Board of Curators Meeting
April 9, 2020
Public Session

Vision

To advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion.

Mission

To achieve excellence in the discovery, dissemination, preservation and application of knowledge. With an unwavering commitment to academic freedom and freedom of expression, the university educates students to become leaders, promotes lifelong learning by Missouri's citizens, fosters meaningful research and creative works, and serves as a catalyst for innovation, thereby advancing the educational, health, cultural, social and economic interests to benefit the people of Missouri, the nation, and the world.

Missouri Compacts for Achieving Excellence

The Missouri Compacts for Achieving Excellence provide unifying principles that inform and guide the four universities and their strategic plans. Learn more about the compacts, below, at http://umurl.us/prespri.

- Excellence in Student Success
- Excellence in Research and Creative Works
- Excellence in Engagement and Outreach
- Inclusive Excellence
- Excellence in Planning, Operations and Stewardship

Core Values

Our institution collectively embraces a series of core values that serve as the foundation upon which we build new knowledge and provide outstanding programs for students and citizens of our state and beyond.

- Academic freedom
- Access
- Accountability
- Civility
- Collaboration
- Creativity
- Discovery
- Engagement
- Excellence
- Freedom of expression
- Inclusion
- Innovation
- Integrity
- Respect
- Responsibility
- Transparency

Guiding Principles

1. Support courageous and proactive leadership that is articulate, unified and committed to excellence in carrying out our existing core missions of teaching, research, engagement and economic development and in meeting the changing needs of the world and the state.
2. Establish a collaborative environment in which UM System universities work together to achieve collective results that cannot be achieved individually and are committed to each other and our mutual success.
3. Exercise central authority that recognizes and respects institutional distinctiveness, appropriate deference and accountability.
4. Enact informed decisions based on collaboratively developed strategic directions and planning.
5. Identify and promote systemwide core values, including respect for all people, transparency, accountability, stewardship and purposeful self-assessment of performance.

UNIVERSITY OF MISSOURI

BOARD OF CURATORS
MEETING AGENDA - REVISED

Thursday, April 9, 2020

The public session meeting will be held at the Havener Center, Missouri University of Science and Technology campus, Rolla, Missouri; however, for the sake of public safety, Board members and members of the public are strongly encouraged to observe via conference telephone or zoom computer link as noted below.

A Board Committee meeting was held April 2, 2020 in conjunction with the April 9, 2020 Board meeting.

Zoom Webinar link: https://umsystem.zoom.us/j/761326809
Webinar ID: 761 326 809

Public Session Dial-In Number: +16468769923,,761326809# or +13126266799,,761326809#

THURSDAY, APRIL 9

BOARD OF CURATORS MEETING

8:00 A.M. PUBLIC SESSION - Call to Order

General Business

Information
1. University of Missouri Board Chair's Remarks
2. University of Missouri System President's Report
3. Student Representative to the Board of Curators Report

Action
1. Approval of Board of Curators Executive Committee, Standing Committees, and Appointments, 2020
2. Approval, 2021 Board of Curators Meeting Calendar

Information
4. Review Consent Agenda

Consent Agenda

Action
1. Minutes, February 6, 2020 Board of Curators Meeting
2. Minutes, January 29 and 30, 2020 Board of Curators Committee Meetings held in conjunction with the February 6, 2020 Board Meeting
3. Minutes, February 28, 2020 Board of Curators Special Meeting
4. Minutes, March 16, 2020 Board of Curators Executive Committee Meeting
5. Degrees, Spring Semester 2020 for all Campuses
6. Amendment, Collected Rules and Regulation 10.050, Standing Committees
7. Amendment, Collected Rules and Regulation 330.015, Policy on Conflict of Interest
8. Amendment to the Employee Retirement Investment Plan (ERIP) and the 457(b) Eligible Deferred Compensation Plan

8:45 A.M. GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE
(Curators Williams, Chatman, Layman, Snowden)

Governance, Compensation and Human Resources Committee Chair Williams to provide time for discussion of committee items.

Information
1. Annual Benefits Report and Annual Retirement Plan Actuarial Report and Required Contribution, UM (written report only)

Action
1. Approval, Board Committee Charters

8:55 A.M. FINANCE COMMITTEE
(Curators Steelman, Chatman, Hoberock, Williams)

Finance Committee Chair Steelman to provide time for discussion of committee items.

Information
1. Financial Status Report (Ryan Rapp)

Action
1. Consideration and Vote on an Amendment to the Funding Plan for the Nextgen Precision Health Institute Project, and Approval of a Bond Resolution Authorizing the Issuance by the University of System Facilities Revenue Bonds (A) To Refund Certain Existing Bonds and Other Obligations, (B) To Finance Said Project and (C) To Take Related Actions (Ryan Rapp)

9:15 A.M. **AUDIT, COMPLIANCE AND ETHICS COMMITTEE**
(Curators Layman, Graham, Steelman, Wenneker)

Audit, Compliance and Ethics Committee Chair Layman to provide time for discussion of committee items.

Information
1. UM Internal Audit and Consulting Quarterly Report (Michelle Piranio)
2. Compliance Program Implementation Status - UM (Michelle Piranio)

9:30 A.M. **HEALTH AFFAIRS COMMITTEE**
(Curators Graham, Steelman, Wenneker, Williams, Mr. Ashworth, Mr. Phillips)

Health Affairs Committee Chair Graham to provide time for discussion of information items.

Information
1. MU Health Care Chief Executive Officer Update – Written Report Only
2. School of Medicine Interim Dean Update – Written Report Only
3. Quarterly Financial Report – Written Report Only
4. Quarterly Compliance Report – Written Report Only

9:40 A.M. **ACADEMIC, STUDENT AFFAIRS AND RESEARCH AND ECONOMIC DEVELOPMENT CHAIR REPORT**
(Curators Chatman, Hoberock, Layman, Snowden)

Academic, Student Affairs, Research and Economic Development Committee Chair Chatman to provide an overview of action items.

Information
1. Academic Programs Enrollment Report

Action
1. UMKC Test Optional Admissions

General Business

Information
5. Good and Welfare of the Board

Action
3. Resolution for Executive Session of the Board of Curators Meeting, April 9, 2020

10:30 A.M. **Press Conference with Board of Curators Chair and UM System President** (time is approximate)

10:45 A.M. **BOARD OF CURATORS MEETING-EXECUTIVE SESSION** (time is approximate)

The Board of Curators will hold an executive session of the April 9, 2020 meeting, pursuant to Sections 610.021(1), 610.021(2), 610.021(3), 610.021(12), 610.021(13) and 610.021(14) RSMo, for consideration of certain confidential or privileged communications with University Counsel, personnel, property, litigation, contract items, and records protected by law, all as authorized by law and upon approval by resolution of the Board of Curators.

Upcoming meetings of the Board of Curators:

June 18-19, 2020	Annual Meeting and Strategic Session - University of Missouri System – Columbia
September 23, 2020	Special Finance Committee Meeting, UMKC
September 24, 2020	University of Missouri – Kansas City
November 19, 2020	University of Missouri – St. Louis

GENERAL BUSINESS

UNIVERSITY OF MISSOURI

BOARD CHAIR REMARKS

There are no materials for this information item.

UNIVERSISTY OF MISSOURI SYSTEM
PRESIDENT'S REPORT

There are no materials for this information item.

April 9, 2020

STUDENT REPRESENTATIVE TO THE
BOARD OF CURATORS REPORT

There are no materials for this information item.

No. 1

Recommended Action - Approval of Board of Curators Executive Committee, Standing Committees, and Appointments, 2020

It was recommended by Chair Brncic, moved by Curator ___________ and seconded by Curator ____________, that the following Board of Curators Executive Committee, Standing Committees, and appointments be approved for 2020:

Executive Committee
Julia G. Brncic, Chair
Maurice B. Graham
David L. Steelman

Academic, Student Affairs, Research and Economic Development Committee
Darryl M. Chatman, Chair
Greg E. Hoberock
Jeff L. Layman
Phil H. Snowden

Audit, Compliance and Ethics Committee
Jeff L. Layman, Chair
Maurice B. Graham
David L. Steelman
Robin R. Wenneker

Governance, Compensation and Human Resources Committee
Michael A. Williams, Chair
Darryl M. Chatman
Jeff L. Layman
Phil H. Snowden

Finance Committee
David L. Steelman, Chair
Darryl M. Chatman
Greg E. Hoberock
Michael A. Williams

April 9, 2020

Health Affairs Committee
Maurice B. Graham, Chair
Ronald G. Ashworth (non-curator)
John R. Phillips (non-curator)
David L. Steelman
Robin R. Wenneker
Michael A. Williams

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

No. 2

Recommended Action - 2021 Board of Curators Meeting Calendar

It was recommended by Chair Brncic, endorsed by President Choi, moved by Curator __________ and seconded by Curator __________, that the proposed 2021 Board of Curators meeting calendar be approved as follows:

PROPOSED 2021 BOARD OF CURATORS MEETING CALENDAR

DAY(S)	DATE(S)	LOCATION
Thursday	February 4	UM – Columbia
Thursday	April 22	Missouri S&T
Thursday-Friday	June 24-25	Columbia, Missouri
Wednesday (Finance Cte)	September 1	UM – Kansas City
Thursday	September 2	UM – Kansas City
Thursday	November 18	UM – St. Louis

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion __________________.

Proposed 2021 Board of Curators Meeting Calendar

Last meeting: November 19, 2020 (UMSL)

Day(s)	Date(s)	City	Host/Comments	Mailing Dates
Thursday	February 4 (Cte Mtgs week of Jan 25)	Columbia (11 weeks from last meeting)	MU	January 20
Thursday	April 22 (Cte Mtgs April 14, 15, 16)	Rolla (11 weeks from last meeting)	Missouri S&T	April 7
Thursday-Friday	June 24 & 25 (Cte Mtgs week of June 14)	Columbia (9 weeks from last meeting)	Board of Curators/UM System President	June 9
Wednesday	September 1	Kansas City (In conjunction with fall Board mtg)	Special Finance Committee Mtg (if needed)	August 18
Thursday	September 2 (Cte Mtgs week of Aug 23)	Kansas City (10 weeks from last meeting)	UMKC	August 18
Thursday	November 18 (Cte Mtgs week of Nov 8)	St. Louis (11 weeks from last meeting)	UMSL	November 3

<u>Revised State Statutes</u>

Regular meetings of board.
RSMo 172.110. There shall be two regular meetings of said board of curators in each year, to be holden in the university edifice or in the town of Columbia. The annual meeting shall be held on the third Tuesday in December and the semiannual meeting on the Tuesday preceding the first Thursday in June, unless different days shall be fixed upon by said board.

<u>University of Missouri Collected Rules and Regulations</u>

UM CR&R 10.030 Board Bylaws
C. Article III The Board of Curators
1. Meetings
    a. Annual meeting -- The regular meeting of the Board held during the month of May or June, as scheduled by the Board of Curators of each year, shall be deemed to be the annual meeting of the Board of Curators, and shall be held on such date in May or June as is fixed by the Board.
    b. Regular meetings -- The Board may hold regular meetings at a time and place to be fixed by the Board. The time and place of a regular meeting may be changed by order of the Board.

REVIEW CONSENT AGENDA

There are no materials for this information item.

CONSENT AGENDA

CONSENT

Recommended Action - Consent Agenda

It was endorsed by President Choi, moved by Curator ___________ and seconded by Curator ___________, that the following items be approved by consent agenda:

CONSENT AGENDA

Action

1. Minutes, February 6, 2020 Board of Curators Meeting
2. Minutes, January 29 and 30, 2020 Board of Curators Committee Meetings held in conjunction with the February 6, 2020 Board Meeting
3. Minutes, February 28, 2020 Board of Curators Special Meeting
4. Minutes, March 16, 2020 Board of Curators Executive Committee Meeting
5. Degrees, Spring Semester 2020 for all Campuses
6. Amendment, Collected Rules and Regulation 10.050, Standing Committees
7. Amendment, Collected Rules and Regulation 330.015, Policy on Conflict of Interest
8. Amendment to the Employee Retirement Investment Plan (ERIP) and the 457(b) Eligible Deferred Compensation Plan

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion __________________.

No. 1

Recommended Action - Minutes, February 6, 2020 Board of Curators Meeting Minutes

It was moved by Curator _______________ and seconded by Curator _______________, that the minutes of the February 6, 2020 Board of Curators meeting be approved as presented.

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

April 9, 2020

Consent 2

Recommended Action - Minutes, February 6, 2020 Board of Curators Committee Meeting Minutes

It was moved by Curator _______________ and seconded by Curator _______________, that the minutes of the January 29 and 30, 2020 Board of Curators committee meetings, held in conjunction with the February 6, 2020 Board of Curators meeting, be approved as presented.

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

Consent 3

Recommended Action - Minutes, February 28, 2020 Board of Curators Special Meeting Minutes

It was moved by Curator _______________ and seconded by Curator _______________, that the minutes of the February 28, 2020 Board of Curators special meeting be approved as presented.

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

Consent 4

Recommended Action - Minutes, March 16, 2020 Board of Curators Executive Committee Meeting Minutes

It was moved by Curator _______________ and seconded by Curator _______________, that the minutes of the March 16, 2020 Board of Curators Executive Committee meeting be approved as presented.

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

No. 5

Recommended Action - Approval of Degrees, Spring Semester 2020, for all campuses

It was recommended by Chancellors, endorsed by President Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator ______________, seconded by Curator __________________, that the following action be approved:

> that the action of the President of the University of Missouri System in awarding degrees and certificates to candidates recommended by the various faculties and committees of the four University of Missouri System campuses who fulfill the requirements for such degrees and certificates at the end of the Spring Semester 2020, shall be approved, and that the lists of said students who have been awarded degrees and certificates be included in the records of the meeting.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________.

Amendment, Collected Rules and Regulations 10.050, Board Standing Committees

Executive Summary

Pursuant to the February 6, 2020 amendment to Collected Rule and Regulation 10.050, Board Standing Committees, committee charter language was removed from the CRR, revised and placed in separate committee charters developed by each committee. The proposed amendment to the CRR makes it clear that the charters will be reviewed and approved annually and made publicly available on the Board's website.

Consent 6

Recommended Action – Amendment Collected Rules and Regulations 10.050, Standing Committees

It was recommended by Chair Brncic, moved by Curator _______________, and seconded by Curator _______________, that the following action be approved:

that the Collected Rules and Regulations 10.050, Standing Committees be amended as indicated in the attached documents.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

Chapter 10: Board of Curators Redline

10.050 Standing Committees

Bd. Min. 11-10-67, p. 33,579; Amended 8-6-71, p. 35,988; Amended 5-23-03; Amended 9-9-04; Amended 3-23-06, Amended 7-21-06, Amended 10-6-06, Amended 4-6-07, Amended 6-1-07, Amended 2-6-09, Amended 9-24-10, Amended 5-19-11, Amended 4-15-16, Amended 9-15-16, Amended Bd. Min. 2-1-18; Amended Bd. Min. 2-6-20; Amended Bd. Min. ________.

The Chair of the Board of Curators, subject to the approval of the Board, shall appoint the following standing committees: ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE; AUDIT, COMPLIANCE AND ETHICS COMMITTEE; GOVERNANCE AND COMPENSATION AND HUMAN RESOURCES COMMITTEE; FINANCE COMMITTEE; and HEALTH AFFAIRS COMMITTEE. In the event a new Curator(s) takes office prior to the next regular Board meeting, the Board Chair has the authority to temporarily appoint the new Curator(s) to standing committees. Their permanent appointment shall be subject to the approval of the Board at the next regular Board meeting. The Board Chair shall designate one member of each committee as committee chair. The Chair of the Board shall consider in making such appointment that no committee should be left without continuity. If a committee chair is unavailable for a meeting, they shall have the ability to designate a temporary appointment as committee chair or the Board Chair may designate the temporary appointment if the committee chair is unable to.

A. **Academic, Student Affairs, Research and Economic Development Committee** The Academic, Student Affairs, Research and Economic Development Committee may have referred to it matters relating to curricula, faculty, students, research and economic development and intercollegiate athletics.

B. **Audit, Compliance and Ethics Committee -** The Audit Committee will assist the Board of Curators in fulfilling its oversight responsibilities relating to: the integrity of the University's financial statements, the systems of internal control, the performance of the University's independent auditors and internal audit function, the independent auditor's qualifications and independence, and the University's compliance with legal and regulatory requirements.

C. **Governance, Compensation and Human Resources Committee** – The Governance, Compensation and Human Resources Committee will help the Board function effectively, efficiently and with integrity and may have referred to it matters relating to the compensation, benefits and other human resource functions of the University and associated programs and policies.

D. **Finance Committee** - The Finance Committee may have referred to it matters relating to the fiscal, accounting and fundraising functions of the University and associated programs and policies.

E. **Health Affairs Committee** The Health Affairs Committee will assist the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University's teaching, research, and clinical missions. The Health Affairs Committee shall receive and review regular reports from University of Missouri Health Care ("MU Health Care") and the MU School of Medicine's faculty practice plan ("University Physicians").

F. **Duties**

1. Each Committee shall receive such other matters as may be referred to it by the Chair of the Board of Curators.
2. Said Committees shall investigate the matters referred to them and make recommendations to the Board.
3. Each of said Committees shall meet as business requires and upon the call of the Chair~~man~~ of the Committee.
4. Each Committee shall review, and if necessary, revise its charter on an annual basis.
5. ~~3.~~ Committee charters shall be presented to the full Board for approval each year and published on the Board's website.

Chapter 10: Board of Curators   Clean

10.050 Standing Committees

Bd. Min. 11-10-67, p. 33,579; Amended 8-6-71, p. 35,988; Amended 5-23-03; Amended 9-9-04; Amended 3-23-06, Amended 7-21-06, Amended 10-6-06, Amended 4-6-07, Amended 6-1-07, Amended 2-6-09, Amended 9-24-10, Amended 5-19-11, Amended 4-15-16, Amended 9-15-16, Amended Bd. Min. 2-1-18; Amended Bd. Min. 2-6-20; Amended Bd. Min. ________.

The Chair of the Board of Curators, subject to the approval of the Board, shall appoint the following standing committees: ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE; AUDIT, COMPLIANCE AND ETHICS COMMITTEE; GOVERNANCE AND COMPENSATION AND HUMAN RESOURCES COMMITTEE; FINANCE COMMITTEE; and HEALTH AFFAIRS COMMITTEE. In the event a new Curator(s) takes office prior to the next regular Board meeting, the Board Chair has the authority to temporarily appoint the new Curator(s) to standing committees. Their permanent appointment shall be subject to the approval of the Board at the next regular Board meeting. The Board Chair shall designate one member of each committee as committee chair. The Chair of the Board shall consider in making such appointment that no committee should be left without continuity. If a committee chair is unavailable for a meeting, they shall have the ability to designate a temporary appointment as committee chair or the Board Chair may designate the temporary appointment if the committee chair is unable to.

A. **Academic, Student Affairs, Research and Economic Development Committee**
   The Academic, Student Affairs, Research and Economic Development Committee may have referred to it matters relating to curricula, faculty, students, research and economic development and intercollegiate athletics.

B. **Audit, Compliance and Ethics Committee -**
   The Audit Committee will assist the Board of Curators in fulfilling its oversight responsibilities relating to: the integrity of the University's financial statements, the systems of internal control, the performance of the University's independent auditors and internal audit function, the independent auditor's qualifications and independence, and the University's compliance with legal and regulatory requirements.

C. **Governance, Compensation and Human Resources Committee** –
   The Governance, Compensation and Human Resources Committee will help the Board function effectively, efficiently and with integrity and may have referred to it matters relating to the compensation, benefits and other human resource functions of the University and associated programs and policies.

D. **Finance Committee** - The Finance Committee may have referred to it matters relating to the fiscal, accounting and fundraising functions of the University and associated programs and policies.

E. **Health Affairs Committee** The Health Affairs Committee will assist the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University's teaching, research, and clinical missions. The Health Affairs Committee shall receive and review regular reports from University of Missouri Health Care ("MU Health Care") and the MU School of Medicine's faculty practice plan ("University Physicians").

F. **Duties**

1. Each Committee shall receive such other matters as may be referred to it by the Chair of the Board of Curators.
2. Said Committees shall investigate the matters referred to them and make recommendations to the Board.
3. Each of said Committees shall meet as business requires and upon the call of the Chair of the Committee.
4. Each Committee shall review and, if necessary, revise its charter on an annual basis.
5. Committee charters shall be presented to the full Board for approval each year and published on the Board's website.

Amendments to Collected Rules and Regulations

330.015 Conflict of Interest

Background:

Collected Rules and Regulations, section 330.015 Conflict of Interest recommendations center around the reporting requirements. The changes include:

- Allow each campus to adopt procedures for adjunct faculty reporting requirements so they are not subject to annual reporting requirements unless required by federal law process for adjuncts
- Clarifies that exempt staff and faculty must submit a conflict of interest report annually except to the extent that the campus may adopt alternative procedures for adjunct faculty

This recommendation was vetted through University of Missouri Provosts, Intercampus Faculty Council, General Officers and approved by General Counsel's office.

No. 7

Recommended Action – Amendments to Collected Rules and Regulations
Section 330.015, Policy on Conflict of Interest

It was recommended by Senior Associate Vice President Steve Graham and endorsed by President Mun Y. Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator ______________, seconded by Curator __________________, that the following action by approved:

> that Collected Rules and Regulations, Section 330.015, Policy on Conflict of Interest, be revised as attached.

Roll call vote of the Committee:	YES	NO
Curator Chatman		
Curator Hoberock		
Curator Layman		
Curator Snowden		

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _______________.

Chapter 330: Employee Conduct

330.015 Policy on Conflict of Interest

REDLINE VERSION

Bd. Min. 1-25-90, Amended 10-05-07, Amended 11-29-07, Amended 3-22-11, Amended 7-27-12, Amended 6-17-16; Amended _______.

A. **Conflict of Interest -- General Provisions**

1. **Applicability**. This policy is applicable to all Employees of the University as defined herein. Additionally, for research involving human subjects, researchers and certain University officials must also comply with Collected Rules and Regulations ("CRR") 410.020 pertaining to Institutional Conflicts of Interest in Human Subjects Research. Likewise, investigators on funded or proposed NSF or PHS research or educational activities must also comply with CRR 420.030.
2. **Policy**. Employees shall faithfully discharge their duties and shall refrain from knowingly engaging in any outside matters of financial interest or commitment incompatible with the impartial, objective, and effective performance of their University Responsibilities and in the conduct of University affairs. They shall not realize personal gain in any form which would influence improperly the conduct of their University Responsibilities. They shall not improperly use University property, funds, confidential or proprietary information, students, position or power for personal or political gain. They shall inform their chairpersons/supervisors in writing of their Outside Interests. Compliance with this policy promotes objectivity in research by establishing standards that provide a reasonable expectation that the proposal, design, conduct, and reporting of research will be free from bias resulting from Employee conflicts of interest.
3. **Sanctions**. Conduct by an Employee that violates the University's policies, regulations or rules pertaining to conflict of interest shall constitute a breach of the employment contract and may lead to disciplinary action. The Conflict of Interest Committee may make a determination of a violation of this policy and will report such violation to the Chancellor. After the finding of a violation, the Chancellor of each campus, in consultation with the respective Conflict of Interest Committee, may apply sanctions, including but not limited to, one or more of the following:

    a. Letter of warning or admonishment.
    b. Suspension or termination of research compliance committee approvals.
    c. Suspension or termination of the privilege to submit sponsored activity proposals.
    d. Suspension or termination of sponsored research activity spending authority.
    e. Demotion or removal from assigned administrative roles.
    f. Referral to campus Committee on Tenure or other appropriate committee for discipline or dismissal for cause of faculty.

g. Suspension or termination of employment (pursuant and subject to CRR 310.060, Procedures in Case of Dismissal for Cause, for those faculty covered by that rule).

B. **Definitions**

1. "Employee" means:

   a. Any person receiving compensation from the University for services rendered, regardless of whether the person is benefit eligible or non-benefit eligible (e.g., full-time or part-time), or classified under other sections of the CRR as Academic Staff or Administrative, Service and Support Staff;
   b. Any person receiving compensation paid through the University from any funds placed in its hands for distribution; or
   c. Any person that has voluntarily elected to enter into an agreement or an agreement entered into on their behalf with the University to be treated as an "Employee" for purposes of this policy. For purposes of this policy, the receipt of compensation shall not be interpreted to include:

      i. Receipt of student financial aid, including but not limited to, scholarships, grants, loans, tuition waivers and educational fee reductions, generally available to University students and unrelated to any provision of services by the student to the University; or
      ii. Payments to independent contractors.
2. "Outside Interest" means:

   a. An employment, consulting, or other professional activity or service, paid or unpaid, for a third party that is not part of the Employee's University Responsibilities, and such activity or service for the third party nonetheless relates to work within the scope of the Employee's University Responsibilities. This includes, without limitation, any activity or service that involves the use of the Employee's expertise, the practice of ~~his or her~~the Employee's profession, or any activity or service that contributes to the Employee's professional competence or development; or
   b. A direct or indirect financial interest in an entity that proposes to do business or is doing business with the University; or
   c. A direct or indirect financial interest in an entity that proposes to acquire or has acquired rights to University owned intellectual property; or
   d. Whenever an Employee's duties include research or investigation, a direct or indirect financial interest in an entity conducting research or business that is relevant to the scope of the Employee's University Responsibilities; or
   e. Any other activity that could be construed as relating to or overlapping or competing with the core missions of the University.
3. "University Responsibilities" means an Employee's responsibilities for which such Employee was hired and conducted at or undertaken on behalf of the University, which may include, but is not limited to, activities such as research, research consultation, teaching,

outreach/extension, professional practice, institutional committee memberships and service on University-based panels.

4. "Manage" (or "Managed") means taking action to address an actual or potential conflict of interest, which can include reducing or eliminating the conflict to ensure to the extent possible that the Employee's University Responsibilities will be free from bias. "Manage" may include, without limitation, a formal written Conflict of Interest Management Plan.
5. "Gift" means any tangible or intangible item or items having a monetary value in excess of $75. This maximum value applies to each gift transaction.
6. "Prohibited Source" means any person or entity, public or private, outside the University, with interests, financial or otherwise, that may be substantially affected by the recommendations, decisions, performance or non-performance of the duties of the Employee.

C. **Use of Confidential Information** -- Employees shall not use University confidential or proprietary information obtained by reason of their University employment with intent to cause financial gain to themselves or unfair advantage for another person.

D. **Prohibition Against Acceptance of Gifts**
Employees of the University shall avoid accepting Gifts for personal use, directly or indirectly, from Prohibited Sources, except as permitted in Section 330.015.D.1. below.

1. **Exceptions** -- The following shall not be considered a violation of this policy:

    a. Gifts that are available to the Employee on the same conditions as for the general public;
    b. Educational materials utilized in the performance of the Employee's University job;
    c. Awards or honoraria administered by or through the University;
    d. Gifts from the Employee's relatives, by blood or marriage;
    e. Any item of food, refreshment, entertainment or other benefit provided to the Employee while attending a meeting, conference or convention provided on the same conditions as for other attendees; provided that if the item could be considered as lavish, then approval must be obtained under subparagraph f. below;
    f. Any Gift if approved in writing in advance by an administrative superior who is a University General Officer, or in the event of the President, then approval of the Chair of the Board of Curators.

2. Each General Officer approving acceptance of Gifts under Section 330.015.D.1.f. shall report all such approvals annually to the President.

E. **Responsibilities of University Employees** -- An Employee's Outside Interests must not interfere with the Employee's University Responsibilities nor represent a conflict of interest that is not or cannot be Managed. Exempt staff and faculty Employees shall disclose all Outside Interests annually, and shall disclose any changes or acquisition of a new Outside Interest, as such interests arise. Provided that each campus may adopt procedures by which adjunct faculty are not subject to annual reporting requirements (except as required by federal law) and instead disclose all Outside Interests prior to initial employment and disclose any changes or acquisition of a new Outside

Interest as such interests arise. All other Employees shall disclose Outside Interests as such interests arise (e.g., transactional reporting). The following situations are illustrative of such activities and interests. This list should not be considered exhaustive.

1. **Grants and Contracts Involving an Employee Financial Interest**. When it is proposed that the University enter into (1) contracts for the sale of goods or services, or (2) research contracts or grants, or (3) other contracts with individuals, private firms or business entities in which an Employee knows ~~he or she has~~the Employee has a direct or indirect financial interest, the following procedure shall be followed:

    a. Before the proposed contract is negotiated by the University, the Employee shall make a disclosure of such financial interest, in writing, which disclosure shall be forwarded to the official having contract approval authority.
    b. If there is a change in the financial interest of the Employee during the term of the contract, the change shall be disclosed immediately by the Employee, in writing, and forwarded to the official having contract approval authority.
    c. Except as provided in Paragraph E.1.d., if the financial interest of the Employee in the private firm or business entity is such that it could influence the decision-making process of the private firm or business entity and the Employee could also influence the decision-making process of the University in entering into or performing the contract:

        i. The University shall not enter into the contract or shall cancel the contract, if the terms of the contract so permit; or
        ii. The University and Employee shall enter into a Conflict of Interest Management Plan which shall, among other things require that:

            a) The Employee shall take such action as is necessary to remove ~~her or him~~the Employee from a relationship with the private firm or business entity which could influence the decision-making process of the private firm or business entity; and/or
            b) The University shall establish a procedure to remove any opportunity for the Employee to influence the entering into the contract by the University or the manner in which the contract is performed by the University.

    d. If the financial interest of the Employee is as an owner or employee in a private firm or business entity that is proposing to license or otherwise acquire University-owned intellectual property, then the University may enter into such transaction upon the approval of the applicable campus technology transfer office and Chief Research Officer, and upon the adoption of a Conflict of Interest Management Plan.
2. **Overlapping Business Activities**. Before an Employee enters into or has a business activity which relates to, overlaps with, or competes

with the University's teaching, research, service, or economic development missions, the Employee shall make a full disclosure, in writing. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity and such activity must be Managed.

3. **Full-time Employment - Faculty and Exempt Personnel**. Full-time faculty and full-time exempt personnel may not be concurrently employed full-time with another employer.
4. **Teaching**. An Employee of the University who teaches either credit or non-credit courses not connected with the University may have a conflict of interest. To avoid conflicts of interest an Employee must disclose the proposed teaching activity and secure written approval in advance. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. Approval for such teaching shall be granted unless the proposed teaching is not in the best interests of the University. In reaching the decision, the chairperson/supervisor and dean/director or Provost on campuses having no schools or colleges should consider all relevant matters including such concerns as duplication of University courses or programs and accreditation standards.
5. **Faculty-Authored Textbooks and Other Educational Materials**. Textbooks, tapes, software and other materials authored by the course instructor may be assigned to be purchased by students for a course taught by the author if the royalties arising from the purchase of the assigned materials are returned to the University, another educational institution, a charitable organization, or a not-for-profit foundation. Any proceeds from other University uses of such materials, such as purchase by the library, shall be the property of the author. Course instructors or any other Employee responsible for selecting, ordering, assigning course materials cannot accept Gifts, development grants, or other compensation from any company or organization for the adoption of course textbooks, software or other educational material.
6. **Consultation**. Consultation is a significant means of professional improvement as well as a form of community service. However, consultation may in some instances also constitute a business interest requiring disclosure and approval. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. It is the policy of the University generally to permit consulting activities of Employees which:

   a. are related to the professional interest and development of the Employee,
   b. do not interfere with regular duties,
   c. do not utilize University materials, facilities, confidential or proprietary information, intellectual property, or resources except as provided in the University Business Policy Manual, or any campus-specific policies,
   d. are in agreement with the American Association of University Professors/American Council on Education (AAUP/ACE) Statement on Conflict of Interest and with the requirements of accreditation for the particular school or unit in question,
   e. do not compete with the work of the University,
   f. are not otherwise contrary to the best interests of the University,

g. do not violate federal or state law, and
h. any conflicts of interest are Managed.

F. **Responsibilities of Each Campus:**
Each campus shall:
1. Establish a committee to coordinate the solicitation and review of disclosures of Outside Interests from each Employee, including development of campus specific standards and procedures, determine whether a conflict of interest exists, and determine what conditions or restrictions, if any, should be imposed by the campus to Manage such conflict of interest, resolve problems revealed, and enforce sanctions as appropriate, including adoption of a Conflict of Interest Management Plan.
2. Comply with all laws and regulations regarding conflict of interest, including the provision of initial and ongoing financial conflict of interest reports to the Public Health Service (PHS) as required pursuant to 42 C.F.R. Part 50 Subpart F and 45 C.F.R. Part 95.
3. Develop and publish corresponding procedures to support implementation of this policy and any other related laws or regulations regarding conflict of interest. Such procedures shall include, at a minimum, requirements for exempt staff and faculty Employees to submit annual reports disclosing all Outside Interests or verifying the absence of any Outside Interests (except to the extent that a campus may adopt alternative procedures for adjunct faculty as provided in Section 330.015.E).

G. **Use of University Stationery** -- Official University stationery may not be used in outside business, personal, and other private or political activities of Employees. However, for use in such activities, faculty may have printed at their own expense personal business stationery carrying their academic title, University address and telephone number.

H. **Use of University Logos, Trademarks, and Service Marks** -- It is a violation of University policy to use the name of the University or any of the University's logos, trademarks or service marks in materials intended to endorse or promote Employee Outside Interests or to otherwise enhance private gain without the written permission of the University President or the President's designee.

I. **Appeals** -- Appeals of decisions made under these procedures, except for decisions made by the Chancellor in applying a sanction (CRR 330.015, Section A.3.), should be brought to resolution informally and at the lowest possible administrative level. Should attempts to resolve appeals informally fail, procedures set forth in CRR 370.010 and CRR 380.010, shall be followed. Appeals of sanctions issued by the Chancellor shall be governed by the procedures set forth in Section 370.010.C.3.b. through 370.010.D.

Chapter 330: Employee Conduct

330.015 Policy on Conflict of Interest

Bd. Min. 1-25-90, Amended 10-05-07, Amended 11-29-07, Amended 3-22-11, Amended 7-27-12, Amended 6-17-16.

A. **Conflict of Interest** -- **General Provisions**

1. **Applicability**. This policy is applicable to all Employees of the University as defined herein. Additionally, for research involving human subjects, researchers and certain University officials must also comply with Collected Rules and Regulations ("CRR") 410.020 pertaining to Institutional Conflicts of Interest in Human Subjects Research. Likewise, investigators on funded or proposed NSF or PHS research or educational activities must also comply with CRR 420.030.
2. **Policy**. Employees shall faithfully discharge their duties and shall refrain from knowingly engaging in any outside matters of financial interest or commitment incompatible with the impartial, objective, and effective performance of their University Responsibilities and in the conduct of University affairs. They shall not realize personal gain in any form which would influence improperly the conduct of their University Responsibilities. They shall not improperly use University property, funds, confidential or proprietary information, students, position or power for personal or political gain. They shall inform their chairpersons/supervisors in writing of their Outside Interests. Compliance with this policy promotes objectivity in research by establishing standards that provide a reasonable expectation that the proposal, design, conduct, and reporting of research will be free from bias resulting from Employee conflicts of interest.
3. **Sanctions**. Conduct by an Employee that violates the University's policies, regulations or rules pertaining to conflict of interest shall constitute a breach of the employment contract and may lead to disciplinary action. The Conflict of Interest Committee may make a determination of a violation of this policy and will report such violation to the Chancellor. After the finding of a violation, the Chancellor of each campus, in consultation with the respective Conflict of Interest Committee, may apply sanctions, including but not limited to, one or more of the following:

    a. Letter of warning or admonishment.
    b. Suspension or termination of research compliance committee approvals.
    c. Suspension or termination of the privilege to submit sponsored activity proposals.
    d. Suspension or termination of sponsored research activity spending authority.
    e. Demotion or removal from assigned administrative roles.
    f. Referral to campus Committee on Tenure or other appropriate committee for discipline or dismissal for cause of faculty.

g. Suspension or termination of employment (pursuant and subject to CRR 310.060, Procedures in Case of Dismissal for Cause, for those faculty covered by that rule).

B. **Definitions**

1. "Employee" means:

    a. Any person receiving compensation from the University for services rendered, regardless of whether the person is benefit eligible or non-benefit eligible (e.g., full-time or part-time), or classified under other sections of the CRR as Academic Staff or Administrative, Service and Support Staff;
    b. Any person receiving compensation paid through the University from any funds placed in its hands for distribution; or
    c. Any person that has voluntarily elected to enter into an agreement or an agreement entered into on their behalf with the University to be treated as an "Employee" for purposes of this policy. For purposes of this policy, the receipt of compensation shall not be interpreted to include:

        i. Receipt of student financial aid, including but not limited to, scholarships, grants, loans, tuition waivers and educational fee reductions, generally available to University students and unrelated to any provision of services by the student to the University; or
        ii. Payments to independent contractors.

2. "Outside Interest" means:

    a. An employment, consulting, or other professional activity or service, paid or unpaid, for a third party that is not part of the Employee's University Responsibilities, and such activity or service for the third party nonetheless relates to work within the scope of the Employee's University Responsibilities. This includes, without limitation, any activity or service that involves the use of the Employee's expertise, the practice of the Employee's profession, or any activity or service that contributes to the Employee's professional competence or development; or
    b. A direct or indirect financial interest in an entity that proposes to do business or is doing business with the University; or
    c. A direct or indirect financial interest in an entity that proposes to acquire or has acquired rights to University owned intellectual property; or
    d. Whenever an Employee's duties include research or investigation, a direct or indirect financial interest in an entity conducting research or business that is relevant to the scope of the Employee's University Responsibilities; or
    e. Any other activity that could be construed as relating to or overlapping or competing with the core missions of the University.

3. "University Responsibilities" means an Employee's responsibilities for which such Employee was hired and conducted at or undertaken on behalf of the University, which may include, but is not limited to, activities such as research, research consultation, teaching,

outreach/extension, professional practice, institutional committee memberships and service on University-based panels.

4. "Manage" (or "Managed") means taking action to address an actual or potential conflict of interest, which can include reducing or eliminating the conflict to ensure to the extent possible that the Employee's University Responsibilities will be free from bias. "Manage" may include, without limitation, a formal written Conflict of Interest Management Plan.
5. "Gift" means any tangible or intangible item or items having a monetary value in excess of $75. This maximum value applies to each gift transaction.
6. "Prohibited Source" means any person or entity, public or private, outside the University, with interests, financial or otherwise, that may be substantially affected by the recommendations, decisions, performance or non-performance of the duties of the Employee.

C. **Use of Confidential Information** -- Employees shall not use University confidential or proprietary information obtained by reason of their University employment with intent to cause financial gain to themselves or unfair advantage for another person.

D. **Prohibition Against Acceptance of Gifts**
Employees of the University shall avoid accepting Gifts for personal use, directly or indirectly, from Prohibited Sources, except as permitted in Section 330.015.D.1. below.

1. **Exceptions** -- The following shall not be considered a violation of this policy:

    a. Gifts that are available to the Employee on the same conditions as for the general public;
    b. Educational materials utilized in the performance of the Employee's University job;
    c. Awards or honoraria administered by or through the University;
    d. Gifts from the Employee's relatives, by blood or marriage;
    e. Any item of food, refreshment, entertainment or other benefit provided to the Employee while attending a meeting, conference or convention provided on the same conditions as for other attendees; provided that if the item could be considered as lavish, then approval must be obtained under subparagraph f. below;
    f. Any Gift if approved in writing in advance by an administrative superior who is a University General Officer, or in the event of the President, then approval of the Chair of the Board of Curators.

2. Each General Officer approving acceptance of Gifts under Section 330.015.D.1.f. shall report all such approvals annually to the President.

E. **Responsibilities of University Employees** -- An Employee's Outside Interests must not interfere with the Employee's University Responsibilities nor represent a conflict of interest that is not or cannot be Managed. Exempt staff and faculty Employees shall disclose all Outside Interests annually, and shall disclose any changes or acquisition of a new Outside Interest, as such interests arise. Provided that each campus may adopt procedures by which adjunct faculty are not subject to annual reporting requirements (except as required by federal law) and instead disclose all Outside Interests prior to initial employment and disclose any changes or acquisition of a new Outside

Interest as such interests arise. All other Employees shall disclose Outside Interests as such interests arise (e.g., transactional reporting). The following situations are illustrative of such activities and interests. This list should not be considered exhaustive.

1. **Grants and Contracts Involving an Employee Financial Interest**. When it is proposed that the University enter into (1) contracts for the sale of goods or services, or (2) research contracts or grants, or (3) other contracts with individuals, private firms or business entities in which an Employee knows the Employee hasa direct or indirect financial interest, the following procedure shall be followed:

    a. Before the proposed contract is negotiated by the University, the Employee shall make a disclosure of such financial interest, in writing, which disclosure shall be forwarded to the official having contract approval authority.
    b. If there is a change in the financial interest of the Employee during the term of the contract, the change shall be disclosed immediately by the Employee, in writing, and forwarded to the official having contract approval authority.
    c. Except as provided in Paragraph E.1.d., if the financial interest of the Employee in the private firm or business entity is such that it could influence the decision-making process of the private firm or business entity and the Employee could also influence the decision-making process of the University in entering into or performing the contract:

        i. The University shall not enter into the contract or shall cancel the contract, if the terms of the contract so permit; or
        ii. The University and Employee shall enter into a Conflict of Interest Management Plan which shall, among other things require that:

            a) The Employee shall take such action as is necessary to remove the Employee from a relationship with the private firm or business entity which could influence the decision-making process of the private firm or business entity; and/or
            b) The University shall establish a procedure to remove any opportunity for the Employee to influence the entering into the contract by the University or the manner in which the contract is performed by the University.

    d. If the financial interest of the Employee is as an owner or employee in a private firm or business entity that is proposing to license or otherwise acquire University-owned intellectual property, then the University may enter into such transaction upon the approval of the applicable campus technology transfer office and Chief Research Officer, and upon the adoption of a Conflict of Interest Management Plan.
2. **Overlapping Business Activities**. Before an Employee enters into or has a business activity which relates to, overlaps with, or competes

with the University's teaching, research, service, or economic development missions, the Employee shall make a full disclosure, in writing. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity and such activity must be Managed.

3. **Full-time Employment - Faculty and Exempt Personnel**. Full-time faculty and full-time exempt personnel may not be concurrently employed full-time with another employer.
4. **Teaching**. An Employee of the University who teaches either credit or non-credit courses not connected with the University may have a conflict of interest. To avoid conflicts of interest an Employee must disclose the proposed teaching activity and secure written approval in advance. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. Approval for such teaching shall be granted unless the proposed teaching is not in the best interests of the University. In reaching the decision, the chairperson/supervisor and dean/director or Provost on campuses having no schools or colleges should consider all relevant matters including such concerns as duplication of University courses or programs and accreditation standards.
5. **Faculty-Authored Textbooks and Other Educational Materials**. Textbooks, tapes, software and other materials authored by the course instructor may be assigned to be purchased by students for a course taught by the author if the royalties arising from the purchase of the assigned materials are returned to the University, another educational institution, a charitable organization, or a not-for-profit foundation. Any proceeds from other University uses of such materials, such as purchase by the library, shall be the property of the author. Course instructors or any other Employee responsible for selecting, ordering, assigning course materials cannot accept Gifts, development grants, or other compensation from any company or organization for the adoption of course textbooks, software or other educational material.
6. **Consultation**. Consultation is a significant means of professional improvement as well as a form of community service. However, consultation may in some instances also constitute a business interest requiring disclosure and approval. The chairperson/supervisor and dean/director/supervisor must approve or disapprove in writing the proposed activity. It is the policy of the University generally to permit consulting activities of Employees which:

   a. are related to the professional interest and development of the Employee,
   b. do not interfere with regular duties,
   c. do not utilize University materials, facilities, confidential or proprietary information, intellectual property, or resources except as provided in the University Business Policy Manual, or any campus-specific policies,
   d. are in agreement with the American Association of University Professors/American Council on Education (AAUP/ACE) Statement on Conflict of Interest and with the requirements of accreditation for the particular school or unit in question,
   e. do not compete with the work of the University,
   f. are not otherwise contrary to the best interests of the University,

    g. do not violate federal or state law, and
    h. any conflicts of interest are Managed.

