>Real Estate Policy Benchmark - IRR</i> | 9.054 | 1.8% | - | 0.0 | 1.1 | - |
| Commodities <i>Commodities Policy Benchmark</i> | 14.755 | 2.9% | 6.4 | 7.7 | 3.6 | - |
| TIPS <i>TIPS Policy Benchmark</i> | 22.125 | 4.4% | 0.4 | 0.7 | 1.3 | - |
| Total Real Assets | 45.935 | 9.1% | 2.3 | 2.9 | 1.9 | - |
| U.S. Fixed Income <i>U.S. Fixed Income Policy Benchmark</i> | 103.923 | 20.6% | 0.6 | 0.9 | 1.7 | 6.4 |
| Total Fixed Income | 103.923 | 20.6% | 0.6 | 0.9 | 1.7 | 6.4 |
| Total Cash, Accruals, and Pending Trades | 26.086 | 5.2% | 0.1 | 0.2 | 0.5 | 1.0 |
| Miami University Long-Term Capital Tier III (Net of Sub-Mgr Fees) | 504.645 | 100.0% | 2.7 | 6.1 | 5.6 | 16.0 |
| Miami University Long-Term Capital Tier III (Net of Sub-Mgr and Strategic Fees) | 504.645 | 100.0% | 2.7 | 6.0 | 5.5 | 15.7 |
| <i>Total Portfolio Policy Benchmark</i> | | | 2.5 | 5.7 | 6.0 | 17.9 |
| <i>Total Portfolio Policy Benchmark (Net of Fees)</i> | | | 2.5 | 5.6 | 6.0 | 17.7 |

ASSET ALLOCATION¹



PORTFOLIO PERFORMANCE²



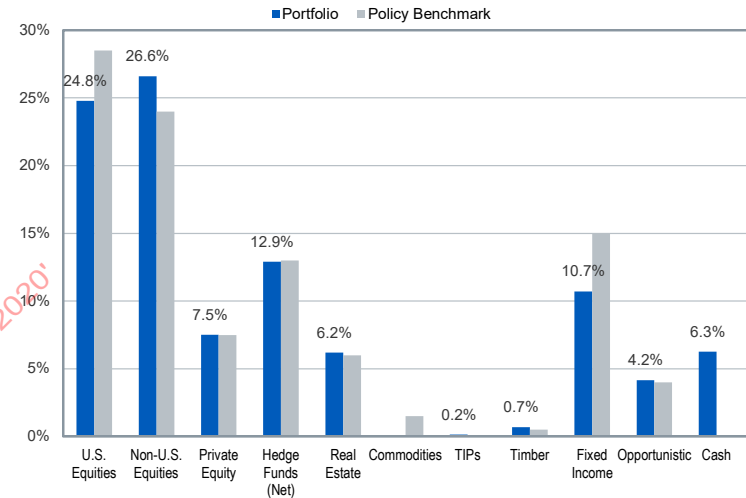
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 -Strategic reports performance on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on preliminary information available at the time of this report.
 -Please refer to the footnotes in your monthly report for detail on the returns calculations, benchmarks and other important information.



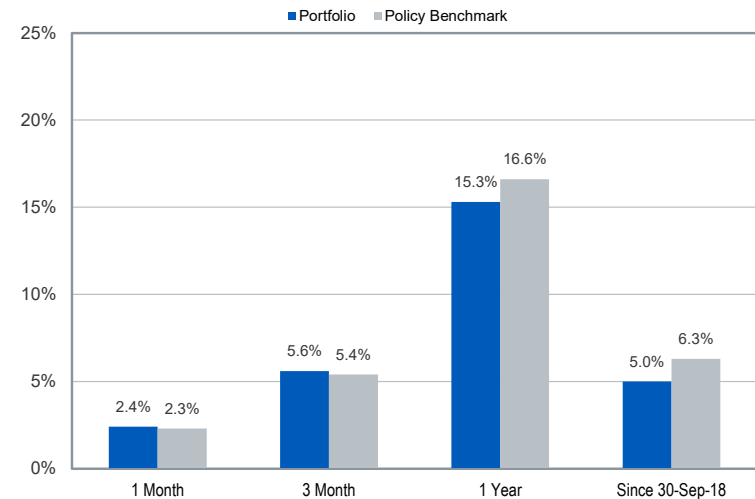
Miami University Pooled Investment Fund December 31, 2019