F. **Responsibilities of Each Campus:**
   Each campus shall:
   1. Establish a committee to coordinate the solicitation and review of disclosures of Outside Interests from each Employee, including development of campus specific standards and procedures, determine whether a conflict of interest exists, and determine what conditions or restrictions, if any, should be imposed by the campus to Manage such conflict of interest, resolve problems revealed, and enforce sanctions as appropriate, including adoption of a Conflict of Interest Management Plan.
   2. Comply with all laws and regulations regarding conflict of interest, including the provision of initial and ongoing financial conflict of interest reports to the Public Health Service (PHS) as required pursuant to 42 C.F.R. Part 50 Subpart F and 45 C.F.R. Part 95.
   3. Develop and publish corresponding procedures to support implementation of this policy and any other related laws or regulations regarding conflict of interest. Such procedures shall include, at a minimum, requirements for exempt staff and faculty Employees to submit annual reports disclosing all Outside Interests or verifying the absence of any Outside Interests (except to the extent that a campus may adopt alternative procedures for adjunct faculty as provided in Section 330.015.E).

G. **Use of University Stationery** -- Official University stationery may not be used in outside business, personal, and other private or political activities of Employees. However, for use in such activities, faculty may have printed at their own expense personal business stationery carrying their academic title, University address and telephone number.

H. **Use of University Logos, Trademarks, and Service Marks** -- It is a violation of University policy to use the name of the University or any of the University's logos, trademarks or service marks in materials intended to endorse or promote Employee Outside Interests or to otherwise enhance private gain without the written permission of the University President or the President's designee.

I. **Appeals** -- Appeals of decisions made under these procedures, except for decisions made by the Chancellor in applying a sanction (CRR 330.015, Section A.3.), should be brought to resolution informally and at the lowest possible administrative level. Should attempts to resolve appeals informally fail, procedures set forth in CRR 370.010 and CRR 380.010, shall be followed. Appeals of sanctions issued by the Chancellor shall be governed by the procedures set forth in Section 370.010.C.3.b. through 370.010.D.

Retirement Plan Amendments

Executive Summary

In April 2019, the Board of Curators approved amendments to the Retirement, Disability and Death Benefit Plan (RDD) and additional retirement plan documents to provide that newly hired or rehired employees on or after October 1, 2019 will not accrue a benefit under the RDD and will be enrolled in the defined contribution plan upon hire with a new contribution structure and increased automatic contribution feature. The administration moved forward with implementation work for the defined contribution retirement plans and has encountered certain operational requirements affecting how matching contributions are processed under the Employee Retirement Investment Plan (ERIP). Moreover, the administration would like to update the language surrounding the automatic contribution feature in the 457(b) Eligible Deferred Compensation Plan (457(b) Plan) to clarify eligibility.

The proposed action item is to approve the administration's recommendation of amendments to the ERIP and 457(b) Plan. Board materials include a side-by-side comparison of the current and proposed language. Following is a summary of the proposed changes:

- Participants in the ERIP will receive true-up matching contributions from the University on a payroll period basis, and those participants who make the maximum allowable contribution to the 457(b) Plan will also receive a nonelective contribution.

- Amend the 457(b) Plan to provide that only individuals eligible to receive matching contributions under the ERIP shall be subject to the automatic contribution arrangement under the 457(b) Eligible Deferred Compensation Plan.

No. 8

Recommended Action - Amendment to the Employee Retirement Investment Plan (ERIP) and the 457(b) Eligible Deferred Compensation Plan

It was recommended by Associate Vice President and Chief Human Resources Officer Marsha Fischer, endorsed by President Choi, recommended by the Governance, Compensation and Human Resources Committee, moved by Curator __________________, and seconded by Curator ____________________, that the following action be approved:

> that the Employee Retirement Investment Plan (ERIP) be amended as indicated in the attached document containing proposed language changes, effective May 1, 2020, to clarify that participants will receive true-up matching contributions from the University on a payroll period basis and that participants who make the maximum allowable contribution to the 457(b) Eligible Deferred Compensation Plan will receive a nonelective contribution under the Employee Retirement Investment Plan; and
>
> that the 457(b) Eligible Deferred Compensation Plan be amended as indicated in the attached document containing proposed language changes, effective May 1, 2020, to provide that only individuals eligible to receive matching contributions under the ERIP shall be subject to the automatic contribution arrangement under the 457(b) Eligible Deferred Compensation Plan.

Roll call vote of the Committee:	YES	NO
Curator Chatman		
Curator Layman		
Curator Snowden		
Curator Williams		

The motion ________________.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.

RECOMMENDATION TO AMEND BENEFIT PROGRAM

☐ Supplemental Retirement Plan ☒ Retirement ☐ Medical ☐ Long Term Disability
☐ Life Insurance ☐ Dental ☐ AD&D ☐ Flexible Benefits ☐ Tax Deferred Annuity

Effective Date of Amendment to Program: May 1, 2020

Amendment Number: ERIP-5

Purpose of Recommendation:
To amend the Employee Retirement Investment Plan to

- clarify that participants will receive true-up matching contributions from the University on a payroll period basis and that participants who make the maximum allowable contribution to the 457(b) Eligible Deferred Compensation Plan will receive a nonelective contribution under the Employee Retirement Investment Plan.

Current Language (citation of specific section of Collected Rules and Regulations):
See attached.

Proposed Language (recommended citation):
See attached.

Cost, if Applicable:

Recommended for Approval:

Marsha Fischer — Date
Chief Human Resources Officer

Approval as to Legal Form:

Paul Maguffee — Date
Legal Counsel

Final Approval:

Mun Choi — Date
President

Copy to General Counsel, Human Resources, Board of Curators

Amendment to the Employee Retirement Investment Plan	
Section 530.030.A.20	
Current with Changes	**Proposed**
20. Nonelective Contribution means a contribution to the Plan made by the University in accordance with Section 530.030.C.1.a. or 530.030.C.1.c.2).	**20. Nonelective Contribution** means a contribution to the Plan made by the University in accordance with Section 530.030.C.1.a. or 530.030.C.1.c.2).

Amendment to the Employee Retirement Investment Plan

Section 530.030.C.1

Current with Changes	**Proposed**
C. CONTRIBUTIONS AND ALLOCATIONS **1. University Contributions** a. University Nonelective Contributions for Participants Hired On or After October 1, 2012 but prior to October 1, 2019. The University shall contribute to the Plan for each payroll period, a Nonelective Contribution in an amount equal to two percent (2%) of each Participant's Compensation for each payroll period. b. University Matching Contributions for Participants Hired On or After October 1, 2012 but prior to October 1, 2019. 1) The University shall contribute to the Plan, a Matching Contribution in an amount equal to one hundred percent (100%) of the amount contributed by such Participant to the University's 457(b) Eligible Deferred Compensation Plan for each payroll period; provided, however, the Matching Contribution will not exceed three percent (3%) of the Participant's Compensation for each payroll period. c. University Matching Contributions for Participants Hired or Rehired On or After October 1, 2019. 1) The University shall contribute to the Plan a Matching Contribution in an amount equal to one hundred percent (100%) of the amount contributed by such Participant to the University's 457(b) Eligible Deferred Compensation Plan for each payroll period; provided,	**C. CONTRIBUTIONS AND ALLOCATIONS** **1. University Contributions** a. University Nonelective Contributions for Participants Hired On or After October 1, 2012 but prior to October 1, 2019. The University shall contribute to the Plan for each payroll period, a Nonelective Contribution in an amount equal to two percent (2%) of each Participant's Compensation for each payroll period. b. University Matching Contributions for Participants Hired On or After October 1, 2012 but prior to October 1, 2019. 1) The University shall contribute to the Plan, a Matching Contribution in an amount equal to one hundred percent (100%) of the amount contributed by such Participant to the University's 457(b) Eligible Deferred Compensation Plan for each payroll period; provided, however, the Matching Contribution will not exceed three percent (3%) of the Participant's Compensation for each payroll period. c. University Matching Contributions for Participants Hired or Rehired On or After October 1, 2019. 1) The University shall contribute to the Plan a Matching Contribution in an amount equal to one hundred percent (100%) of the amount contributed by such Participant to the University's 457(b) Eligible Deferred Compensation Plan for each payroll period; provided,

however the Matching Contribution will not exceed eight percent (8%) of the Participant's Compensation for each payroll period. The University also shall contribute to the Plan true-up Matching Contributions in an amount not to exceed eight percent (8%) of a Participant's Compensation for each payroll period (taking into account any Matching Contributions for such payroll period) until the earlier of: (i) a Participant's Compensation for the Plan Year reaches the limit described in Section 530.030.A.9.h, or (ii) the aggregate amount of Matching Contributions and true-up Matching Contributions made to the Plan during the Plan Year equal one hundred percent (100%) of the amount a Participant contributed to the University's 457(b) Eligible Deferred Compensation Plan for such Plan Year. 2) The University shall make a Nonelective Contribution for each payroll period to those Participants who have: (i) contributed the maximum amount for the applicable year permitted under Section 580.010.C.2 of the University's 457(b) Eligible Deferred Compensation Plan and, (ii) received the maximum amount of Matching Contributions and true-up Matching Contributions that could be received with respect to the Participant's contribution to the University's 457(b) Eligible Deferred Compensation Plan available under Section 530.030.C.1.c.1) for the applicable Plan Year. The Nonelective Contribution for such a Participant shall be an amount equal to up to eight percent (8%) of the Participant's Compensation for the applicable Plan Year (depending on the percentage of Compensation contributed by such Participant to	however the Matching Contribution will not exceed eight percent (8%) of the Participant's Compensation for each payroll period. The University also shall contribute to the Plan true-up Matching Contributions in an amount not to exceed eight percent (8%) of a Participant's Compensation for each payroll period (taking into account any Matching Contributions for such payroll period) until the earlier of: (i) a Participant's Compensation for the Plan Year reaches the limit described in Section 530.030.A.9.h, or (ii) the aggregate amount of Matching Contributions and true-up Matching Contributions made to the Plan during the Plan Year equal one hundred percent (100%) of the amount a Participant contributed to the University's 457(b) Eligible Deferred Compensation Plan for such Plan Year. 2) The University shall make a Nonelective Contribution for each payroll period to those Participants who have: (i) contributed the maximum amount for the applicable year permitted under Section 580.010.C.2 of the University's 457(b) Eligible Deferred Compensation Plan and, (ii) received the maximum amount of Matching Contributions and true-up Matching Contributions that could be received with respect to the Participant's contribution to the University's 457(b) Eligible Deferred Compensation Plan available under Section 530.030.C.1.c.1) for the applicable Plan Year. The Nonelective Contribution for such a Participant shall be an amount equal to up to eight percent (8%) of the Participant's Compensation for the applicable Plan Year (depending on the percentage of Compensation contributed by such Participant to

the University's 457(b) Eligible Deferred Compensation Plan) less the Matching Contributions and true-up Matching Contributions contributed to the Plan for such Plan Year on behalf of such Participant under Section 530.030.C.1.c.1) above, and further subject to applicable contribution limits.	the University's 457(b) Eligible Deferred Compensation Plan) less the Matching Contributions and true-up Matching Contributions contributed to the Plan for such Plan Year on behalf of such Participant under Section 530.030.C.1.c.1) above, and further subject to applicable contribution limits.
~~2~~3) Without limiting its reservation of rights to amend or modify the Plan as a whole under Section 530.030.K, the University may modify the amount or design of, or elect to discontinue, such Matching Contribution, true-up Matching Contribution, and Nonelective Contribution at any time.	3) Without limiting its reservation of rights to amend or modify the Plan as a whole under Section 530.030.K, the University may modify the amount or design of, or elect to discontinue, such Matching Contribution, true-up Matching Contribution, and Nonelective Contribution at any time.
~~3~~4)Notwithstanding any provision in this Plan to the contrary, in no event shall a Participant who is otherwise eligible to receive Matching Contributions under this Section 530.030.C.1.c also be entitled to accrue additional benefits upon rehire as a Member under the RDD Plan, even if a court or administrative agency determines that such a Participant be reinstated as a Member under the RDD Plan. In the event an individual is reinstated as a Member under the RDD Plan, such individual shall not be entitled to receive Matching Contributions under this Section 530.030.C.1.c.	4) Notwithstanding any provision in this Plan to the contrary, in no event shall a Participant who is otherwise eligible to receive Matching Contributions under this Section 530.030.C.1.c also be entitled to accrue additional benefits upon rehire as a Member under the RDD Plan, even if a court or administrative agency determines that such a Participant be reinstated as a Member under the RDD Plan. In the event an individual is reinstated as a Member under the RDD Plan, such individual shall not be entitled to receive Matching Contributions under this Section 530.030.C.1.c.

RECOMMENDATION TO AMEND BENEFIT PROGRAM

☐ Supplemental Retirement Plan ☒ Retirement ☐ Medical ☐ Long Term Disability
☐ Life Insurance ☐ Dental ☐ AD&D ☐ Flexible Benefits ☐ Tax Deferred Annuity

Effective Date of Amendment to Program: May 1, 2020

Amendment Number: 457-15

Purpose of Recommendation:
To amend the 457(b) Eligible Deferred Compensation Plan to

- provide that only individuals eligible to receive matching contributions under the Employee Retirement Investment Plan shall be subject to the automatic contribution arrangement under the 457(b) Eligible Deferred Compensation Plan.

Current Language (citation of specific section of Collected Rules and Regulations):
See attached.

Proposed Language (recommended citation):
See attached.

Cost, if Applicable:

Recommended for Approval:

Marsha Fischer — Date
Chief Human Resources Officer

Approval as to Legal Form:

Paul Maguffee — Date
Legal Counsel

Final Approval:

Mun Choi — Date
President

Copy to General Counsel, Human Resources, Board of Curators

Amendment to the 457(b) Eligible Deferred Compensation Plan	
Section 580.010.A.11	
Current with Changes	**Proposed**
11. Covered Employee means all Eligible Employees hired on or after October 1, 2012, who do not have an affirmative election in effect regarding Deferred Compensation~~.~~, and are eligible to receive a "matching contribution" under Section 530.030.C.1 of the University of Missouri Employee Retirement Investment Plan.	**11. Covered Employee** means all Eligible Employees hired on or after October 1, 2012, who do not have an affirmative election in effect regarding Deferred Compensation, and are eligible to receive a "matching contribution" under Section 530.030.C.1 of the University of Missouri Employee Retirement Investment Plan.

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES

GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

Michael A. Williams, Chair

Darryl M. Chatman

Jeff L. Layman

Phil H. Snowden

The Compensation and Human Resources Committee may have referred to it matters relating to the compensation, benefits and other human resource functions of the University and associated programs and policies.

1. The Associate Vice President and Chief Human Resources Officer of the University of Missouri or some other person(s) designated by the President of the University shall be an ex officio member of this Committee.

2. The Compensation and Human Resources Committee shall be the Board Committee for executive compensation based on established individual dollar threshold and multi-year contract arrangements; Retirement Disability and Death Benefits Program and other retirement programs; medical plan and all other benefit programs of the University; human resource and labor policy; and attendant financial considerations associated with these programs with the exception of the Retirement Trust. The Compensation and Human Resources Committee has broad responsibility for oversight in matters involving personnel and compensation throughout the University. The President or some other person(s) designated by the President of the University shall regularly consult with the Committee in the following areas:

a. Multi-year employment contracts and extensions;

b. Compensation and salary levels for General Officers, faculty, and staff;

c. Performance and annual review protocols;

d. Market and wage comparator groups;

e. Evaluating benefits, retirement, and post-retirement plans; and

f. Promulgating employee recruitment, hiring, and termination policies.

Written Report Only

University of Missouri System Annual Benefits Report April 2020

This annual benefits report is provided to the University of Missouri Board of Curators pursuant to Section 520.010 of the Collected Rules & Regulations. The following highlights are included: changes in medical costs and contributions to the medical plans; current trends and market analysis for medical and retirement plans; and the strategic direction for medical and retirement plans.

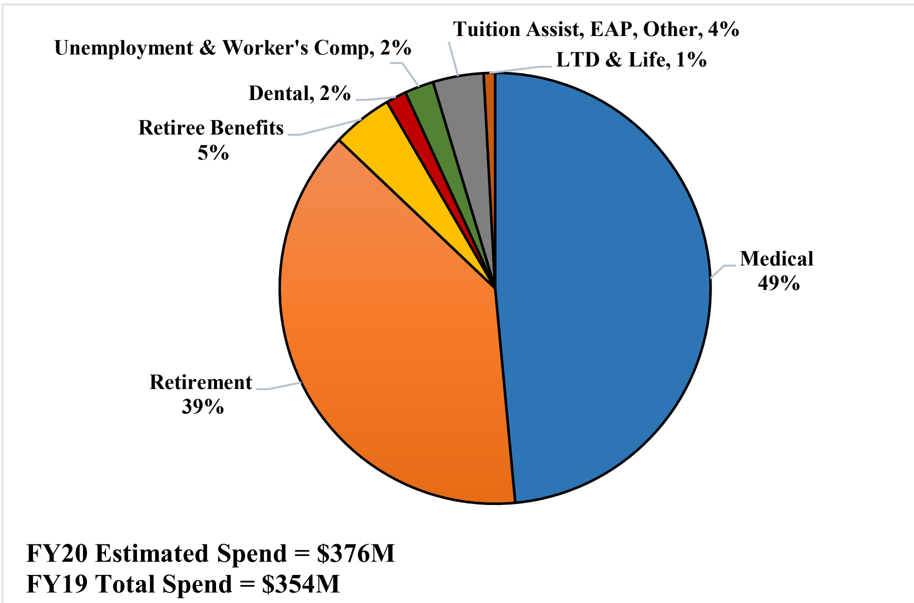
The Total Rewards Advisory Committee (TRAC), comprised of a faculty and a staff member from each campus, a hospital representative and a retiree representative, continues to be actively engaged in benefit, retirement, compensation and policy analysis, discussions and advancements for the University of Missouri System. It is through this valued and trusted partnership that TRAC has assisted in several major initiatives through input, support, and feedback. Collaboration and shared governance between TRAC and Human Resources continue to be essential as we review benefit and retirement plan offerings in the years to come.

Contents

I. BENEFIT COSTS

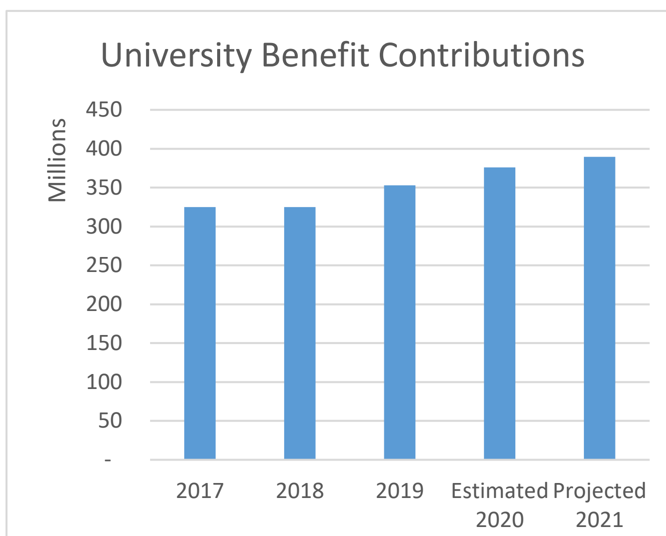
A. OVERVIEW

The primary drivers of the University's cost of benefits are retirement, medical, and retiree benefits, which account for 93% of the total cost of benefits. Like many public sector employers, the University has experienced increasing retirement and medical costs, which outpace the growth in both revenues and salaries. Engaging TRAC, the University has continued to take proactive steps to manage the costs and sustainability of the benefits offered, while meeting current and future workforce needs.



B. UNIVERSITY CONTRIBUTIONS TO BENEFIT PLANS

The University makes employer contributions on behalf of employees into the benefit plans offered. Contributions to benefit plans increased by $28M in FY19 and are projected to increase by $22M in FY20. The 9% and 7% increases in costs are attributed to the increase in required contributions to the defined benefit (pension) plan and increasing medical premiums. There was also a $1.6M increase in the cost of our tuition reduction benefit since the vesting term for eligibility changed from five years to one year (as approved by the Board during FY18).



Effective FY19, pension contributions increased as a result of the change of the expected rate of return assumption from 7.75% to 7.2% in the pension liability calculation. The change is a part of the University's long-term plan to manage the pension liability which included closing the plan to new entrants. The plan currently stands at 80% funded, which is above the national average for public pensions of 69.1% per a study by the Pew Charitable Trusts. Increasing contributions into the pension plan is a key component in managing the future sustainability of the pension plan. As interest rates continue to drop and place pressure on investment returns, additional contributions will be necessary to maintain the financial well-being of the plan.

Medical premiums paid to the University's self-insured medical plans contributed to the increase in overall benefit cost and have consistently increased at a higher rate than salaries and wages. Premiums are a function of projected medical and pharmacy claims cost. While the University's five-year average trend continues to stay below national averages, the University recognizes the need to align cost growth with revenues and salaries. The team continues to evaluate ways to lower the benefit cost trend rate while maintaining competitive employee cost-share plan designs.

Despite the University's best efforts to keep trend costs lower than national averages, the cost of claims continues to increase from previous years, causing premiums to rise. In FY19, employer medical premiums increased by 8% and are expected to increase by 7% in FY20

II. <u>HEALTH BENEFITS</u>

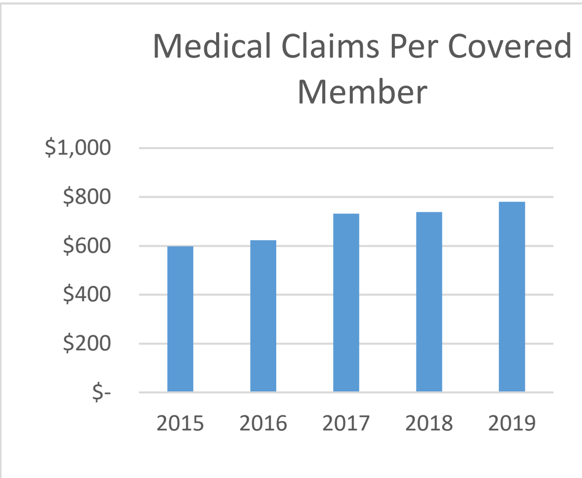
A. OVERVIEW

The University offers a comprehensive set of benefit options with flexibility for employees to choose plans that are right for them and their families. Summary of plans include:

- The Healthy Savings Plan is available regardless of location with a broad network of providers. This plan is coupled with a Health Savings Account (HSA), in which the University makes an annual contribution of $1200 for family coverage, $800 for self+spouse coverage and $400 for self only coverage to increase employee savings for qualified healthcare expenses. Contribution limits for 2020 are $3,550/self and $7,100/family.
- The Custom Network Plan is available in eligible regions around Columbia and St. Louis. This plan features a focused, narrow network of providers who are working to improve the quality of care, while sharing savings and efficiencies with employees when they stay in-network. Virtual visits and other services are offered to provide cost-saving measures to employees.
- The PPO Plans are traditionally structured medical insurance plans with a broad network of providers. The plans offer flexibility, and in many situations, also means employees will pay higher costs.
- Ancillary benefits such as dental, vision, life insurance, accidental death & dismemberment, and long-term disability insurance are available to employees.
- Employees may also participate in a Wellness Program, which is a holistic program, promoting healthy habits including physical, mental, financial health, and more. The University is evaluating

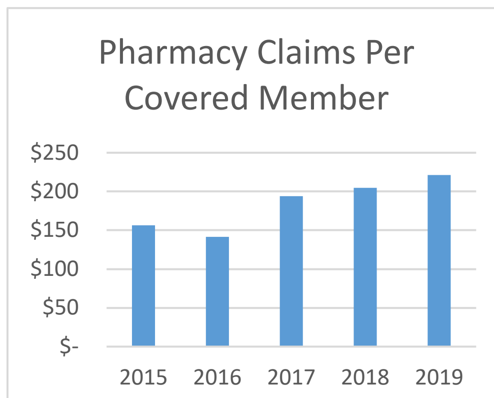
the effectiveness of this program to better align the University's investment with employee wellness outcomes.

B. MEDICAL CLAIMS AND PHARMACEUTICAL TRENDS



The cost of medical claims increased by 6% in 2019 per covered member; this increase was comprised of 4% increase from active member claims and 12% increase from retiree member claims.

This 6% increase continues to be below the national average trend of 7%. Generally, several factors aid in beating the national trend including plan design decisions, members enrolling in cost-effective plans, members' choices when seeking medical treatment, and continual efforts to analyze practices to drive down costs.



The cost of pharmaceuticals has increased by 8% per covered member in 2019, notably 30% lower than peer benchmark data. Specialty drugs, or pharmaceutical therapies that are either high cost or high complexity, represent 60% of total pharmacy spend and continues to increase. Non-specialty drugs related to cancer, HIV, and diabetes have increased in prevalence and thus also contributed to increasing cost trends. Rebates received from drug manufacturers offset pharmacy expenses by approximately 20% in 2019. Together, medical claims, pharmaceutical claims, and other medical plan expenses such as the wellness incentive and administrative costs, resulted in a 6% per covered member cost growth. The growth in cost directly impacts premiums charged to the units and the employees.

C. TOP FIVE MEDICAL COST DRIVERS

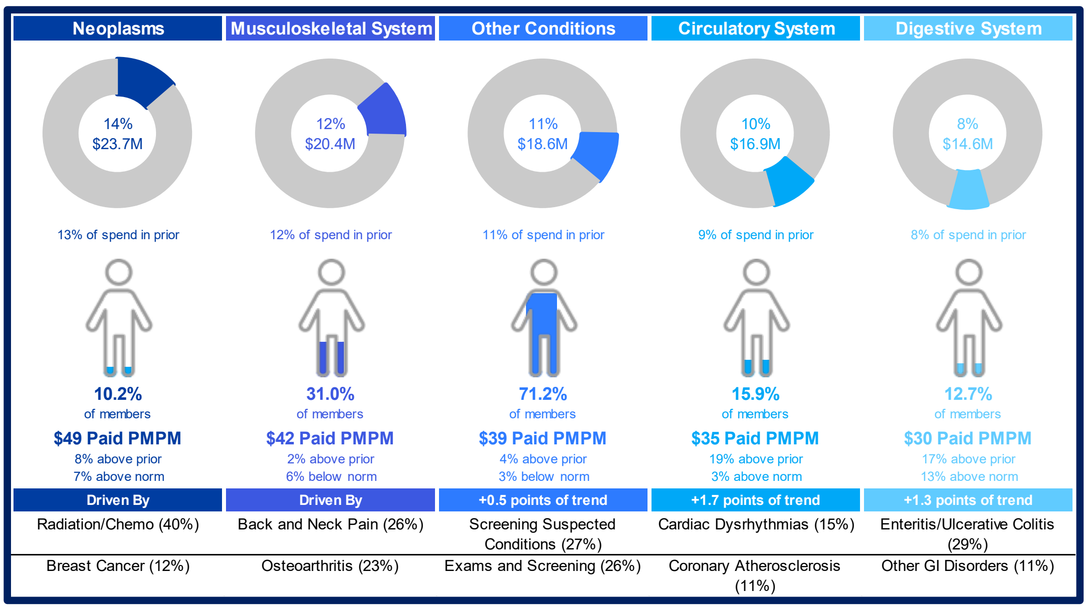
Medical claim spend in 2019 was primarily driven by five high-cost drivers: Neoplasms, Musculoskeletal, Other Conditions, Circulatory, and Digestive System.

Neoplasms, or cancers, made up 14% of total medical spend, up from 13% in 2018. While there were fewer cancer claimants in 2019 compared to 2018, the cost of each claimant rose by $550 on average. The largest cost contributing to this increase is the healthcare facility costs to administer chemo and radiation therapies. The $49 per member per month cost is 8% greater than in 2018 and is 7% greater than the United Healthcare benchmark peer groups.

Musculoskeletal, or injuries/pain in joints, muscles, nerves, limbs, neck, and back, made up 12% of total spend with the largest cost driver being back surgeries. Other Conditions contributed to 11% of total claims, which indicates a higher percentage of employees and dependents receiving preventive services and screenings that can ultimately lower future high-cost claims.

Circulatory, or diseases of the heart and blood vessels, was 10% of total spend in 2019. There was a 19% increase in paid cost per member in 2019 which was primarily due to increased cardiac dysrhythmias and coronary disease across all plans.

The digestive system category was 8% of total spend in 2019. The $30 paid cost per member in 2019 was a 17% increase from 2018 largely due to a single high-cost liver transplant with complications and an increased number of ulcerative colitis diagnosis.



D. CATASTROPHIC CLAIMS

A catastrophic claimant is a claimant that reaches $100k in medical claims. Each year catastrophic claims comprise a significant amount of spend.

- In 2019, 23% of total spend in the medical plans was incurred by 196 catastrophic claimants. Of those 196, 15 of the highest cost claimants contributed almost $10M or 6% of total spend.
- The cost of catastrophic claims increased 7% per covered member from the prior year. UM's PPO Plan was the top contributor to overall catastrophic cost in 2017 and 2018; however, the Columbia Custom Network Plan was the top contributor in 2019.
- Facility costs are the single largest cost contributor for catastrophic events. Facility service costs are related almost exclusively to the administration of radiotherapy/chemotherapy and the cost of inpatient room costs.

- Retiree plans also contributed to the increase, as the paid cost per member increased by 43% in 2019, mostly due to cancers and heart disease experiences.

While there was an increase in the cost of catastrophic claimants from the prior year, the University of Missouri System cost of these claimants is 21% lower than UHC benchmark peer group.

E. KEY STEPS TO MANAGE PLAN COST

Plan design decisions in 2019 to manage plan costs for 2020 and succeeding years include the following decisions, which comprise of over $4.4M of direct or indirect cost avoidance savings:

- **Increase out-of-pocket maximum** to 2020 IRS limits. The increased limits were applied to the pharmacy out-of-pocket maximum due to higher pharmacy cost trends. The estimated savings is $1.5M.

- **Mizzou Specialty Pharmacy added to the network for the PPO plan**. Members enrolled in the Columbia CNP or the PPO Plan have the option to fill specialty drugs through a Mizzou Pharmacy (www.muhealth.org/speciality-pharmacy) or Express Scripts Accredo Specialty Pharmacy. Specialty drugs are exclusively filled through Express Scripts Accredo Specialty Pharmacy for members in the Healthy Savings Plan. The estimated savings to the University by allowing specialty drugs to be filled at Mizzou Pharmacy is $675,000.

- **Ancillary Benefits** including Life Insurance, Long-Term Disability, and AD&D changed to Unum as of 1/1/2020, resulting in improved rates for employees, streamlined administrative processes, and a University savings of $527,000. A portion of the savings ($358,000) was used to outsource FMLA administration with Unum, resulting in a net savings of $169,000.

- **United Healthcare Implemented Programs for Cost Savings:**

    - **Real Appeal** is an online weight loss program focused on members' goals, nutrition, and exercise. It offers resources, personalized tools and support, and weekly coaching. The continued positive impact this program has on members with circulatory concerns, diabetes, pre-diabetes, and weight management is estimated to reduce cost drivers by a net savings of $966,000 over three years.

    - **Advanced Analytics and Recovery Services** delivers a retrospective paid claim review where claims will be re-examined monthly for up to 12 months utilizing expertise in data analysis, investigation, identification, and recovery. Analysts determine if the claim was paid according to the provider contract, member eligibility, reimbursement policies, and plan description. The estimated net savings is $417,400.

    - **Onsite Nurse Program** continues to help increase preventative care visits, assist members in utilizing appropriate care settings, and promotes the use of United HealthCare and the University of Missouri tools and resources to help reduce claim costs. The program promotes the use of virtual visits, showing an increased utilization of 49%, which has reduced emergency room visits by 7%.

- **Arthroscopy Medical Necessity Bundle** for all medical plans. This is a process for determining whether services, tests, and procedures are cost-effective, identifying opportunities to move from higher-cost hospital settings to Arthroscopic Surgical Center settings when applicable. The estimated net savings is $167,500.

- **Healthy Interactions** is an in-person and virtual eight-week type II diabetes pilot program that was launched at Missouri Science and Technology University in 2019. The program helps employees and their dependents manage diabetes through interactive sessions focused on understanding diabetes, basics of monitoring, and healthy eating. The University continues to evaluate the program for expansion.

- **Medical Necessity Review** for Genetic Testing, Inflammatory Medications, Functional Endoscopic Sinus Surgery, Hysterectomy, and Sinuplasty was implemented on 1/1/2020 at no additional cost to the University. Genetic Testing alone is projected to save approximately $450,000.

See attachment A for a side-by-side comparison of Summary Plan Document changes from 2019 to 2020.

The estimated annual cost savings identified affect the University and its members, and are costs which potentially would incur if trends continued without plan design and resulting behavior changes.

III. PREMIUMS IMPLEMENTED IN 2020

The University of Missouri System Human Resources and Finance, in collaboration with TRAC, is continually identifying strategies to reduce costs and increase value in the benefit plans. Premiums continue to increase as medical cost trends continue to escalate, similar to trends across the industry. In 2019, UM began a five-year plan to increase spouse and dependent premiums to their actuarial values to better align premiums to dependent claim experience. In 2019, UM began a seven-year process to increase premiums for retirees on the University's self-insured plans to reduce or eliminate active employee's subsidization of retirees. The rate increases for retirees vary depending on the retiree's age and years of service which determines their subsidy level.

Monthly Premiums:

2019 Premiums					2020 Premiums			
	Employee Premium	Employer Contribution	Total		Employee Premium	Employer Contribution	Total	Total $ increase over 2019
PPO								
Self	$167	$645	$812		$171	$657	$828	$16
Self & Cp	$394	$1,262	$1,656		$411	$1,325	$1,739	$83
Self & Ch	$342	$1,124	$1,466		$366	$1,204	$1,569	$103
Family	$595	$1,810	$2,405		$629	$1,933	$2,568	$163
CNP								
Self	$82	$483	$565		$83	$487	$570	$5
Self & Cp	$222	$930	$1,152		$231	$966	$1,196	$44
Self & Ch	$189	$831	$1,020		$200	$880	$1,080	$60
Family	$346	$1,328	$1,674		$365	$1,403	$1,769	$95
HSP								
Self	$43	$430	$473		$44	$445	$489	$16
Self & Cp	$145	$820	$965		$154	$873	$1,027	$62
Self & Ch	$119	$735	$854		$129	$798	$927	$73
Family	$235	$1,167	$1,402		$254	$1,263	$1,518	$116
2019 Pre-65 Retireee Premiums								
RHP								
Self	Varies	Varies	$610		Varies	Varies	$659	$49
Self & Cp	Varies	Varies	$1,244		Varies	Varies	$1,383	$139
Self & Ch	Varies	Varies	$1,104		Varies	Varies	$1,252	$148
Family	Varies	Varies	$1,806		Varies	Varies	$2,042	$236
HSP								
Self	Varies	Varies	$473		Varies	Varies	$511	$38
Self & Cp	Varies	Varies	$965		Varies	Varies	$1,073	$108
Self & Ch	Varies	Varies	$854		Varies	Varies	$971	$117
Family	Varies	Varies	$1,402		Varies	Varies	$1,584	$182

Premiums listed are per month payments.

IV. RETIREMENT PLANS FINANCIAL IMPACT

ACTUARIAL REPORT

Each year, the University completes an actuarial valuation report for the University of Missouri Retirement, Disability and Death Benefit Plan (also known as the "DB plan") which provides the required contribution for the upcoming fiscal year for this plan. The valuation is presented annually as an Information Item. A second core retirement plan, named the Employee Retirement Investment Plan (the "ERIP", also known as the "hybrid plan"), was developed in 2012 for employees hired on or after October 1, 2012, and consists of a lesser DB benefit coupled with a DC plan. A third core retirement plan, named the Defined Contribution Retirement Plan (the "DC"), was developed in 2019. Employees hired or rehired by the University on or after October 1, 2019, are participants in the DC plan.

Participation over time will shift from the DB plan and hybrid plan to the DC plan; therefore, the annual information item for the Board of Curators is expanded to provide an overall Annual Retirement Plan report, which includes the annual valuation for the DB plan. This approach provides broader information regarding the participation, performance, and contributions to the University's retirement plans.

A copy of the valuation report has been included for review as an attachment.

REQUIRED CONTRIBUTION

The RDD Plan's required contribution for FY21 is 11.61% of payroll compared to 11.18% for FY20. The FY21 required contribution is based on an assumed 7.20% investment return and a 24-year closed amortization period. The University funds 10.29% along with the employee contribution of 1.32%, meeting the 11.61% required contribution for FY21.

CORE RETIREMENT PLANS

Defined Benefit (DB) Plan: Employees retirement plan is the DB Plan if they are:

- An active benefit-eligible employee first hired before 10/1/2012;
- A returning benefit-eligible employee who was rehired on or after 10/1/2012 but before 10/1/2019 who was vested in the DB plan upon termination and did not take a retirement plan distribution.

Hybrid Plan: Employees retirement plan is the Hybrid Plan, a mix of a defined benefit plan and defined contribution plan, if they are:

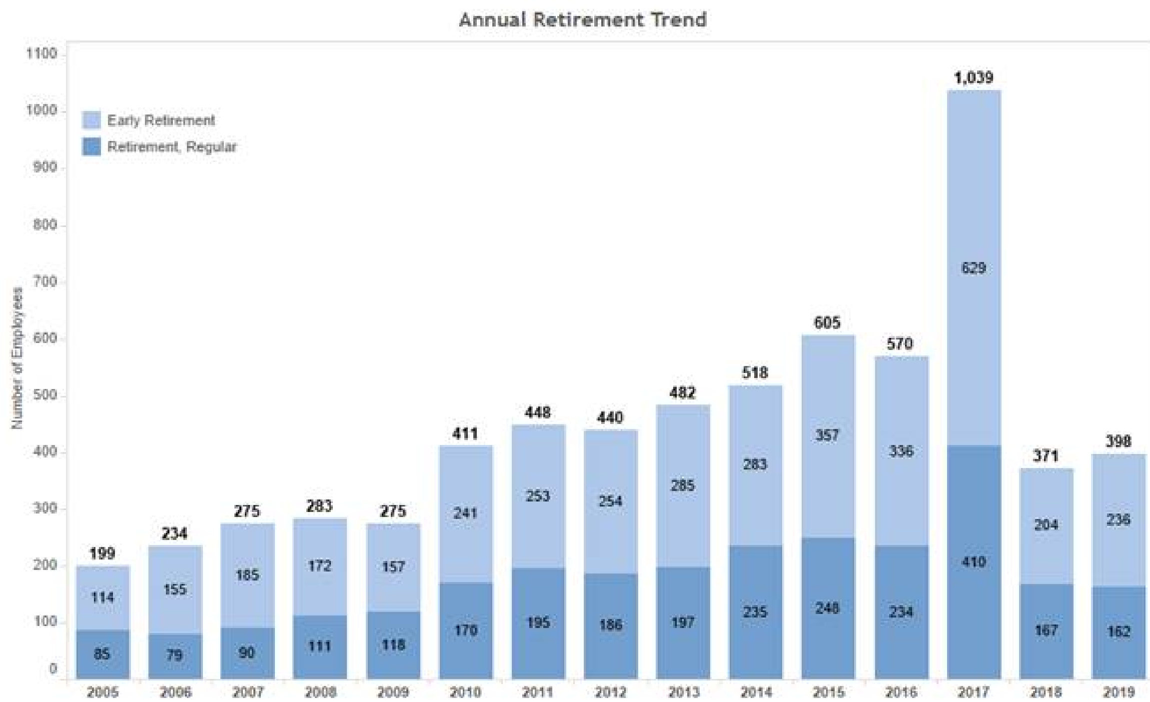
- An active, benefit-eligible employee first hired on or after 10/1/2012, but before 10/1/2019;
- A returning, benefit-eligible employee rehired on or after 10/1/2012 but before 10/1/2019, who was not vested upon termination;
- A returning, benefit-eligible employee rehired on or after 10/1/2012 but before 10/1/2019, who was vested upon termination and took a full retirement plan distribution.

Defined Contribution (DC) Plan: Employees core retirement plan is the DC Plan if they are:

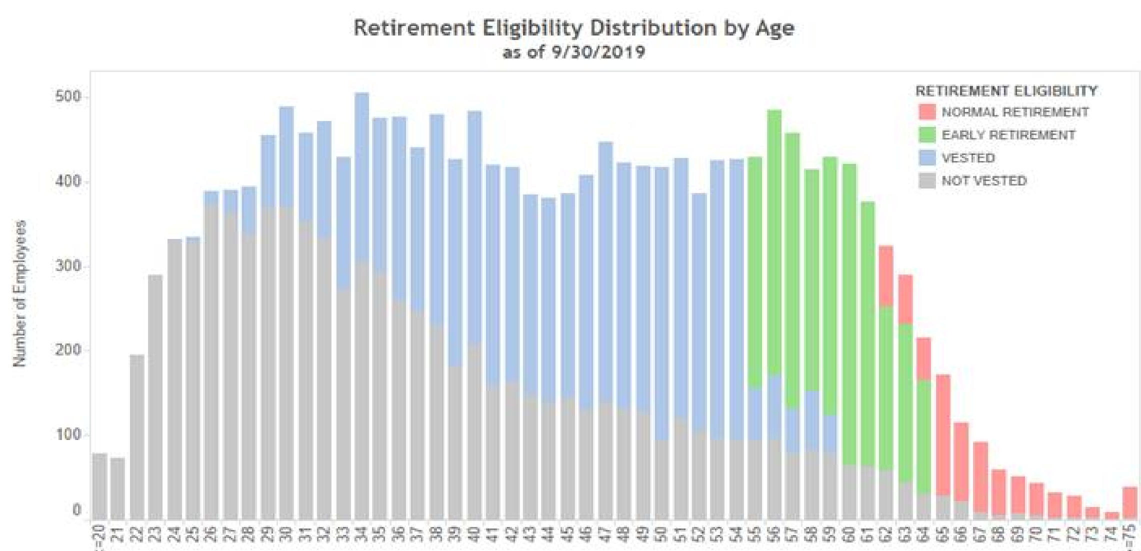
- An active, benefit-eligible employee who was first hired or rehired on or after 10/1/2019.

V. RETIREMENT TRENDS

The University has experienced an increase in retirements over the past several years. Voluntary Separation Programs offered in 2014 and 2019 and changes in retiree insurance eligibility in 2017 resulted in a spike in retirements during those years.



Although the eligibility changes drove a record number of retirements in 2017, there is still a total of 18.6% of the University's population that is currently eligible for retirement (4.1% normal retirement, 14.5% early retirement), slightly down from 19.5% one year ago.



VI. NEW PLAN – 100% DEFINED CONTRIBUTION PLAN

Effective October 1, 2019, the Defined Contribution (DC) Plan was implemented for all newly hired or rehired employees. The DC Plan is made up of employee and employer contributions and requires 3 years of service for vesting. The University provides a 100% matching contribution to a 401(a) account, equal to the employee's contribution to their 457(b) account, up to 8% of their eligible salary.

The University will begin reporting the financial impact of this plan in future annual board reports.

VII. STRATEGIC DIRECTION

The University of Missouri System continues to engage TRAC, a critical stakeholder group from all campuses and MU Healthcare, to review our benefit and retirement offerings. Significant work is also being accomplished through campus partnerships and collaboration with benefit consultants to assess the options and feasibility of potential plan design changes. In the near future, we are anticipating discussions and potential strategic directions in the following areas:

- **Premium Cost Share 5-Year Plan –** The University is currently in year two of aligning premium cost-sharing with actuarial equivalent amounts for active employee dependent coverage and retirees.

- **Medical Plan Administrator**– The University is undergoing an extensive RFP review to assess the competitiveness of services and costs of administrators for the following: active and non-Medicare retiree medical plan administrator, COBRA administration, Health Spending Account administration, Flex Spending Account Administration, EAP services and Wellness services.

- **Benefit Design Evaluation to Identify Options for 2021** – Working with consultants to evaluate benefit design options and opportunities to manage medical and pharmacy costs and trend growth.

- **UM & MUHC Strategic Collaboration** – A joint committee between UM System and MU Health Care with a focus on managing medical costs growth through benefit design, network management, and clinical care management of patients in the Columbia Custom Network Plan.

- **Post-Employment Medical Covera**ge - Evaluate alternative opportunities for post-employment medical coverage.

- **Defined Benefit Plan** – Post implementation of the defined contribution plan, UM is assessing what strategies need to change as a result of plan closure to ensure the liability remains at manageable levels while maintaining the legal and other regulatory commitments in the plan. UM leaders will continue to collaborate with TRAC, university advisory groups, and outside consultants.

- **Investment Review –** The Investment Oversight Committee continues to review current investment options to ensure UM's scope of services is competitive with current market conditions.

Thank you for the opportunity to provide this annual report. We look forward to continued improvements to ensure competitive and financially sustainable benefit and retirement programs for the University of Missouri System.

VIII. ATTACHMENTS

BENEFIT SUMMARY PLAN DOCUMENT CHANGE COMPARISON 19-20

Changes	2019	2020	Reason for Change
Increase network deductible for Retiree Health Plan	$325 self-coverage; $800 family coverage	$350 self-coverage; $850 family coverage	Shift in cost sharing to retiree
Increase non-network deductible for Retiree Health Plan	$1,000 self-coverage; $3,000 family coverage	$1,050 self-coverage; $3,150 family coverage	Shift in cost sharing to retiree.
Increase network out-of-pocket maximum for Retiree Health Plan	Medical - $2,000/self-coverage; $4,000/family coverage Prescription - $3,250/self-coverage; $6,500 /family coverage	Medical - $2,400/self-coverage; $4,800/family coverage Prescription - $3,650/self-coverage; $7,300/family coverage	Shift in cost sharing to retiree.
Increase non-network out-of-pocket maximum for Retiree Health Plan	$3,000 self-coverage; $6,000 family coverage	$3,400 self-coverage; $6,800 family coverage	Shift in cost sharing to retiree.
Increase out-of-pocket maximum to 2020 IRS limits	$7,900 – self-coverage $15,800 family coverage	$8,150 - self-coverage $16,300 – family coverage	Shift in cost sharing to employee.
Flex Spending Account contribution increase	IRS limit $2,650	IRS limit $2,700	Changed to meet IRS limits
Wellness incentive payout structure	Must complete Tier 1 by April 30 to receive $225 in May.	Must complete Cycle 2 by April 30 to receive $225 in May.	Allow new hires after April 30 the opportunity to participate in the wellness program. Administrative efficiencies. Change increased Wellness incentive payout by $500k.
Increase premium factors for dependent coverage for active employees	Self – 1.00 Self + Spouse – 2.04 Self + Child(ren) – 1.81 Full Family – 2.96	Self – 1.00 Self + Spouse – 2.10 Self + Child(ren) – 1.90 Full Family – 3.10	To transition cost of dependent coverage closer to actuarial factor values.
Increase premium factors for dependent coverage for non-Medicare retirees	Self – 1.00 Self + Spouse – 2.04 Self + Child(ren) – 1.81 Full Family – 2.96	Self – 1.00 Self + Spouse – 2.10 Self + Child(ren) – 1.90 Full Family – 3.10	To transition cost of dependent coverage closer to actuarial factor values

RETIREMENT, DISABILITY, AND DEATH BENEFIT PLAN ACTUARIAL REPORT

(see attachment)

University of Missouri System

UNIVERSITY OF MISSOURI RETIREMENT, DISABILITY AND DEATH BENEFIT PLAN

Actuarial Valuation as of October 1, 2019

333 West 34th Street
New York, NY 10001-2402
T 212.251.5173
segalco.com
jkaplan@segalco.com

February 26, 2020

Board of Curators
University of Missouri
Columbia, MO 65211

Dear Curators:

We are pleased to submit this report on our actuarial valuation of the University of Missouri Retirement, Disability, and Death Benefit Plan as of October 1, 2019. Our actuarial valuation is based on the current actuarial assumptions and provisions of the Plan, membership and financial data as of October 1, 2019.

The actuarial valuation was performed in accordance with accepted actuarial procedures under the supervision of the undersigned.

We look forward to meeting with your representatives to review this report on our 2019 actuarial valuation of the University's Plan.

Sincerely,

By Joshua Kaplan

Joshua Kaplan, FSA, FCA, MAAA, EA
Vice President and Actuary

TABLE OF CONTENTS

I. INTRODUCTION

Actuarial valuations of the University of Missouri Retirement, Disability, and Death Benefit Plan are prepared annually. The basic purpose of annual actuarial valuations is to determine the Plan's actuarial liabilities and the contribution rates required to fund the Plan on an actuarial reserve basis.

The October 1, 2019 actuarial valuation of the Plan is based on five basic elements:

1. The present provisions of the Plan (see Section III).
2. The characteristics of active and inactive members.
3. The characteristics of retired members, beneficiaries and survivors.
4. The adopted actuarial assumptions and methods (see Section IV).
5. The actuarial value of the Plan's Trust assets, which on October 1, 2019 amounted to $3,763,641,862.

The actuarial valuation report as of October 1, 2019 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected.

The Board of Curators adopted changes in plan benefit applicable to employees hired on or after October 1, 2012 (also known as Level Two Members). There are 9,785 active employees as of the valuation date (October 1, 2019) who are impacted by these plan benefit changes. The October 1, 2019 valuation determines the contribution requirements for the University's fiscal year July 1, 2020 – June 30, 2021. This valuation reports the contribution requirements separately for Level One Members (hired prior to October 1, 2012) and Level Two Members (hired on or after October 1, 2012 and prior to October 1, 2019).

Active and Inactive Membership

(Tables 1 through 3 - Section II)

A total of 23,398 active and inactive members of the University are included in this 2019 actuarial valuation. Approximately 65.9% of the active members are academic and administrative employees and 34.1% are clerical and service employees.

	Academic and Administrative	Clerical and Service	Total Employees
Active members	12,092	6,260	18,352
Inactive members	3,584	1,462	5,046
Total active and inactive members	15,676	7,722	23,398

The average annual salaries of academic and administrative employees increased by 1.6% to $82,116 and clerical and service employees increased by 2.7% to $37,443. Note that these figures reflect that a net of 153 employees were reclassified from clerical and service to academic and administrative. For the total actives, average salary was up 2.0% from the prior year.

The number and payrolls of active members are shown below:

	Academic and Administrative		Clerical and Service		Total	
	Number	Payroll	Number	Payroll	Number	Payroll
Level One	5,887	$530,286,531	2,680	$111,615,879	8,567	$641,902,410
Level Two	6,205	462,660,517	3,580	122,779,438	9,785	585,439,955
Total	12,092	$992,947,048	6,260	$234,395,317	18,352	$1,227,342,365

Retired Members and Beneficiaries

(Tables 4 through 7 - Section II)

There were 653 retirements during the year ending September 30, 2019.

On October 1, 2019, the Plan was paying benefits to a total of 10,836 members (including 9,739 pensioners and 1,097 beneficiaries and survivors). The total number of benefit recipients increased 5.0% from 10,316 on October 1, 2018. The 9,739 pensioners were comprised of 6,141 academic and administrative and 3,598 clerical and service. Additionally, 19 former spouses were in payment status as of the valuation date.

As of October 1, 2019, the average annual benefit payable to retirees was $29,704 for academic and administrative and $11,892 for clerical and service, compared to $28,302 and $11,607, respectively, as of October 1, 2018. The average annual benefit payable to beneficiaries was $16,060 as of October 1, 2019, compared to $15,748 as of October 1, 2018. These average benefit amounts and the amounts shown in the tables that follow include all post-retirement benefit increases but exclude the portion of the benefits that were paid out in lump sums.

Assets

(Tables 8 through 9 - Section II)

As of September 30, 2019, net assets totalled $3,735,404,966 at market value. For purposes of determining the actuarially required contributions, the value of assets is determined under a method utilizing expected investment return ("Expected Return Asset Valuation Method") but shall not be less than 80% nor greater than 120% of the market value. The value of assets used for actuarial valuation purposes (actuarial value of assets) using this methodology as of October 1, 2019 is $3,763,641,862 and is 100.8% of market value.

Results of the Actuarial Valuation

(Tables 10 through 13 - Section II)

Under the entry age normal cost funding method, the total actuarially determined contribution rate consists of the normal cost plus the payment required to amortize the unfunded actuarial accrued liability over the established amortization period. Actuarial gains and losses resulting from differences between actual and assumed experience are recognized immediately in the Plan’s actuarial accrued liabilities.

In general terms, the normal cost is the cost of benefit rights accruing on the basis of current service. Technically, the normal cost rate is the level percentage-of-salary contribution required each year, with respect to each employee, to accumulate over his or her projected working lifetime the reserves needed to meet the cost of earned benefits. The normal cost represents the ultimate percentage-of-salary cost of the Plan if the current unfunded actuarial accrued liability is paid down and the actual experience of the Plan conforms to the assumptions.

The normal costs as of October 1, 2019 are calculated separately for employees under Level One and Level Two, and separately for academic and administrative employees, and clerical and service employees.

Actuarially Determined Normal Costs for Level One Employees

	Academic and Administrative	Clerical and Service	Total
Normal Cost - Dollar	$38,016,326	$7,201,019	$45,217,345
Normal Cost - % of payroll	7.17%	6.45%	7.04%

Actuarially Determined Normal Costs for Level Two Employees

	Academic and Administrative	Clerical and Service	Total
Normal Cost - Dollar	$15,948,077	$3,632,373	$19,580,450
Normal Cost - % of payroll	3.45%	2.96%	3.34%

Actuarial Accrued Liability

The total actuarial accrued liability represents the amount that would have been accumulated as of October 1, 2019 if contributions sufficient to meet the normal costs of the Plan had been made each year in the past and experience always conformed to the actuarial assumptions. If assets exactly equal the total actuarial accrued liability, there is no unfunded liability and future contribution requirements would consist solely of the calculated normal cost rates.

As of October 1, 2019, the actuarial value of assets of the Plan ($3,763,641,862) fell short of the actuarial accrued liability ($4,668,269,555) by $904,627,693. The unfunded actuarial liability is being recognized for funding purposes assuming it is to be amortized over a period of 24 years from the October 1, 2019 valuation date. The method of amortizing is the level dollar method, under which the dollar amounts of calculated amortization charges remain level over the amortization period.

Based on the above amortization method, the annual unfunded accrued liability funding contribution is $77,730,372, representing 6.33% of total payroll for all employees as of the valuation date. As shown on the following page, this compares to $67,535,898 (5.69% of payroll) as of October 1, 2018. This increase is primarily due to a net actuarial experience loss. Employee contributions as a percentage of payroll for Level One and Level Two are projected to be 1.37% and 1.27%, respectively. Therefore, the net employer cost is 12.01% for Level One employees and 8.41% for Level Two employees.

There is no single all-encompassing test for measuring a Plan's funding progress and current funded status. In addition to comparing the valuation assets to the actuarial accrued liabilities and the pattern of the unfunded actuarial liability over time, another useful measure is the ratio of the plan's assets to the present value of accrued benefits computed as if the Plan were frozen on the valuation date and annuities were able to be purchased at the valuation assumptions. The market value of the Plan's assets as of October 1, 2019 is $3,735,404,996, which is less than the present value of the Plan's accrued benefits of $3,988,341,142. Therefore, the Plan's frozen liabilities were 93.7% funded as of that valuation date. If the Plan were actually to be terminated and annuities purchased from an insurance company, the purchase price of such annuities would be significantly greater than $3,988,341,142 because the current annuity market interest rates are well below the 7.20% assumed investment rate assumption (as well as the additional loads for administrative and risk charges).

The following tables summarize the membership demographics and contribution requirements described on the previous page:

	As of October 1, 2019	As of October 1, 2018
Membership		
1. Active members	18,352	18,102
2. Inactive vested members	5,046	4,817
3. Pensioners and beneficiaries	10,836	10,316
4. Total membership	34,234	33,235
5. Compensation of active members	$1,227,342,365	$1,187,434,514

	As of October 1, 2019			As of October 1, 2018		
	Total Plan	**Level One**	**Level Two**	**Total Plan**	**Level One**	**Level Two**
Contribution Requirements	**Dollar**	**% of pay**	**% of pay**	**Dollar**	**% of pay**	**% of pay**
1.Normal cost	$64,797,794	7.04%	3.34%	$65,243,876	7.07%	3.33%
2.Total costs (including amortization of unfunded liability):						
(a) 24-year funding*	142,528,166	13.38%	9.68%	132,779,773	12.76%	9.01%
(b) 20-year funding	148,783,353	13.89%	10.19%	139,353,064	13.31%	9.57%
(c) 10-year funding	190,687,477	17.30%	13.60%	176,329,427	16.43%	12.68%
3.Expected employee contribution	16,187,262	1.37%	1.27%	15,595,741	1.36%	1.25%
4.Net employer contribution (24-year* funding)	$126,340,904	12.01%	8.41%	$117,184,032	11.40%	7.76%

* 25-year funding as of October 1, 2018

Analysis of Actuarial Experience

Investment Experience. During the year ending September 30, 2019, the total actuarial rate of investment return on the prior actuarial value was 5.82%, or 1.38% less than the assumed long-term rate of 7.20% per year. As a result of this investment experience, an actuarial loss of $49.7 million was incurred. In turn, the amortization of the unfunded liability as a percent of salary as of October 1, 2019 was higher than it would have been if the investment returns rate had equalled the assumed rate. For example, under the University's 24-year amortization policy, the resulting annual cost increase as a result of the investment experience was $4,273,636, or 0.35% of payroll.

Demographic Changes. The aggregate employer normal cost rate between the 2018 and 2019 actuarial valuations decreased as a result of newly hired employees being covered by the lower Level Two plan of benefits. In addition, there were changes in both the demographic characteristics of employees and the distribution of employees between academic and administrative, and clerical and service.

Retirement Experience. During the year ended September 30, 2019, the number of retirements among academic and administrative employees was greater than expected and the number for clerical and service staff was lower than expected. In total, the number of retirements was greater than expected.

Salary Experience. As explained on page 2, between the 2018 and 2019 actuarial valuations, the average salary increased by 1.6% for academic and administrative employees and increased by 2.7% for clerical and service employees. However, for actuarial experience purposes, only those employees who were active in both years are considered. In particular, the average salary of previously active academic and administrative employees increased 4.4% and the average salary of previously active clerical and service employees increased 4.1%. These actual salary increase patterns were greater than the assumed increases producing an actuarial loss of $10.7 million. This translated to a 0.08% of payroll cost increase under the 24-year amortization policy.

Changes in Actuarial Assumptions Since Previous Year

The actuarial assumptions and cost methods used in this 2019 actuarial valuation are the same as those used in last year's valuation.

Changes in Plan Provisions Since Previous Year

There were no plan changes reflected in this actuarial valuation.

Changes in Plan Contribution Requirements Since Previous Year

	Dollar Amounts	Percent of Payroll
Total cost as of October 1, 2018	$132,779,773	11.18%
Changes due to:		
Change due to increased payroll	2,192,746	(0.18)
Shift to Level Two plus other demographic changes	(2,638,828)	(0.22)
Loss/(gain) from actuarial experience and contributions	10,194,475	0.83
Total change	$9,748,393	0.43%
Total cost as of October 1, 2019	$142,528,166	11.61%*

*The total costs for Level One and Level Two employees are 13.38% and 9.68% of payroll, respectively.

Changes in Unfunded Actuarial Liabilities Since Previous Year

Unfunded actuarial liabilities as of October 1, 2018		$798,247,042
Changes due to:		
Loss (gain) from actuarial experience and contributions		
– Investment return	$49,736,670	
– Salary increases	10,734,065	
– Other	45,909,916	
Total change		106,380,651
Unfunded actuarial liabilities as of October 1, 2019		$904,627,693

Risk

Since the actuarial valuation results are dependent on a given set of assumptions and data as of a specific date, there is a risk that emerging results may differ significantly as actual experience differs from the assumptions.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a brief discussion of some risks that may affect the Plan. Upon request, a more detailed assessment of the risks can be provided to enable a better understanding of the risks specific to your Plan.

- Investment Risk (the risk that returns will be different than expected)

  To illustrate the impact of investment experience on annual funding requirements, if the current year's actuarial value were 10% lower, the recommended net employer contribution of $126,340,904 would have increased by $32,339,191 to $158,680,095.

  The market value rate of return over the last 10 years has ranged from a low of -1.86% to a high of 13.70%.

- Longevity Risk (the risk that mortality experience will be different than expected)

  The actuarial valuation includes an expectation of future improvement in life expectancy. Emerging plan experience that does not match these expectations will result in either an increase or decrease in the actuarially determined contribution.

- Demographic Risk (the risk that participant experience will be different than assumed)

  Examples of this risk include:

  - Actual retirements occurring earlier or later than assumed. The value of retirement plan benefits is sensitive to the rate of benefit accruals and any early retirement subsidies that may apply.
  - More or less active participant turnover than assumed.

- Actual Experience Over the Last 10 Years and Implications for the Future

  Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

The investment gain(loss) for a year has ranged from a loss of $308 million to a gain of $141 million.

The non-investment gain(loss) for a year has ranged from a loss of $57 million to a gain of $41 million.

The funded percentage on the actuarial value of assets has ranged from high of 96.3% as of October 1, 2010 to a low of 80.6% as of October 1, 2019.

- Maturity Measures

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan’s asset allocation is aligned to meet emerging pension liabilities.

Currently, the Plan has a non-active to active participant ratio of 0.87. For the prior year, benefits and expenses paid were approximately $169.8 million greater than contributions received. As the Plan matures, more cash will be needed from the investment portfolio to meet benefit payments.

II. PARTICIPANT AND PLAN STATISTICAL INFORMATION

This section of the report provides background statistical information describing the demographic characteristics of the Plan's members, retirees and beneficiaries, income and expenses, assets and the details of our actuarial calculations.

Table 1A

Number, Average Age-Service-Salary, and Total Payroll of Level One Active Members Included in Actuarial Valuations

Item	Actuarial Valuation as of October 1: 2015	2016	2017	2018	2019
	ACADEMIC AND ADMINISTRATIVE				
Number	8,418	7,672	7,063	6,480	5,887
Average age	49.2	50.1	50.6	51.0	51.3
Average years of service	13.5	14.5	15.5	16.2	16.8
Average annual salary*	$81,384	$83,412	$84,663	$87,584	$90,078
Total payroll (millions).............	$685.1	$639.9	$598.0	$567.5	$530.3
	CLERICAL AND SERVICE				
Number	4,703	4,073	3,534	2,988	2,680
Average age	48.7	49.7	50.4	50.8	51.6
Average years of service	13.4	14.5	15.5	16.1	17.0
Average annual salary*	$36,749	$37,852	$38,289	$40,183	$41,648
Total payroll (millions).............	$172.8	$154.2	$135.3	$120.1	$111.6
	TOTAL EMPLOYEES				
Number	13,121	11,745	10,597	9,468	8,567
Average age	49.0	50.0	50.6	50.9	51.4
Average years of service	13.4	14.5	15.5	16.2	16.8
Average annual salary*	$65,385	$67,612	$69,198	$72,625	$74,927
Total payroll (millions).............	$857.9	$794.1	$733.3	$687.6	$641.9

Note: Detailed figures may not add to totals shown due to rounding.

* Based on annual compensation at valuation date.

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Table 1B

Number, Average Age-Service-Salary, and Total Payroll of Level Two Active Members Included in Actuarial Valuations

Item	Actuarial Valuation as of October 1: 2015	2016	2017	2018	2019
	ACADEMIC AND ADMINISTRATIVE				
Number	3,281	4,068	4,714	5,419	6,205
Average age	37.1	37.6	37.9	38.2	38.5
Average years of service	1.3	1.6	2.0	2.4	2.7
Average annual salary*	$64,225	$67,645	$68,918	$72,675	$74,563
Total payroll (millions)	$210.7	$275.2	$324.9	$393.8	$462.7
	CLERICAL AND SERVICE				
Number	2,043	2,420	2,824	3,215	3,580
Average age	34.7	35.1	35.6	36.2	36.7
Average years of service	1.2	1.6	1.9	2.1	2.4
Average annual salary*	$29,929	$31,043	$31,398	$32,970	$34,296
Total payroll (millions)	$61.1	$75.1	$88.7	$106.0	$122.8
	TOTAL EMPLOYEES				
Number	5,324	6,488	7,538	8,634	9,785
Average age	36.2	36.7	37.1	37.5	37.8
Average years of service	1.2	1.6	2.0	2.3	2.6
Average annual salary*	$51,064	$53,993	$54,862	$57,890	$59,830
Total payroll (millions)	$271.9	$350.3	$413.5	$499.8	$585.4

Note: Detailed figures may not add to totals shown due to rounding.

* Based on annual compensation at valuation date.

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Table 1C

Number, Average Age-Service-Salary, and Total Payroll of Active Members Included in Actuarial Valuations

Item	2015	2016	2017	2018	2019
	Actuarial Valuation as of October 1:				
	ACADEMIC AND ADMINISTRATIVE				
Number	11,699	11,740	11,777	11,899	12,092
Average age	45.8	45.8	45.6	45.2	44.7
Average years of service	10.0	10.1	10.1	9.9	9.5
Average annual salary*	$76,572	$77,949	$78,361	$80,794	$82,116
Total payroll (millions)	$895.8	$915.1	$922.9	$961.4	$992.9
	CLERICAL AND SERVICE				
Number	6,746	6,493	6,358	6,203	6,260
Average age	44.5	44.3	43.8	43.2	43.1
Average years of service	9.7	9.7	9.5	8.8	8.6
Average annual salary*	$34,683	$35,314	$35,229	$36,444	$37,443
Total payroll (millions)	$234.0	$229.3	$224.0	$226.1	$234.4
	TOTAL EMPLOYEES				
Number	18,445	18,233	18,135	18,102	18,352
Average age	45.3	45.2	45.0	44.5	44.2
Average years of service	9.9	9.9	9.9	9.5	9.2
Average annual salary*	$61,251	$62,766	$63,239	$65,597	$66,878
Total payroll (millions)	$1,129.8	$1,144.4	$1,146.8	$1,187.4	$1,227.3

Note: Detailed figures may not add to totals shown due to rounding.

* Based on annual compensation at valuation date.

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Table 2A

Employee Distribution by Age and Years of Service

Level One Academic and Administrative
As of October 1, 2019

Age	Total	Years of Service: Less than 5	5 - 9	10 - 14	15 – 19	20 – 24	25 - 29	30 – 34	35 - 39	40 and over
Total...........................	5,887	72	1,245	1,585	1,184	854	467	324	121	35
25 - 29........................	12	1	11	0	0	0	0	0	0	0
30 - 34........................	288	3	212	73	0	0	0	0	0	0
35 - 39........................	605	15	264	273	53	0	0	0	0	0
40 - 44........................	804	11	245	321	189	38	0	0	0	0
45 - 49........................	896	15	155	292	243	153	37	1	0	0
50 - 54........................	989	8	124	239	255	222	87	51	3	0
55 - 59........................	1,063	5	103	173	225	215	197	115	29	1
60 - 64........................	822	7	94	139	157	156	109	104	50	6
65 - 69........................	301	7	27	61	49	53	30	37	25	12
70 and over	107	0	10	15	12	17	7	16	14	16

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Table 2B

Employee Distribution by Age and Years of Service

Level One Clerical and Service
As of October 1, 2019

Age	Total	Years of Service: Less than 5	5 - 9	10 - 14	15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 and over
Total...........................	2,680	20	584	713	513	408	208	144	64	26
25 - 29........................	32	0	32	0	0	0	0	0	0	0
30 - 34........................	149	2	96	50	1	0	0	0	0	0
35 - 39........................	244	5	87	111	40	1	0	0	0	0
40 - 44........................	261	2	60	109	55	34	1	0	0	0
45 - 49........................	354	0	69	86	87	77	34	1	0	0
50 - 54........................	469	5	73	119	92	87	45	42	6	0
55 - 59........................	607	5	82	114	126	108	77	57	30	8
60 - 64........................	450	0	64	103	87	79	41	38	22	16
65 - 69........................	84	1	15	17	19	15	6	4	6	1
70 and over	30	0	6	4	6	7	4	2	0	1

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Table 2C

Employee Distribution by Age and Years of Service

Level Two Academic and Administrative
As of October 1, 2019

Age	Total	Years of Service								
		Less than 5	5 - 9	10 - 14	15 – 19	20 - 24	25 - 29	30 – 34	35 - 39	40 and over
Total..........................	6,205	5,152	1,053	0	0	0	0	0	0	0
20 - 24.......................	397	397	0	0	0	0	0	0	0	0
25 - 29.......................	1,127	1,049	78	0	0	0	0	0	0	0
30 - 34.......................	1,343	1,136	207	0	0	0	0	0	0	0
35 - 39.......................	1,042	834	208	0	0	0	0	0	0	0
40 - 44.......................	717	534	183	0	0	0	0	0	0	0
45 - 49.......................	546	428	118	0	0	0	0	0	0	0
50 - 54.......................	375	288	87	0	0	0	0	0	0	0
55 - 59.......................	327	254	73	0	0	0	0	0	0	0
60 - 64.......................	231	170	61	0	0	0	0	0	0	0
65 - 69.......................	75	48	27	0	0	0	0	0	0	0
70 and over	25	14	11	0	0	0	0	0	0	0

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Table 2D

Employee Distribution by Age and Years of Service

Level Two Clerical and Service
As of October 1, 2019

Age	Total	Years of Service: Less than 5	5 - 9	10 - 14	15 – 19	20 - 24	25 - 29	30 - 34	35 - 39	40 and over
Total..........................	3,580	3,127	453	0	0	0	0	0	0	0
Under 20	34	34	0	0	0	0	0	0	0	0
20 - 24.......................	540	538	2	0	0	0	0	0	0	0
25 - 29.......................	791	720	71	0	0	0	0	0	0	0
30 - 34.......................	577	496	81	0	0	0	0	0	0	0
35 - 39.......................	414	350	64	0	0	0	0	0	0	0
40 - 44.......................	306	263	43	0	0	0	0	0	0	0
45 - 49.......................	288	229	59	0	0	0	0	0	0	0
50 - 54.......................	249	208	41	0	0	0	0	0	0	0
55 - 59.......................	221	170	51	0	0	0	0	0	0	0
60 - 64.......................	125	91	34	0	0	0	0	0	0	0
65 - 69.......................	30	23	7	0	0	0	0	0	0	0
70 and over	5	5	0	0	0	0	0	0	0	0

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Table 3A

Salary Distributions
Level One
Academic and Administrative Employees
and Clerical and Service Employees
in Active Service on October 1, 2019

Annual salary	Academic and Administrative		Clerical and Service	
	Number	Percent	Number	Percent
Under $20,000	0	0.0%	10	0.4%
$20,000 - 24,999	0	0.0	20	0.7
25,000 - 29,999	6	0.1	225	8.4
30,000 - 34,999	32	0.5	626	23.4
35,000 - 39,999	115	2.0	552	20.6
40,000 - 44,999	215	3.7	390	14.6
45,000 - 49,999	321	5.5	316	11.8
50,000 - 54,999	502	8.5	235	8.8
55,000 - 59,999	466	7.9	123	4.6
60,000 - 64,999	450	7.6	77	2.9
65,000 - 69,999	436	7.4	38	1.4
70,000 - 74,999	416	7.1	30	1.1
75,000 - 79,999	429	7.3	22	0.8
80,000 - 84,999	299	5.1	9	0.3
85,000 - 89,999	259	4.4	4	0.1
90,000 - 94,999	226	3.8	0	0.0
95,000 - 99,999	201	3.4	2	0.1
100,000 - 104,999	165	2.8	0	0.0
105,000 - 109,999	148	2.5	0	0.0
110,000 - 114,999	102	1.7	0	0.0
115,000 - 119,999	107	1.8	1	0.0
120,000 - 124,999	76	1.3	0	0.0
125,000 - 129,999	74	1.3	0	0.0
130,000 - 134,999	64	1.1	0	0.0
135,000 - 139,999	54	0.9	0	0.0
140,000 - 144,999	61	1.0	0	0.0
145,000 - 149,999	64	1.1	0	0.0
150,000 and over	599	10.2	0	0.0
Total	5,887	100.0	2,680	100.0

Note: Detailed figures may not add to totals shown due to rounding.

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Table 3B

Salary Distributions
Level Two
Academic and Administrative Employees
and Clerical and Service Employees
in Active Service on October 1, 2019

Annual salary	Academic and Administrative		Clerical and Service	
	Number	Percent	Number	Percent
Under $20,000	6	0.1%	63	1.8%
$20,000 - 24,999	10	0.2	234	6.5
25,000 - 29,999	98	1.6	1,059	29.7
30,000 - 34,999	157	2.5	901	25.3
35,000 - 39,999	495	8.0	586	16.4
40,000 - 44,999	729	11.7	313	8.7
45,000 - 49,999	909	14.6	187	5.2
50,000 - 54,999	726	11.7	102	2.8
55,000 - 59,999	399	6.4	71	2.0
60,000 - 64,999	452	7.3	30	0.8
65,000 - 69,999	311	5.0	16	0.4
70,000 - 74,999	237	3.8	10	0.3
75,000 - 79,999	205	3.3	5	0.1
80,000 - 84,999	158	2.5	1	0.0
85,000 - 89,999	144	2.3	1	0.0
90,000 - 94,999	126	2.0	0	0.0
95,000 - 99,999	110	1.8	0	0.0
100,000 - 104,999	82	1.3	0	0.0
105,000 - 109,999	74	1.2	0	0.0
110,000 - 114,999	47	0.8	0	0.0
115,000 - 119,999	35	0.6	1	0.0
120,000 - 124,999	51	0.8	0	0.0
125,000 - 129,999	33	0.5	0	0.0
130,000 - 134,999	36	0.6	0	0.0
135,000 - 139,999	19	0.3	0	0.0
140,000 - 144,999	23	0.4	0	0.0
145,000 - 149,999	25	0.4	0	0.0
150,000 and over	508	8.3	0	0.0
Total	6,205	100.0	3,580	100.0

Note: Detailed figures may not add to totals shown due to rounding.

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Table 4

Pensions in Force on October 1, 2019
By Monthly Amount

Monthly amount	Total	Academic and Administrative	Clerical and Service
Less than $100..........	68	22	46
$100 - 199..........	306	131	175
200 - 299..........	455	168	287
300 - 399..........	447	169	278
400 - 499..........	517	232	285
500 - 599..........	501	205	296
600 - 699..........	440	192	248
700 - 799..........	406	199	207
800 - 899..........	396	211	185
900 - 999..........	379	194	185
1,000 - 1,199..........	712	389	323
1,200 - 1,399..........	574	308	266
1,400 - 1,599..........	467	288	179
1,600 - 1,799..........	451	311	140
1,800 - 1,999..........	353	228	125
2,000 - 2,199..........	327	232	95
2,200 - 2,399..........	287	220	67
2,400 - 2,599..........	229	184	45
2,600 - 2,799..........	227	194	33
2,800 - 2,999..........	225	181	44
3,000 - 3,399..........	374	332	42
3,400 - 3,799..........	297	280	17
3,800 - 4,199..........	238	230	8
4,200 - 4,599..........	193	190	3
4,600 - 4,999..........	131	129	2
5,000 and over.............	720	711	9
Total	9,720	6,130	3,590

Notes: Excludes beneficiaries of deceased retirees and alternate payees receiving a benefit pursuant to a QDRO.
Monthly amount reflects reduction (net) for those individuals who elect to receive partial (e.g., 30%) lump-sum payment.

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Table 5

Pensions in Force on October 1, 2019
by Age

Age on October 1, 2019	Total	Academic and Administrative	Clerical and Service
55 - 59	252	134	118
60 - 64	1,096	588	508
65 - 69	2,547	1,581	966
70 - 74	2,341	1,497	844
75 - 79	1,577	1,052	525
80 - 84	1,018	669	349
85 - 89	554	375	179
90 - 94	262	181	81
95 - 99	68	48	20
100 and over	5	5	0
Total	9,720	6,130	3,590

Note: Excludes beneficiaries of deceased retirees and alternate payees receiving a benefit pursuant to a QDRO.

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Table 6

Pensions Awarded in the Year Ended September 30, 2019 by Monthly Amount

Monthly amount	Total	Academic and Administrative	Clerical and Service
Less than $100..........	2	1	1
$100 - 199..........	18	9	9
200 - 299..........	25	12	13
300 - 399..........	15	9	6
400 - 499..........	20	12	8
500 - 599..........	28	18	10
600 - 699..........	18	7	11
700 - 799..........	25	15	10
800 - 899..........	8	4	4
900 - 999..........	17	9	8
1,000 - 1,199..........	42	22	20
1,200 - 1,399..........	32	20	12
1,400 - 1,599..........	27	19	8
1,600 - 1,799..........	18	6	12
1,800 - 1,999..........	25	17	8
2,000 - 2,199..........	18	10	8
2,200 - 2,399..........	19	14	5
2,400 - 2,599..........	17	15	2
2,600 - 2,799..........	17	14	3
2,800 - 2,999..........	18	13	5
3,000 - 3,399..........	29	23	6
3,400 - 3,799..........	28	22	6
3,800 - 4,199..........	21	21	0
4,200 - 4,599..........	15	15	0
4,600 - 4,999..........	13	13	0
5,000 and over.............	142	141	1
Total	657	481	176

Note: Monthly amount reflects reduction (net) for those individuals who elected to receive partial (e.g., 30%) lump-sum payment.

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Table 7

Pensions Awarded in the Year Ended September 30, 2019
by Age

Age on Effective Date	Total	Academic and Administrative	Clerical and Service
55 - 59	70	47	23
60 - 64	251	165	86
65 - 69	270	204	66
70 - 74	54	53	1
75 - 79	9	9	0
80 & over	3	3	0
Total	657	481	176
Average age at retirement	62.6	63.1	61.7

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Table 8

Development of Actuarial Value of Assets
As of September 30, 2019

1. Market value of assets, September 30, 2019				$3,735,404,966
2. Calculation of Unrecognized Return*		**Original Amount**	**Unrecognized Return**	
	(a) Year ended September 30, 2019	$(94,989,646)	$(75,991,717)	
	(b) Year ended September 30, 2018	(15,015,791)	(9,009,475)	
	(c) Year ended September 30, 2017	119,947,402	47,978,961	
	(d) Year ended September 30, 2016	43,926,675	8,785,335	
	(e) Year ended September 30, 2015	(308,266,343)	0	
	(f) Total Unrecognized Return			(28,236,896)
3. Preliminary actuarial value: (1) – (2f)				$3,763,641,862
4. Adjustment to be within 20% corridor				0
5. Final actuarial value of assets as of September 30, 2019: (3) + (4)				$3,763,641,862
6. Actuarial value as a percentage of market value: (5)/(1)				100.8%

* Total return minus expected return on a market value basis.

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Table 9

Statement of Income and Disbursements
Market Value and Actuarial Value Reconciliation for Year Ended September 30, 2019

	Market Value	Actuarial Value
Income		
Employer contributions	$117,423,003	$117,423,003
Employee contributions	16,206,779	16,206,779
Investments:		
Income	81,338,498	N/A
Net gain / (loss) from sales of investments	67,746,037	N/A
Unrealized appreciation (depreciation)	71,600,694	N/A
Actuarial value recognition	N/A	
Total investment income gain	220,685,229	210,257,350
Total income	$354,315,011	$343,887,132
Disbursements		
Total benefit payments	$(248,916,878)	$(248,916,878)
Expenses	(54,537,984)	N/A
Total disbursements	(303,454,862)	(248,916,878)
Excess (shortfall) of income over disbursements	50,860,149	94,970,254
Fund balance, September 30, 2018	3,684,544,817	3,668,671,608
Adjustment*	N/A	0
Fund balance value, September 30, 2019	$3,735,404,966	$3,763,641,862
Net returns**	4.58%	5.82%

* Actuarial value of assets shall not be less than 80% nor greater than 120% of market value.

** Calculated by formula 2I/(A + B – I) where I is investment earnings minus expenses, A is fund balance at beginning of period and B is fund balance at end of period. Information is reported on Retirement Fund History.

Table 10

Determination of the
Unfunded Actuarial Accrued Liability
October 1, 2019

	Academic and Administrative	Clerical and Service	Total
Actuarial Accrued Liability Components:			
Active members	$1,634,083,385	$362,853,927	$1,996,937,312
Inactive vested members	257,745,951	51,643,636	309,389,587
Retirees and beneficiaries	1,911,994,199	449,948,457	2,361,942,656
Total Actuarial Accrued Liability			$4,668,269,555
Actuarial Value of Assets			$3,763,641,862
Total Unfunded Actuarial Accrued Liability			$904,627,693

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Table 11

Total Unfunded
Actuarial Accrued Liability
Ten Year History

October 1:	Dollar Amount	Percent of Payroll
2010	$108,874,773	11.1%
2011	309,493,199	30.0
2012	518,344,622	49.6
2013	512,470,418	47.5
2014	476,427,007	42.9
2015	474,031,119	42.0
2016	459,286,212	40.1
2017	738,711,563	64.4
2018	798,247,042	67.2
2019	904,627,693	73.7

Note: Based on actuarial value of assets.

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Table 12

Percent Funded

Ratio of Assets to
Total Actuarial Accrued Liability

October 1:	Market Value of Assets	Actuarial Value of Assets
2010	85.1%	96.3%
2011	79.8	90.1
2012	84.3	84.3
2013	88.1	85.2
2014	89.2	86.9
2015	82.6	87.4
2016	84.9	88.2
2017	82.9	82.9
2018	82.5	82.1
2019	80.0	80.6

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Table 13

Actuarially Determined Contribution Rates for the Past Five Years

	For Plan Year Beginning October 1									
	2015		2016		2017		2018		2019	
	Level One	Level Two	Level One	Level Two	Level One	Level Two	Level One	Level Two	Level One	Level Two
Normal cost percentage	7.26%	3.24%	7.26%	3.24%	7.12%	3.32%	7.07%	3.32%	7.04%	3.34%
Amortization percentage*	3.59	3.59	3.47	3.47	5.37	5.37	5.69	5.69	6.33	6.33
Total contribution rate	10.85	6.83	10.72	6.71	12.50	8.69	12.76	9.01	13.38	9.68
Employee contribution rate	1.32	1.21	1.33	1.23	1.34	1.23	1.36	1.25	1.37	1.27
Net contribution rate	9.53	5.61	9.39	5.48	11.16	7.46	11.40	7.76	12.01	8.41

* 30-year closed amortization schedule effective October 1, 2013.

Note: Detailed figures may not add due to rounding.

Blended Level One and Level Two Contribution Rates**

October 1	Net Contribution Rate**
2015	8.59%
2016	8.20%
2017	9.83%
2018	9.87%
2019	10.29%

** Does not include contributions to the defined contribution plan for Level Two employees. The blended contribution rates shown are based on the employee population and salaries as of the valuation date.

III. SUMMARY OF PRINCIPAL PLAN PROVISIONS

The 2019 actuarial valuation is based on the present provisions of the Plan, which are summarized in this Section. The information included in this section is not to be considered a substitute for the plan itself. It is merely a summary of the principal provisions of the plan included in the actuarial valuation.

EFFECTIVE DATE: Adopted June 15, 1956. The plan was amended, restated and recodified as of December 8, 1989 to be effective September 1, 1990. Employees who terminated employment prior to December 8, 1989 are covered under the provisions of the plan in effect prior to that date which shall heretofore be referred to as the Prior Plan. Employees who terminated employment on or after August 31, 1990 are covered under the provisions of the plan in effect subsequent to that date which shall heretofore be referred to as the Revised Plan. Employees who terminate employment on or after December 8, 1989 and prior to September 1, 1990 may elect to continue under the provisions of the prior Plan or effective September 1, 1990 to have their benefits adjusted to the Revised Plan basis. Subsequently, the Plan has had provisions of the Revised Plan amended from time to time.

MEMBER: Level One Member is one who was initially hired prior to October 1, 2012. Level Two Member is one who is hired or rehired on or after October 1, 2012 (except that a Qualified Member who was initially hired prior to October 1, 2012, earned a vested benefit, terminated service after earning such vested benefit, did not receive a lump sum payment, and is rehired by the University on or after October 1, 2012 shall be a Level One Member). Effective October 1, 2019, the plan is closed to employees first hired or rehired on or after October 1, 2019.

ELIGIBILITY: All full-time academic, administrative and other employees (except for those explicitly excluded by the terms of the plan) of the University paid from its public funds are eligible for benefits after five years of credited service.

COMPENSATION BASE: It is the average regular annual salary, excluding any incentive compensation and including any shift differential pay, of the member for the five consecutive highest salary years of employment. Salary year is September 1 through August 31.

CREDITED SERVICE: Credited service is the number of continuous years and fractional parts thereof between date of employment and termination. A full year's credit shall be granted for twelve months of service with proportional credit for shorter periods of service. Special provisions are made for members on nine-month appointments.

For part-time employees on non-academic appointments:

a. On and after September 1, 1957, one (1) year of Service Credit shall be awarded to a Member on part-time service who is required to complete at least one thousand five hundred (1,500) hours of service in a Contract Year.
b. In the case of a Member who completes less than a full Contract Year as a result of commencement or termination of employment, proportionate credit shall be given for such Contract Year provided such Member has completed at least one thousand five hundred (1,500) hours of Service during such Contract Year.
c. Except as provided in subparagraphs (a) and (b), no Service Credit shall be awarded for part-time employment.

LEAVE OF ABSENCE: Periods of leaves of absence do not constitute service credit or an interruption of such service unless otherwise specified. Periods of leaves of absence on account of military service and sick leave without pay constitute service credit. Seasonal leaves (not to exceed three months per contract year), shall be taken into account as service credit only if the member returns to active full-time employment at the University immediately following the seasonal leave. Sabbatical, research and development leaves constitute service credit only if a full year of service is rendered in the next contract year immediately following such leave. Accumulated unused sick leave counts as credited service.