| Asset Class <i>Benchmark</i> | Market Value (\$ mill) | Total Portfolio (%) | Rates of Return (%) | | | |
|--|---------------------------|------------------------|---------------------|-------------|---------------------|-----------------------|
| | | | 1 Month | 3 Month | Fiscal Year To Date | Calendar Year To Date |
| U.S. Equity <i>U.S. Equity Policy Benchmark</i> | 117.214 | 20.8% | 3.2 | 9.7 | 10.3 | 29.7 |
| Non-U.S. Equity <i>Non-U.S. Equity Policy Benchmark</i> | 126.626 | 22.5% | 5.9 | 11.4 | 7.6 | 21.5 |
| Global Equity <i>Global Equity Benchmark</i> | 45.601 | 8.1% | 3.6 | 9.2 | 9.6 | 27.6 |
| Total Equity | 289.441 | 51.4% | 4.4 | 10.4 | 9.0 | 25.8 |
| Private Equity - IRR <i>Private Equity Policy Benchmark - IRR</i> | 42.302 | 7.5% | - | - | - | 6.0 |
| Hedge Funds (Net Exposure) <i>Hedge Funds Policy Benchmark</i> | 72.724 | 12.9% | 0.5 | 1.6 | 0.8 | 4.4 |
| Total Alternatives | 115.026 | 20.4% | 0.3 | 0.8 | (0.1) | 5.0 |
| Timber <i>Timber Policy Benchmark</i> | 3.906 | 0.7% | - | 0.0 | (1.5) | 0.6 |
| Real Estate - IRR <i>Real Estate Policy Benchmark - IRR</i> | 34.853 | 6.2% | - | - | - | 8.8 |
| Total Real Assets | 38.759 | 6.9% | - | 0.0 | 0.1 | 7.6 |
| U.S. Fixed Income <i>U.S. Fixed Income Policy Benchmark</i> | 61.201 | 10.9% | 0.6 | 0.9 | 1.8 | 5.5 |
| Total Fixed Income | 61.201 | 10.9% | 0.6 | 0.9 | 1.8 | 5.5 |
| Opportunistic <i>Opportunistic Policy Benchmark</i> | 23.406 | 4.2% | 0.0 | 0.0 | 1.1 | 4.3 |
| Total Opportunistic | 23.406 | 4.2% | 0.0 | 0.0 | 1.1 | 4.3 |
| Total Cash, Accruals, and Pending Trades | 35.324 | 6.3% | 0.1 | 0.2 | 0.5 | 1.0 |
| Miami University Pooled Investment Fund (Net of Sub-Mgr Fees) | 563.157 | 100.0% | 2.5 | 5.6 | 5.0 | 15.6 |
| Miami University Pooled Investment Fund (Net of Sub-Mgr and Strategic Fees) | 563.157 | 100.0% | 2.4 | 5.6 | 4.8 | 15.3 |
| <i>Total Combined Portfolio Policy Benchmark</i> | | | 2.4 | 5.4 | 5.7 | 16.9 |
| <i>Total Combined Portfolio Policy Benchmark (Net of Fees)</i> | | | 2.3 | 5.4 | 5.6 | 16.6 |

ASSET ALLOCATION¹



PORTFOLIO PERFORMANCE²



1) Asset Allocations are calculated from manager risk exposures and may result in differences from the allocations in the investment performance table above.
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 -Strategic reports performance on a "trade date" basis. Market values and returns are (1) subject to revisions due to updated valuations of the underlying investments and (2) based on preliminary information available at the time of this report.
 -Please refer to the footnotes in your monthly report for detail on the returns calculations, benchmarks and other important information.

| MU-Lean Project Status Totals | | | | | Completed Projects | | | |
|---------------------------------------|------------|-------------|----------|--------------|---------------------|---------------------|---------------------|---------------------|
| Division | Active | Completed | Future | Total | Cost Avoidance | Cost Reduction | Revenue Generated | Total |
| Finance and Business Services* | 110 | 1474 | 8 | 1592 | \$43,722,849 | \$29,087,177 | \$8,952,642 | \$81,762,668 |
| President+Intercollegiate Athletics+C | 4 | 7 | 0 | 11 | \$530,371 | \$233,500 | \$1,015 | \$764,886 |
| Advancement | 6 | 27 | 0 | 33 | \$156,732 | \$226,290 | \$4,223,000 | \$4,606,022 |
| Enrollment | 9 | 44 | 0 | 53 | \$513,758 | \$36,803 | \$37,705 | \$588,266 |
| Student Affairs | 4 | 5 | 0 | 9 | \$58,569 | \$0 | \$0 | \$58,569 |
| Information Technology Services | 1 | 20 | 0 | 21 | \$458,948 | \$0 | \$4,180 | \$463,128 |
| Academic Affairs | 4 | 34 | 1 | 39 | \$2,530,454 | \$0 | \$402,116 | \$2,932,570 |
| Lean Project Total - MU | 138 | 1611 | 9 | 1,758 | \$47,971,681 | \$29,583,770 | \$13,620,658 | \$91,176,109 |

* no longer track Procurement realized as a separate category

| MU-Lean Project Changes since 11-01-19 report | | | | | Newly Completed Projects since 11-01-19 report | | | |
|---|--------------|-----------------|--------------|-----------|--|--------------------|-----------------------|------------------|
| Division | Newly Active | Newly Completed | Newly Future | New Total | New Cost Avoidance | New Cost Reduction | New Revenue Generated | New Total |
| Finance and Business Services* | -6 | 23 | 1 | 18 | \$195,703 | \$94,896 | \$30,993 | \$321,592 |
| President+Intercollegiate Athletics | 0 | 0 | 0 | 0 | \$0 | \$0 | \$0 | \$0 |
| Advancement | 0 | -1 | 0 | -1 | \$0 | \$0 | \$0 | \$0 |
| Enrollment | 4 | 0 | 0 | 4 | \$12,125 | \$0 | \$0 | \$12,125 |
| Student Affairs | 0 | 0 | 0 | 0 | \$0 | \$0 | \$0 | \$0 |
| Information Technology Services | 0 | 0 | 0 | 0 | \$0 | \$0 | \$0 | \$0 |
| Academic Affairs | -11 | 0 | 0 | -11 | \$11,400 | \$0 | \$0 | \$11,400 |
| Lean Project Total - MU | -13 | 22 | 1 | 10 | \$219,228 | \$94,896 | \$30,993 | \$345,117 |

* no longer track Procurement realized as a separate category