RATES OF REGULAR PENSION: The annual lifetime pension is calculated by multiplying the total number of years of service credit by 2.2% for Level One Member or 1.0% for Level Two Member of his or her compensation base.

PENSION CREDIT FOR SUMMER EMPLOYMENT: Academic members on a nine-month appointment basis who render summer service shall receive additional pension credit for such service. The additional pension is calculated to be 2.2% for Level One Member or 1.0% for Level Two Member of average regular summer appointment salary multiplied by the total number of summer appointments and is added to the regular pension. Average regular summer appointment salary is the average of the summer salaries earned during the 5 consecutive highest summers worked. Summer salary may not exceed 3/9 of regular compensation (2/9 of regular compensation prior to May 1, 2011).

MINIMUM VALUE ACCUMULATION: Level One Members shall receive a minimum benefit based on the actuarial equivalence of an account crediting 5% of each year's pay accumulated at 7½% interest annually. No minimum benefit is applicable for Level Two Members.

CONDITIONS FOR GRANT OF PENSION:

(1) Normal Retirement, at member's option, at age 65 or thereafter.

(2) Early Retirement, at member's option, after age 60 with five years of credited service. If the member has at least 10 years of credited service at retirement, with one year of credit after attaining age 54, the member may retire any time after age 55. The reduction is at the rate of 3-1/3% for each year that the member's age precedes age 65. If the member has at least 25 years of credited service, the reduction rate is 0% from age 65 to age 62 and 3-1/3% for each year thereafter to age 55. Terminated vested employees are not eligible for these early retirement reduction factors.

(3) Retirement for total and permanent disability at any time. The Qualified member applies for continued participation in the plan as a disabled member. Upon subsequent Normal or Early Retirement, the member's pension is calculated under the Revised Plan based upon base compensation at the commencement of total and permanent disability and the years of service that the member would have earned if he or she had remained in employment until actual retirement.

(4) Severance after completion of at least five years of credited service. The pension, payable when and if the ex-employee reaches age 65, is based on the accrued credits at date of severance. Said pension may be paid in a reduced amount after attainment of age 55. The reduction is at the rate of 6-2/3% for each of the first five years that the member’s age precedes age 65 and 3-1/3% for each of the next five years.

DEATH BENEFITS: The beneficiary of a member dying in active employment with five or more years of credited service shall receive the greater of two times for a Level One Member or one times for Level Two Member the employee's base salary at the time of death (but not in excess of 100 times the monthly retirement benefit the employee would have received at normal retirement date based on service to such date and total base compensation at the time of death) or the actuarial present value of the benefit the employee would have received if the employee had retired on the day before death (but not less than the minimum value accumulation for Level One Members).

The beneficiary of a terminated vested member dying prior to commencement of benefits shall receive the lump sum that the member was eligible to elect to receive at the time of his or her termination of employment, increased with interest from date of termination to date of death.

OPTIONAL BENEFITS: The employee may be eligible to elect to receive a reduced pension in exchange for one or more of several optional forms or combinations of optional forms of annuity, *e.g.*, 2% automatic annual increases in such reduced pension; 50%, 75% or 100% joint and survivor annuity with pop-up; or 120-month period certain and life annuity.

LUMP SUM PAYMENTS: An employee who terminates employment prior to eligibility for a normal or early retirement pension may elect:

(1) to have 100% of the actuarial equivalent value of his or her benefit paid in a direct rollover to the trustee of an Individual Retirement Account (IRA) or the trustee of another employer's qualified plan that accepts such rollovers; or

(2) to receive the value of his or her benefit in cash as a lump sum payment.

An employee who terminates employment and is eligible to commence his or her early or normal retirement benefit may elect to have 10%, 20% or 30% of the actuarial equivalent value of the benefit paid either in a lump sum or in a direct rollover payment to the trustee of an Individual Retirement Account (IRA) or the trustee of another employer's qualified plan that accepts such rollovers. If such an election is made, the balance of his or her benefit (100% minus the percentage elected to be paid in a lump sum or direct rollover) will be paid under any of the payment options discussed above.

FINANCING OF PLAN: The University will make contributions to a trust fund under the advice of its actuary. All plan benefits shall be paid from this fund.

TERMINATION OF PLAN: The plan may be terminated by the University at any time and without any liability to make further contributions. The trust fund will then be used to continue benefits with the following order of priorities:

(i) Pensioners in course of payment and pensions payable to employees age 65 and over.

(ii) Pensions deferred to age 65 for employees age 60 with 20 years of service, and for ex-employees with vested rights to deferred pensions who were employed at or after age thirty-five.

(iii) Other employees in proportion to the value of their accrued pensions.

EMPLOYEE CONTRIBUTIONS: Effective July 1, 2009, members are required to contribute 1% of their salary up to $50,000 plus 2% of their salary in excess of $50,000. Contribution account balances are refunded with interest at 4% per year if the member terminates prior to becoming a Qualified Member. If the member terminates due to death prior to becoming a Qualified Member, the refund of the account balance is paid to the member's beneficiary.

IV. ACTUARIAL ASSUMPTIONS AND METHODS

The actuarial assumptions and cost methods used in this 2019 actuarial valuation are the same as those used in last year's valuation.

The assumptions and methods used in this valuation are based on the results of the Actuarial Experience Study for 2012-2016 and were approved by the Board of Curators. Current data was reviewed in conjunction with this valuation. Based on professional judgment, no assumption or method changes are warranted at this time.

Investment Return

Funding a retirement system on an actuarial reserve basis involves the accumulation of substantial reserves to pay benefits in the future. These reserves are invested and the rate of investment return is a major factor in determining the contributions required to support the ultimate cost of benefits.

For this 2019 actuarial valuation, the net long-term rate of investment return - after expenses - is assumed to be 7.20% per year.

During the fiscal year ended September 30, 2019, the total rate of return on an actuarial value basis was approximately 5.82%. The schedule that follows shows the total rate of investment return for each of the past ten fiscal years.

Fiscal Year Ended September 30:	Total Rate of Return (Actuarial Value of Assets)
2010	2.77%
2011	1.35
2012	0.61
2013	7.46
2014	8.80
2015	6.51
2016	7.14
2017	7.15
2018	6.32
2019	5.82

Salary and Payroll Increases

Because the benefits provided by the Plan are based on an employee's final average compensation, increases in salaries have a significant effect on the Plan's ultimate cost.

For this 2019 actuarial valuation, total salary increases are projected by an age-related salary scale. The age-related salary scale is intended to project salary increases attributable to all "factors" (*i.e.*, increases due to inflation, promotions, service longevity, etc.).

The salary increases exclusive of the inflation component assumed for this 2019 actuarial valuation are shown below for selected ages:

	Assumed Salary Increase Rates	
Age	**Academic and Administrative**	**Clerical and Service**
25	6.0%	3.0%
30	3.5	2.4
35	2.5	1.9
40	2.1	1.4
45	1.7	0.9
50	1.3	0.6
55	0.6	0.5
60	0.1	0.1

The assumed inflation component of the salary increases is 2.2% at all ages.

Retirement Rates

The assumed rates of retirement project the percentage of eligible employees who will retire at each age. The assumed retirement rates used in the 2019 actuarial valuation for selected ages are shown below:

Academic and Administrative		
Attained Ages	Under 25 Years of Service	Over 25 Years of Service
55	4%	6%
56-59	3	4
60-61	5	7
62	10	20
63-64	10	12
65	20	20
66	20	20
67-69	15	15
70-71	20	20
72-79	20	20
80	100	100

Clerical and Service		
Attained Age	Under 25 Years of Service	Over 25 Years of Service
55	7%	9%
56-59	5	6
60-61	10	12
62	20	35
63-64	14	19
65	35	35
66	35	35
67-69	25	25
70-71	25	25
72-79	25	25
80	100	100

Withdrawal Rates

The assumed withdrawal or turnover rates used in the 2019 actuarial valuation are shown below for selected years of service:

Years of Service	Withdrawal Rates: Academic and Administrative	Withdrawal Rates: Clerical and Service
0	21.5%	31.0%
1	21.0	23.0
2	18.5	19.5
4	13.0	13.5
6	12.0	11.5
8	9.0	10.0
10	7.5	8.5
12	6.0	7.0
14	5.0	6.0
16	4.5	4.5
18	4.0	4.0

Note: Withdrawal rates cut out at first eligibility for an immediate pension.

Disability Rates

The assumed rates of disablement used in the 2019 valuation are shown below for selected ages:

Age	Disability Rates
40	0.05%
45	0.13
50	0.24
55	0.46
60	0.76

Mortality Rates

A mortality table is used to project the number of employees at each age who will die in active service, and also to determine the amount of the reserve required at the time of retirement to pay benefits for the remainder of an employee's lifetime.

The mortality table used in the 2019 actuarial valuation to project mortality rates for all healthy annuitants is the RP-2014 Healthy Annuitant Mortality Table projected on a generational basis in accordance with the MP-2017 mortality improvement scale published by the Society of Actuaries. For healthy non-annuitants, the mortality table used is the RP-2014 Employee Mortality Table projected on a generational basis in accordance with the MP-2017 mortality improvement scale. For disabled members, the mortality table used is the RP-2014 Disabled Annuitant Mortality Table projected on a generational basis using Scale MP-2017. These mortality tables projected to 2019 reasonably reflect the projected mortality experience as of the measurement date. The schedule below shows the assumed mortality rates and projected life expectancies as of the valuation date for non-disabled retired members for selected ages:

	Mortality Rates		Expected Years of Life Remaining	
Age	**Male**	**Female**	**Male**	**Female**
60	0.78%	0.53%	25.8	28.1
70	1.63	1.23	17.3	19.2
80	4.27	3.36	10.1	11.4
90	13.11	10.45	5.0	5.8

<u>Presence and Age of Spouse</u>

The assumption made with respect to the proportion of married employees is 80%. It is also assumed for purposes of the actuarial valuation that female spouses are on the average three years younger than male spouses.

<u>Asset Valuation Method</u>

The asset valuation method used is the Expected Return Asset Valuation Method. Assets for actuarial valuation purposes are valued as the market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized over a five-year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.

Actuarial Funding Method

Funding the Plan on an actuarial reserve basis seeks to achieve the following major objectives:

- Level required contribution rates as a percentage of payroll over a long period of years;
- Finance benefits earned by present employees on a current basis;
- Accumulate assets to enhance members' benefit security;
- Produce investment earnings on accumulated assets to help meet future benefit costs;
- Make it possible to estimate the long-term actuarial cost of proposed amendments to Plan provisions; and
- Maintain the Plan's long-term financial viability.

The basic funding objective is a level pattern of cost as a percentage of salary throughout an employee's working lifetime. The funding method used in this actuarial valuation - the entry age normal cost method - is intended to meet this objective and result in a relatively level long-term contribution requirement as a percentage of salary.

V. <u>ACCOUNTING INFORMATION</u>

The Governmental Accounting Standards Board (GASB) determines the way governmental entities account for their pension plans. The prior standards were GASB Statements Nos. 25 and 27.

GASB has issued new accounting and financial reporting standards. GASB Statement No. 67, *Financial Reporting for Pension Plans*, which applies to pension plans established as trusts or similar arrangements, has replaced GASB No. 25 for fiscal years beginning after June 15, 2013. GASB Statement No. 68, *Accounting and Financial Reporting for Pensions by State and Local Governmental Employers,* which applies to government employers that sponsor or contribute to state or local pensions, has replaced GASB Statement No. 27 for those fiscal years beginning after June 15, 2014. The University elected to first apply GASB Statement No. 68 for its fiscal year July 1, 2013 – June 30, 2014.

The required disclosures under GASB Statement Nos. 67 and 68 are provided in a separate report. However, the liabilities to be reported under GASB Statement Nos 67 and 68 as of June 30, 2019 are based on the participant data reflected in this valuation. The pension expense for certain changes in liability is the amount of the change amortized over the average expected remaining service lives of all plan participants. Based upon this valuation, this average period is 5.32 years.

VI. ACTUARIAL VALUATION STATEMENT

This is to certify that we have prepared an actuarial valuation of the University of Missouri Retirement, Disability and Death Benefit Plan as of October 1, 2019.

Actuarial calculations were made with respect to 18,352 covered active members, 5,046 inactive members with vested benefit rights, and 10,836 pensioners and beneficiaries.

The actuarial cost factors as of the valuation date are as follows:

Total Normal Cost	$64,797,794
Total Actuarial Accrued Liability	4,668,269,555
Assets at Actuarial Value	3,763,641,862
Total Unfunded Actuarial Accrued Liability	904,627,693
Payment to amortize unfunded actuarial accrued liability over 24 years	77,730,372
Total payroll	1,227,342,365
Total Contribution Requirement	
Dollar	$142,528,166
Percent of payroll	11.61%
Expected Employee Contribution	
Dollar	$16,187,262
Percent of payroll	1.32%
Total Net Contribution Requirement	
Dollar	$126,340,904
Percent of payroll	10.29%

The actuarial calculations were performed by qualified actuaries in accordance with generally accepted actuarial procedures, based on the current provisions of the University of Missouri Retirement, Disability and Death Benefit Plan and on the actuarial assumptions and methods adopted by the Board. The assumptions used in the October 1, 2019 actuarial valuation are reasonably related to the past and anticipated future experience of the Plan.

The Plan is funded on an actuarial reserve basis.

Joshua Kaplan

Joshua Kaplan, FSA, FCA, MAAA, EA
Vice President and Actuary

9071123v1/03731.001

Board Committee Charters

Executive Summary

Pursuant to the February 6, 2020 amendment to Collected Rule and Regulation 10.050, Board Standing Committees, individual committee charters were developed that describe the following:

- The overall scope of the committee
- Which University position serves as executive liaison to the committee
- The responsibilities in reviewing and making recommendations on University matters.

Draft charters are attached for the Academic, Student Affairs, Research and Economic Development; Audit, Compliance and Ethics; Governance, Compensation and Human Resources; Health Affairs and Finance committees. The committee charters would be reviewed annually for any necessary amendments and submitted to the Board of Curators for approval.

The charters were written by the individual committees and now presented to the full Board for approval.

No. 1

Recommended Action - Board Committee Charters

It was recommended by Chair Brncic, moved by Curator ___________ and seconded by Curator ____________, that the following action be taken:

that the Board Committee Charters, as developed by the Committee Chairs and executive liaisons and that will be reviewed by the full Board annually, be approved as attached.

Roll call vote of the Committee:	YES	NO
Curator Chatman		
Curator Layman		
Curator Snowden		
Curator Williams		

The motion ____________________.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion ____________________.

April 9, 2020

CHARTER FOR ACADEMIC, STUDENT AFFAIRS, RESEARCH & ECONOMIC DEVELOPMENT COMMITTEE

The Academic, Student Affairs, Research and Economic Development Committee ("Committee") will review and recommend polices to enhance quality and effectiveness of academic, student affairs, research and economic development and align the available resources with the University's academic mission.

I. Scope

In carrying out its responsibilities, the Committee reviews and makes recommendations to the Board of Curators on strategies and policies relating to student and faculty welfare, academic standards, educational and instructional quality, intercollegiate athletics, degree programs, economic development, research initiatives, and associated programs.

II. Executive Liaison

The Senior Associate Vice President for Academic Affairs of the University, or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. Ex Officio Member

The Student Representative to the Board of Curators shall be an ex officio member of the Committee.

IV. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include reviewing and making recommendations to the Board on the following matters:

A. Selection of Curators' Distinguished Professors;

B. Approval and review of new degree programs;

C. Intercollegiate athletics, as specifically outlined in Section 270.060 of the Collected Rules and Regulations with a commitment to the academic success, and physical and social development of student-athletes;

D. Changes to university-level admissions requirements, academic standards, student services, and graduation requirements;

E. Quarterly and annual reports providing information on academic programs that have been added, deactivated, or deleted; and

F. Highlight successful research and economic development efforts and partnerships; linking research and commercialization from the University with business and industry across the state and around the world.

G. Additional matters customarily addressed by the academic, student affairs, research & economic development committee of a governing board for an institution of higher education.

CHARTER FOR AUDIT, COMPLIANCE AND ETHICS COMMITTEE

The Audit, Compliance and Ethics Committee ("Committee") will review and recommend policies to enhance the quality and effectiveness of the University's financial reporting, internal control structure and compliance and ethics programs.

I. Scope

In carrying out its responsibilities, the Committee monitors and assesses the University's financial reporting systems and controls, internal and external audit functions, and compliance and ethics programs.

II. Executive Liaison

The Chief Audit and Compliance Officer of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the committee and responsible for transmitting committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include:

A. Reviewing and making recommendations to the Board in the following matters:

1. the University risk assessment, audit plan and compliance plan;
2. in conjunction with the Governance, Compensation and Human Resources Committee, the appointment, compensation, annual performance evaluation and termination of the University's Chief Audit and Compliance Officer;
3. the appointment, compensation, and termination of the university's external auditors.

B. Providing governance oversight regarding:

1. development and monitoring a University code of conduct;
2. effectiveness of the internal control framework;
3. ensuring that the significant findings and recommendations are received, discussed and appropriately resolved;
4. procedures for reporting misconduct without the fear of retaliation;

5. university compliance with applicable laws, regulations, and policies that govern all aspects of University operations including but not limited to the following:
    a. Administrative compliance risks
    b. Healthcare compliance risks
    c. Research compliance risks
    d. Information security compliance risks
    e. Privacy compliance risks
6. those additional matters customarily addressed by the audit, compliance and ethics committee of a governing board for an institution of higher education.

C. Reviewing periodic reports regarding:

1. the independence, performance, resources and structure of the internal audit, compliance and ethics functions;
2. audit reports and open audit issue status updates;
3. management's written responses to significant findings and recommendations by the auditors;
4. the adequacy of the University's information technology methodology with regards to security, internal controls and data integrity assurance;
5. annual external audit reports, including audited financial statements, single audit and required procedures;
6. the effectiveness of the compliance and ethics program ensuring it has appropriate standing and visibility across the system;

CHARTER FOR FINANCE COMMITTEE

The Finance Committee ("Committee") oversees the fiscal stability and long-term economic health of the University. The Committee will review and recommend policies to enhance quality and effectiveness of the finance functions of the University.

I. Scope

In carrying out its responsibilities, the Committee monitors the University's financial operations, fundraising performance, debt level, capital priorities and investment performance; requires the maintenance of accurate and complete financial records; and maintains open lines of communication with the Board about the University's financial condition.

II. Executive Liaison

The Vice President for Finance of the University or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities, the charge of the Committee shall include

A. Reviewing and making recommendations to the Board on the following matters:

1. University operating budget and financial plan;
2. University capital budget and master facility plans;
3. capital projects;
4. tuition, fees and housing rates;
5. state appropriation requests;
6. pursuant to applicable Collected Rules and Regulations, contracts and reports;
7. insurance brokers and self-insurance programs;
8. pursuant to applicable Collected Rules and Regulations, real estate sales, purchases, leases, easements and right-of-way agreements;
9. the issuance of debt;
10. asset allocation guidelines and other policies related to the University's investment management function; and

11. additional matters customarily addressed by the finance committee of a governing board for an institution of higher education.

B. Providing governance oversight to:

1. long-range financial planning strategies;
2. fundraising and development strategies;
3. total indebtedness and debt capacity of the University;
4. the investment portfolio performance; and
5. the financial condition of the pension fund.

C. Reviewing periodic reports including:

1. quarterly and year-end financial reports that measure the University's fiscal condition;
2. annual purchasing reports on bids and equipment leases;
3. quarterly debt-management reports;
4. quarterly and year-end investment performance reports;
5. semi-annual reports on development and fundraising activities; and
6. other financial reports as requested by the Committee.

CHARTER FOR GOVERNANCE, COMPENSATION AND HUMAN RESOURCES COMMITTEE

I. Governance, Compensation and Human Resources Committee

The Governance, Compensation and Human Resources Committee ("Committee") will review and recommend policies to enhance quality and effectiveness of the Board as well as compensation, benefits and human resources functions of the University.

II. Governance

A. Scope

In carrying out its responsibilities regarding governance, the Committee has the central authority of ensuring that board members are prepared to exercise their fiduciary duties and assisting the Board to function effectively, efficiently and with integrity.

B. Executive Liaison

The General Counsel of the University, or some other person(s) designated by the President of the University with the concurrence of the Board Chair and the Committee Chair, shall serve as executive liaison to the Committee on governance matters and be responsible for transmitting Committee recommendations related to governance.

C. Responsibilities

In addition to the overall responsibilities of the Committee described above, and in carrying out its responsibilities regarding governance, the Committee shall review and make recommendations on the following matters:

1. ensuring that Board members are prepared to carry out their fiduciary duties to the University;
2. providing and monitoring a substantive orientation process for all new Board members and a continuous board education program for existing Board members;
3. overseeing, or determining with the Board Chair and President, the timing and process of periodic Board self-assessment;
4. establishing expectations and monitoring compliance of individual Board members;
5. ensuring that the Board adheres to its rules of conduct, including conflict-of-interest and disclosure policies, and that it otherwise maintains the highest levels of integrity in everything it does;

6. periodically reviewing the adequacy of the Board's bylaws and other Collected Rules and Regulations adopted by the Board that pertain to its internal operations (all recommendations for bylaws amendment shall first be considered by this Committee);
7. identifying best practices in institutional and Board governance;
8. monitoring and assessing external influences and relationships with affiliated entities;
9. assessing areas of expertise needed in future Board members; and
10. those additional matters customarily addressed by the governance committee of a governing board for an institution of higher education.

III. <u>Compensation and Human Resources</u>

A. Scope

In carrying out its responsibilities regarding compensation and human resources, the Committee reviews and makes recommendations to the Board of Curators on strategies and policies relating to compensation, benefits and other human resources functions and associated programs.

B. Executive Liaison

The Associate Vice President and Chief Human Resources Officer of the University, or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall serve as executive liaison to the Committee on human resources and compensation matters and be responsible for transmitting committee recommendations related to human resources and compensation.

C. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding human resources and compensation, the charge of the Committee shall include reviewing and making recommendations to the Board on the following matters:

1. Performance and compensation of individuals reporting directly to the Board:

   a. President
   b. General Counsel
   c. Secretary of the Board of Curators
   d. Chief Audit and Compliance Officer, in conjunction with the Audit, Compliance and Ethics Committee

2. Pursuant to Section 320.020 of the Collected Rules and Regulations, appointment or change of appointment of the following shall be reported to and approved by the Board before the effective date:

   a. Vice Presidents
   b. Chancellors
   c. Curators Professors

3. Intercollegiate Athletics

   Pursuant to Section 270.060 of the Collected Rules and Regulations, contracts for Directors of Intercollegiate Athletics and Head Coaches may not exceed five (5) years and shall not include buyout clauses calling for the individual to receive more than the balance of the annual base salary the individual would have earned under the remaining terms of the contract, unless approved by the UM Board of Curators upon the recommendation of the President.

4. Benefit, retirement and post retirement plans, including an annual benefits report, as further defined in Section 520.010, Benefit Programs, of the Collected Rules and Regulations.

5. Additional employee benefits including the Education Assistance Program for University Employees, CRR 230.070, and Layoff and Transition Assistance, CRR 350.051.

6. Labor Union Recognition and matters as further defined in Section 350.020, Labor Union Recognition, of the Collected Rules and Regulations.

7. Employment related policies including those related to employee absences, conduct and grievances.

8. Additional matters customarily addressed by the compensation and human resources committee of a governing board for an institution of higher education.

CHARTER FOR HEALTH AFFAIRS COMMITTEE

The Health Affairs Committee ("Committee") assists the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University's teaching, research, and clinical missions.

I. Scope

The Committee provides oversight for the University's clinical health care operations in the areas of:

- Mission, vision, and strategy;
- Governance and operational oversight;
- Quality of care and patient safety;
- Regulatory compliance;
- Financial planning and performance; and
- Coordination of the clinical, teaching, and research missions.

II. Executive Liaison

The Executive Vice Chancellor for Health Affairs of the University of Missouri-Columbia or some other person(s) designated by the President of the University, with the concurrence of the Board Chair and the Committee Chair, shall be the executive liaison to the Committee and responsible for transmitting Committee recommendations.

III. Responsibilities

In addition to the overall responsibilities of the Committee described above and in carrying out its responsibilities regarding clinical health care operations, the charge of the Committee shall include:

A. Reviewing and making recommendations to the Board regarding:

1. actions that are appropriate or necessary to assist the Board in overseeing clinical health care operations or coordinating the teaching, research, and clinical missions;
2. significant actions related to health care which should require advance notice or approval by the Committee or Board; and
3. other matters referred to it by the Board and University officers.

B. Requesting, receiving, and reviewing reports and other information from University officers and advisors regarding health care operations, coordination of the teaching, research, and clinical missions, and related matters, including meeting at least quarterly and receiving regular reports from appropriate officers of University of Missouri Health Care, the MU School of Medicine, and the MU Health Chief Compliance Officer.

C. Additional matters customarily addressed by the health affairs committee of a governing board for an institution of higher education.

IV. Committee Membership and Quorum Requirements

The Committee's membership may include non-Curator members in addition to Curator members. Subject to approval of the Board, the Board Chair shall determine the number of Curator and non-Curator members to appoint to the Committee and shall select individuals to serve as members of the Committee; provided that, the number of non-Curator members on the Committee shall not exceed the number of Curator members on the Committee, unless the Committee temporarily has more non-Curator members than Curator members because a Curator member of the Committee has resigned from the Board or the Committee. Non-Curator members may resign their Committee membership by providing written notice to the Board Chair. Non-Curator members of the Committee serve at the pleasure of the Board and may be removed by the Board Chair at any time, subject to approval of the Board.

A quorum for the transaction of any and all business of the Committee shall exist when:

A. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held in conjunction with meetings of the Board; or

B. Both all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are not held in conjunction with meetings of the Board; or

C. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held solely for the purpose of reviewing and overseeing compliance matters.

FINANCE COMMITTEE

FINANCE COMMITTEE

David L. Steelman, Chair

Darryl M. Chatman

Greg E. Hoberock

Michael A. Williams

The Finance Committee may have referred to it matters relating to the fiscal and accounting functions of the University and associated programs and policies.

1. The Vice President for Finance of the University or some other person(s) designated by the President of the University shall be an ex officio member of this Committee. The Vice President for Finance shall be responsible for transmitting Committee recommendations.

2. The Finance Committee shall be the Board Committee on investments.

3. The Finance Committee shall be the Board Committee on physical facilities and management services. The Finance Committee may have referred to it matters relating to the planning, building, maintenance and operation of the physical facilities of the University, and the purchasing of equipment and supplies utilized by the University.

April 6, 2020

To: The Honorable Julia G. Brncic, Chair, Board of Curators
Members of the Finance Committee
The Honorable David L. Steelman, Chair
The Honorable Darryl M. Chatman
The Honorable Greg E. Hoberock
The Honorable Michael A. Williams

From: Ryan Rapp, Vice President for Finance and CFO, UM

Re: Financial Status Report – April 2020

Our universities and healthcare system are addressing several challenges due to COVID-19, including negative headwinds on our three primary operating revenue sources (tuition, patient revenue, and state support). The severity of the economic challenge and duration of the public health crisis is not fully known at this time but will be significant. These challenges will require us to remain out in front in terms of cost cutting measures and revenue opportunities. This is necessary to maintain our mission and position us to emerge from the crisis in a position of strength. How we lead through this will either elevate or depress our universities and healthcare system; a neutral outcome is highly unlikely.

We will not make the budget plans we set for fiscal year 2020. We have taken several immediate actions to cut cost and protect revenue. We will continue to proactively implement significant measures to address the financial uncertainties to ensure proper fiscal stewardship of our universities and healthcare system. To that end, our decision-making is focused on the next 60 to 90 days. We want to take careful but decisive actions in the short run that allow for future flexibility and optionality. This will best prepare us to deal with resetting our long-term financial plans as the lasting impacts become clear.

The focus remains on the priorities below and the resources necessary to achieve them:

- Ensuring our students receive a high-quality education
- Supporting retention and recruitment of our students
- Continuing research and scholarship, especially related to the public health crisis and precision health
- Supporting the University's response to the public health crisis and other engagement activities
- Supporting activities that sustain and/or grow revenues for the University

Our success in both the short-term and long-term will be driven by our ability to proactively reduce our overhead through administrative consolidations, reducing our space footprint, improving our contribution margins from academic programs and reevaluating existing program offerings, and aggressively expanding our online education capabilities. We need to ensure we are evaluating mission-focused plans against the financial return they provide instead of the dollars they spend.

We plan to bring forward the fiscal year 2021 budget at the June Board meeting for approval, with the understanding the budget will need to be updated at least quarterly until we have clarity on the long-term impact. The attached financial status report provides an industry outlook, balance sheet positioning, key income statement financial drivers and sensitivities, our framework to ensure the financial health and viability of our universities and health system, and a summary of near-term actions.

We remain committed to our long-term approved investment strategy and remain in daily contact our investment advisors. When the crisis passes and the long-term impact becomes clearer we will review the results of our investment performance, status of the university pension plan, and the need for any potential strategic actions that need to be considered with the Board.

Enclosures

c: Members of the Board of Curators
Mun Y. Choi, President, UM and Interim Chancellor, MU

Financial Status Update

Industry Outlook

In March, the Moody’s financial outlook for higher education sector was listed again as negative. "For fiscal 2021, universities face unprecedented enrollment uncertainty, risks to multiple revenue streams and potential material erosion in their balance sheets," the report from Moody's said. The report noted the following risks.

> ***Ability to respond to rapidly increasing downside risk varies widely across the sector.*** About 30% of universities currently have weak operating performances and will have an even harder time adapting to the disruption caused by the coronavirus and recession. Universities with positive operating cash flow and strong liquidity will be better able to navigate these challenges.
>
> ***Coronavirus response will immediately hit revenues and drive expenses higher.*** Many universities have responded to the coronavirus by offering digital education platforms and sending students home, which will immediately impact revenue streams, according to Moody's.
>
> ***Universities face multiple risks to revenue in 2021.*** The sector will face not only disruption in enrollment but also state support, endowment income and philanthropy, and research grants and contracts.
>
> ***Financial market disruption presents several immediate and longer-term challenges.*** These significant investment losses will have an immediate impact on university’s reserves. Growing net pension liabilities have and will continue to be a credit risk for universities. The financial disruption will only increase the unfunded pension liability, if market losses continue.

Moody’s notes this outlook could change back to stable if the economy returns to normal after the outbreak is contained and enrollment stays steady in the fall.

Balance Sheet Positioning

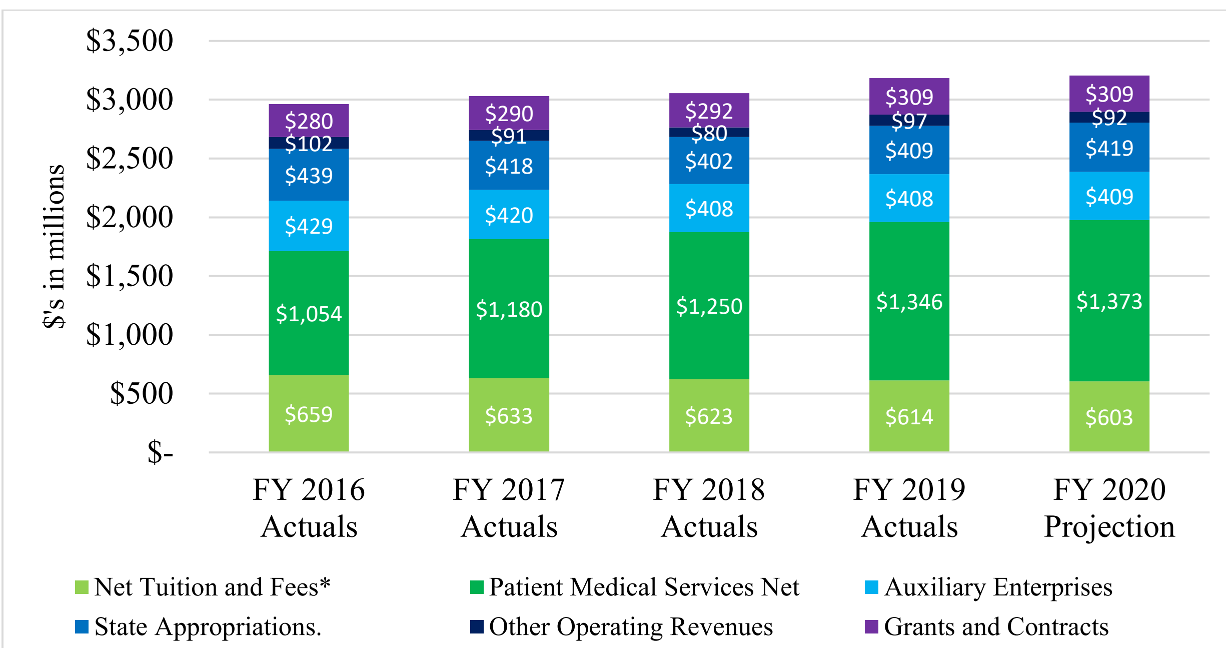
The University continues to maintain healthy liquidity and a manageable debt portfolio. Investment strategies for the University and the pension plan remain focused on the long-term and unchanged from our pre-crisis strategies. The University is currently taking actions to fortify its balance sheet further by restructuring debt and protecting liquidity. This is offset by what will most likely be a growing net pension liability increasing the University's liabilities in the coming years.

The University's balance sheet is conservatively positioned to allow the University to manage through the crisis but will require forward action. It provides the time needed to make the hard but necessary decisions strategically. It does not provide optionality in making those decisions.

Key Income Statement Financial Drivers and Sensitivities

Figure 1 illustrates the University's sources of operating revenue. The projection for FY20 shows the University's expectation based on a normal ending to the year. Healthcare continues to be largest single source of revenues for the University enterprise, and after years of growth, faces a significant risk due to COVID-19 and the related impacts on volumes, especially of elective procedures. Net tuition and fees and auxiliary enterprises are approximately 35% of the total operating revenues. Half of the auxiliaries' revenues are generated from student service operations. Every revenue stream will most likely be challenged in FY21, with potential declines across many sources.

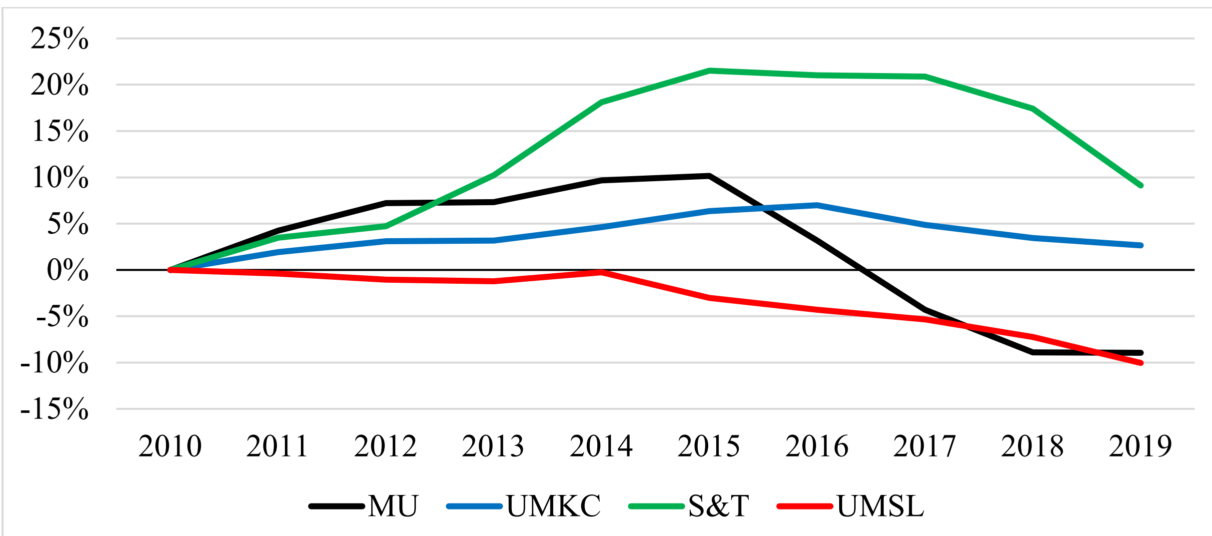
Figure 1: Operating Revenue by Source



****Net Tuition and Fees includes Pell Grant State Funded Aid Revenue***

Tuition and fees are the primary source of revenue for the academic enterprise. Coupled with the auxiliary enterprises that primarily support student activities, student driven revenues account for over $1 billion in revenue for the University. ***Enrollments*** are the primary drivers of tuition and fees as well as the student auxiliary enterprises. Transitioning from on-campus to online for our traditional students, while positive for the University in terms of preserving tuition and fee revenue, will have significant ramifications for the University in terms of student auxiliary enterprises (i.e., residence halls, dining halls, athletics, bookstore, etc) if that transition persists into the fall. After FY2020, enrollment growth at MU was projected to increase as the incoming freshman classes become larger than graduating senior classes. Missouri S&T and UMSL experienced enrollment declines from FY2019 to FY2020 of 8% and 3%, respectively with UMKC being flat. Across the University first-time college admissions and acceptance are up 4.8% and 7.8%, respectively due primarily to strong demand at MU. Maintaining enrollments will be key to the University's financial sustainability throughout the current crisis.

Figure 2: 10 Year Change in Enrollment

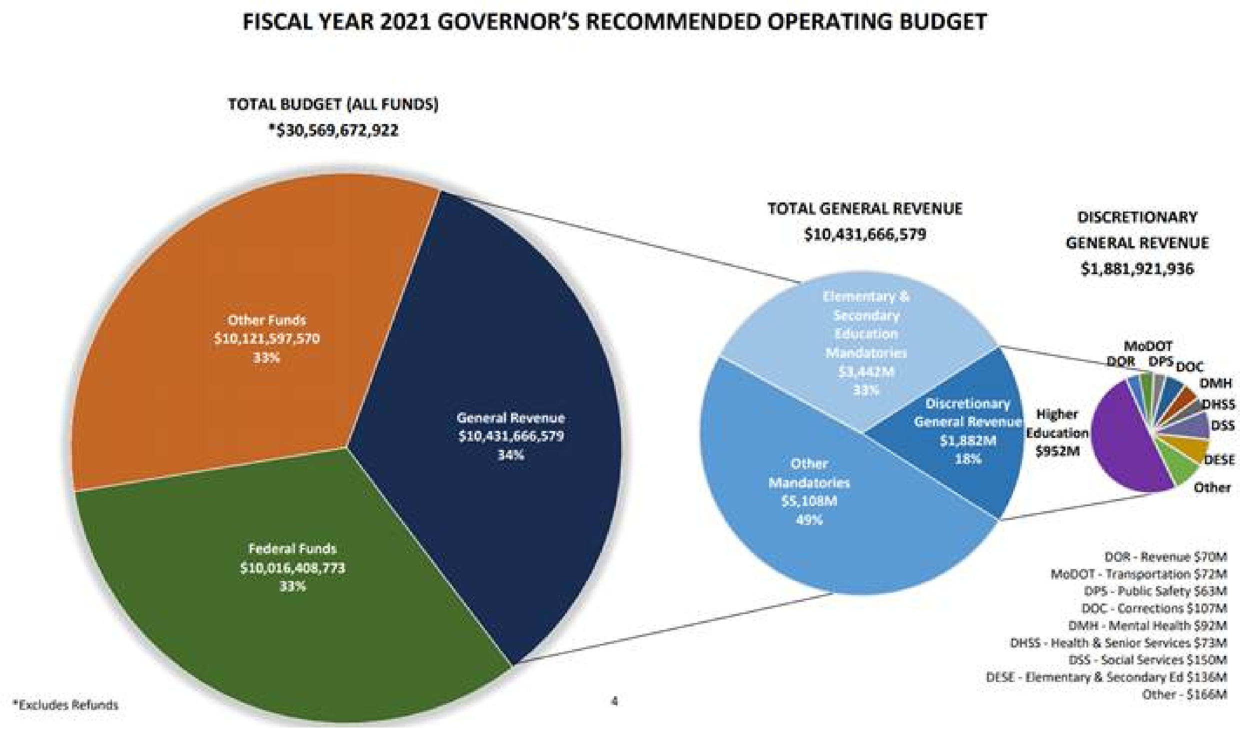


State appropriations are also a key operating revenue stream. Current budget planning is based on the Governor's recommendations, in which core appropriations remain flat for FY21. However, the current crisis is putting significant pressures on state budgets as spending on healthcare and unemployment increases while revenues from taxes driven by economic activity fall.

Missouri like other states is faced with difficult choices when it comes to funding higher education as mandatory spending programs like Medicaid and employee pension contributions as well as other high priorities like public safety and elementary and secondary education continue to absorb a significant portion of the state's available resources. 82% of the total general revenue budget is funding the mandatory programs referenced, and that amount is expected to increase as the economic downturn exacerbates mandatory program spending. The remaining 18% is discretionary general revenue as illustrated in Figure 3 on the following page of which Higher Education makes up 51%.

Four-year institutions account for 71% of the Higher Education funding in the Governor's recommended budget and the University of Missouri System receives 54% of the 71% allocated to 4-year institutions. If the State had to withhold $100 million in funding, the University would experience a $20 million reduction in state appropriations on a prorated basis. For every discretionary dollar cut, the University is likely to experience 20 cents on that dollar on a pro-rata allocation. This general rule held true for the $180M in spending restrictions announced by the governor, with UM receiving $36 million (20%) in restrictions. The impact of the Federal stimulus could help offset declines in state appropriations in FY20 and FY21.

Figure 3: Discretionary versus non-Discretionary General Revenue Budget



Patient Medical Services**:** historically accounted for the majority of revenue growth across the University. For the FY2020 projection, revenue growth in healthcare was already beginning to slow, prior to the coronavirus outbreak, relative to the growth rate seen in the past few years. It is still unknown the full impact the coronavirus outbreak will create for the University's medical center, but the impact could be significant depending on the duration of the outbreak. Currently, elective or optional procedures are being deferred which is significant from a revenue standpoint as these procedures typically produce favorable operating margins on a per case basis.

Grants and Contracts research growth is a strategic initiative for all of the universities. Both the four universities and System office have made strategic commitments to fund research and creative works. The University has halted most lab experiments due to the coronavirus outbreak. The revenue disruption will depend on the duration of the outbreak. Federal agencies are allowing the University to fund payroll on projects that have been stopped due to the outbreak. Longer term, with the stimulus package and related downturn, it is not clear at this time how this revenue stream will be impacted as the federal government responds to the public health crisis and related economic impacts. It is important to understand that research is part of our mission and requires investment and cost sharing on the part of the University for every external dollar received. On average, that ratio of University funding to Federal funding for research is 1.2.

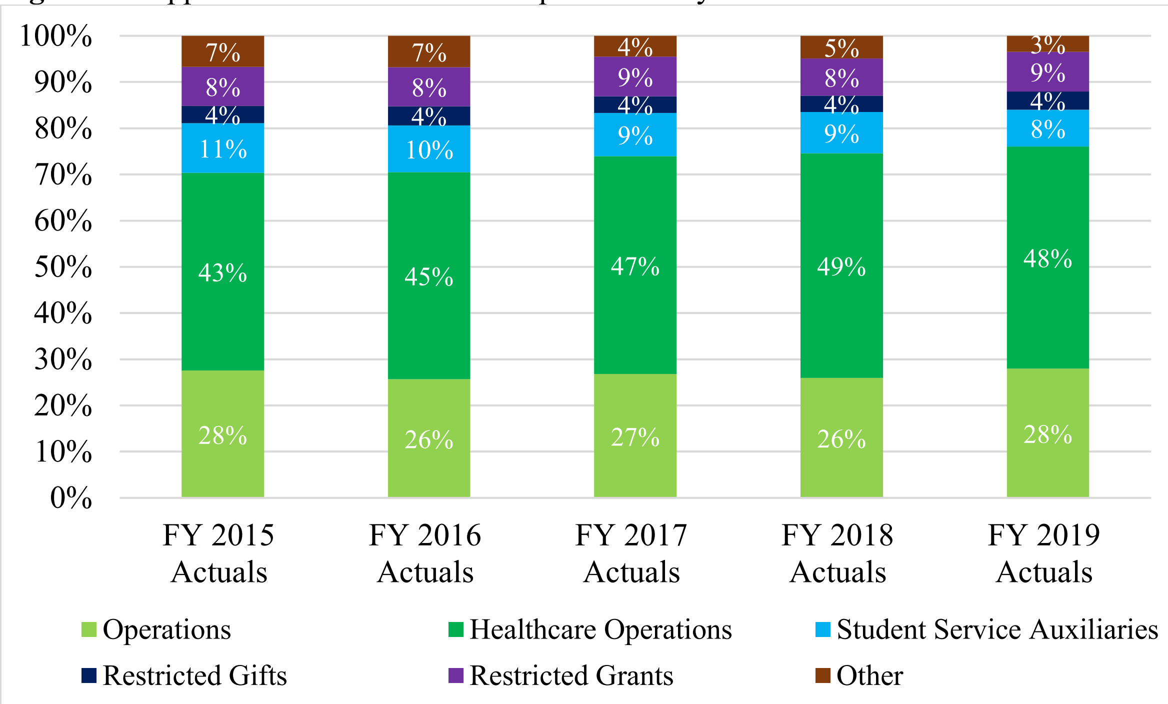
Salaries & Wages encompasses approximately 60% of the University's operating expense. The University has fixed compensation structure in the form of tenured faculty. Tenured/tenure track faculty account for approximately 11% or 1,750 of total full-time University employees, this group of faculty members declined by 150 or 8% in Fall 2019 due to the Voluntary Separation Program, (VSP) which provided tenured faculty with a one-time lump sum payment to relinquish tenure.

While tenured/tenure track faculty represent 11% of full-time University employees, their base salary accounts for on average 18% of the University's total base salary. Benefit eligible staff excluding healthcare account for on average 35% of the University's total base salary, however these employees represent 73% or 10,920 of full-time University employees.

Benefits remain an area that will apply upward pressure on the institution's cost over the long-term. The pension plan remains a significant risk, with the unfunded liability likely to grow above $1 billion in the current return environment, even though the plan remains closed to new entrants. Contributions into the plan will be forced to increase significantly, and will likely need to include contributions from current participants. Contributions into defined contribution plans also may face pressure on a forward basis, as many companies in private industry defer contributions into 401k plans in times of financial stringency. The University's medical cost growth remains below market averages, but long-term trends in medical cost still exceed inflation and average wage increases, placing pressures on other cost items. The current pandemic could result in increased or decreased costs in medical, as elective procedures are deferred to save cost while the costs of hospitalizations from COVID could increase the medical plan costs.

Supplies Services and Other Expenditures are approximately 30% of the University's operating expense. Figure 6 illustrates supplies services and other by source, the healthcare operations account for nearly half of these expenditures, with pharmaceuticals and medical supplies driving the majority of healthcare spend.

Figure 6: Supplies Services and Other Expenditures by Source



Sensitivities

With the pandemic, there is a high degree of uncertainty and a wide range of financial outcomes. Only the passage of time will give better information on the various impacts. The following outlines the relative risk and impact of those various factors:

State Appropriations: The University represents 20% of the state's discretionary budget. Any state revenue disruption will impact the University. State revenue represents 15% of the University's budget. Disruption in state revenue is likely, but the timing will largely be determined by the federal stimulus package and the severity of the economic downturn.

Tuition and Auxiliaries: Tuition and auxiliary revenues are primarily driven by student enrollment. Collectively, these operations generate approximately $1 billion in revenue for the institution:

- A 1% change in enrollment therefore changes revenue by $10 million including auxiliaries.
- Non-resident students generate roughly double the net revenue of resident students and make up approximately 20% of total undergraduate enrollments.
- Undergraduate enrollments remain the primary driver of tuition income.

Patient Revenues: Patient revenues encompass over 40% of the University's total revenues. In the short run, revenues remain at risk as about a fifth of the enterprise's revenues relate to elective procedures that are currently canceled. Current estimates show a substantial loss in contribution margin per week that elective procedures are deferred. In the longer term, the healthcare enterprise will likely provide a stabilizing base to the University's revenues, without unforeseen decreases in consumption.

Grants and Contracts: federal and state projects represent 75% of research funding and are likely to remain stable through the crisis, however, future outcomes after the crisis are less certain. Grants and contracts represent 9% of total incomes.

Other Revenue Sources:

- **Investment Income:**
    - General Pool: returns on the general pool (the University's cash balances) are expected to be depressed during the crisis placing further pressure on the University's operating budget. A 1% change in return equates to approximately $20 million in income. To the extent the University spends working capital, the general pool balance will also drop for future income. The general pool impact will largely be shorter term.
    - Endowment Pool: the endowment pool is likely to experience a higher investment loss due to the strategy, but the flow through to operating budgets will take a longer amount of time. The endowment distribution policy utilizes a 28 quarter average, so the losses will feather in over the long-term rather than the short term like the general pool.

- **Gifts**: gifts represent a small proportion of the University's revenue, with approximately $60M per year in current giving for 2% of total budgets. The slowdown will likely significantly impact giving, but this will remain a smaller driver than the other items noted above.

The University will be required to balance revenue disruptions above within the following areas:

- *Salaries and Wages:* represent the largest area of expenditure for the University, with any 1% change representing $15 million in related savings. Revenue disruptions will undoubtedly impact staffing levels in the related operation experiencing the revenue impact. One fifth of the University's salary spend relates to tenured faculty. With the recent voluntary separation program, many will likely remain through any downturn as those who were likely to retire already have.

- *Benefits:*
    - **Medical** costs approximately $10,500 per benefit eligible employee. To the extent the university reduces headcount, it will save $10,500 per employee. This represents the fixed cost within benefits that can be managed. It is possible there will be some lift on medical from reduced consumption of elective procedures.

- **Retirement** will present a significant challenge over the longer-term. The magnitude of the issues with retirement will depend on the portfolio's performance through the downturn. A market event similar to 2007-2008 would roughly double the University's retirement costs over 5 years, increasing required contributions by an estimated $150 million. An increase of this magnitude would undoubtedly impact other pension plans and the range of available options for the University to address the shortfall would likely be wider than in the past.

- *Supplies, Services, and Other*
  - MU HealthCare drives 50% of the spend on supplies, services, and other expense, and these expenses should trend in line with utilization and revenues for MUHC.
  - For the remaining supplies, services, and other related to academic operations:
    - 30% relates to buildings, utilities, and equipment and will trend with space use and footprint
    - 20% relates to contracted services and will trend with staffing and other needs. It might make sense for this number increase in some areas and fall in others.
    - 14% relates to meetings and travel and should drop significantly in the short run. In the longer term, these expenses will flex based on the size of the workforce.
    - 13% relates to the cost of goods sold for auxiliary enterprises and should trend appropriately with auxiliary volumes and revenues.
    - 13% relates to departmental supplies and should trend with both enrollment and research.
    - 10% relates to technology and should trend with enrollment, employee headcount, and research.

- *Capital Expenses* average 250 million per year with the majority dedicated towards significant building projects. The University can slow capital expense temporarily to improve cash flow, but over the long-term investing in the right capital projects will be key to the University's rise from the current crisis. The current crisis has accelerated the need to significantly reduce and consolidate space.

Financial Health and Viability Goals and Critical Areas of Focus

Currently, we are in a crisis, we need more information before making long-term decisions. We will use the framework outlined below to be decisive and in front of the decisions that need to be made.

The financial health and viability goals and critical areas of focus (CAF) is intended to provide the financial framework through which we will lead through the crisis. This effort by design must be proactive, across all our Universities and MU Health and exhibit a laser focus on the challenges presented and the corresponding governance required to navigate the unknown crisis that lie ahead. This effort will allow for: deployment of a cohesive financial management strategy, complimentary and robust decision-making, and the strengthening of a unified leadership team. The Board of Curators will similarly benefit from the coordinated effort and enhanced communications. By responding with a sense of purpose, the University will be better positioned to maintain its mission and financial strength when faced with divergent exogenous challenges. Our response to the crisis will elevate or depress our universities and healthcare system; a neutral outcome is highly unlikely.

Goals

- Enable University to ensure optimal actions are being taken to address the public health and economic crisis, maintain a healthy balance sheet, and underwrite the long-term mission of the University.
- Be proactive in identifying and planning for potential problems through active management and thorough analysis.
- Provide early warning input to academic and health care leadership.

Critical Areas of Focus

1. Manage liquidity, cash deployment, debt portfolio, bond covenants and counterparty risk

2. Actively manage investment portfolio risks (General Pool, Endowment, Pension)

3. Actively monitor state budget outlook

4. Continually monitor student enrollment outlooks and assess upside/downside opportunities

5. Actively monitor key auxiliary operations and assess upside/downside opportunities: residence halls, dining services, bookstores, athletics and recreation facilities

6. Fully deploy College level "RPK" P&L statements

7. Use financial planning framework to manage probable forecasted cash flow/revenue changes earlier and transition to building longer-term resizing strategy

8. Actively monitor federal funding programs for opportunities and requirements

9. Proactively manage billing and receivables (student, patient, federal and state)

10. Aggressively manage staffing needs/capacity and restructuring opportunities

11. Utilize early warning approach to pension management and assess upside/downside opportunities

12. Be opportunistic in eLearning revenue stream and assess upside/downside opportunities

13. Actively engage with alumni and donors and assess upside/downside opportunities

14. Steward facilities utilization and capital capacity align with highest priorities and control cost

15. Aggressively manage procure to pay to manage spend and maximize float

16. Proactively manage ongoing capital projects to mitigate impacts to schedule and budget

17. Actively identify and develop a continuity strategy for potential counter party risk within existing academic and health care supply chain relationships. Review all major contract relationship for potential elimination or restructuring.

18. Optimize physician utilization and retention.

19. Actively manage athletic ticket and giving revenue and assess upside/downside opportunities

20. Proactively conduct stakeholder communications

Each CAF will be assigned to one core team member as its owner and each would become a sub-team within the overall effort. This organization structure will help assure inclusive coverage and cross-organizational information flow. Work will be undertaken with an extreme sense of urgency. Core team meetings will be held every Wednesday and Executive Stakeholder meetings will be conducted every Friday.

Measure
Each CAF will be evaluated to determine its relevance and baseline level of performance. Baseline measures will be established to allow robust monitoring of these CAFs to assure appropriate monitoring and steps taken.

Analyze (Facts and Data Analysis)

Each CAF will become an organizational structure for which critical metrics will be identified, which in many cases will represent operational levers. Initial baseline values will be established during Measure. During Analyze, the core team along with individual CAF sub-teams will conduct problem identification and root cause analysis to calibrate the original detailed metrics from Measure.

Execute

Each CAF will execute plans and report out weekly on accomplishments from the last week, plans for next week and decisions needed from executive leadership.

Every leader within a CAF must have the same mindset. CAF leaders will:

- Value action over inaction
- Look through the windshield instead of the rearview mirror
- Make the decisions that need to be made today

Summary of Near-Term Actions

As noted in the opening letter, we will not achieve our budget plans for fiscal year 2020. We have taken several immediate actions to cut cost and protect revenue. Our decision-making is focused on the next 60 to 90 days and we want to take careful but decisive actions in the short run that allow for future flexibility and optionality.

The University has taken the following actions:

- Restricted hiring and exceptions can only be granted by President/Chancellor
- Frozen all pay and positions reclassifications
- Placed limits on all non-personnel spend
- Purchasing requisitions and contracts require additional approvals including CFOs for those over $100,000
- Directed campus to support enrollment management and engagement with students help maintain enrollments as much as possible
- Moved all summer courses to on-line
- Vacated buildings except for essential staff
- Transitioning from administrative leave program to federal Families First Coronavirus Response Act (FFCRA) paid sick leave, FFCRA expanded FMLA leave and other paid leave by not later than April 12th.

Other near-term actions are being evaluated. We will remain decisive and in front of the challenging but necessary decisions. These decisions are not taken lightly, and demonstrate the challenging reality we're confronting. Additional information will be provided as decisions are made.

Amendment of NextGen Precision Health Institute Funding Plan and Sale of System Facilities Revenue Bonds
UM

The Board of Curators is being asked to amend its prior project approval and funding plan for the project budget for the NextGen Precision Health Institute (formerly known as the Translational Precision Medicine Complex) to eliminate the minimum requirement for use of University Unrestricted Funds, and increase the maximum allowable debt financing for such project from $121,000,000 to $180,000,000.

In April 2019, the Board of Curators approved the Translational Precision Medicine Complex including a funding plan that detailed $100,000,000 of University Unrestricted Funds and Long Term Debt not to exceed $121,000,000. Eliminating the requirement for use of University Unrestricted Funds and enhancing the maximum allowable debt associated with the project will provide the University with enhanced operating flexibility and allow the University to preserve liquidity during the ongoing health and economic crisis. The balance of the approved total project cost not funded with debt or University funds will be funded by various third party sources.

The Board of Curators is further being asked to approve a resolution authorizing the issuance of certain revenue bonds pursuant to the terms and conditions in the attached resolution, including authorization for the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate to approve final terms and to report such final terms to the Board.

The plan of finance includes issuing System Facilities Revenue Bonds to refund certain outstanding System Facilities Revenue Bonds previously approved by the Board of Curators, converting outstanding commercial paper to fixed-rate debt and issuing new money debt for the NextGen Precision Health Institute project.

Interviews with the University's current underwriting pool participants (JP Morgan, Morgan Stanley and Goldman Sachs) took place this week and Goldman Sachs was selected as the lead underwriter. Janney Montgomery Scott will serve as financial advisor, with Thompson Coburn and Gilmore & Bell continuing their roles as bond counsel and disclosure counsel, respectively. Conference calls will be conducted with Moody's and S&P this week.

Upon approval of the bond resolution the Board will authorize the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President Treasury and Real Estate to approve the final issuance of the bonds and the particular conditions associated with this bond issuance, subject to terms and limitations outlined in Exhibit F to the resolution. Highlights of Exhibit F are as follows:

- Aggregate principal amount not to exceed $765 million.
- Final maturity date not to exceed forty (40) years from date of issuance.

- True interest cost not to exceed 5%
- Aggregate underwriter's discount not in excess of .75% of original principal amount.

The University intends to go to market on or about the week of April 27, 2020. However, given recent volatility, the issuance team will continue to closely monitor market conditions and could potentially postpone the issuance if deemed prudent.

Within 24 hours of pricing the issuance, final terms of the transaction will be reported to the Board.

No. 1

Recommended Action - Amendment of NextGen Precision Health Institute Funding Plan and Sale of System Facilities Revenue Bonds, UM

It was recommended by Vice President for Finance, Chief Financial Officer and Treasurer Ryan Rapp, endorsed by President Choi, moved by Curator_____, and seconded by Curator______, that:

> The Board hereby amends the funding plan for the project budget for the NextGen Precision Health Institute (formerly known as the Translational Precision Medicine Complex), first approved by Board Action on May 15, 2019, to eliminate the minimum requirement for use of University Unrestricted Funds, and increase the maximum allowable debt financing for such project from $121,000,000 to $180,000,000; and further, that
>
> The Curators of the University of Missouri be authorized to issue certain revenue bonds pursuant to the terms and conditions in the attached Bond Resolution, including authorization for the Vice President for Finance, Chief Financial Officer, and Treasurer or the Assistant Vice President for Treasury and Real Estate to approve final terms and to report such final terms to the Board.

Roll call vote of the Committee:	YES	NO
Curator Chatman		
Curator Hoberock		
Curator Steelman		
Curator Williams		

The motion ___________________.

Roll call vote:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion ___________________.

RESOLUTION

OF THE

BOARD OF CURATORS

OF THE UNIVERSITY OF THE STATE OF MISSOURI

ADOPTED APRIL 9, 2020

THE CURATORS OF THE UNIVERSITY OF MISSOURI
SYSTEM FACILITIES REVENUE BONDS
SERIES 2020

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MISCELLANEOUS PROVISIONS

<u>Exhibits</u>

A RESOLUTION AUTHORIZING AND DIRECTING THE ISSUANCE OF ITS SYSTEM FACILITIES REVENUE BONDS, SERIES 2020, OF THE CURATORS OF THE UNIVERSITY OF MISSOURI, DIRECTING THE REFUNDING AND DEFEASANCE OF CERTAIN OUTSTANDING OBLIGATIONS ISSUED BY THE UNIVERSITY AND/OR THE ACQUISITION, CONSTRUCTION, FURNISHING OR EQUIPPING OF CERTAIN IMPROVEMENTS TO THE SYSTEM FACILITIES OF THE UNIVERSITY; PRESCRIBING THE FORM AND DETAILS OF SAID REVENUE BONDS AND THE COVENANTS AND AGREEMENTS MADE BY THE UNIVERSITY TO FACILITATE AND PROTECT THE PAYMENT THEREOF; PROVIDING FOR THE COLLECTION, SEGREGATION AND APPLICATION OF THE REVENUES OF THE SYSTEM FACILITIES OF THE UNIVERSITY AND CERTAIN OTHER MONEYS FOR THE PURPOSE OF PAYING THE PRINCIPAL OF AND INTEREST ON SAID REVENUE BONDS; AND FIXING THE TIME WHEN THIS RESOLUTION SHALL BECOME EFFECTIVE

WHEREAS, the Constitution of the State of Missouri provides that the "government of the State University shall be vested in a Board of Curators," Article IX, §9(a), Mo. Const., and pursuant thereto and the laws of the State of Missouri, the Board of Curators of the University of the State of Missouri (the "Board") is the governing body of The Curators of the University of Missouri, a duly incorporated and created body politic and state educational institution existing under the Constitution and laws of the State of Missouri (the "University"); and

WHEREAS, the University now owns and operates revenue producing facilities serving the University and its students; and

WHEREAS, under the provisions of the Constitution and laws of the State of Missouri, the University, acting through its governing body, is authorized to acquire, construct, erect, equip, furnish, operate, control, manage, and regulate certain defined projects, including buildings of the character hereinafter described, and is authorized to issue and sell revenue bonds in order to provide funds for the refinancing of indebtedness incurred for such aforesaid purpose; and

WHEREAS, the Board, the governing body of the University, has previously determined that it would be in the best interest of the University from the standpoint of economics, management, efficiency and certain other respects for there to be a program in place for financing of certain facilities and properties of the University; and

WHEREAS, pursuant to applicable law, a Resolution adopted by the Board on October 28, 1993 and a Resolution adopted by the Executive Committee of the Board (the "Executive Committee") on November 11, 1993 (collectively, the "Initial System Facilities Resolution"), the University did (1) establish said program of finance, (2) designate certain "System Facilities," "System Revenues" and "Student System Facilities Fee" (as said terms are defined herein) on behalf of the University, (3) issue $45,385,000 original principal amount of System Facilities Revenue Bonds, Series 1993 (the "Series 1993 Bonds"), (4) cause certain other series of revenue bonds issued by the University prior to the issuance of the Series 1993 Bonds to finance certain University projects constituting System Facilities to be secured by the System Revenues on a parity basis with the Series 1993 Bonds, and (5) take certain other actions related thereto; and

WHEREAS, pursuant to the provisions of the Initial System Facilities Resolution, the University may issue Additional Bonds (as defined herein) payable on a parity basis from the System Revenues if certain conditions are met, and the University has pursuant to such provisions and the provisions of resolutions adopted by the Board and/or the Executive Committee issued various series of Additional Bonds, all on a parity basis with the Series 1993 Bonds (the Outstanding amount of such Additional Bonds being collectively referred to herein as the "Prior System Bonds," as more fully defined and described herein and in Exhibit C hereto, and the resolutions of the Board and the Executive Committee pursuant to which the Prior System Bonds were issued are collectively referred to herein as the "Prior System Facilities Resolutions"); and

WHEREAS, it is hereby found and determined that it is necessary, advisable and in the best interest of the University that additional system facilities revenue bonds be issued and secured in the form and manner hereinafter provided to provide funds to finance all or a portion of the cost of (a) acquiring, constructing, improving, renovating, furnishing and equipping certain additions and improvements to the System Facilities described in Exhibit D hereto (collectively with the Projects financed with proceeds of the Refunded Obligations (as defined herein), the "Projects"); (b) refunding, refinancing and/or defeasing certain Prior System Bonds or other outstanding obligations issued by the University and described in Exhibit E hereto (which bonds or other obligations being refunded or refinanced may be the entire series or a portion of a series of such Prior System Bonds or other obligations), if determined to be in the best interests of the University and will result in debt service savings for the University or will be otherwise advantageous to the University, as determined in the Final Terms Approval (the bonds or other obligations, if any, determined in the Final Terms Approval to be refunded being referred to as the "Refunded Obligations"), the proceeds of which were used to finance or refinance all or a part of the costs of the acquisition, construction, development, improvement, renovation, furnishing and equipping of various capital improvements to the System Facilities of the University, all as more fully described in the Final Terms Approval; and (c) paying costs of issuance relating to the Series 2020 Bonds; and

WHEREAS, the Board hereby finds and determines that said Series 2020 Bonds meet the conditions contained in the Initial System Facilities Resolution and the Prior System Facilities Resolutions for such Series 2020 Bonds to be issued and secured on a parity with the Prior System Bonds and Additional Bonds; and

WHEREAS, the Board does hereby determine that the University now issue the Series 2020 Bonds upon the terms provided herein;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF CURATORS OF THE UNIVERSITY OF THE STATE OF MISSOURI, AS FOLLOWS:

ARTICLE I

DEFINITIONS

Section 101. Definitions of Words and Terms. In addition to words and terms defined elsewhere in this Resolution, the following words and terms as used in this Resolution shall have the following meanings, unless some other meaning is plainly intended:

"Additional Bonds" means any additional bonds or other indebtedness authorized to be issued by the University pursuant to Section 1002 of this Resolution and standing on a parity and equality with the Series 2020 Bonds with respect to the payment of principal and interest from the System Revenues.

"Alternate Liquidity Facility," means, as to any Series 2020 Bonds issued as a Variable Rate Bond, any bond purchase agreement, line of credit, surety bond, revolving credit facility, bond insurance policy or other agreement or instrument (other than the Initial Liquidity Facility), including any extensions thereof and any amendments or supplements thereto, under which any Person (which may be the University) undertakes to pay or provide funds to pay the purchase price of all Bonds tendered or required to be tendered for purchase pursuant to Sections 307(a) or 307(b) hereof that are not remarketed or are remarketed but for which payment is not received; provided, that an Alternate Liquidity Facility need not apply to the purchase price of Pledged Bonds or University Bonds.

"Annual Debt Service" means, in any Fiscal Year, an amount equal to the principal payable in such Fiscal Year on the Bonds together with interest thereon. For purposes of the various calculations under this Resolution and the Prior System Facilities Resolutions, the amortization schedule of such Bonds and the Annual Debt Service with respect to such Bonds shall be calculated in accordance with the actual amortization schedule for such Bonds, except as follows:

(a) *Variable Rate Bonds.* In determining the Annual Debt Service on any Bonds which provide for interest to be payable thereon at a rate per annum that may vary from time to time over the term thereof in accordance with procedures provided in the instrument creating such Bonds and which for any future period of time is not susceptible of precise determination, the interest rate on such Bonds for any period prior to the date of calculation or for which the interest rate has been determined shall be the actual interest payable during such period, and for each year in which such Bonds are Outstanding and for which the actual interest rate cannot be determined, the interest rate on such Bonds for the period of determination shall be deemed to be the average annual rate of interest payable on such Bonds during the 12 months immediately preceding the date of calculation, or if such Bonds are to be incurred or were issued less than 12 months preceding such date, the initial rate or the average annual rate of interest payable on such Bonds during such period immediately preceding the date of calculation.

(b) *Interest Rate Exchange Agreements.* In the case of any interest rate exchange agreements or comparable agreements entered into by the University for a term exceeding one year, pursuant to which the University is obligated to make interest-like payments to or on behalf of another Person and that Person is obligated to make similar interest-like payments to or on behalf of the University (based on a different rate of, or formula for, interest), with neither party obligated to repay any principal, the net amount to be paid by the University (computed in accordance with this sentence) shall be taken into account in calculating Annual Debt Service; if such net amount is less than zero, such net amount may be credited against other interest coming due in so calculating Annual Debt Service so long as the swap counterparty (or any guarantor thereof) is rated in one of the three highest rating categories (without regard to modifiers) by a nationally recognized rating agency. If the swap counterparty is not so rated, then the higher of the swap rate and the actual rate of interest on the Bonds shall be taken into account in calculating Annual Debt Service.

(c) *Balloon Indebtedness*. In determining the Annual Debt Service on any Bonds with respect to which 25% or more of the original principal amount of which becomes due and payable (either by maturity or scheduled mandatory redemption) during any consecutive 12-month period, if such maturing principal amount is not required to be amortized below such percentage by mandatory redemption or prepayment prior to such 12-month period, the debt service requirements on such Bonds shall be calculated by assuming that such Bond indebtedness matures over 25 years from the date of issuance of such Bond indebtedness and is payable on a level annual debt service basis over a period of no more than 25 years.

(d) *Build America Bonds*. In determining the Annual Debt Service on any Bonds with respect to which the University has elected to have Code Section 54AA apply, and to have Code Section 54AA(g) apply so that such Bonds may be designated as "Build America Bonds (Direct Payment)," the Annual Debt Service on any such Bonds for any period shall be determined by taking into account (i.e., deducting) the cash subsidy payments received or expected to be received by the University with respect to interest on such Bonds for such period.

"Auction Rate," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the interest rate per annum on a Series 2020 Bond established in accordance with Section 204(f) hereof and the Auction Rate Supplemental Resolution.

"Auction Rate Conversion Date," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the Interest Payment Date on which Series 2020 Bonds begin to bear interest at an Auction Rate in accordance with the terms hereof.

"Auction Rate Mode," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the mode in which Series 2020 Bonds bear interest at an Auction Rate.

"Auction Rate Period," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the period from an Auction Rate Conversion Date to the earlier of the next following Conversion Date or the maturity date of a Series 2020 Bond (to the extent such Series 2020 Bond is in the Auction Rate Mode at such time).

"Auction Rate Supplemental Resolution," as to any Series 2020 Bonds issued as a Variable Rate Bond, means a supplemental resolution authorized by this Resolution to govern the terms of Series 2020 Bonds in the Auction Rate Mode.

"Beneficial Owner" means, whenever used with respect to a Series 2020 Bond, the person in whose name such Series 2020 Bond is recorded as the beneficial owner of such Series 2020 Bond by a Participant on the records of such Participant, or such person's subrogee.

"Board" means the Board of Curators of the University of the State of Missouri, the governing body of the University, and any successor body.

"Bond Purchase Agreement" means one or more Bond Purchase Agreement(s) relating to the sale of one or more Series of Series 2020 Bonds, between the University and the Original Purchaser.

"Bond Purchase Fund," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the fund by that name created in Section 307(d) hereof.

"Bonds" means the Series 2020 Bonds, the Prior System Bonds and all Additional Bonds authenticated and delivered pursuant to the terms of this Resolution and the Prior System Facilities Resolutions.

"Business Day" means a day other than (i) a Saturday or Sunday or legal holiday or a day on which banks located in any city in which the principal corporate trust office or payment office of the Paying Agent and Bond Registrar or the Tender Agent or the primary office of the Remarketing Agent is located or in New York, New York, are required or authorized by law to remain closed or (ii) a day on which the New York Stock Exchange is closed.

"Cede & Co." means Cede & Co., the nominee of DTC, and any successor nominee of DTC with respect to the Series 2020 Bonds.

"Code" means the Internal Revenue Code of 1986, as amended, or any corresponding provisions of succeeding law, and the applicable temporary, proposed and final regulations and procedures related thereto.

"Commercial Paper Rate," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the interest rate for each Series 2020 Bond as determined with respect to such Series 2020 Bond as provided in Section 204(b) hereof.

"Commercial Paper Rate Period," as to any Series 2020 Bonds issued as a Variable Rate Bond, means with respect to any Series 2020 Bond each period determined for such Series 2020 Bond as provided in Section 204(b)(2) hereof.

"Continuing Disclosure Agreement" means that certain Continuing Disclosure Agreement dated as of the date of issuance of the Series 2020 Bonds, between the University and Digital Assurance Certification L.L.C., a dissemination agent, as originally executed, as the same may be amended from time to time in accordance with the terms thereof.

"Conversion Date," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the day on which a particular type of Interest Rate (i.e., a Daily Rate, Weekly Rate, Commercial Paper Rate, Fixed Rate, Term Rate or Auction Rate), becomes effective for Series 2020 Bonds which is not immediately preceded by a day on which such Series 2020 Bonds have accrued interest at the same type of rate, including without limitation an Auction Rate Conversion Date, and, when used with respect to any Term Rate Period, the day after the end of such Term Rate Period. Each Conversion Date shall be an Interest Payment Date for the Rate Period from which the Series 2020 Bonds are converted, which shall be the last Interest Payment Date for the then current Term Rate Period if the conversion is from a Term Rate Period, except that any Business Day may be a Conversion Date from a Daily or Weekly Rate Period.

"Costs of Issuance Account" means the System Facilities Costs of Issuance Account ratified and confirmed pursuant to Section 501 of this Resolution, including subaccounts established thereunder.

"Daily Rate," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the interest rate to be determined for Series 2020 Bonds on each Business Day pursuant to Section 204(c) hereof.

"Daily Rate Conversion Date," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the day on which Series 2020 Bonds accrue interest at a Daily Rate pursuant to Section 205 hereof which is immediately preceded by a day on which such Series 2020 Bonds did not accrue interest at a Daily Rate.

"Daily Rate Period" means each period described in Section 204(c)(1) hereof during which Series 2020 Bonds accrue interest at a Daily Rate.

"DTC" means The Depository Trust Company of New York, New York.

"Electronic" means notice transmitted through a time-sharing terminal or facsimile machine, if operative as between any two parties, or if not operative, in writing or by telephone (promptly confirmed in writing); provided, however, that such term does not include electronic mail transmitted via the internet.

"Escrow Agent" means U.S. Bank National Association, Saint Louis, Missouri, and its successors and assigns.

"Escrow Agreement" means any Escrow Trust Agreement dated as of the date of issuance of the Series 2020 Bonds by and between the University and the Escrow Agent pursuant to which any of the Refunded Obligations are being refunded, defeased and paid executed pursuant to Section 607 hereof.

"Executive Committee" means the Executive Committee of the Board, and any successor body.

"Final Terms Approval" means a certificate in substantially the form of Exhibit G attached hereto, executed pursuant to Section 201 and Section 1604 hereof , the final and completed form of which will be included in the Transcript of Proceedings relating to the issuance of the Series 2020 Bonds.

"Fiscal Year" means the period commencing July 1 and ending June 30 of each succeeding calendar year, or such other temporal period of one year in length as the University shall hereafter designate as its Fiscal Year.

"Fixed Rate," as to any Series 2020 Bonds issued initially as a Variable Rate Bond, but which is subsequently converted to bear interest at a fixed rate of interest, means the interest rate per annum on a Series 2020 Bond established in accordance with Section 204(g) hereof.

"Fixed Rate Bond" means a Series 2020 Bond that at the time of original issuance bears interest at a fixed interest rate to its stated maturity.

"Fixed Rate Conversion Date," as to any Series 2020 Bonds issued initially as a Variable Rate Bond, means the day on which Series 2020 Bonds accrue interest at a Fixed Rate pursuant to Section 205 hereof which is immediately proceeded by a day on which such Series 2020 Bonds did not accrue interest at a Fixed Rate.

"Fixed Rate Period," as to any Series 2020 Bonds issued initially as a Variable Rate Bond, means with respect to any Series 2020 Bond the period from the Fixed Rate Conversion Date for such Series 2020 Bond to the Maturity Date of the Series 2020 Bond, unless earlier redeemed.

"Initial Liquidity Facility," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the agreement of the University, under Section 307(e) hereof, to provide funds to the Paying Agent and Bond Registrar, in accordance with the terms thereof, up to an amount sufficient to pay the purchase price of Series 2020 Bonds (other than Pledged Bonds or University Bonds) tendered or required to be tendered for purchase pursuant to Sections 307(a) or 307(b) of this Resolution that are not remarketed or are remarketed but for which payment is not received.

"Initial System Facilities Resolution" means, collectively, the resolution adopted by the Board on October 28, 1993 and the resolution adopted by the Executive Committee on November 11, 1993, as from time to time amended in accordance with the terms thereof.

"Interest Payment Date" means (1) as to any Series 2020 Bonds issued initially as a Fixed Rate Bond, May 1 and November 1 of each year, commencing November 1, 2020 or as may be otherwise provided in the Final Terms Approval; and (2) as to any Series 2020 Bonds issued initially as a Variable Rate Bond:

(a) when used with respect to any particular Series 2020 Bond accruing interest at a Commercial Paper Rate, the day after the last day of each Commercial Paper Rate Period applicable thereto;

(b) when used with respect to Series 2020 Bonds accruing interest at Daily Rates, the first Business Day of each calendar month following a month in which interest at such rate has accrued, and any day which is a Conversion Date from a Daily Rate Period;

(c) when used with respect to Series 2020 Bonds accruing interest at Weekly Rates, the first Business Day of each calendar month following the Weekly Rate Period for which interest is payable, and any day which is a Conversion Date from a Weekly Rate Period;

(d) when used with respect to Series 2020 Bonds accruing interest at a Term Rate, each May 1 and November 1 commencing with the first of such dates which is at least 6 months after the Term Rate Conversion Date, except that the last Interest Payment Date for any Term Rate Period which is followed by a Commercial Paper, Daily or Weekly Rate Period shall be the first Business Day of the 6th month following the month of the preceding Interest Payment Date;

(e) when used with respect to Series 2020 Bonds accruing interest at a Fixed Rate, each May 1 and November 1 commencing with the first of such dates which is at least 6 months after the Fixed Rate Conversion Date through and including the maturity date of a Series 2020 Bond accruing interest at a Fixed Rate; and

(f) with respect to Series 2020 Bonds in an Auction Rate Mode, the 1st Business Day after the last day of each Auction Rate Period applicable thereto, and any date that is a Conversion Date from an Auction Rate Period.

"Interest Rate" means, as to any Series 2020 Bonds issued as a Fixed Rate Bond, the stated interest rate of such Series 2020 Bond, and, as to any Series 2020 Bonds issued initially as a Variable Rate Bond, an Auction, Commercial Paper, Daily, Weekly, Term, or Fixed Rate.

"Liquidity Facility," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the Initial Liquidity Facility and any Alternate Liquidity Facility.

"Liquidity Provider," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the issuer of any Liquidity Facility, and its successor in such capacity and its assigns. The University is the initial Liquidity Provider.

"Maturity Date" means, with respect to any Series 2020 Bond, the stated maturity date of such Series 2020 Bond.

"Maximum Annual Debt Service" means the maximum Annual Debt Service payable in any future Fiscal Year.

"Maximum Rate," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the rate per annum equal to the lesser of (a) 10% per annum, or (b) for so long as a Liquidity Facility is in effect, the maximum interest rate that could cause the interest to accrue on the Series 2020 Bonds during any interest period to exceed the Interest Commitment under the Liquidity Facility.

"Minimum Authorized Denominations" means the minimum denominations for the Series 2020 Bonds as specified in Section 203 hereof.

"Moody's" means Moody's Investors Service, Inc., and its successors and assigns, and, if such firm shall be dissolved or liquidated or shall no longer perform the functions of a securities rating service, "Moody's" shall be deemed to refer to any other nationally recognized securities rating service designated by the University, with notice to the Paying Agent and Bond Registrar.

"Official Statement" means any Official Statement with respect to the Series 2020 Bonds of a Series, as the same may be amended or supplemented as described in Section 1603 hereof.

"Opinion of Bond Counsel" means a written opinion of any legal counsel acceptable to the University and the Paying Agent and Bond Registrar who shall be nationally recognized as expert in matters pertaining to the validity of obligations of governmental issuers and the exemption from federal income taxation of interest on such obligations.

"Opinion of Counsel" means a written opinion of any legal counsel acceptable to the University and the Paying Agent and Bond Registrar, who may be an employee of or counsel to the University.

"Original Purchaser" means the original purchasers of a respective Series of Series 2020 Bonds pursuant to the Bond Purchase Agreement, for whom Goldman Sachs & Co. LLC, the senior managing underwriter, acts as representative under the Bond Purchase Agreement.

"Outstanding" means, when used with reference to Series 2020 Bonds of a Series, as of any particular date, all Series 2020 Bonds of such Series theretofore authenticated and delivered under the Resolution, except:

(a) Series 2020 Bonds of such Series theretofore cancelled by the Paying Agent and Bond Registrar or delivered to the Paying Agent and Bond Registrar for cancellation;

(b) Series 2020 Bonds of such Series deemed paid in accordance with the provisions of this Resolution; and

(c) Series 2020 Bonds of such Series in exchange for or in lieu of which other Bonds have been authenticated and delivered pursuant to this Resolution.

"Owner" or "Bondowner" means the person or persons in whose name or names a Bond shall be registered on the books of the Paying Agent and Bond Registrar kept for that purpose in accordance with the provisions of this Resolution.

"Participant" means any broker-dealer, bank or other financial institution for which DTC holds Series 2020 Bonds as securities depository.

"Paying Agent" and "Bond Registrar" means U.S. Bank National Association, Saint Louis, Missouri, and its successors and assigns.

"Person" means any natural person, firm, joint venture, association, partnership, business trust, corporation, public body, agency or political subdivision thereof or any other similar entity.

"Pledged Bonds," as to any Series 2020 Bonds issued as a Variable Rate Bond, means Series 2020 Bonds purchased with moneys provided to the Tender Agent pursuant to Section 307(c)(2) hereof.

"Principal and Interest Account" means the System Facilities Principal and Interest Account ratified and confirmed pursuant to Section 501 hereof, including subaccounts established thereunder.

"Prior System Bonds" means, collectively, the Outstanding portions of the system facilities revenue bonds previously issued by the University, as of the date of this Resolution consisting of the Outstanding portions of the system facilities revenue bonds listed on Exhibit C hereto (not taking into account the refunding and redemption of Refunded Obligations pursuant hereto).

"Prior System Facilities Resolutions" means, collectively, the resolutions of the Board and the Executive Committee authorizing and directing the establishment of the financing program for the System Facilities and the issuance of the Prior System Bonds, including the Initial System Facilities Resolution, the Series 1997 Resolution, the Series 1998 Resolution, the Series 2000 Resolution, the Series 2001 Resolution, the Series 2002 Resolution, the Series 2003 Resolution, the Series 2006 Resolution, the Series 2007 Resolution, the Series 2009 Resolution, the Series 2010 Resolution, the Series 2011 Resolution, the Series 2012 Resolution, the Series 2013 Resolution, the Series 2014A Resolution, and the Series 2014B Resolution.

"Projects" means, collectively, the additions and improvements to the System Facilities to be financed or refinanced with the proceeds of the Series 2020 Bonds, as described in Exhibit D hereto, subject to the Final Terms Approval.

"Projects Account" means the System Facilities Projects Account ratified and confirmed pursuant to Section 501 hereof, including subaccounts established thereunder.

"Purchase Date," as to any Series 2020 Bonds issued as a Variable Rate Bond, means, with respect to each Series 2020 Bond, each day that such Series 2020 Bond is subject to purchase pursuant to Section 307(a) or 307(b) hereof.

"Purchase Price" or "purchase price," as to any Series 2020 Bonds issued as a Variable Rate Bond, in connection with a purchase thereof pursuant to Section 307(a) or 307(b) hereof means the amount equal to 100% of the principal amount of such Series 2020 Bond, plus accrued interest, if any.

"Rate Period," as to any Series 2020 Bonds issued as a Variable Rate Bond, means a Commercial Paper Rate Period, Daily Rate Period, Weekly Rate Period, Fixed Rate Period, Term Rate Period or Auction Rate Period, as the case may be, and references to a type of Rate Period refer to the period of time between Conversion Dates (or from a Conversion Date to maturity if there is no other Conversion Date prior to maturity) during which Series 2020 Bonds bear interest at a particular type of Interest Rate (i.e., Daily Rates, Weekly Rates, Commercial Paper Rates, Fixed Rates, Term Rates or Auction Rates).

"Rating Service" means Moody's, if the Series 2020 Bonds are rated by Moody's at the time, and S&P, if the Series 2020 Bonds are rated by S&P at the time, or any other nationally recognized securities rating service acceptable to the Paying Agent and Bond Registrar and the University that maintains a rating on the Series 2020 Bonds at the request of the University.

"Record Date" means, (1) as to any Series 2020 Bonds issued initially as a Fixed Rate Bond, the fifteenth day (whether or not a Business Day) of the calendar month next preceding an Interest Payment Date, and (2) as to any Series 2020 Bonds issued initially as a Variable Rate Bond, the close of business on either (a) in the case of Series 2020 Bonds accruing interest at Commercial Paper, Daily, Weekly or Auction Rates, the day (whether or not a Business Day) immediately preceding an Interest Payment Date, or (b) in the case of Series 2020 Bonds accruing interest at Fixed Rates or Term Rates, the fifteenth day (whether or not a Business Day) of the calendar month next preceding an Interest Payment Date.

"Refunded Obligations" means, collectively, the certain Prior System Bonds or other outstanding bonds or other obligations issued by the University and described in Exhibit E hereto which are ultimately determined in the Final Terms Approval to be refunded with a portion of the proceeds of the Series 2020 Bonds (which bonds or other obligations being refunded may be the entire series or a portion of a series of such Prior System Bonds or other obligations), if determined to be in the best interests of the University and will result in debt service savings, debt service restructuring, or will be otherwise advantageous to the University, as determined in the Final Terms Approval.

"Refunding Account" means the System Facilities Refunding Account ratified and confirmed pursuant to Section 501 hereof, including subaccounts established thereunder.

"Remarketing Agent," as to any Series 2020 Bonds issued as a Variable Rate Bond, means (a) initially, Goldman Sachs & Co. LLC, and (b) subsequent to the date of issuance of the Series 2020 Bonds any Person meeting the qualifications of and designated from time to time to act as Remarketing Agent for a Series of the Series 2020 Bonds under Section 1203 hereof.

"Remarketing Agreement," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the Remarketing Agreement between the University and the Remarketing Agent with respect to the Series 2020 Bonds.

"Representation Letter" means the Representation Letter from the University and the Paying Agent and Bond Registrar to DTC with respect to the Series 2020 Bonds, substantially in the form required by DTC.

"Resolution" means this Resolution adopted by the Board on April 9, 2020, as from time to time amended in accordance with the terms hereof.

"Revenue Account" means the System Facilities Revenue Account ratified and confirmed pursuant to Section 501 hereof.

"Series" means any series or subseries of Series 2020 Bonds as specified in the Final Terms Approval, individually.

"Series 1993 Bonds" means the $45,385,000 original principal amount University of Missouri System Facilities Revenue Bonds, Series 1993 of the University authorized and issued pursuant to the Initial System Facilities Resolution.

"Series 1997 Bonds" means the $52,215,000 original principal amount of System Facilities Revenue Bonds, Series 1997, of the University authorized and issued pursuant to the Series 1997 Resolution.

"Series 1997 Resolution" means, collectively, the resolution adopted by the Board on March 20, 1997 and the resolution adopted by the Executive Committee on April 22, 1997 authorizing the issuance of the Series 1997 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 1998A Bonds" means the $65,010,000 original principal amount of System Facilities Revenue Bonds, Series 1998A, of the University authorized and issued pursuant to the Series 1998 Resolution.

"Series 1998 Resolution" means, collectively, the resolution adopted by the Board on March 26, 1998 and the resolution adopted by the Executive Committee on April 9, 1998 authorizing the issuance of the Series 1998A Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2000 Bonds" means, collectively, the Series 2000A Bonds and the Series 2000B Bonds.

"Series 2000 Resolution" means, collectively, the resolution adopted by the Board on January 28, 2000 and the resolution adopted by the Executive Committee on March 15, 2000 authorizing the issuance of the Series 2000 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2000A Bonds" means the $28,950,000 original principal amount of System Facilities Revenue Bonds, Series 2000A, of the University authorized and issued pursuant to the Series 2000 Resolution.

"Series 2000B Bonds" means the $50,000,000 original principal amount of Variable Rate Demand System Facilities Revenue Bonds, Series 2000B, of the University authorized and issued pursuant to the Series 2000 Resolution.

"Series 2001 Bonds" means, collectively, the Series 2001A Bonds and the Series 2001B Bonds.

"Series 2001 Resolution" means, collectively, the resolution adopted by the Board on March 22, 2001 and the resolution adopted by the Executive Committee on August 8, 2001 authorizing the issuance of the Series 2001 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2001A Bonds" means the $39,225,000 original principal amount of Variable Rate Demand System Facilities Revenue Bonds, Series 2001A, of the University authorized and issued pursuant to the Series 2001 Resolution.

"Series 2001B Bonds" means the $44,975,000 original principal amount of System Facilities Refunding Revenue Bonds, Series 2001B, of the University authorized and issued pursuant to the Series 2001 Resolution.

"Series 2002 Resolution" means, collectively, the resolution adopted by the Board on November 29, 2001 and the resolution adopted by the Executive Committee on May 31, 2002 authorizing the issuance of the Series 2002 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2002A Bonds" means the $40,000,000 original principal amount of Variable Rate Demand System Facilities Revenue Bonds, Series 2002A, of the University authorized and issued pursuant to the Series 2002 Resolution.

"Series 2003 Bonds" means, collectively, the Series 2003A Bonds and the Series 2003B Bonds.

"Series 2003 Resolution" means, collectively, the resolution adopted by the Board on September 18, 2003 and the resolution adopted by the Executive Committee on October 30, 2003 authorizing the issuance of the Series 2003 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2003A Bonds" means the $118,080,000 original principal amount of System Facilities Revenue Bonds, Series 2003A, of the University authorized and issued pursuant to the Series 2003 Resolution.

"Series 2003B Bonds" means the $37,085,000 original principal amount of System Facilities Revenue Bonds, Series 2003B, of the University authorized and issued pursuant to the Series 2003 Resolution.

"Series 2006 Bonds" means, collectively, the Series 2006A Bonds and the Series 2006B Bonds.

"Series 2006 Resolution" means, collectively, the resolution adopted by the Board on October 7, 2005 and the resolution adopted by the Executive Committee on January 19, 2006 authorizing the issuance of the Series 2006 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2006A Bonds" means the $260,975,000 original principal amount of System Facilities Revenue Bonds, Series 2006A, of the University authorized and issued pursuant to the Series 2006 Resolution.

"Series 2006B Bonds" means the $39,705,000 original principal amount of Variable Rate Demand System Facilities Revenue Bonds, Series 2006B, of the University authorized and issued pursuant to the Series 2006 Resolution.

"Series 2007 Bonds" means, collectively, the Series 2007A Bonds and the Series 2007B Bonds.

"Series 2007 Resolution" means, collectively, the resolution adopted by the Board on June 1, 2007 and the resolution adopted by the Executive Committee on July 12, 2007 authorizing the issuance of the Series 2007 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2007A Bonds" means the $262,970,000 original principal amount of System Facilities Revenue Bonds, Series 2007A, of the University authorized and issued pursuant to the Series 2007 Resolution.

"Series 2007B Bonds" means the $102,250,000 original principal amount of Variable Rate Demand System Facilities Refunding Revenue Bonds, Series 2007B, of the University authorized and issued pursuant to the Series 2007 Resolution.

"Series 2009 Bonds" means, collectively, the Series 2009A Bonds and the Series 2009B Bonds.

"Series 2009 Resolution" means, collectively, the Series 2009A Resolution and the Series 2009B Resolution.

"Series 2009A Bonds" means the $256,300,000 original principal amount of Taxable System Facilities Revenue Bonds, Series 2009A (Build America Bonds), of the University authorized and issued pursuant to the Series 2009A Resolution.

"Series 2009A Resolution" means, collectively, the resolution adopted by the Board on June 5, 2009 and the resolution adopted by the Executive Committee on July 16, 2009 authorizing the issuance of the Series 2009A Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2009B Bonds" means the $75,760,000 original principal amount of System Facilities Revenue Bonds, Series 2009B, of the University authorized and issued pursuant to the Series 2009B Resolution.

"Series 2009B Resolution" means, collectively, the resolution adopted by the Board on June 5, 2009 and the resolution adopted by the Executive Committee on July 16, 2009 authorizing the issuance of the Series 2009B Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2010 Resolution" means, collectively, the resolution adopted by the Board on November 22, 2010 and the resolution adopted by the Executive Committee on December 8, 2010 authorizing the issuance of the Series 2010A Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2010A Bond" or "Series 2010A Bonds" means any bond or bonds of the series of $252,285,000 original principal amount of Taxable System Facilities Revenue Bonds, Series 2010A (Build America Bonds - Direct Payment), of the University authorized and issued pursuant to the Series 2010 Resolution.

"Series 2011 Bonds" means the $54,125,000 original principal amount of System Facilities Revenue Bonds, Series 2011, of the University authorized and issued pursuant to the Series 2011 Resolution.

"Series 2011 Resolution" means, collectively, the resolution adopted by the Board on June 17, 2011 and the resolution adopted by the Executive Committee on June 29, 2011 authorizing the issuance of the Series 2011 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2012 Bonds" means the $105,155,000 original principal amount of System Facilities Revenue Bonds, Series 2012A, of the University authorized and issued pursuant to the Series 2012 Resolution.

"Series 2012 Resolution" means, collectively, the resolution adopted by the Board on April 5, 2012 and the resolution adopted by the Executive Committee on April 18, 2012 authorizing the issuance of the Series 2012 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2013 Bonds" means, collectively, the Series 2013A Bonds and the Series 2013B Bonds.

"Series 2013 Resolution" means, collectively, the resolution adopted by the Board on October 23, 2013 and the resolution adopted by the Executive Committee on November 12, 2013 authorizing the issuance of the Series 2013 Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2013A Bonds" means the $11,325,000 original principal amount of System Facilities Revenue Bonds, Series 2013A, of the University authorized and issued pursuant to the Series 2013 Resolution.

"Series 2013B Bonds" means the $150,000,000 original principal amount of Taxable System Facilities Revenue Bonds, Series 2013B, of the University authorized and issued pursuant to the Series 2013 Resolution.

"Series 2014A Bonds" means the $294,510,000 original principal amount of System Facilities Revenue Bonds, Series 2014A, of the University authorized and issued pursuant to the Series 2014A Resolution.

"Series 2014A Resolution" means the resolution adopted by the Board on May 1, 2014 authorizing the issuance of the Series 2014A Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2014B Bonds" means the $150,000,000 original principal amount of Taxable System Facilities Revenue Bonds, Series 2014B, of the University authorized and issued pursuant to the Series 2014B Resolution.

"Series 2014B Resolution" means the resolution adopted by the Board on October 21, 2014 authorizing the issuance of the Series 2014B Bonds, as from time to time amended in accordance with the terms thereof.

"Series 2020 Bond" or "Series 2020 Bonds" means any bond or bonds of the series of System Facilities Revenue Bonds, Series 2020, of the University authorized and issued pursuant to Section 201 and Section 203 of this Resolution, as specified in the Final Terms Approval, the form of which is attached hereto as Exhibit G, and the final and completed version of which will be included in the Transcript of Proceedings relating to the issuance of the Bonds.

"S&P" means Standard & Poor's Ratings Services, a division of Standard & Poor's Financial Services LLC, a part of McGraw Hill Financial, Inc., and its successors and assigns, and, if such firm shall be dissolved or liquidated or shall no longer perform the functions of a securities rating service, S&P shall be deemed to refer to any other nationally recognized securities rating service designated by the University, with notice to the Paying Agent and Bond Registrar.

"Student System Facilities Fee" means the portion of the Tuition and Fees established or designated by the Board for the use of the System Facilities pursuant to Section 202(b) of the Initial System Facilities Resolution and ratified and confirmed in the Prior System Facilities Resolutions and in Section 202(b) hereof and which are included in the System Revenues; provided, however, that such moneys do not include any funds realized from tax revenues.

"System Facilities" means, collectively, the systems and facilities included in that term as it was defined in the Initial System Facilities Resolution, as modified, amended and restated in the Prior System Facilities Resolutions and as modified, amended, and restated in Exhibit A hereto, and also includes any improvements, extensions and additions thereto and all related systems and facilities hereafter acquired, owned or operated by the University as part of the systems and facilities described on Exhibit A hereto, plus such other systems and facilities as at some future date may be added to any of the described systems or facilities by University action.

"System Facilities Additions" means all additions, improvements, extensions, alterations, expansions, or modifications of the System Facilities or of any other "Project," or any part thereof financed with the proceeds of Additional Bonds.

"System Revenues" means the gross income and revenues derived from (a) the ownership and/or operation of the systems and facilities and the imposition and collection of the fees and other matters described on Exhibit B hereto; (b) the ownership and/or operation of such systems and facilities, or the imposition and collection of such fees, as may at some future date be added to the System Revenues by University action as further described in Article XV hereof; and (c) the Student System Facilities Fee; provided, however, that such moneys do not include any funds realized from tax revenues.

“Tax Compliance Agreement” means any Tax Compliance Agreement with regard to any Series 2020 Bonds of a Series issued as tax exempt obligations, dated as of the date of issuance of the such Series 2020 Bonds, of the University executed pursuant to Section 804 hereof, as amended and supplemented in accordance with the terms thereof.

“Tender Agent,” as to any Series 2020 Bonds issued as a Variable Rate Bond, means, initially, the Paying Agent and Bond Registrar, and any successor Tender Agent as determined or designated under or pursuant to this Resolution.

“Term Rate,” as to any Series 2020 Bonds issued as a Variable Rate Bond, means the interest rate to be determined for Series 2020 Bonds for a term of approximately six months or longer pursuant to Section 204(e) hereof.

“Term Rate Conversion Date,” as to any Series 2020 Bonds issued as a Variable Rate Bond, means each day on which Series 2020 Bonds accrue interest at a Term Rate pursuant to Section 205 hereof which is immediately preceded by a day on which such Series 2020 Bonds did not accrue interest at a Term Rate or accrued interest at a Term Rate during a different Term Rate Period.

“Term Rate Period,” as to any Series 2020 Bonds issued as a Variable Rate Bond, means each period described in Section 204(e)(1) hereof during which Series 2020 Bonds accrue interest at a Term Rate.

“Termination of the Liquidity Facility,” as to any Series 2020 Bonds issued as a Variable Rate Bond, means the expiration or termination of the obligation of any Liquidity Provider under the then current Liquidity Facility (as the same may be extended or modified as permitted by this Resolution), or receipt by the Paying Agent and Bond Registrar of a Termination Notice (as defined in the Liquidity Facility) whereupon the Liquidity Provider has terminated its obligation to pay or provide funds to pay the purchase price of Series 2020 Bonds supported by its Liquidity Facility. No “Termination of the Liquidity Facility” with respect to a Series 2020 Bond shall be deemed to occur with respect to any Series 2020 Bond which is not subject to optional or mandatory tender for purchase pursuant to Sections 307(a) or 307(b) of this Resolution.

“Transcript of Proceedings” means the transcript of the executed documentation, approvals and other proceedings compiled relating to the University’s issuance of the Series 2020 Bonds.

“Tuition and Fees” means the basic fee or fees for course enrollment paid by all students enrolled at the University.

“United States Government Obligations” means bonds, notes, certificates of indebtedness, treasury bills or other securities constituting direct obligations of, or obligations the principal of and interest on which are fully and unconditionally guaranteed as to timely payment of principal and interest by, the United States of America, including evidences of a direct ownership interest in future interest or principal payments on obligations issued or guaranteed by the United States of America, or securities which represent an undivided interest in such obligations or securities to the extent that the Treasury of the United States of America is ultimately responsible for payment thereof such as stripped interest components of obligations of the Resolution Funding Corporation (established by Section 511 of the Financial Institutions Reform, Recovery and Enforcement Act of 1989, P.L. 101-73), its successors and assigns.

“University” means The Curators of the University of Missouri, a body politic and state educational institution organized and existing under the Constitution and laws of the State of Missouri, and any successors and assigns.

"University Bonds," as to any Series 2020 Bonds issued as a Variable Rate Bond, means (a) Series 2020 Bonds purchased with moneys provided to the Tender Agent for the account of the University, or (b) Series 2020 Bonds registered in the name of the University designated as being held for the account of the University, that are not Pledged Bonds.

"Variable Rate Bond" means a Series 2020 Bond that at the time of original issuance bears interest at a Commercial Paper Rate, Daily Rate, Weekly Rate, or Term Rate.

"Weekly Rate," as to any Series 2020 Bonds issued as a Variable Rate Bond, means the interest rate to be determined for Series 2020 Bonds on a weekly basis pursuant to Section 204(d) hereof.

"Weekly Rate Conversion Date," as to any Series 2020 Bonds issued as a Variable Rate Bond, means each day on which Series 2020 Bonds accrue interest at a Weekly Rate pursuant to Section 205 hereof which is immediately preceded by a day on which such Series 2020 Bonds did not accrue interest at a Weekly Rate.

"Weekly Rate Period," as to any Series 2020 Bonds issued as a Variable Rate Bond, means each period described in Section 204(d)(1) during which Series 2020 Bonds accrue interest at a Weekly Rate.

Section 102. Rules of Construction.

(a) Words of the masculine gender shall be deemed and construed to include correlative words of the feminine and neuter genders.

(b) Unless the context shall otherwise indicate, words importing the singular number shall include the plural and vice versa, and words importing person shall include firms, associations, and corporations, including public bodies, as well as natural persons.

(c) The table of contents hereto and the headings and captions herein are for convenience only and are not a part of this document.

(d) Terms used in an accounting context and not otherwise defined herein shall have the meaning ascribed to them by generally accepted principles of accounting.

(e) References herein to any particular section of the Code, any legislation or federal or State of Missouri regulations shall be deemed to refer also to any successor section thereto or to redesignations thereof for codification purposes.

ARTICLE II

AUTHORIZATION OF THE SERIES 2020 BONDS

Section 201. Authorization of the Series 2020 Bonds.

(a) The issuance of one or more series of additional system facilities revenue bonds of the University by the University to finance and/or refinance the Projects or to refund, refinance or defease (collectively, "refund") all or any part of any outstanding series of Prior System Bonds is hereby authorized, approved and directed pursuant to the terms hereof and pursuant to the Final Terms Approval referred to in this Section 201 and in Section 1604 hereof. Such additional system facilities revenue bonds shall be secured on a parity with the Prior System Bonds with respect to the lien on the System Revenues.

(b) The additional system facilities revenue bonds of the University hereby authorized and determined, if any, to be issued, sold and delivered, shall consist of System Facilities Revenue Bonds, Series 2020 (the "Series 2020 Bonds"), which may be issued in one series or in multiple series (with such additional series or subseries designations as may be deemed appropriate and be provided for in the Final Terms Approval, it being understood that notwithstanding any such designations all Series 2020 Bonds issued pursuant to and in accordance with the terms and provisions of this Resolution shall constitute "Series 2020 Bonds" for purposes hereof) in the aggregate principal amounts specified in the Final Terms Approval, for the purpose of refunding the Refunded Obligations, financing or refinancing all or a portion of the costs of acquiring, constructing, improving, renovating, furnishing and equipping the Projects, and paying certain costs of issuance of the Series 2020 Bonds. The Series 2020 Bonds herein authorized shall be issued pursuant to the provisions of the Constitution and laws of the State of Missouri.

(c) Each of the following officers of the University are individually authorized to execute the Final Terms Approval, substantially in the form of that attached hereto as Exhibit G (the "Final Terms Approval"), if said officer has determined that the issuance of the Series 2020 Bonds is in the best interests of the University based upon then-current market conditions and other considerations deemed applicable by said officer: the President, the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate of the University.

Following execution of the Final Terms Approval each of the above-listed officers is individually authorized to cause the issuance by the University of the Series 2020 Bonds pursuant to a negotiated public sale as described in Section 1604 hereof, and to cause the preparation of appropriate offering documents with respect to the issuance and sale of the Series 2020 Bonds as described in Section 1605 hereof.

The Series 2020 Bonds shall be issued in accordance with the terms and parameters set forth in Exhibit F hereto and the final terms set forth in the Final Terms Approval.

Section 202. Security for the Series 2020 Bonds.

(a) The Series 2020 Bonds shall be special obligations of the University payable solely from, and secured as to the payment of principal of, redemption premium, if any, and interest on the Series 2020 Bonds by a first lien on and pledge of the System Revenues and such obligations shall not constitute an indebtedness or general obligation of the State of Missouri, the University, the Board or of the individual members of the Board. The University has no power of taxation.

The Series 2020 Bonds shall stand on a parity and be equally and ratably secured with respect to the payment of principal and interest from the System Revenues derived by the University from the operation of the System Facilities and in all other respects with the Prior System Bonds. The Series 2020 Bonds shall constitute "Additional Bonds" within the meaning of the Prior System Facilities Resolutions. The Projects shall constitute "System Facilities Additions" within the meaning of the Prior System Facilities Resolutions and, to the extent not already included in the System Facilities, shall be added to and included in the System Facilities. The gross income and revenues derived from the ownership and/or operation of the Projects shall be included in the System Revenues.

(b) The University hereby ratifies and confirms the provisions of Section 202(b) of the Prior System Facilities Resolutions which designate and set aside a portion of the Tuition and Fees collected from all students enrolled at the University in an amount equal to the Maximum Annual Debt Service in any Fiscal Year, as a Student System Facilities Fee (the "Student System Facilities Fee") for the use of the System Facilities by all students of the University; provided, however, that once the deposits required by Section 702 hereof for payment of principal and interest on the Bonds have been made in any Fiscal Year the University may expend the Tuition and Fees which constitute the Student System Facilities Fee for any lawful purpose; provided further that the University may increase, but may not decrease, the amount of such Student System Facilities Fee by future resolution.

(c) The covenants and agreements of the University contained herein and in the Bonds shall be for the equal benefit, protection, and security of the Owners of any or all of the Bonds, all of which Bonds shall be of equal rank and without preference or priority of one Bond over any other Bond in the application of the revenues herein pledged to the payment of the principal of and the interest on the Bonds, or otherwise, except as to date of maturity and right of prior redemption as provided in this Resolution. The Series 2020 Bonds shall stand on a parity and be equally and ratably secured with respect to the payment of principal and interest from the System Revenues derived by the University from the operation of the System Facilities and in all other respects with the Prior System Bonds and any Additional Bonds issued pursuant to Section 1002 hereof. The Series 2020 Bonds shall not have any priority with respect to the payment of principal or interest from such System Revenues or otherwise over the Prior System Bonds or any Additional Bonds issued pursuant to Section 1002 hereof, and the Prior System Bonds or any such Additional Bonds shall not have any priority with respect to the payment of principal or interest from such System Revenues or otherwise over the Series 2020 Bonds.

(d) The security for the Bonds and the bonds and obligations which may be secured on a parity with the Bonds may be modified as set forth in Article XV hereof.

Section 203. Description of the Series 2020 Bonds.

(a) Description of Series 2020 Bonds Issued Initially as Fixed Rate Bonds. As to Series 2020 Bonds issued initially as Fixed Rate Bonds, as determined and specified in the Final Terms Approval:

The Series 2020 Bonds shall consist of fully registered Bonds without coupons, in the denomination of $5,000 or any integral multiple thereof, numbered from R-1 consecutively upward in order of issuance, in substantially the form set forth in Section 401 of this Resolution, with such necessary or appropriate Series designations, terms per the Final Terms Approval, variations, omissions and other insertions as are permitted or required by this Resolution. All of the Series 2020 Bonds shall be dated as of the date of their original issuance and delivery, shall become due on November 1 in the year(s) (subject to redemption prior to maturity as provided in Article III hereof), and shall bear interest at the respective rates per annum from the date of original issuance of the Series 2020 Bonds as specified in the Final Terms Approval.

Interest on the Series 2020 Bonds at the rates aforesaid shall be payable on May 1 and November 1 of each year commencing November 1, 2020 or as may be otherwise provided in the Final Terms Approval. The Series 2020 Bonds shall bear interest computed on the basis of a 360-day year of twelve 30-day months, from their date of original issuance or from the most recent Interest Payment Date to which interest has been paid or duly provided for. The Series 2020 Bonds shall be substantially in the form set forth in Article IV hereof, and shall be subject to registration, transfer, and exchange as provided in Section 207 hereof.

(b) Description of Series 2020 Bonds Issued Initially as Variable Rate Bonds. As to Series 2020 Bonds issued initially as Variable Rate Bonds, as determined and specified in the Final Terms Approval:

The Series 2020 Bonds shall be issuable as fully registered bonds without coupons in substantially the form set forth in Section 401 of this Resolution, with such necessary or appropriate variations, omissions and insertions as are permitted or required by this Resolution (provided that if the

Series 2020 Bonds are converted to the Auction Rate Mode, such bonds shall additionally be governed by the Auction Rate Supplemental Resolution). The Series 2020 Bonds may have endorsed thereon such legends or text as may be necessary or appropriate to conform to any applicable rules and regulations of any governmental authority or any custom, usage or requirement of law with respect thereto. The Series 2020 Bonds shall be dated the date of their original issuance and delivery and shall become due on November 1 in the year(s) (subject to redemption prior to maturity as provided in Article III hereof). The Series 2020 Bonds shall bear interest at a Daily Rate, Weekly Rate, Commercial Paper Rate, Auction Rate, Term Rate or Fixed Rate, determined as provided in Section 204 hereof, from their date or from the most recent Interest Payment Date to which interest has been paid or duly provided for; provided that in no event will the interest rate on any Series 2020 Bonds exceed the Maximum Rate. Each series of Series 2020 Bonds may operate at any time in any one Rate Period, and other series of Series 2020 Bonds may operate in other Rate Periods simultaneously, provided that all Series 2020 Bonds of any particular series shall operate in the same Rate Period at any given time. All Series 2020 Bonds shall accrue interest at a Daily Rate on the date of original issuance and thereafter unless and until the Rate Period for any series of Series 2020 Bonds is converted to a different Rate Period pursuant to Section 205 hereof.

Interest shall be payable in arrears on each Interest Payment Date, commencing on the first Interest Payment Date after the date of original issuance of the Series 2020 Bonds. The amount of interest payable with respect to any Series 2020 Bonds on any Interest Payment Date shall be computed (1) during Daily Rate Periods, Commercial Paper Rate Periods or Weekly Rate Periods, on the basis of a 365- or 366-day year for the number of days actually elapsed, based on the calendar year in which the Daily Rate Period, Commercial Paper Rate Period or the Weekly Rate Period commences, (2) during an Auction Rate Period, on the basis of a 360-day year, for the actual number of days elapsed, and (3) during Fixed Rate Periods and Term Rate Periods, on the basis of a 360-day year of twelve 30-day months.

Notwithstanding anything herein to the contrary, the Interest Rate on Series 2020 Bonds during any Daily, Weekly, Commercial Paper or Term Rate Period as to which a Liquidity Facility is in effect shall not exceed the rate that would cause the total amount of interest to accrue on the Series 2020 Bonds during any such period to exceed the Interest Commitment under the Liquidity Facility.

The Series 2020 Bonds (a) when bearing interest at a Daily Rate, Weekly Rate or Commercial Paper Rate, shall be in the denomination of $100,000 or any integral multiple of $5,000 in excess thereof, (b) when bearing interest at a Term Rate that extends to the Maturity Date or a Fixed Rate, shall be in the denomination of $5,000 or any integral multiple thereof, and (c) for any Series 2020 Bond in the Auction Rate Mode, the denomination or denominations set forth in the Auction Rate Supplemental Resolution. The Series 2020 Bonds shall be numbered from R-1 consecutively upward in order of issuance or in such other manner as the Paying Agent and Bond Registrar shall designate, in substantially the form set forth in Section 401 of this Resolution, with such necessary or appropriate variations, omissions and insertions as are permitted or required by this Resolution.

Section 204. Determination of Interest Rates on the Series 2020 Bonds Issued Initially as Variable Rate Bonds. This Section sets forth provisions relating to the determination of interest rates on Series 2020 Bonds issued initially as Variable Rate Bonds; if no Series 2020 Bonds are issued initially as Variable Rate Bonds pursuant to the Final Terms Approval this Section shall be of no force or effect.

(a) *Determination by Remarketing Agent*.

(1) The Interest Rate for each series of Series 2020 Bonds for each Rate Period shall be determined by the Remarketing Agent as the lowest rate of interest which, in the judgment of the Remarketing Agent, would cause such Series 2020 Bonds to have a market value as of the date of determination equal to the principal amount thereof, taking into account prevailing market conditions; provided that in no event will the

interest rate on any Series 2020 Bonds exceed the Maximum Rate. With respect to Commercial Paper Rates, the Remarketing Agent shall determine the Commercial Paper Rate and the Commercial Paper Rate Period for each Series 2020 Bond at such rate and for such period as it deems advisable in order to minimize the net interest cost on the Series 2020 Bonds, taking into account prevailing market conditions.

(2) In the event the Remarketing Agent fails for any reason to determine the Interest Rate for any Rate Period:

(A) The Interest Rate then in effect for Series 2020 Bonds that accrue interest at Daily Rates will remain in effect from day to day until the Paying Agent and Bond Registrar is notified of a new Daily Rate determined by the Remarketing Agent.

(B) The Interest Rate then in effect for Series 2020 Bonds that accrue interest at Weekly Rates will remain in effect from week to week until the Paying Agent and Bond Registrar is notified of a new Weekly Rate determined by the Remarketing Agent.

(C) The Interest Rate for any Series 2020 Bond that accrues interest at a Commercial Paper Rate and for which a Commercial Paper Rate and Commercial Paper Rate Period is not determined shall be a Daily Rate equal to 100% of the prime commercial paper rate (30 days) for the most recent date shown in the table captioned "Short-Term Tax-exempt Yields" in the edition of *The Bond Buyer* (or if *The Bond Buyer* or such table is no longer published, any other published similar rate as is determined by the Paying Agent and Bond Registrar in its sole discretion to be appropriate) published on the day on which such rate is determined or, if such rate is not published on that day, the most recent publication of such rate, until the Paying Agent and Bond Registrar is notified of a new Commercial Paper Rate and Commercial Paper Rate Period determined for such Series 2020 Bond by the Remarketing Agent.

(D) The Interest Rate then in effect for Series 2020 Bonds that accrue interest at a Term Rate will be (i) converted to Commercial Paper Rates equal to 100% of the prime commercial paper rate (30 days) for the most recent date shown in the table captioned "Short-Term Tax-exempt Yields" in the edition of *The Bond Buyer* (or if *The Bond Buyer* or such table is no longer published, any other published similar rate as is determined by the Paying Agent and Bond Registrar in its sole discretion to be appropriate) published on the day on which such rate is determined or, if such rate is not published on that day, the most recent publication of such rate, with Commercial Paper Rate Periods of thirty days, until the Paying Agent and Bond Registrar is notified of a new Commercial Paper Rate and Commercial Paper Rate Period determined for such Series 2020 Bond by the Remarketing Agent but only if the University furnishes to the Paying Agent and Bond Registrar an Opinion of Bond Counsel to the effect that conversion of the Interest Rate will not adversely affect the exclusion from gross income on any Series 2020 Bonds for federal income tax purposes, or (ii) if the opinion described in clause (i) is not furnished, converted to a Term Rate for a Term Rate Period ending on the day prior to the next succeeding May 1 or November 1 which is at least 366 days later equal to 100% of the Kenny Information Services one year tax-exempt index to be applicable for a period of

366 days as communicated to the Paying Agent and Bond Registrar by Kenny Information Services, at the expense of the University, and if such index is not provided to the Paying Agent and Bond Registrar, equal to 70% of the closing yield for one year Treasury Bills shown in the table captioned "U.S. Securities Prices" in the edition of *The Bond Buyer* (or if *The Bond Buyer* or such table is no longer published, any other published similar rate as is determined by the Paying Agent and Bond Registrar in its sole discretion to be appropriate) published on the day on which such rate is determined, or if such rate is not published on that day, the most recent publication of such rate, until the Paying Agent and Bond Registrar is notified of a new Term Rate and Term Rate Period for such Series 2020 Bond.

(3) All determinations of Interest Rates and Rate Periods pursuant to this Section or Section 307(c)(2)(H) shall be conclusive and binding upon the University, the Paying Agent and Bond Registrar, the Tender Agent, the Paying Agent, the Liquidity Provider and the owners of the Series 2020 Bonds to which such rates are applicable.

(4) The Interest Rate in effect for each Series 2020 Bond shall be available to the owner of such Series 2020 Bond on the date such Interest Rate is determined, between 1:00 p.m. and 5:00 p.m., New York City time, from the Remarketing Agent or the Paying Agent and Bond Registrar at their principal offices and shall also be communicated by the Remarketing Agent promptly to the University by telephonic or Electronic notice.

(b) *Commercial Paper Rates*. Commercial Paper Rates on, and Commercial Paper Rate Periods for, the Series 2020 Bonds shall be determined as follows:

(1) The Commercial Paper Rate on a Series 2020 Bond for a specific Commercial Paper Rate Period shall be the rate established by the Remarketing Agent on the first Business Day of that Commercial Paper Rate Period, and such Commercial Paper Rate shall be provided to the Paying Agent and Bond Registrar by the Remarketing Agent by telephonic or Electronic notice by 1:00 p.m., New York City time, on that same day.

(2) Each Commercial Paper Rate Period applicable to a Series 2020 Bond shall be determined by the Remarketing Agent on or prior to the first Business Day of such Commercial Paper Rate Period as that Commercial Paper Rate Period which will, in the judgment of the Remarketing Agent, produce the greatest likelihood of the lowest net interest cost during the term of the Series 2020 Bonds; provided, that each Commercial Paper Rate Period shall be from one to 365 days in length, shall not exceed the remaining number of days prior to the Conversion Date if the Remarketing Agent has given or received notice of any conversion to a different Rate Period, shall commence on a Business Day, shall end on a day preceding a Business Day or the day preceding the Maturity Date, and in any event shall end no later than the day preceding the Maturity Date. Each Series 2020 Bond may bear interest at a different Commercial Paper Rate and for a Commercial Paper Rate Period different from any other Series 2020 Bond. The Commercial Paper Rate Period shall be provided to the Paying Agent and Bond Registrar by the Remarketing Agent by telephonic or Electronic notice by 1:00 p.m., New York City time, on that same day.

The Remarketing Agent may, in the reasonable exercise of its judgment, (A) determine Commercial Paper Rate Periods that result in Commercial Paper Rates on the Series 2020 Bonds that are higher than would be borne by Series 2020 Bonds with shorter Commercial Paper Rate Periods in order to increase the likelihood of achieving the lowest net interest cost during the term of the Series 2020 Bonds by assuring the availability of such Commercial Paper Rates for the longer Commercial Paper Rate Periods, and (B) in view of the uncertainties involved in anticipating Commercial Paper Rates, establish different Commercial Paper Rate Periods for Series 2020 Bonds on the same date in order to achieve an average of Commercial Paper Rate Periods that, in the reasonable exercise of its judgment, is most likely to achieve the lowest net interest cost during the term of the Series 2020 Bonds.

The determination of the Commercial Paper Rate Periods by the Remarketing Agent will be based upon the relative market yields of Series 2020 Bonds bearing interest at a Commercial Paper Rate and other securities that bear interest at a variable rate or at fixed rates that, in the reasonable exercise of the judgment of the Remarketing Agent are otherwise comparable to the Series 2020 Bonds, or any fact or circumstance relating to the Series 2020 Bonds or affecting the market for the Series 2020 Bonds or affecting such other comparable securities in a manner that, in the reasonable exercise of the judgment of the Remarketing Agent, will affect the market for the Series 2020 Bonds. The Remarketing Agent in its discretion, may consider such information and resources as it deems appropriate in making the determinations described in this paragraph, including consultations with the University, but the Remarketing Agent's determination of the Commercial Paper Rate Period for each Series 2020 Bond will be based solely upon the reasonable exercise of the Remarketing Agent's judgment.

(c) *Daily Rates*. A Daily Rate shall be determined for each Daily Rate Period as follows:

(1) Daily Rate Periods shall commence on a Daily Rate Conversion Date which shall be a Business Day and thereafter on each Business Day until the type of Rate Period of the Series 2020 Bonds is converted to another type of Rate Period and shall extend to, but not include, the next succeeding Business Day.

(2) The Daily Rate for each Daily Rate Period shall be effective from and including the commencement date thereof and remain in effect to, but not including, the next succeeding Business Day. Each such Daily Rate shall be determined by the Remarketing Agent on the first Business Day of the Daily Rate Period to which it relates and provided to the Paying Agent and Bond Registrar by the Remarketing Agent by telephonic or Electronic notice by 10:00 a.m., New York City time, on that same day.

(d) *Weekly Rates*. The initial Weekly Rate, which shall be applicable with respect to all of the Series 2020 Bonds, shall be as set forth in a certificate of the Remarketing Agent delivered at the time of original issuance of the Series 2020 Bonds. Thereafter, A Weekly Rate shall be determined for each Weekly Rate Period as follows:

(1) Weekly Rate Periods shall commence on a Thursday and end on Wednesday of the following week and each Weekly Rate Period shall be followed by another Weekly Rate Period until the Rate Period of the Series 2020 Bonds is converted to another type of Rate Period; provided that (A) in the case of a conversion to a Weekly Rate Period from a different Rate Period, the Weekly Rate Period shall commence on the Weekly Rate Conversion Date and shall end on Wednesday of the following week; (B) in the case of a conversion from a Weekly Rate Period to a different Rate Period, the last

Weekly Rate Period prior to conversion shall end on the day immediately preceding the Conversion Date to the new Rate Period; and (C) the day of the week on which Weekly Rate Periods shall commence may be changed by the Remarketing Agent with the consent of the University, if the scheduled rate determination day has become inappropriate (taking into account general market practice), as determined in the reasonable exercise of the Remarketing Agent's judgment, upon notice to the Paying Agent and Bond Registrar and the Tender Agent not less than 14 days before the change, which notice shall promptly be communicated by the Paying Agent and Bond Registrar, by first class mail to the owners of Series 2020 Bonds, provided, that such notice to the Paying Agent and Bond Registrar is accompanied by an Opinion of Bond Counsel, which opinion shall also be addressed and delivered to the University, to the effect that the change will not adversely affect the exclusion from gross income on any Series 2020 Bonds for federal income tax purposes.

(2) The Weekly Rate for each Weekly Rate Period shall be effective from and including the commencement date thereof and remain in effect to and including the last day thereof. Each such Weekly Rate shall be determined by the Remarketing Agent on the Business Day next preceding the commencement date of the Weekly Rate Period to which it relates (or if not a Business Day on the next succeeding Business Day), and provided to the Paying Agent and Bond Registrar by the Remarketing Agent by written, telephonic or Electronic notice by 5:00 p.m., New York City time, on such preceding Business Day.

(e) *Term Rates*. A Term Rate shall be determined for each Term Rate Period as follows:

(1) Term Rate Periods shall commence on a Term Rate Conversion Date and for any subsequent Term Rate Period immediately following, on a May 1 or November 1 (whichever next follows the Term Rate Conversion Date if the Term Rate Conversion Date is not a May 1 or November 1, or on the same such day if the Term Rate Conversion Date is a May 1 or November 1) which is at least 6 calendar months after the Term Rate Conversion Date, and end on the day preceding either the commencement date of the following Term Rate Period or the Conversion Date on which a different Rate Period shall become effective or the Maturity Date.

(2) The Term Rate for each Term Rate Period shall be effective from and including the commencement date thereof and remain in effect to and including the last day thereof. Each such Term Rate shall be determined on the Business Day immediately preceding the commencement date of such period and provided to the Paying Agent and Bond Registrar by the Remarketing Agent by written, telephonic or Electronic notice by the close of business on such Business Day.

(3) Series 2020 Bonds bearing interest in a Term Rate Period that extends to the Maturity Date will not be covered by any Liquidity Facility.

(f) *Auction Rate Provisions.* Each Series 2020 Bond in the Auction Rate Mode shall bear interest at an Auction Rate from an Auction Rate Conversion Date to the earlier of its redemption, the succeeding Conversion Date or its maturity date. The Auction Rate for each Series 2020 Bond in the Auction Rate Mode shall be determined pursuant to the auction procedures contained in the Auction Rate Supplemental Resolution. Such Auction Rate Supplemental Resolution shall also establish additional conditions with respect to the following:

conversion to and from the Auction Rate Mode, the duration of Auction Rate Periods and changes thereto, calculation of interest on Series 2020 Bonds in the Auction Rate Mode, and all other matters required to remarket Series 2020 Bonds in the Auction Rate Mode. Each determination of the Auction Rate pursuant to the auction procedures provided for in the Auction Rate Supplemental Resolution shall be conclusive and binding upon the University, the Paying Agent, the Broker-Dealer, the Market Agent, the Tender Agent, the Bondholders and all other parties specified in the Auction Rate Supplemental Resolution. The Auction Rate shall not be set at a rate greater than the Maximum Rate.

While a Series 2020 Bond is in the Auction Rate Mode, "Interest Period" shall mean,

(1) with respect to Series 2020 Bonds in a 7-day Auction Period, a period of generally 7 days beginning on a Thursday and ending on the Wednesday which is 7 days thereafter (unless such Wednesday is not followed by a Business Day, in which case ending on the next succeeding day which is followed by a Business Day);

(2) with respect to Series 2020 Bonds in a 28-day Auction Period, a period of generally 28 days beginning on a Thursday and ending on the 4th Wednesday thereafter (unless such Wednesday is not followed by a Business Day, in which case on the next succeeding day which is followed by a Business Day);

(3) with respect to Series 2020 Bonds in a 35-day Auction Period, a period of generally 35 days beginning on a Thursday and ending on the 5th Wednesday thereafter (unless such Wednesday is not followed by a Business Day, in which case on the next succeeding day which is followed by a Business Day); and

(4) other period provided for in the Auction Rate Supplemental Resolution.

(g) *Fixed Rates*. The Fixed Rate, and the schedule of principal payments for Series 2020 Bonds bearing interest at the Fixed Rate, shall be determined as set forth in this subsection (g). Series 2020 Bonds bearing interest at a Fixed Rate may not be converted to any other type of Rate Period pursuant to <u>Section 205</u> hereof and will not be covered by any Liquidity Facility.

Fixed Rate Periods shall commence on a Fixed Rate Conversion Date and shall extend to the Maturity Date for each Series 2020 Bond accruing interest at a Fixed Rate, unless earlier redeemed. The Fixed Rate for each Series 2020 Bond accruing interest at a Fixed Rate shall be set forth in the firm underwriting or purchase contract described in <u>Section 205(d)</u> hereof.

Upon conversion of the interest rate on any Series 2020 Bonds to a Fixed Rate, all such Series 2020 Bonds then being converted shall not be subject to mandatory sinking fund redemption unless a schedule of principal payments for such Series 2020 Bonds is established in accordance with the terms specified below. Upon conversion, the firm of bond underwriters or recognized institutional investors who agree to underwrite or purchase such Series 2020 Bonds in accordance with <u>Section 205(d)</u> hereof shall deliver to the University and the Paying Agent and Bond Registrar a certificate that includes (a) the mandatory sinking fund redemption schedule, if applicable, specifying the principal amount of Series 2020 Bonds to be called for mandatory sinking fund redemption on November 1 of each year, and (b) a schedule specifying the interest on such Series 2020 Bonds to be paid on May 1 and November 1 of each year, commencing with the first May 1 or November 1 occurring at least 6 months after the Fixed Rate Conversion Date, through and including the Maturity Date. In determining the amount of interest and principal that shall be payable on such dates, such firm of bond underwriters or institutional investors shall use the following guidelines:

(1) The interest rate on each Series 2020 Bond then being converted shall be the lowest interest rate that will enable such Series 2020 Bond upon conversion to be remarketed at par, assuming that the Series 2020 Bonds then being converted will not be subject to mandatory sinking fund redemption, or if applicable, will be subject to mandatory sinking fund redemption on November 1 of each year in accordance with the schedule established as provided herein, all Series 2020 Bonds shall pay interest semiannually on May 1 and November 1 of each year (commencing with the first May 1 or November 1 occurring at least 6 months after the Fixed Rate Conversion Date), all Series 2020 Bonds shall bear interest at the same rate, and all such Series 2020 Bonds shall only be remarketed at par; and

(2) At the option and written direction of the University, the firm of bond underwriters or institutional investors underwriting or purchasing the Series 2020 Bonds upon conversion to a Fixed Rate may establish a schedule of principal payments on the Series 2020 Bonds after the Fixed Rate Conversion Date if there is delivered to the Paying Agent and Bond Registrar by the University an Opinion of Bond Counsel to the effect that utilization of such schedule will not adversely affect the exclusion from gross income of the interest on any Series 2020 Bonds for federal income tax purposes. The schedule of principal payments shall provide for mandatory sinking fund redemptions in each designated year on November 1.

Section 205. Conversions Between Rate Periods with Respect to the Series 2020 Bonds Issued Initially as Variable Rate Bonds. This Section sets forth provisions relating to conversions between Rate Periods with respect to Series 2020 Bonds issued initially as Variable Rate Bonds; if no Series 2020 Bonds are issued initially as Variable Rate Bonds pursuant to the Final Terms Approval this Section shall be of no force or effect.

The University may elect to convert all of the Series 2020 Bonds from one type of Rate Period to another as follows:

(a) *Notices by University*. The University shall give notice of any proposed conversion to the Paying Agent and Bond Registrar not fewer than seven Business Days prior to the date the notice to affected owners must be given pursuant to Section 205(b) of the proposed conversion, and upon receipt of such notice from the University, the Paying Agent and Bond Registrar shall promptly give written notice of the proposed conversion to the Tender Agent, the Remarketing Agent and the Liquidity Provider. Pursuant to the Remarketing Agreement the University may delegate and assign to the Remarketing Agent (and may rescind such delegation and assignment) the University's right under this Section to elect to convert any series of Series 2020 Bonds from one type of Rate Period to another (except to a Fixed Rate Period), in which case the Remarketing Agent shall agree to carry out any such conversion in the manner and at the times specified in this Resolution.

(b) *Notices by Paying Agent and Bond Registrar*. The Paying Agent and Bond Registrar shall give notice (which may be combined, where applicable, with any notice required by Section 307(b)(5) hereof), by first class mail of the proposed conversion to the affected owners of Series 2020 Bonds not less than 20 days before the proposed Conversion Date. Such notice shall state:

(1) the proposed Conversion Date, the proposed Rate Period to be effective on such date and the dollar amount of Series 2020 Bonds to be converted;

(2) that such Series 2020 Bonds will be subject to mandatory tender for purchase on the Conversion Date (except in the case of conversions between Daily and Weekly Rate Periods);

(3) the conditions, if any, to the conversion pursuant to subsections (c), (d) and (e) below, and the consequences of such conditions not being fulfilled pursuant to subsection (f) below;

(4) if the Series 2020 Bonds are in certificated form, information with respect to required delivery of Series 2020 Bond certificates and payment of the Purchase Price; and

(5) the new Interest Payment Date and Record Dates.

(c) *Conditions to Conversion*. No conversion of Rate Periods will become effective unless:

(1) if the conversion is from Commercial Paper Rate Periods, the Paying Agent and Bond Registrar has received, prior to the date on which notice of conversion is required to be given to owners, written confirmation from the Remarketing Agent that it has not established and will not establish any Commercial Paper Rate Periods with respect to such Series 2020 Bonds extending beyond the day before the Conversion Date;

(2) if the conversion is from Commercial Paper, Auction, Daily or Weekly Rate Periods to a Term Rate Period, or from a Term Rate Period to a Commercial Paper, Auction, Daily or Weekly Rate Period, the Paying Agent and Bond Registrar has been provided, no later than one day before the Conversion Date, with an Opinion of Bond Counsel to the effect that the conversion is authorized or permitted by this Resolution and the Act, and that such conversion will not adversely affect the exclusion from gross income on any Series 2020 Bonds for federal income tax purposes; and

(3) if the conversion is to a Commercial Paper, Auction, or Term Rate Period, the Paying Agent and Bond Registrar has been provided, no later than one day before the Conversion Date, with written evidence from each Rating Agency that such conversion will not result in a reduction or withdrawal of the then current rating on the Series 2020 Bonds.

(d) *Provisions Regarding Conversion To Fixed Rate Period*. The interest rate on any Series 2020 Bond shall be converted to a Fixed Rate if the University shall notify in writing the Paying Agent and Bond Registrar of its irrevocable election to effect such a conversion, specifying in the notice the identification of the Series 2020 Bonds to be converted and the Conversion Date on which the Fixed Rate Period is to commence, and delivering with such notice (1) an Opinion of Bond Counsel (which opinion shall also be addressed and delivered to the University and shall be confirmed on the Fixed Rate Conversion Date) stating that such conversion will not adversely affect the exclusion from gross income on any Series 2020 Bonds for federal income tax purposes; and (2) a firm underwriting or purchase contract from a recognized firm of bond underwriters or recognized institutional investors, which can be the Remarketing Agent, to underwrite or purchase all Series 2020 Bonds that are to be converted to a Fixed Rate at a price of 100% of the principal amount thereof at an agreed upon interest rate for each Series 2020 Bond to be so converted which such underwriter or institutional investor certifies is the lowest rate that will permit such Series 2020 Bond to be sold at par on the first day of the Fixed Rate Period and containing , if applicable, a mandatory sinking fund redemption schedule, prepared in accordance with Section 204(g) hereof. Upon receipt by the Paying Agent and Bond Registrar of such notice from the University, the Paying Agent and Bond Registrar shall immediately cause the same information contained in such notice to be delivered to the Tender Agent and the Remarketing Agent. The Fixed Rate Conversion Date shall not be less than 22 days (unless the Paying Agent and Bond Registrar, the Tender Agent and the Remarketing Agent agree to a lesser number of days) succeeding receipt by the Paying Agent and Bond Registrar of the University's irrevocable election.

(e) *Provisions Regarding Conversion to Auction Rate Mode.* The interest rate on any Series 2020 Bonds shall be converted from the Daily Rate mode, the Weekly Rate mode, the Commercial Paper Rate mode or the Term Rate mode to the Auction Rate Mode if the University shall notify in writing the Paying Agent of its irrevocable election to effect such a conversion, specifying in the notice the identification of the Series 2020 Bonds to be converted, the Interest Payment Date on which the Auction Rate Mode is to commence, and, when the conversion is from a Term Rate Period in excess of 365 days, delivering with such notice an Opinion of Bond Counsel addressed to the Paying Agent, the University and the Liquidity Provider (which opinion shall be confirmed on the Auction Rate Conversion Date) stating, that such conversion to the Auction Rate Mode is authorized or permitted by this Resolution, and that conversion to the Auction Rate Mode in accordance with the provisions of this Resolution will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on the Series 2020 Bonds. If such Series 2020 Bond is not then held under the University's Book-Entry System, further notice shall be given to the Paying Agent including the following information: the CUSIP number and Bond number of any Series 2020 Bond being converted. Upon receipt by the Paying Agent of such notice from the University, the Paying Agent shall as soon as practicable cause the same information contained in such notice to be delivered to the Tender Agent, the Remarketing Agent and the Liquidity Provider and any other parties specified in the Auction Rate Supplemental Resolution. The Auction Rate Conversion Date shall be the Interest Payment Date specified by the University, but, in any event, not less than 35 days succeeding receipt by the Paying Agent, the Tender Agent, the Liquidity Provider and the Remarketing Agent of notice of the University's election to effect such conversion. Such Series 2020 Bond shall be subject to mandatory tender and purchase on the Auction Rate Conversion Date. In the event any condition precedent to conversion to the Auction Rate Mode is not fulfilled (including, but not limited to, the failure to establish an Auction Rate by the Broker Dealer for the initial Interest Period of the Auction Rate Period), after the mandatory tender date such Series 2020 Bond shall continue in its then current Interest Rate mode, for the same period and bear the same interest rate as was last borne by such Series 2020 Bonds in such Interest Rate mode; provided, however, in the case when the then current Interest Rate mode is a Term Rate, such Series 2020 Bond shall be in the Interest Rate mode and at the interest rate established pursuant to Section 204(b) hereof. In the event such Series 2020 Bond is not remarketed on the mandatory tender date and becomes a Pledged Bond or a University Bond, the Remarketing Agent shall be entitled, in accordance with Section 307(c)(2)(E) hereof, thereafter to reset the Daily Rate, the Weekly Rate, the Commercial Paper Rate or the Term Rate relating to such Series 2020 Bond, as appropriate (under the conditions and subject to the limitations provided above), to such new rate (not in excess of the Maximum Rate) as is necessary to remarket the Pledged Bond or University Bond at par.

(f) *Failure of Conditions to Conversion*. In the event any condition precedent to a conversion is not fulfilled, any affected Series 2020 Bond shall continue to be subject to any mandatory tender otherwise required by Section 307(b) without regard to the failure to fulfill such condition, and thereafter shall accrue interest at Weekly Rates for Weekly Rate Periods, but only if the University furnishes the Paying Agent and Bond Registrar an Opinion of Bond Counsel to the effect that such accrual of interest will not adversely affect the exclusion from gross income on any Series 2020 Bonds if the Rate Period in effect prior to the mandatory tender purchase date exceeded one year, and if any such required opinion is not delivered, at a Term Rate for a Term Rate Period ending on the day prior to the next succeeding May 1 or November 1 which is at least 366 days later. In the event the Remarketing Agent fails for any reason to determine any such Weekly Rate or Term Rate, the applicable Weekly Rate shall be the rate determined on the basis of an index based upon the weekly interest rate resets of tax-exempt variable rate issues included in a database maintained by Municipal Market Data which meet specific criteria established by the Public Securities Association and effective for that date on which such rate is determined (or if such rate is not available, any other similar rate as is determined by the Paying Agent and Bond Registrar in its sole discretion to be appropriate), and the applicable Term Rate shall be equal to 100% of the Kenny Information Services one year tax-exempt index to be applicable for a period of 366 days as communicated to the Paying Agent and Bond Registrar by Kenny Information Services, and if such index is not provided to the Paying Agent and Bond Registrar, equal to 70% of the closing yield for one year Treasury Bills shown in the table captioned "U.S. Securities Prices" in the edition of *The Bond Buyer* (or if *The Bond Buyer* or such table is no longer published, any other published similar rate as is determined by the Paying Agent and Bond Registrar in its sole discretion to be appropriate) published on the day on which such rate is determined, or if such rate is not published on that day, the most recent publication of such rate.

Section 206. Method and Place of Payment of Series 2020 Bonds. The principal of, redemption premium, if any, and interest on the Series 2020 Bonds shall be payable in any coin or currency which, on the respective dates of payment thereof, is legal tender for the payment of debts due the United States of America.

The principal of, redemption premium, if any, and interest on each Series 2020 Bond shall be paid at maturity or upon earlier redemption to the person in whose name such Series 2020 Bond is registered at the maturity or redemption date thereof, upon presentation and surrender of such Series 2020 Bond at the payment office of the Paying Agent and Bond Registrar. Payment of interest on the Series 2020 Bonds (other than at maturity or redemption) shall be made to the Owner thereof on the applicable payment date by check mailed by the Paying Agent and Bond Registrar to the persons in whose names the Series 2020 Bonds are registered at his or her address as it appears on the registration books maintained by the Paying Agent and Bond Registrar at the close of business on the Record Date for such Interest Payment Date.

The Paying Agent and Bond Registrar shall keep in its office a record of payment of principal of, redemption premium, if any, and interest on all Series 2020 Bonds.

Section 207. Registration, Transfer and Exchange of Series 2020 Bonds. The University covenants that it shall, as long as any of the Series 2020 Bonds herein authorized remain Outstanding, cause to be kept at the payment office of the Paying Agent and Bond Registrar books for the registration, transfer and exchange of Series 2020 Bonds as herein provided.

Each Series 2020 Bond when issued shall be registered in the name of the Owner thereof on the registration books kept by the Paying Agent and Bond Registrar.

Each Series 2020 Bond shall be transferable only upon the registration books maintained by the Paying Agent and Bond Registrar by the registered Owner thereof in person or by his attorney duly authorized in writing, upon surrender thereof at the payment office of the Paying Agent and Bond Registrar together with a written instrument of transfer satisfactory to the Paying Agent and Bond

Registrar duly executed by the registered Owner or his duly authorized attorney. Upon the transfer of any such Series 2020 Bond and the payment of any fee, tax, or governmental charge, the Paying Agent and Bond Registrar shall issue in the name of the transferee a new registered Series 2020 Bond or Series 2020 Bonds of the same series and same aggregate principal amount and maturity as the surrendered Bond, registered in the name of the transferee, in any denomination herein authorized.

Series 2020 Bonds, upon surrender thereof at the payment office of the Paying Agent and Bond Registrar, or at such other office as the Paying Agent and Bond Registrar may designate, with a written instrument of transfer satisfactory to the Paying Agent and Bond Registrar duly executed by the Owner or his duly authorized attorney, may, at the option of the Owner thereof, and upon payment of any fee, tax or governmental charge required to be paid, be exchanged for an equal aggregate principal amount of Series 2020 Bonds of the same maturity, in any denomination herein authorized.

The Paying Agent and Bond Registrar shall not be required to exchange or register a transfer of (a) any Series 2020 Bonds during the 15-day period next preceding the selection of Series 2020 Bonds to be redeemed and thereafter until the date of the mailing of a notice of redemption of Series 2020 Bonds selected for redemption, or (b) any Series 2020 Bonds selected, called or being called for redemption in whole or in part except, in the case of any Series 2020 Bond to be redeemed in part, the portion thereof not so to be redeemed.

The University, the Board and the Paying Agent and Bond Registrar may deem and treat the person in whose name any Bond shall be registered as the absolute Owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment of, or on account of, the principal of, redemption premium, if any, and interest on such Bond and for all other purposes, and all such payments so made to any such registered Owner or upon his or her order shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid, and neither the University nor the Paying Agent and Bond Registrar shall be affected by any notice to the contrary, but such registration may be changed as herein provided.

In all cases in which the privilege of transferring or exchanging Series 2020 Bonds is exercised, the Paying Agent and Bond Registrar shall authenticate and deliver Series 2020 Bonds in accordance with the provisions of this Resolution. The University shall pay the fees and expenses of the Paying Agent and Bond Registrar for the registration, transfer and exchange of Series 2020 Bonds provided for by this Resolution and the cost of printing a reasonable supply of registered bond blanks. Any additional costs or fees that might be incurred in the secondary market, other than fees of the Paying Agent and Bond Registrar, are the responsibility of the Owners.

In the event any registered owner fails to provide a correct taxpayer identification number to the Paying Agent and Bond Registrar, the Paying Agent and Bond Registrar may impose a charge against such registered owner sufficient to pay any governmental charge required to be paid as a result of such failure. In compliance with Section 3406 of the Internal Revenue Code, such amount may be deducted by the Paying Agent and Bond Registrar from amounts otherwise payable to such registered owner hereunder or under the Series 2020 Bonds.

Section 208. Execution, Registration and Delivery of the Series 2020 Bonds. Each of the Series 2020 Bonds, including any Series 2020 Bond issued in exchange or as substitution for the Series 2020 Bonds initially delivered, shall be signed by the manual or facsimile signature of the President of the Board and attested by the manual or facsimile signature of the Secretary of the Board, and shall have the official seal of the University affixed thereto or imprinted thereon. In case any officer whose signature or facsimile thereof appears on any Series 2020 Bonds shall cease to be such officer before the delivery of such Series 2020 Bonds, such signature or facsimile thereof shall nevertheless be valid and sufficient for all purposes, the same as if such person had remained in office until delivery. Any

Series 2020 Bond may be signed by such persons who at the actual time of the execution of such Series 2020 Bond shall be the proper officers to sign such Series 2020 Bond although at the date of such Series 2020 Bond such persons may not have been such officers.

The President of and Secretary of the Board are hereby authorized and directed to prepare and execute the Series 2020 Bonds as hereinbefore provided, and to deliver the Series 2020 Bonds to the Paying Agent and Bond Registrar for authentication. Upon authentication, and pursuant to the written direction of the Board, the Paying Agent and Bond Registrar shall deliver the Series 2020 Bonds to the Original Purchaser thereof, upon payment of the purchase price specified in the Final Terms Approval, at such location as is requested by the Original Purchaser pursuant to the terms of the Bond Purchase Agreement referred to in Section 1604 hereof.

The Series 2020 Bonds shall have endorsed thereon a certificate of authentication substantially in the form set forth on the form of the Series 2020 Bonds set forth in Article IV hereof, which shall be manually executed by the Paying Agent and Bond Registrar. No Series 2020 Bond shall be entitled to any security or benefit under this Resolution or shall be valid or obligatory for any purpose unless and until such certificate of authentication shall have been duly executed by the Paying Agent and Bond Registrar. Such executed certificate of authentication upon any Series 2020 Bond shall be conclusive evidence that such Series 2020 Bond has been duly authenticated and delivered under this Resolution. The certificate of authentication on any Series 2020 Bond shall be deemed to have been duly executed if signed by any authorized officer or employee of the Paying Agent and Bond Registrar, but it shall not be necessary that the same officer or employee sign the certificate of authentication on all of the Bonds that may be issued hereunder at any one time.

Section 209. Mutilated, Lost, Stolen or Destroyed Series 2020 Bonds. In the event any Series 2020 Bond is mutilated, lost, stolen, or destroyed, the University shall execute and the Paying Agent and Bond Registrar shall authenticate a new Series 2020 Bond of like series, date and denomination as that mutilated, lost, stolen or destroyed, provided that, in the case of any mutilated Series 2020 Bond, such mutilated Series 2020 Bond shall first be surrendered to the University or the Paying Agent and Bond Registrar, and in the case of any lost, stolen, or destroyed Series 2020 Bond, there first shall be furnished to the University and the Paying Agent and Bond Registrar evidence of such loss, theft or destruction satisfactory to the University and the Paying Agent and Bond Registrar, together with an indemnity satisfactory to them which indemnity shall, in any event, name the Paying Agent and Bond Registrar as a beneficiary. In the event any such Series 2020 Bond shall have matured, the University may direct the Paying Agent and Bond Registrar, instead of issuing a duplicate Series 2020 Bond, to pay the same without surrender thereof, making such requirements as it deems fit for its protection, including a lost instrument bond. The University and the Paying Agent and Bond Registrar may charge the Owner of such Series 2020 Bond with their reasonable fees and expenses for such service. In executing a new Series 2020 Bond, the University may rely conclusively upon a representation by the Paying Agent and Bond Registrar that the Paying Agent and Bond Registrar is satisfied with the adequacy of the evidence presented concerning the mutilation, loss, theft or destruction of any Series 2020 Bond.

Section 210. Destruction of Bonds. Whenever any Outstanding Bond shall be delivered to the Paying Agent and Bond Registrar for cancellation pursuant to this Resolution, or for replacement pursuant to Section 209 hereof, such Bond shall be promptly cancelled and in accordance with any applicable record retention regulations, cremated or otherwise destroyed by the Paying Agent and Bond Registrar, and counterparts of a certificate of destruction shall be furnished by the Paying Agent and Bond Registrar to the University.

Section 211. Temporary Bonds. Until Series 2020 Bonds in definitive form are ready for delivery, the University may execute, and upon the request of the University, the Paying Agent and Bond Registrar shall authenticate and deliver, subject to the provisions, limitations and conditions set forth above, one or more Bonds in temporary form, whether printed, typewritten, lithographed or otherwise produced, substantially in the form of the definitive Series 2020 Bonds, with appropriate omissions, variations and insertions, and in authorized denominations. Until exchanged for Series 2020 Bonds in definitive form, such Series 2020 Bonds in temporary form shall be entitled to the liens and benefits of this Resolution. Upon presentation and surrender of any Series 2020 Bond or Series 2020 Bonds in temporary form, the University shall, at the request of the Paying Agent and Bond Registrar, execute and deliver to the Paying Agent and Bond Registrar, and the Paying Agent and Bond Registrar shall authenticate and deliver, in exchange therefor, a Series 2020 Bond or Series 2020 Bonds in definitive form. Such exchange shall be made by the Paying Agent and Bond Registrar without making any charge therefor to the Owner of such Series 2020 Bond in temporary form. Notwithstanding the foregoing, Series 2020 Bonds in definitive form may be issued hereunder in typewritten form.

Section 212. Payments Due on Non-Business Days. In any case where the date of maturity of principal of, redemption premium, if any, or interest on the Bonds or the date fixed for redemption of any Bonds shall be a day other than a Business Day, then payment of principal, redemption premium, if any, or interest need not be made on such date but may be made on the next succeeding Business Day with the same force and effect as if made on the date of maturity or the date fixed for redemption, and no interest shall accrue for the period after such date.

Section 213. Nonpresentment of Series 2020 Bonds. In the event any Series 2020 Bond shall not be presented for payment when the principal thereof becomes due, either at its maturity or otherwise, or at the date fixed for redemption thereof, if funds sufficient to pay such Series 2020 Bond shall have been made available to the Paying Agent and Bond Registrar, all liability of the University to the Owner thereof for the payment of such Series 2020 Bond shall forthwith cease, determine and be completely discharged, and thereupon it shall be the duty of the Paying Agent and Bond Registrar to hold such fund or funds, uninvested and without liability for interest thereon, for the benefit of the Owner of such Series 2020 Bond who shall thereafter be restricted exclusively to such fund or funds for any claim of whatever nature on his part under this Resolution or on, or with respect to, such Series 2020 Bond. If any Series 2020 Bond shall not be presented for payment within twenty-four (24) months following the date when such Series 2020 Bond becomes due, whether by maturity or otherwise, the funds theretofore held by the Paying Agent and Bond Registrar for payment of such Series 2020 Bond shall be paid to the University and such Series 2020 Bond shall, subject to the defense of any applicable statute of limitation, thereafter be an unsecured obligation of the University, and the Owner thereof shall be entitled to look only to the University for payment, and then only to the extent of the amount so repaid, and the University shall not be liable for any interest thereon and shall not be regarded as a trustee of such money.

Section 214. Securities Depository.

(a) The Series 2020 Bonds shall be initially issued as separately authenticated fully registered bonds, and one Series 2020 Bond shall be issued in the principal amount of each stated maturity of the Series 2020 Bonds. Upon initial issuance, the ownership of such Series 2020 Bonds shall be registered in the bond register in the name of Cede & Co., as nominee of DTC. The Paying Agent and Bond Registrar and the University may treat DTC (or its nominee) as the sole and exclusive owner of the Series 2020 Bonds registered in its name for the purposes of payment of the principal of or interest on the bonds, giving any notice permitted or required to be given to registered owners of Series 2020 Bonds under this Resolution, registering the transfer of Series 2020 Bonds, and for all other purposes whatsoever; and neither the Paying Agent and Bond Registrar nor the University shall be affected by any notice to the contrary. Neither the Paying Agent and Bond Registrar nor the University shall have any responsibility or obligation to any Participant, any person claiming a beneficial ownership interest in the Series 2020 Bonds under or through DTC or any Participant, or any other person which is not shown on the bond register as being a registered owner of any Series 2020 Bonds, with respect to the accuracy of any records maintained by DTC or any Participant, with respect to the payment by DTC or any Participant of any amount with respect to the principal of or interest on the Series 2020 Bonds, with respect to any notice which is permitted or required to be given to owners of Series 2020 Bonds under this Resolution, or with respect to any consent given or other action taken by DTC as the registered owner of the Series 2020 Bonds. So long as any Series 2020 Bond is registered in the name of Cede & Co., as nominee of DTC, the Paying Agent and Bond Registrar shall pay all principal of and interest on such Series 2020 Bonds, and shall give all notices with respect to such Series 2020 Bond, only to Cede & Co. in accordance with the Representation Letter, and all such payments shall be valid and effective to fully satisfy and discharge the University's obligations with respect to the principal of and interest on the Series 2020 Bonds to the extent of the sum or sums so paid. No person other than DTC shall receive an authenticated Series 2020 Bond for each separate stated maturity evidencing the obligation of the University to make payments of principal and interest. Upon delivery by DTC to the Paying Agent and Bond Registrar of written notice to the effect that DTC has determined to substitute a new nominee in place of Cede & Co., the Series 2020 Bonds will be transferable to such new nominee in accordance with paragraph (c) hereof.

(b) In the event the University determines that it is in the best interest of the Beneficial Owners that they be able to obtain Bond Certificates, the University may notify DTC and the Paying Agent and Bond Registrar, whereupon DTC shall notify the Participants of the availability through DTC of Bond Certificates. In such event, the Series 2020 Bonds will be transferable in accordance with paragraph (c) hereof. DTC may determine to discontinue providing its services with respect to the Series 2020 Bonds at any time by giving notice to the University and the Paying Agent and Bond Registrar and discharging its responsibilities with respect thereto under applicable law. In such event, the Series 2020 Bonds will be transferable in accordance with paragraph (c) hereof.

(c) In the event that any transfer or exchange of Series 2020 Bonds is permitted under paragraph (a) or (b) hereof, such transfer or exchange shall be accomplished upon receipt by the Paying Agent and Bond Registrar of the Series 2020 Bonds to be transferred or exchanged and appropriate instruments of transfer to the permitted transferee in accordance with the provisions of this Resolution. In the event Bond Certificates are issued to holders other than Cede & Co., its successor as nominee for DTC as holder of all of the Series 2020 Bonds, or another securities depository as holder of all of the Series 2020 Bonds, the provisions of this Resolution shall also apply to all matters relating thereto, including, without limitation, the printing of such certificates and the method of payment of principal of and interest on such certificates. The Paying Agent and Bond Registrar and the University may conclusively rely on information provided by DTC as to the names and addresses of the beneficial owners and the amounts so owned.

ARTICLE III

REDEMPTION AND PURCHASE OF SERIES 2020 BONDS

Section 301. Optional Redemption of Series 2020 Bonds. At the option of the University, the Series 2020 Bonds or portions thereof may be called for redemption and payment prior to maturity on the dates and at the redemption prices set forth in the Final Terms Approval.

Section 302. Mandatory Sinking Fund Redemption of Series 2020 Bonds. The Term Bonds, if any, set forth in the Final Terms Approval shall be subject to mandatory redemption and payment prior to maturity pursuant to the requirements of this Section, at the principal amount thereof plus accrued interest to the redemption date, without premium.

The Paying Agent and Bond Registrar shall, in each year in which Term Bonds are to be redeemed pursuant to the terms of this Section, make timely selection of such Term Bonds or portions thereof to be so redeemed and shall give notice thereof as provided in Section 304 of this Article without further instructions from the University. The Paying Agent and Bond Registrar may, upon instructions from the University, use moneys on hand in the Revenue Account at any time to purchase Term Bonds in the open market at a price not in excess of their principal amount, and each Term Bond so purchased shall be credited at 100% of the principal amount thereof on the obligation of the University to redeem Term Bonds of the same maturity on the next mandatory redemption date applicable to such Term Bonds, and the principal amount of Term Bonds of such maturity to be redeemed by operation of this Section shall be reduced accordingly.

At the University's option, said option to be exercised on or before the 60th day next preceding any scheduled mandatory Redemption Date by the University providing a certificate to the Paying Agent and Bond Registrar selecting one or more of the items set forth hereafter, the University may: (i) deliver to the Paying Agent and Bond Registrar for cancellation Term Bonds in the aggregate principal amount desired; or (ii) furnish to the Paying Agent and Bond Registrar funds, together with appropriate instructions, for the purpose of purchasing any of said Term Bonds from any Owner thereof whereupon the Paying Agent and Bond Registrar shall expend such funds for such purposes to such extent as may be practical; or (iii) receive a credit in respect to the mandatory redemption obligation of the University under this subsection for any Term Bonds of the same maturity which prior to such date have been redeemed (other than through the operation of the requirements of this subsection) and cancelled by the Paying Agent and Bond Registrar and not theretofore applied as a credit against any redemption obligation under this subsection. Each Term Bond so delivered or previously purchased or redeemed shall be credited at 100% of the principal amount thereof on the obligation of the University to redeem Term Bonds of the same maturity on such redemption date, and any excess of such amount shall be credited on future mandatory redemption obligations for Term Bonds of the same maturity in chronological order and the principal amount of Term Bonds of the same maturity to be redeemed by operation of the requirements of this subsection shall be accordingly reduced. If the University intends to exercise the option granted by the provisions of clauses (i), (ii) or (iii) of this Section, the University will, on or before the 60th day next preceding the scheduled mandatory Redemption Date, furnish the Paying Agent and Bond Registrar a certificate indicating to what extent the provisions of said clauses (i), (ii) and (iii) are to be complied with in respect to such mandatory redemption payment.

Section 303. Extraordinary Optional Redemption of Series 2020 Bonds. The Series 2020 Bonds shall be subject to redemption and payment prior to the stated maturity date thereof in whole or in part, at the option of the University, at any time at a redemption price of one hundred percent (100%) of the principal amount thereof, plus accrued interest thereon to the redemption date, upon or after the occurrence of any of the following conditions or events:

(1) if title to, or the use for a limited period of, all or a substantial portion of the System Facilities is condemned by any authority having the power of eminent domain;

(2) if title to all or a substantial portion of the System Facilities is found to be deficient or nonexistent to the extent, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, that the efficient utilization of a substantial portion of the System Facilities by the University is impaired;

(3) if all or a substantial portion of the System Facilities is damaged or destroyed by fire, flooding, tornadoes or other casualty; or

(4) if as a result of changes in the Constitution of the State of Missouri, or of legislative or administrative action by the State of Missouri or any political subdivision thereof, or by the United States, or by reason of any action instituted in any court, this Resolution shall become void or unenforceable, or, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, impossible of performance without unreasonable delay, or in any other way, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, by reason of such change of circumstances, unreasonable burdens or excessive liabilities are imposed on the University.

Section 304. Notice of Redemption. Notice of the University's intent to redeem (including, when only a portion of the Series 2020 Bonds are to be redeemed, the series and maturities of such Series 2020 Bonds and the principal amounts thereof) shall be given by or on behalf of the University by United States registered or certified mail, postage prepaid, to the Paying Agent and Bond Registrar, such notice to be mailed not less than forty-five (45) days prior to the date fixed for redemption. Notice of the selection or call for redemption identifying the Series 2020 Bonds of a series or portions thereof to be redeemed, shall be given by the Paying Agent and Bond Registrar by mailing a copy of the redemption notice by first class mail, for the Series 2020 Bonds, not less than twenty (20) nor more than sixty (60) days prior to the date fixed for redemption, and for Series 2020 Bonds issued initially as Variable Rate Bonds, not less than 15 days prior to the redemption date for Series 2020 Bonds accruing interest at Daily, Weekly or Commercial Paper Rates, and not less than 20 days prior to the redemption date for Series 2020 Bonds bearing interest at Term Rates, Auction Rates, or Fixed Rates, in each case to the Owner of each Series 2020 Bond of a series to be redeemed in whole or in part at the address shown on the registration books; provided, however, that any defect in giving such notice by mailing as aforesaid shall not affect the validity of any proceeding for the redemption of any Series 2020 Bond. Any notice mailed as provided in this Section shall be conclusively presumed to have been duly given, whether or not the owner receives the notice.

All notices of redemption shall be dated and shall state:

(a) the redemption date;

(b) the redemption price;

(c) if less than all Outstanding Series 2020 Bonds of a series are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the Series 2020 Bonds to be redeemed;

(d) that on the redemption date, the redemption price will become due and payable upon each such Series 2020 Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue from and after such date; and

(e) the place where such Series 2020 Bonds are to be surrendered for payment of the redemption price, which place of payment shall be the payment office of the Paying Agent and Bond Registrar.

With respect to optional redemptions or extraordinary optional redemptions, such notice may be conditional upon moneys being on deposit with the Paying Agent and Bond Registrar on or prior to the redemption date in an amount sufficient to pay the redemption price plus premium, if any, on the redemption date. If such notice is conditional and moneys are not received, such notice shall be of no force and effect, the Paying Agent and Bond Registrar shall not redeem such Series 2020 Bonds and the

Paying Agent and Bond Registrar shall give notice, in the same manner in which the notice of redemption was given, that such moneys were not so received and that such Series 2020 Bonds will not be redeemed.

Prior to any redemption date, the University shall deposit with the Paying Agent and Bond Registrar an amount of money sufficient to pay the redemption price of all the Series 2020 Bonds of a series or portions of Series 2020 Bonds of such series which are to be redeemed on that date.

Section 305. Selection of Series 2020 Bonds to Be Redeemed.

(a) The Series 2020 Bonds shall be redeemed in any order of maturity as directed by the University and only in Minimum Authorized Denominations or any integral multiple thereof. Unless otherwise provided with respect to a series of Bonds in the Final Terms Approval, when less than all of the Outstanding Series 2020 Bonds of a series of any maturity are to be redeemed and paid prior to maturity, such Series 2020 Bonds of such series shall be selected by the Paying Agent and Bond Registrar in Minimum Authorized Denominations by lot in such equitable manner as the Paying Agent and Bond Registrar may determine.

In the case of a partial redemption of Series 2020 Bonds of a series when Series 2020 Bonds of such series of denominations greater than the Minimum Authorized Denomination are then Outstanding, then for all purposes in connection with such redemption each Minimum Authorized Denomination of face value shall be treated as though it were a separate Series 2020 Bond of the Minimum Authorized Denomination. If it is determined that one or more, but not all, of the Minimum Authorized Denominations represented by any fully registered Series 2020 Bond is selected for redemption, then upon notice of intention to redeem such Minimum Authorized Denomination, the Owner of such fully registered Series 2020 Bond or his or her attorney or legal representative shall forthwith present and surrender such Series 2020 Bond to the Paying Agent and Bond Registrar (1) for payment of the redemption price (including the premium, if any, and interest to the date fixed for redemption) of the Minimum Authorized Denomination called for redemption, and (2) for exchange, without charge to the Owner thereof, for a new Series 2020 Bond or Series 2020 Bonds of the aggregate principal amount of the unredeemed portion of the principal amount of such fully registered Series 2020 Bond. If the Owner of any such fully registered Series 2020 Bond of a denomination greater than the Minimum Authorized Denomination shall fail to present such Series 2020 Bond to the Paying Agent and Bond Registrar for payment and exchange as aforesaid, such Series 2020 Bond shall, nevertheless, become due and payable on the redemption date to the extent of the Minimum Authorized Denomination called for redemption (and to that extent only).

As to Series 2020 Bonds issued initially as Variable Rate Bonds, notwithstanding the foregoing, Pledged Bonds and University Bonds (in that order of priority) shall be redeemed prior to any other Series 2020 Bonds.

(b) The Paying Agent and Bond Registrar shall promptly notify the University in writing of the Series 2020 Bonds selected for redemption and, in the case of any Series 2020 Bond selected for partial redemption, the principal amount thereof to be redeemed.

Section 306. Effect of Call for Redemption. Whenever any Series 2020 Bond is called for redemption and payment as provided in this Article, all interest on such Series 2020 Bond shall cease from and after the date for which such call is made, provided funds are available for its payment at the price hereinbefore specified.

Section 307. Tender and Purchase Provisions Applicable to Any Series 2020 Bonds Issued Initially as Variable Rate Bonds. This Section sets forth provisions relating to the tender and purchase of Series 2020 Bonds issued initially as Variable Rate Bonds; if no Series 2020 Bonds are issued initially as Variable Rate Bonds pursuant to the Final Terms Approval this Section shall be of no force or effect.

(a) Optional Tenders for Purchase of Series 2020 Bonds.

(1) *Purchase Dates*. The owners of Series 2020 Bonds accruing interest at Daily or Weekly Rates may elect to have their Series 2020 Bonds (or portions thereof in denominations authorized pursuant to Section 203 hereof) purchased at the Purchase Price on the following Purchase Dates:

(A) Series 2020 Bonds accruing interest at Daily Rates may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon written or Electronic notice of tender given to the Tender Agent not later than 9:00 a.m., New York City time, on the Purchase Date.

(B) Series 2020 Bonds accruing interest at Weekly Rates may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon written or Electronic notice of tender to the Tender Agent not later than 5:00 p.m., New York City time, on a Business Day not fewer than seven days prior to the Purchase Date.

(2) *Notice of Tender*. Each notice of tender:

(A) shall in the case of a written notice, be delivered to the Tender Agent and the Paying Agent and Bond Registrar at its Notice Address and be in form satisfactory to the Tender Agent;

(B) shall state (i) the principal amount of Series 2020 Bonds to which the notice relates, (ii) that the owner irrevocably demands purchase of such Series 2020 Bond or a specified portion thereof, (iii) the date on which such Series 2020 Bond or portion is to be purchased, and (iv) payment instructions with respect to the Purchase Price; and

(C) shall automatically constitute (i) an irrevocable offer to sell the Series 2020 Bonds (or portion thereof) to which the notice relates on the Purchase Date at the Purchase Price, (ii) an irrevocable authorization and instruction to the Registrar to effect transfer of such Series 2020 Bond (or portion thereof) upon payment of the Purchase Price to the Tender Agent on the Purchase Date, (iii) an irrevocable authorization and instruction to the Tender Agent to effect the exchange of the Series 2020 Bond to be purchased in whole or in part for other Series 2020 Bonds in an equal aggregate principal amount so as to facilitate the sale of such Series 2020 Bond (or portion thereof to be purchased), and (iv) an acknowledgment that such owner will have no further rights with respect to such Series 2020 Bond (or portion thereof) upon payment of the Purchase Price thereof to the Tender Agent on the Purchase Date, except for the right of such owner to receive such Purchase Price upon delivery of such Series 2020 Bond to the Tender Agent, and that after the Purchase Date such owner will hold any undelivered certificate as agent for the Tender Agent. The determination of the Tender Agent as to whether a notice of tender has been properly delivered pursuant to the foregoing shall be conclusive and binding upon the owner.

(3) *Series 2020 Bonds to be Remarketed*. Not later than 10:30 a.m., New York City time, on the Business Day immediately following the date of receipt of any notice of tender (or

immediately upon such receipt in the case of Series 2020 Bonds accruing interest at Daily Rates), the Tender Agent shall notify, by telephone, promptly confirmed in writing the University, the Remarketing Agent, the Paying Agent and Bond Registrar and the Liquidity Provider of the principal amount of Series 2020 Bonds (or portions thereof) to be purchased and the Purchase Date.

(b) Mandatory Tenders for Purchase of Series 2020 Bonds.

(1) *Commercial Paper Rate Series 2020 Bonds*. Each Series 2020 Bond accruing interest at a Commercial Paper Rate is subject to mandatory tender for purchase on each Interest Payment Date applicable to such Series 2020 Bond at the Purchase Price. The owner of any Series 2020 Bond accruing interest at a Commercial Paper Rate shall provide the Tender Agent with written payment instructions for the Purchase Price on or before tender thereof to the Tender Agent.

(2) *Conversions between Certain Rate Periods*. Series 2020 Bonds to be converted from one type of Rate Period to a different type of Rate Period (except conversions from the Daily Rate to the Weekly Rate or from the Weekly Rate to the Daily Rate), are subject to mandatory tender for purchase on the Conversion Date at the Purchase Price.

(3) *Mandatory Tender at Beginning of a New Term Rate Period*. When the Series 2020 Bonds bear interest at a Term Rate and a new Term Rate Period is to be determined, the Series 2020 Bonds will be subject to mandatory tender on the effective date of the new Term Rate Period at the Purchase Price.

(4) *Prior to Termination of the Liquidity Facility and Upon Addition of a Liquidity Facility in Certain Cases in which No Liquidity Facility is in Effect*. The Series 2020 Bonds supported by a Liquidity Facility are subject to mandatory tender for purchase on the Business Day preceding the Termination of the Liquidity Facility or the substitution of an Alternate Liquidity Facility. Series 2020 Bonds not supported by a Liquidity Facility are subject to mandatory tender for purchase on the Business Day preceding the day on which a Liquidity Facility becomes effective unless the written evidence from each Rating Service provided pursuant to Section 307(e)(2)(B) hereof confirms that the effectiveness of such Liquidity Facility will not in and of itself result in a reduction or withdrawal of the rating that would otherwise apply to the Series 2020 Bonds if such Liquidity Facility were not to become effective.

(5) *Notice by Tender Agent*. The Tender Agent shall give notice (which may be combined, where applicable, with any notice required by Section 205(b) hereof) of such mandatory tender for purchase other than pursuant to Section 307(b)(1) to the affected owners of Series 2020 Bonds by first class mail not less than 20 days before the mandatory tender date. If the Series 2020 Bonds are in certificated form, such notice shall include information with respect to required delivery of Series 2020 Bond certificates and payment of the Purchase Price.

(6) *Tenders During Auction Rate Mode.* Requirements relating to a mandatory tender of Series 2020 Bonds in an Auction Rate Mode shall be provided for in the Auction Rate Supplemental Resolution.

(c) Remarketing and Purchase of Series 2020 Bonds.

(1) *Remarketing of Tendered Series 2020 Bonds*.

(A) Unless otherwise instructed by the University, the Remarketing Agent shall offer for sale and use its best efforts to find purchasers for all Series 2020 Bonds or portions thereof for which notice of tender has been received pursuant to Section 307(b) or which are subject to mandatory tender. The terms of any sale by the Remarketing Agent shall provide for the payment of the Purchase Price for tendered Series 2020 Bonds to the Remarketing Agent in sufficient time for the Remarketing Agent to deliver remarketing proceeds to the Tender Agent on the Purchase Date in immediately available funds at or before 11:00 a.m., New York City time. The Remarketing Agent shall not sell any Series 2020 Bond as to which a notice of conversion from one Rate Period to another has been given by the Paying Agent and Bond Registrar, or as to which the Tender Agent has given a notice of mandatory tender for purchase pursuant to Section 307(b)(5) hereof, unless the Remarketing Agent has advised the Person to whom the sale is made of the conversion or notice. Any purchaser so advised must deliver a notice to the Tender Agent stating that such purchaser will tender such Series 2020 Bonds for purchase on the related mandatory tender date. The Remarketing Agent shall not remarket any Series 2020 Bonds pursuant to this Section to the University or any affiliate of the University, shall not remarket any Series 2020 Bond upon an Auction Rate Conversion Date or a Fixed Rate Conversion Date, and shall not remarket any Series 2020 Bonds pursuant to this Section if an Event of Default shall have occurred and be continuing hereunder with respect to the Series 2020 Bonds.

(B) At or before 11:00 a.m., New York City time, on the Purchase Date, the Remarketing Agent shall give notice to the Tender Agent by telephone (promptly confirmed in writing or by Electronic notice) of the names, addresses and taxpayer identification numbers of the purchasers, the series and denominations of Series 2020 Bonds to be delivered to each purchaser and, if available, payment instructions for regularly scheduled interest payments, or of any changes in any such information previously communicated.

(2) *Purchase of Tendered Series 2020 Bonds*.

(A) Notice. At or before 11:30 a.m., New York City time, on the Purchase Date, the Tender Agent shall give notice by telephone, telecopy, electronically or by other similar communication to the Paying Agent and Bond Registrar, the Liquidity Provider and the University, specifying the series and principal amount of tendered Series 2020 Bonds as to which the Remarketing Agent has not found a purchaser at that time or has found a purchaser from whom payment has not been received.

(B) Sources of Payments. The Remarketing Agent shall cause to be paid to the Tender Agent on the Purchase Date of tendered Series 2020 Bonds all amounts representing proceeds of the remarketing of such Series 2020 Bonds (the "Remarketing Proceeds"), such payments to be made in the manner and at the time specified in Section 307(c)(1) above. If the Remarketing Proceeds will not be sufficient to pay the Purchase Price on the Purchase Date of Series 2020 Bonds supported by a Liquidity Facility (other than Pledged Bonds or University Bonds), the Tender Agent shall give notice to the Paying Agent and Bond Registrar by 11:30 a.m., New York City time, on the Purchase Date to demand payment under the Liquidity Facility, and the Paying Agent and Bond

Registrar shall by 12:00 noon, New York City time, on the Purchase Date, make such demand in the manner set forth in the Liquidity Facility, and the Liquidity Provider shall furnish immediately available funds by 2:00 p.m., New York City time on such Purchase Date, in an amount sufficient, together with the Remarketing Proceeds, to enable the Tender Agent to pay the Purchase Price of such Series 2020 Bonds to be purchased on such Purchase Date; provided, the Paying Agent and Bond Registrar shall not make any demand for payment under the Liquidity Facility with respect to University Bonds, Pledged Bonds, Series 2020 Bonds in a Term Rate Period that extends to the Maturity Date, or Series 2020 Bonds bearing interest at a Fixed Rate. If the Paying Agent and Bond Registrar shall not have received notice from the Tender Agent, the Paying Agent and Bond Registrar shall draw on the Liquidity Facility in an amount equal to the Purchase Price of all Series 2020 Bonds to be purchased on such Purchase Date. The Paying Agent and Bond Registrar shall authorize direct payment by the Liquidity Provider to the Tender Agent. The University shall pay or cause to be paid to the Tender Agent, at the times and in the amounts and manner therein specified, an amount equal to the amount required in order to purchase any Series 2020 Bonds tendered for purchase pursuant to the Resolution; provided, however, that the amount required to be paid under this paragraph shall be reduced by an amount equal to the sum of the amounts made available for such purpose from the proceeds of the remarketing of such Series 2020 Bonds by the Remarketing Agent or through payments by the Liquidity Provider under an Alternate Liquidity Facility, all as contemplated herein. The University authorizes and directs the Tender Agent to demand money under the Liquidity Facility then in effect in accordance with the provisions of the Liquidity Facility and the Resolution to the extent necessary for the purchase of Series 2020 Bonds pursuant to the Resolution. The University authorizes and directs the Tender Agent to apply the payments made by the University under this paragraph to the payment of the purchase price of Series 2020 Bonds. All moneys received by the Tender Agent as Remarketing Proceeds, from demands by the Paying Agent and Bond Registrar under the Liquidity Facility or from the University, as the case may be, shall be deposited by the Tender Agent in the appropriate account of the Bond Purchase Fund to be used solely for the payment of the Purchase Price of tendered Series 2020 Bonds and shall not be commingled with other funds held by the Tender Agent and shall not be invested.

(C) Payments by the Tender Agent. At or before 3:00 p.m., New York City time, on the Purchase Date for tendered Series 2020 Bonds and upon receipt by the Tender Agent of 100% of the aggregate Purchase Price of the tendered Series 2020 Bonds, the Tender Agent shall pay the Purchase Price of such Series 2020 Bonds to the owners thereof. Such payments shall be made in immediately available funds. The Tender Agent shall apply in order (A) moneys paid to it by the Remarketing Agent as proceeds of the remarketing of such Series 2020 Bonds by the Remarketing Agent, (B) proceeds made available through the Liquidity Facility, and (C) other moneys made available by the University.

(D) Registration and Delivery of Purchased Series 2020 Bonds. On the date of purchase, the Paying Agent and Bond Registrar shall register and deliver (or hold) all Series 2020 Bonds purchased on any Purchase Date as follows: (A) Series 2020 Bonds purchased or remarketed by the Remarketing Agent shall be registered and made available to the Remarketing Agent by 3:00 p.m., New York City time, in accordance with the instructions of the Remarketing Agent, (B) Series 2020 Bonds purchased with proceeds made available through the Liquidity Facility shall be delivered and held as Pledged Bonds in accordance with subparagraph (5) below, and (C) Series 2020 Bonds purchased with amounts provided by the University shall be registered in the name of the University and shall be delivered to the Paying Agent and Bond Registrar to be held in trust by the Paying Agent and Bond Registrar on behalf of the University and shall not be released from such trust unless the Paying Agent and Bond Registrar shall have received written instructions from the University. Notwithstanding anything herein to the contrary, so long as the Series 2020 Bonds are held under a Book Entry System, Series 2020 Bonds will not be delivered as set forth above; rather, transfers of beneficial ownership of the Series 2020 Bonds to the person indicated above will be effected on the registration books of the Securities Depository pursuant to its rules and procedures.

(E) Pledged Bonds. Series 2020 Bonds purchased with proceeds made available through the Liquidity Facility pursuant to this Section shall be acquired for the benefit of the Liquidity Provider. The Liquidity Provider shall be the beneficial owner of such Series 2020 Bonds, which shall constitute "Pledged Bonds," and shall be delivered to and held by the Paying Agent and Bond Registrar as agent for the Liquidity Provider (and shall be shown as Pledged Bonds on the bond register). The Remarketing Agent shall at the request of the Liquidity Provider continue to use its best efforts to arrange for the sale of any Pledged Bonds at the Purchase Price, subject to full reinstatement of the amount available to be drawn under the Liquidity Facility with respect to such Series 2020 Bonds.

If the Remarketing Agent remarkets any Pledged Series 2020 Bond, the Remarketing Agent shall direct the purchaser of such Pledged Series 2020 Bond to transfer, by 12:00 noon, New York City time, on the Purchase Date, the Purchase Price of such remarketed Pledged Series 2020 Bond to the Tender Agent for deposit into a separate subaccount of the Remarketing Account of the Bond Purchase Fund described in Section 307(d) hereof, to be disbursed from such subaccount solely for the purposes described in this paragraph. The Tender Agent shall immediately notify the Liquidity Provider of the receipt of the Purchase Price for such Pledged Series 2020 Bond, and upon receipt of the Purchase Price and of evidence satisfactory to the Tender Agent of full reinstatement of the amount available to be drawn under the Liquidity Facility (as contemplated by the preceding paragraph), such Pledged Series 2020 Bond shall be considered released from the pledge of the Liquidity Provider. The Tender Agent shall transfer such Purchase Price to the Liquidity Provider upon receipt thereof and of evidence satisfactory to the Tender Agent of full reinstatement of the amount available to be drawn under the Liquidity Facility (as contemplated by the preceding paragraph) to the extent that amounts remain due and owing to the Liquidity Provider under the Liquidity Facility, and give all required notices, in accordance with the terms of the Liquidity Facility. If moneys remain on deposit with the Tender Agent in such subaccount after payment is made to the Liquidity Provider as described in the preceding sentence, such moneys shall be paid to, or upon the order of, the University.

Notwithstanding anything to the contrary in this subsection, if and for so long as the Series 2020 Bonds are held in Book Entry Form, the registration requirements under this subsection shall be deemed satisfied if Pledged Bonds are (A) registered in the name of the Securities Depository or its nominee, (B) credited on the books of the Securities Depository to the account of the Paying Agent and Bond Registrar (or its nominee) and (C) further credited on the books of the Paying Agent and Bond Registrar (or such nominee) to the account of the Liquidity Provider (or its designee).

(F) Resale of Series 2020 Bonds Purchased by the University. In the event that any Series 2020 Bonds are registered to the University pursuant to subparagraph (4) above, to the extent requested by the University the Remarketing Agent shall offer for sale and use its best efforts to sell such Series 2020 Bonds at the Purchase Price.

(G) Delivery of Tendered Series 2020 Bonds; Effect of Failure to Surrender Series 2020 Bonds. All Series 2020 Bonds to be purchased on any date shall be required to be delivered to the office of the Tender Agent or its designated agent in New York City at or before 11:30 a.m., New York City time, on the Purchase Date. If the owner of any Series 2020 Bond (or portion thereof) in certificated form that is subject to optional or mandatory purchase pursuant to this Article fails to deliver such Series 2020 Bond to the Tender Agent for purchase on the Purchase Date, and if the Tender Agent is in receipt of the Purchase Price therefor, such Series 2020 Bond (or portion thereof) shall nevertheless be deemed purchased on the Purchase Date thereof and ownership of such Series 2020 Bond (or portion thereof) shall be transferred to the purchaser thereof as provided in subsection (4) above. Any owner who fails to deliver such Series 2020 Bond for purchase shall have no further rights thereunder except the right to receive the Purchase Price thereof upon presentation and surrender of said Series 2020 Bond to the Tender Agent. The Tender Agent shall, as to any tendered Series 2020 Bonds which have not been delivered to it (i) promptly notify the Remarketing Agent of such nondelivery, and (ii) place or cause to, be placed a stop transfer against an appropriate amount of Series 2020 Bonds registered in the name of such owner(s) on the bond registration books. Upon such delivery, the Tender Agent shall make or cause the Bond Registrar to make any necessary adjustments to the bond registration books. Notwithstanding anything herein to the contrary, so long as the Series 2020 Bonds are held in a Book Entry System, Series 2020 Bonds will not be delivered as set forth above; rather, transfers of beneficial ownership of the Series 2020 Bonds to the person indicated above will be effected on the registration books of the Securities Depository pursuant to its rules and procedures.

(H) Special Rate Resetting. If any Series 2020 Bonds constitute Pledged Bonds or University Bonds due to a failure in remarketing such Series 2020 Bonds, the Remarketing Agent shall be entitled to determine a new Interest Rate with respect to such Series 2020 Bonds, as appropriate, effective on such date as the Remarketing Agent is able to remarket such Pledged Bonds or University Bonds in whole. Such new rate with respect to such Series 2020 Bonds shall be established by the Remarketing Agent in the manner described in Section 204(a)(1) hereof.

(d) Bond Purchase Fund. There is hereby created with the Tender Agent a segregated trust fund to be designated the "Bond Purchase Fund". The Bond Purchase Fund shall consist of sub-accounts for each respective series of Series 2020 Bonds to be designated respectively the "Remarketing Account", the "Liquidity Facility Purchase Account" and the "University Purchase Account".

The Tender Agent shall deposit or cause to be deposited into the Remarketing Account, when and as received, all moneys delivered to the Tender Agent as and for the Purchase Price of remarketed Series 2020 Bonds by or on behalf of the Remarketing Agent. The Tender Agent shall disburse moneys from the Remarketing Account to pay the Purchase Price of Series 2020 Bonds properly tendered for purchase upon surrender of such Series 2020 Bonds (or to reimburse the Liquidity Provider for amounts paid under the Liquidity Facility with respect to such Series 2020 Bonds).

The Paying Agent and Bond Registrar or Tender Agent, as the case may be, shall deposit or cause to be deposited into the Liquidity Facility Purchase Account when and as received, all proceeds made available through the Liquidity Facility pursuant to Section 307(c)(2)(B) hereof. The Tender Agent shall disburse moneys from the Liquidity Facility Purchase Account to pay the Purchase Price of Series 2020 Bonds properly tendered for purchase upon surrender of such Series 2020 Bonds; provided that such proceeds shall not be applied to purchase Pledged Bonds or University Bonds.

The Tender Agent shall deposit or cause to be deposited into the University Purchase Account, when and as received, all moneys delivered to the Tender Agent as and for the Purchase Price of Series 2020 Bonds by or for the account of the University. The Tender Agent shall disburse moneys from the University Purchase Account to pay the Purchase Price of Series 2020 Bonds properly tendered for purchase upon surrender of such Series 2020 Bonds; provided, that such proceeds shall not be applied to purchase Pledged Bonds or University Bonds.

The funds held by the Tender Agent in the Bond Purchase Fund shall not be subject to any lien of this Resolution. The moneys in the Bond Purchase Fund shall be used solely to pay the Purchase Price of Series 2020 Bonds as aforesaid (or to reimburse the Liquidity Provider for amounts paid under the Liquidity Facility for such purpose) and may not be used for any other purposes. It shall be the duty of the Tender Agent to hold the moneys in the Bond Purchase Fund for the benefit of the owners of Series 2020 Bonds which have been properly tendered for purchase or deemed tendered on the Purchase Date, and if sufficient funds to pay the Purchase Price for such tendered Series 2020 Bonds shall be held by the Tender Agent in the Bond Purchase Fund for the benefit of the owners thereof each such owner shall thereafter be restricted exclusively to the Bond Purchase Fund for any claim of whatever nature on such owner's part under this Resolution or on, or with respect to, such tendered Series 2020 Bond. Funds held in the Bond Purchase Fund for the benefit of owners of untendered Series 2020 Bonds shall be held in trust and either not invested or invested in overnight obligations of the type described in clause (a) of the definition of "United States Government Obligations" in Section 101 hereof. Moneys in the Bond Purchase Fund which remain unclaimed 2 years after the applicable Purchase Date shall, at the request of the University, and if the University is not, at the time, to the knowledge of the Tender Agent, in default with respect to any covenant in the Resolution or the Series 2020 Bonds, be paid to the University, and the owners of the Series 2020 Bonds for which the deposit was made shall thereafter be limited to a claim against the University.

(e) Liquidity Facility.

(1) *Initial Liquidity Facility*. The University is the Initial Liquidity Provider and shall have the sole and exclusive right during the term of this Resolution to enter into agreements with a Liquidity Provider for the provision of an Alternate Liquidity Facility in accordance with the terms and provisions of this Section. The University shall pay or cause to be paid to the Tender Agent, at the times and in the amounts and manner therein specified, an amount equal to the amount required in order to purchase any Series 2020 Bonds tendered for purchase pursuant to the Resolution; provided, however, that the amount required to be paid under this paragraph shall be reduced by an amount equal to the sum of the amounts made available for such purpose from the proceeds of the remarketing of such Series 2020 Bonds by the Remarketing Agent or through payments by the Liquidity Provider under an Alternate Liquidity Facility, all as contemplated in this Section. The University authorizes and directs the Tender Agent to demand money under the Liquidity Facility then in effect in accordance with the provisions of the Liquidity Facility and the Resolution to the extent necessary for the purchase of Series 2020 Bonds pursuant to the Resolution. The University authorizes and directs the Tender Agent to apply the payments made by the University under this paragraph to the payment of the purchase price of Series 2020 Bonds.

(2) *Alternate Liquidity Facility*.

(A) The University shall have the option from time to time to provide the Paying Agent and Bond Registrar with an Alternate Liquidity Facility, provided that the University delivers to the Paying Agent and Bond Registrar, not less than 45 days prior to the effective date of each such Alternate Liquidity Facility, (i) notice to the effect that such Alternate Liquidity Facility will be delivered, (ii) the identity of the issuer of such Alternate Liquidity Facility (which may be the University), (iii) a form thereof and (iv) the date such Alternate Liquidity Facility will be delivered and be effective. Upon receipt of notice of the University's intent to deliver an Alternate Liquidity Facility, the Paying Agent and Bond Registrar shall give notice to the Liquidity Provider and the owners affected by such Alternate Liquidity Facility of such event.

(B) On or prior to the date on which the Paying Agent and Bond Registrar may give notice of mandatory tender for purchase under Section 307(b)(3) hereof the University shall deliver to the Paying Agent and Bond Registrar (i) an Opinion of Bond Counsel stating that delivery of such Alternate Liquidity Facility to the Paying Agent and Bond Registrar is authorized under, and complies with the terms of this Resolution, the Resolution and the Act and will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on the Series 2020 Bonds and (ii) written evidence from each Rating Service to the effect that the Rating Service has reviewed the proposed Alternate Liquidity Facility and stating what rating the Series 2020 Bonds supported by the Liquidity Facility then in effect will bear after the effectiveness of the proposed Alternate Liquidity Facility and whether such rating constitutes a reduction or withdrawal of the then current rating on the Series 2020 Bonds.

(C) On or prior to the effective date of any Alternate Liquidity Facility delivered to the Paying Agent and Bond Registrar, the University shall deliver to the Paying Agent and Bond Registrar an Opinion of Counsel to the issuer of such Alternate Liquidity Facility in form and substance reasonably acceptable to the Paying Agent and Bond Registrar to the effect that the Alternate Liquidity Facility is a valid and binding obligation of its Liquidity Provider enforceable in accordance with its terms.

(D) If at any time there shall have been delivered to the Paying Agent and Bond Registrar an Alternate Liquidity Facility, together with the other documents and opinions required by this Section, then the Paying Agent and Bond Registrar shall accept such Alternate Liquidity Facility and promptly give notice of termination of the previously effective Liquidity Facility to the provider thereof, in accordance with the terms thereof. If at any time there shall cease to be any Outstanding Series 2020 Bonds to which a Liquidity Facility relates, or if a Liquidity Facility expires in accordance with its terms, the Paying Agent and Bond Registrar shall promptly give notice of termination of such Liquidity Facility to the provider thereof, in accordance with the terms thereof. The Paying Agent and Bond Registrar shall comply with the procedures set forth in a Liquidity Facility relating to the cancellation, expiration or termination thereof.

(E) Pursuant to Section 307(b)(4) hereof the provision of an Alternate Liquidity Facility will cause Series 2020 Bonds supported by the then current Liquidity Facility to be subject to mandatory tender for purchase, and may cause Series 2020 Bonds not then supported by a Liquidity Facility to be subject to mandatory tender for purchase.

(3) *Notices from Paying Agent and Bond Registrar to Liquidity Provider*. The Paying Agent and Bond Registrar shall provide prompt notice to the Liquidity Provider of any conversion to a Term Rate Period that extends to the Maturity Date, any conversion to a Fixed Rate Period, and any optional redemption pursuant to Section 303 hereof and shall to the extent allowed by the Liquidity Facility direct the Liquidity Provider to reduce the coverage thereunder by the amount attributable to the Series 2020 Bonds subject to such conversions or redemption.

(f) Modifications of Liquidity Facility. The Liquidity Facility in effect at any particular time may not be modified other than to (1) correct any formal defects in the Liquidity Facility, (2) effect transfers thereof, (3) effect extensions thereof, (4) effect an increase in the stated amount of the Liquidity Facility, (5) effect reductions and reinstatements thereof all in accordance with the terms of the Liquidity Facility as then in effect, (6) change the representations and warranties made therein by the University, (7) change the rate of interest payable by the University on advances made by the Liquidity Provider thereunder and any other compensation payable thereunder to other terms, or (8) make any other change consistent with effecting the provisions of clauses (1) through (7) of this sentence, unless there is delivered to the Paying Agent and Bond Registrar an Opinion of Bond Counsel to the effect that such modification will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on the Series 2020 Bonds. In addition, if any Series 2020 Bonds are then rated by a Rating Service, no modification of the Liquidity Facility, other than permitted by (1) through (8) of this Section, shall be effected unless such Rating Service shall have confirmed in writing that such rating will not be reduced or withdrawn if such modification is affected.

ARTICLE IV

FORM OF SERIES 2020 BONDS

Section 401. Form of Series 2020 Bonds. The Series 2020 Bonds and the certificate of authentication to be endorsed thereon shall be in substantially the form set forth in Exhibit H hereto, with appropriate Series designations, terms per the Final Terms Approval, variations, omissions and other insertions as permitted or required by this Resolution.

ARTICLE V

RATIFICATION AND CREATION OF ACCOUNTS

Section 501. Ratification and Creation of Accounts. The following accounts were created in the Initial System Facilities Resolution and ordered to be established in the accounting records of the University and are hereby ratified and confirmed, or are created and ordered to be established in the accounting records of the University, in connection with the issuance of the Series 2020 Bonds:

(a) System Facilities Revenue Account (the "Revenue Account");

(b) System Facilities Principal and Interest Account (the "Principal and Interest Account");

(c) System Facilities Series 2020 Projects Account (the "Projects Account");

(d) System Facilities Series 2020 Costs of Issuance Account (the "Costs of Issuance Account") and

(e) System Facilities Refunding Account (the "Refunding Account").

Section 502. Administration of Accounts. The accounts confirmed pursuant to Section 501 hereof shall be maintained and administered by the University solely for the purposes and in the manner as provided in the Prior System Facilities Resolutions and this Resolution so long as any of the Bonds remain Outstanding and unpaid.

ARTICLE VI

APPLICATION OF BOND PROCEEDS AND OTHER MONEYS

Section 601. Disposition of Series 2020 Bond Proceeds and Other Moneys. The proceeds received from the sale of the Series 2020 Bonds, including any accrued interest thereon, together with certain other moneys of the University, shall be deposited simultaneously with the delivery of the Series 2020 Bonds into the Projects Account, Costs of Issuance Account, Refunding Account, and/or to an escrow fund or account in the custody of the Escrow Agent pursuant to the Escrow Agreement in such amounts as set forth in the Final Terms Approval.

Section 602. Application of Moneys in the Costs of Issuance Account. Moneys in the Costs of Issuance Account shall be used by the University for the purpose of payment of the costs and expenses incidental to the issuance of the respective series of Series 2020 Bonds and otherwise as set forth in Section 603 hereof.

Section 603. Surplus in Costs of Issuance Account. Upon the earlier of (a) completion of the payment of the costs and expenses incidental to the issuance of the Series 2020 Bonds as hereinbefore provided, or (b) the date which is ninety (90) days following the issuance of the Series 2020 Bonds, any funds remaining in the Costs of Issuance Account shall be transferred to the Principal and Interest Account.

Section 604. Application of Moneys in the Projects Account. Moneys in the Projects Account shall be used by the University for the purpose of payment of the costs of acquisition, construction, improvement, renovation, furnishing or equipping of System Facilities as described on Exhibit A hereto (collectively, the "Projects").

Section 605. Withdrawals from Projects Account. Withdrawals from the Projects Account shall be made only (except as otherwise provided herein) for such purposes as described herein upon the execution of approved documentation in accordance with University disbursement procedures.

Section 606. Surplus in Projects Account. Upon payment of the costs of the Projects, any surplus remaining in the Projects Account shall be deposited in the Principal and Interest Account.

Section 607. Refunding of Refunded Obligations, Application of Moneys in the Refunding Account and Approval of Escrow Trust Agreement. The officers of the University and of the Board are hereby authorized to cause the defeasance, redemption and/or prepayment of the Refunded Obligations pursuant to the terms hereof. The ultimate selection of the Refunded Obligations, if any (which bonds or other obligations being refunded may be the entire series or a portion of a series of such Prior System Bonds or other obligations), shall be made in accordance with the provisions hereof pursuant to the Final Terms Approval if determined to be in the best interests of the University and will result in debt service savings for the University or will be otherwise advantageous to the University, as determined in the Final Terms Approval. The officers of the University and of the Board are hereby authorized and directed to use moneys on deposit in the Refunding Account to pay the principal of and premium, if any, and interest on the Refunded Obligations and/or to deposit funds with the Escrow Agent pursuant to an Escrow Agreement, and in either case to call such Refunded Obligations for redemption or payment on such dates as are reasonably practical. Any one or more of the President, the Vice President for Finance, the Secretary or other officers of the University or of the Board are hereby authorized and directed to execute any Escrow Agreement(s) in substantially the form presented to this meeting of the Board and attached hereto as Exhibit L, with such changes therein as shall be approved by such officers, such officers' signatures thereon being conclusive evidence of their approval and the University's approval thereof, and such officers are hereby authorized and directed to carry out the terms thereof in order to effectuate the payment, redemption and/or defeasance of the Refunded Obligations.

Section 608. Surplus in Refunding Account. Upon payment of the Refunded Obligations, any surplus remaining in the Refunding Account shall be deposited in the Principal and Interest Account.

ARTICLE VII

APPLICATION OF REVENUES

Section 701. Revenue Account. The University covenants and agrees that from and after the delivery of the Series 2020 Bonds, and continuing as long as any of the Series 2020 Bonds remain Outstanding and unpaid, all System Revenues other than the Student System Facilities Fee will be credited to the Revenue Account. The Revenue Account shall be administered and applied solely for the purposes and in the manner herein provided in this Resolution.

Section 702. Application of Moneys in Accounts. The University covenants and agrees that from and after the delivery of the Series 2020 Bonds, and continuing so long as any of the Bonds shall remain Outstanding and unpaid, the University will administer and allocate all of the moneys then held in the Revenue Account as follows:

(a) There shall be paid and credited prior to any date in a Fiscal Year on which principal or interest is due on any of the Bonds from Revenue Account to the Principal and Interest Account (and to any subaccounts in the Principal and Interest Account or any separate principal and interest accounts established with respect to Additional Bonds), to the extent necessary to meet at maturity or mandatory redemption thereof, the payment of all principal of and interest on the Bonds the following sums: (i) the amount of principal and/or interest that will become due on the Bonds on such payment date; and (ii) the amount of any fees of the respective paying agent and bond registrars in connection with the Bonds.

All amounts paid and credited to the Principal and Interest Account shall be expended and used by the University for the sole purpose of paying the interest on and principal of the Bonds as and when the same become due and the payment of any fees of the respective paying agent and bond registrars in connection with the Bonds.

If at any time the moneys in the Revenue Account shall be insufficient to make in full the payments and credits at the time required to be made by the University to the Principal and Interest Account (and any subaccounts in the Principal and Interest Account or separate principal and interest accounts established with respect to Additional Bonds established by the University) to pay the principal of and interest on the Bonds, the available moneys in the Revenue Account shall be divided among the Principal and Interest Account and such subaccount or separate principal and interest accounts in proportion to the respective principal amounts of each series of said Bonds at the time outstanding which are payable from the moneys in the Principal and Interest Account (or said subaccounts or separate principal and interest accounts).

(b) Subject to making the foregoing maximum deposits on the dates indicated, the University may at any time use the balance of excess funds in the Revenue Account on or before the final day of each Fiscal Year (i) to redeem outstanding Bonds as permitted pursuant to Article III hereof, or (ii) for any expenditures, including the payment of debt service, incurred in acquiring, constructing, improving, renovating, furnishing or equipping the existing System Facilities or acquiring, constructing, improving, renovating, furnishing or equipping any additional System Facilities, or (iii) for operation and maintenance of the System Facilities, or (iv) for any other lawful purpose.

(c) The money in the Principal and Interest Account shall be used solely for the payment of the principal of and interest on the Bonds and any fees of the Paying Agent and Bond Registrar in connection with the Bonds. In the event Additional Bonds are issued after the date hereof on a parity with Series 2020 Bonds, as herein provided, the bond resolution authorizing such Additional Bonds shall provide (i) for an identical flow of funds as heretofore prescribed, and (ii) that payments of principal be payable on November 1, of the appropriate year or years.

Section 703. Deficiency of Payments into Accounts. If at any time the System Revenues derived by the University from the operation of the System Facilities shall be insufficient to make any payment on the date or dates hereinbefore specified, the University will make good the amount of such deficiency by making additional payments or credits out of the first available System Revenues thereafter received by the University, such payments and credits being made and applied in the order hereinbefore specified in Section 702 of this Resolution.

If at any time the moneys in the Principal and Interest Account are not sufficient to pay the principal of and interest on the Bonds as and when the same become due, then the amount of such deficiency shall be made up by the transfer of funds from the Revenue Account.

Section 704. Transfer of Funds to Paying Agent and Bond Registrars. The officers of the University or of the Board are hereby authorized and directed to withdraw from the Principal and Interest Account, and, to the extent necessary to prevent a default in the payment of either principal of or interest on the Bonds, from the Revenue Account as provided in Sections 702 and 703 hereof, sums sufficient to pay the principal of the Bonds, at maturity or by mandatory redemption, and interest on the Bonds and the fees of the respective paying agent and bond registrars, as and when the same become due, and to forward such sums to the respective paying agent and bond registrar in available funds prior to dates when such principal, interest and fees of the respective paying agent and bond registrar will become due. All moneys deposited with the Paying Agent and Bond Registrar shall be deemed to be deposited in accordance with and subject to all of the provisions contained in this Resolution.

ARTICLE VIII

DEPOSIT AND INVESTMENT OF FUNDS

Section 801. Deposits of Moneys. Cash moneys in each of the accounts ratified and confirmed by and referred to in this Resolution shall be deposited in a bank or banks or other financial institution located in the State of Missouri which are members of the Federal Deposit Insurance Corporation, and all such bank deposits shall be continuously and adequately secured by the banks holding such deposits as provided by the laws of the State of Missouri.

Section 802. Investment of Funds. Moneys held in any account referred to in this Resolution may be invested by the University, pursuant to the provisions of the Tax Compliance Agreement, in direct obligations of, obligations of agencies of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America, certificates of deposit collateralized by the foregoing or in such other obligations as may be permitted by law including, without limiting the generality of the foregoing, perfected repurchase agreements and obligations of agencies or instrumentalities of the United States of America; provided, however, that no such investment shall be made for a period extending longer than to the date when the moneys invested may be needed for the purpose for which such account was created or other than as permitted by state statute. All interest on any investments held in any account shall accrue to and become a part of such account. In determining the amount held in any account under any of the provisions of this Resolution, obligations shall be valued as of the final day of each Fiscal Year at the cost thereof. If and when the amount held in any account shall be in excess of the amount required by the provision of this Resolution, the University shall direct that such excess be paid and credited to the Principal and Interest Account. Notwithstanding the foregoing, the terms of any Escrow Agreement shall control as to the proceeds of the Series 2020 Bonds deposited therein.

Section 803. Tax Covenant. The Board covenants and agrees that it will not take any action or permit any action to be taken or omit to take any action or permit the omission of any action reasonably within its control which action or omission will cause any Series 2020 Bond to be an "arbitrage bond" within the meaning of Section 148 of the Code or the interest on the Series 2020 Bonds to be included in gross income for federal income tax purposes or otherwise adversely affect the exemption of interest on the Series 2020 Bonds from federal and State of Missouri taxation. This covenant shall survive the termination of this Resolution.

Section 804. Tax Compliance Agreement. The President, the Vice President for Finance, Chief Financial Officer and Treasurer, the Assistant Vice President for Treasury and Real Estate, the Secretary and any other officer of the University or of the Board are hereby each individually authorized and directed to execute one or more Tax Compliance Agreements as to any Series 2020 Bonds issued as tax-exempt obligations on behalf of the University, in substantially the form presented to this meeting of the Board and attached hereto as Exhibit I, with such changes therein as shall be approved by such officer, such officer's signature thereon being conclusive evidence of his or her approval and the University's approval thereof.

ARTICLE IX

PARTICULAR COVENANTS OF THE UNIVERSITY

The University covenants and agrees as follows with each of the Owners of any of the Series 2020 Bonds that so long as any of the Series 2020 Bonds remain Outstanding and unpaid:

Section 901. Performance of Duties. The University will faithfully perform at all times any and all covenants, undertakings, stipulations, and provisions contained in this Resolution and in each and every Series 2020 Bond executed and delivered hereunder; that it will promptly pay or cause to be paid from the System Revenues pledged herein the principal of and interest on every Series 2020 Bond issued hereunder, on the dates and in the places and manner prescribed in such Series 2020 Bonds, and that it will, prior to the maturity of each installment of interest and prior to the maturity of each such Series 2020 Bond, at the times and in the manner prescribed herein, deposit or cause to be deposited, from the System Revenues pledged, the amounts of money specified herein. All Series 2020 Bonds, when paid, shall be cancelled and destroyed by the Paying Agent and Bond Registrar.

Section 902. Legal Authority. The University is duly authorized under the constitution and laws of the State of Missouri to create and issue the Series 2020 Bonds, it is lawfully qualified to pledge the System Revenues in the manner prescribed herein and has lawfully exercised such rights, all action on its part for the creation and issuance of the Series 2020 Bonds has been duly and effectively taken, and that the Series 2020 Bonds in the hands of the Owners thereof are and will be valid and enforceable special obligations of the University in accordance with their terms.

Section 903. Rate Covenant.

(a) System Facilities. The University will continuously operate and maintain the System Facilities (except as otherwise provided herein) and will continue to fix and maintain such reasonable rates and charges for the use of the System Facilities as will allow it to collect System Revenues sufficient to (i) provide and maintain the Revenue Account and the Principal and Interest Account in amounts adequate to promptly pay the principal of and interest on the Bonds as and when the same become due; and (ii) enable the University to have in each Fiscal Year System Revenues (excluding the Student System Facilities Fee) in an amount that will be not less than two hundred percent (200%) of the Annual Debt Service required to be paid by the University in such Fiscal Year on account of both principal of and interest on all Bonds at the time Outstanding.

(b) Student System Facilities Fee. The University will continuously maintain the Student System Facilities Fee in an amount at least equal to Maximum Annual Debt Service.

(c) Miscellaneous. Nothing in this Resolution contained shall be construed to prevent the continuous collection of reasonable rates, charges, and fees for the use of said System Facilities and facilities during the time the Series 2020 Bonds are outstanding or after the Series 2020 Bonds issued pursuant to this Resolution shall have been paid and redeemed, together with all interest thereon, nor to prevent at that time the pledge and application of said revenues to the payment of other bonds which may be issued by the University as otherwise allowed herein.

(d) Modification. The terms of this Section may be modified to include additional revenues and payment on other bonds or obligations and otherwise as set forth in Article XV hereof.

Section 904. Restrictions on Mortgage, Sale or Disposition of the System Facilities. The University will not mortgage, sell or otherwise dispose of the System Facilities or any material part thereof, or any extension or improvement thereof; provided, however, the University may permanently abandon the use of, or sell at fair market value, any of the System Facilities, provided that;

(a) It is in full compliance with all covenants and undertakings in connection with all of its Bonds then outstanding and payable from the System Revenues, or any part thereof;

(b) It certifies that the continued occupation or possession of any portion of the property to be abandoned or sold is no longer in the best interest of the University; and

(c) It certifies that the estimated System Revenues for the then next succeeding Fiscal Year satisfy the earnings test provided for in this Resolution governing the issuance of Additional Bonds.

Section 905. Operation of the System Facilities and Reserves. From and after the date when the Series 2020 Bonds shall be issued and delivered, the System Facilities shall be maintained by the University so long as any of the Series 2020 Bonds remain Outstanding. The University will not do or suffer any act or thing whereby the System Facilities or any part thereof might or could be impaired, and at all times it will, out of System Revenues prior to the date needed pursuant to Section 702(a) hereof, maintain, preserve, and keep the real and tangible property constituting the System Facilities and every part thereof in good condition, repair, and working order and maintain, preserve, and keep all structures and equipment pertaining thereto and every part and parcel thereof in good condition, repair, and working order, reasonable wear and tear and replacement for obsolescence excepted. The System Facilities and the facilities thereof and therein shall be operated and maintained out of System Revenues prior to the date needed pursuant to Section 702(a) hereof, under the direction and supervision of the Vice President for Finance, Chief Financial Officer and Treasurer (or such other officer as is selected by the Board or the Executive Committee), subject to the direction of the University, and all System Revenues shall be collected by said officer, through agents or employees thereunto duly authorized.

The University shall maintain, out of System Revenues prior to the date needed pursuant to Section 702(a) hereof, such reserves for repair and replacement of the System Facilities as it deems appropriate and shall review the sufficiency of such reserves on a reasonable basis from time to time. The University represents that there is no reasonable expectation that payments of principal or interest on the Bonds will be paid out of funds held in such reserves.

Section 906. Use, Operation and Maintenance. Subject to the provisions of Section 903 hereof, the Board will adopt and maintain, so long as any Bonds are Outstanding against the System Facilities, such rules, rental rates, fees, and charges for the use of the System Facilities as may be necessary to (a) assure maximum use and occupancy of said System Facilities, and (b) pay the costs of maintenance and operation, out of System Revenues prior to the date needed pursuant to Section 702(a) hereof, and, together with other pledged revenues, provide for the payment of the principal of and interest on the Bonds outstanding against the System Facilities.

Section 907. Insurance. The University will carry and maintain fire and extended coverage insurance upon all of the properties forming a part of the System Facilities insofar as the same are of an insurable nature, such insurance to be in an amount at least equal to the amount of the Bonds then outstanding. In the event of loss or damage, the University, with reasonable dispatch, will use the proceeds of such insurance in reconstructing and replacing the property damaged or destroyed, or, if such reconstruction or replacement be unnecessary, then the University will pay and deposit the proceeds of such insurance into the Revenue Account. The University in operating the System Facilities will carry and maintain public liability insurance, either commercial or self-insured, with respect to the System Facilities. In operating the System Facilities, the University shall maintain worker's compensation coverage, either commercial or self-insured, on all personnel that work on the System Facilities. The proceeds derived from such insurance shall be used in paying the claims on account of which such proceeds were received.

Section 908. Books, Records and Accounts. The University will keep accurate financial records and proper books and accounts in which complete and correct entries will be made of all dealings and transactions of or in relation to the System Facilities. Such accounts shall show the amount of revenues received from the System Facilities, the application of such revenues, and all financial transactions in connection therewith. Said books shall be kept by the University in accordance with generally accepted accounting principles.

Section 909. Annual Audit. Annually, within one hundred eighty (180) days after the end of the Fiscal Year, the University will cause an audit to be made of the System Facilities for the preceding Fiscal Year by a certified public accountant or firm of certified public accountants to be employed by the University for that purpose, reflecting in reasonable detail the financial condition and results of operation of the University, the System Facilities and any other pledged revenue sources; provided that such audit may be satisfied by including information regarding the revenues and expenses related to the System Facilities in the general audited financial statements of the University, with such explanatory information set forth in the notes to the audited financial statements as the University may deem appropriate.

As soon as possible after the completion of such annual audit, the University shall review such audit, and if any audit shall disclose that proper provision has not been made for all of the requirements of this Resolution and the law under which the Bonds are issued, the University covenants and agrees that it will promptly cure such deficiency and will promptly proceed to increase the rates, fees and charges to be charged for the use and services furnished by the System Facilities as may be necessary to adequately provide for such requirements.

Section 910. Owner's Right of Inspection. The Owner of at least ten percent (10%) of the Bonds Outstanding shall have the right at all reasonable times to a reasonable inspection of the System Facilities and all records, accounts and data relating thereto, and any such Owner shall be furnished all such information concerning said System Facilities and the operation thereof which he may reasonably request.

Section 911. Contract. The provisions of this Resolution shall constitute a contract between the University, acting by and through the Board, and the Owners of the Series 2020 Bonds herein authorized to be issued, and each of them, and the University hereby pledges its good faith to the performance of each and every covenant thereof.

ARTICLE X

ADDITIONAL BONDS

Section 1001. Prior Lien Bonds. The University covenants and agrees that so long as any of the Series 2020 Bonds remain Outstanding and unpaid, the University will not issue any Additional Bonds or other debt obligations payable out of the revenues of its System Facilities or any part thereof which are superior to the Series 2020 Bonds; provided, however, that nothing herein shall preclude the University from issuing any Additional Bonds or other debt obligations to refund, in whole or in part, the Series 2020 Bonds.

Section 1002. Parity Lien Bonds. The University may issue one or more additional series of revenue bonds or other indebtedness (collectively, "Additional Bonds") to finance the acquisition, construction, improvement, renovation, furnishing or equipping of System Facilities Additions or to refund indebtedness previously incurred to finance the acquisition, construction, improvement, renovation, furnishing or equipping of System Facilities or System Facilities Additions, to be secured by a parity lien on and ratably payable from the System Revenues pledged to the Bonds, provided that all of the following conditions are met:

(a) The University shall not be in default in the payment of principal of or interest on the Bonds or in making any payment at the time required to be made into the respective funds and accounts ratified and confirmed by and referred to in this Resolution; and

(b) The System Facilities Additions are made part of, if not already a part of, the System Facilities, and the System Revenues are pledged as security for the additional parity bonds and all Bonds Outstanding against the System Facilities; and

(c) The University obtains a certificate from its Controller (or other similar officer selected by the University) attesting to the accuracy of the calculations made by the University which shows both of the following:

(1) The System Revenues (excluding the amount of any Student System Facilities Fee designated by the University) derived by the University for the Fiscal Year immediately preceding the issuance of Additional Bonds, shall have been equal to at least two hundred percent (200%) of the Maximum Annual Debt Service required to be paid out of said System Revenues in any Fiscal Year following the date hereof on account of both principal and interest becoming due with respect to the Bonds. In determining the

System Revenues for the purpose of this subsection, System Revenues may be adjusted by adding thereto, in the event the University shall have made and put into effect any increase in the rates, charges or fees constituting System Revenues and such increase shall not have been in effect during all of the Fiscal Year immediately preceding the issuance of Additional Bonds, the estimated amount of the additional System Revenues which would have resulted from the increase in the rates, charges or fees constituting System Revenues during said preceding Fiscal Year had such rate, charge or fee increase been in effect for the entire period; and

(2) The estimated average annual System Revenues derived by the University (excluding the amount of any Student System Facilities Fee designated by the University) in connection with the issuance of such Additional Bonds for the two Fiscal Years immediately following the year in which the additional facilities for which the costs of acquisition, construction, improvement, renovation, furnishing or equipping of which is being financed by such Additional Bonds, are to be in operation, shall be equal to at least two hundred percent (200%) of the average Annual Debt Service required to be paid out of said System Revenues in any succeeding Fiscal Year following such operation on account of both principal and interest becoming due with respect to all Bonds, including the Additional Bonds proposed to be issued. In determining the amount of estimated System Revenues for the purpose of this subsection, System Revenues may be adjusted by adding thereto any estimated increase in System Revenues resulting from any increase in the rates, charges or fees constituting the System Revenues which are economically feasible, and reasonably considered necessary. The computation of estimates shall be made by an officer selected by the University.

Additional Bonds of the University issued under the conditions set forth in this Section shall stand on a parity with the Bonds and shall enjoy complete equality of lien on and claim against the System Revenues with the Bonds, and the University may make equal provision for paying said bonds and the interest thereon out of the Revenue Account and may likewise provide for the creation of reasonable principal and interest accounts for the payment of such Additional Bonds and the interest thereon out of moneys in the Revenue Account.

The University may also issue additional series of revenue bonds or provide for existing bonds or obligations to be secured by a parity lien on and to be ratably payable from the revenues pledged to the Bonds and otherwise as set forth in <u>Article XV</u> hereof.

Section 1003. <u>Junior Lien Bonds</u>. The University may issue one or more additional series of revenue bonds or other revenue obligations for System Facilities Additions payable out of the System Revenues, which are junior and subordinate to the Bonds provided at the time of the issuance of such additional revenue bonds or obligations all of the following conditions are met:

(a) The University shall not be in default in the payment of principal of or interest on the Bonds or in making any payment at the time required to be made into the respective funds and accounts ratified and confirmed by and referred to in this Resolution; and

(b) The System Facilities Additions financed with such debt are made a part of, if not already a part of, the System Facilities, and the System Revenues derived therefrom are pledged as security for the additional revenue bonds or other obligations and all Bonds outstanding against the System Facilities; and

(c) The University obtains a certificate from its Controller (or other similar officer selected by the University) attesting to the accuracy of the calculations made by the University which demonstrates that the System Revenues (excluding the amount of any Student System Facilities Fee designated by the University) derived by the University for the Fiscal Year immediately preceding the issuance of additional revenue bonds or other obligations which are junior and subordinate to the Bonds are equal to at least two hundred percent (200%) of the sum of (i) the average Annual Debt Service required to be paid out of such System Revenues in any succeeding Fiscal Year (other than the last year) on account of both principal and interest becoming due with respect to all revenue obligations payable out of the System Revenues, and (ii) the average Annual Debt Service required to be paid out of said System Revenues in any succeeding Fiscal Year on account of both principal and interest becoming due with respect to the additional junior lien bonds or other obligations proposed to be issued. In determining the System Revenues for the purpose of this subsection, System Revenues may be adjusted by adding thereto, in the event the University shall have made and put into effect any increase in the rates, charges or fees constituting System Revenues and such increase shall not have been in effect during all of the Fiscal Year immediately preceding the issuance of additional revenue bonds or other obligations, the estimated amount of the additional System Revenues which would have resulted from the increase in the rates, charges or fees constituting System Revenues during such preceding Fiscal Year had such rate increase been in effect for the entire period.

Such additional revenue bonds or obligations shall be junior and subordinate to the Bonds so that if at any time the University shall be in default in paying either interest on or principal of the Bonds, or if the University shall be in default in making any payments required to be made by it under the provisions of Section 702 of this Resolution, the University shall make no payments of either principal of or interest on such junior and subordinate revenue bonds or obligations until such default or defaults be cured. In the event of the issuance of any such junior and subordinate revenue bonds or obligations, the University, subject to the provisions aforesaid, may make provision for paying the principal of and interest on such revenue bonds or obligations out of moneys in the Revenue Account.

Section 1004. Refunding Bonds. The University shall have the right, if it shall find it desirable, to refund any of the Bonds then subject to redemption or becoming due, under the provisions of any law then available. Said Bonds or any part thereof may be refunded and the refunding bonds so issued shall stand on a parity and enjoy complete equality of pledge upon the System Revenues with any of the Bonds which are not refunded without complying with the provisions of Section 1002 hereof, as long as there are some debt service savings to the University by virtue of the refunding.

Section 1005. Types of Indebtedness. As long as the covenants of this Resolution applicable to such obligations are met, the Additional Bonds may be issued on either a fixed rate or a variable rate basis and may include derivative products or other features.

ARTICLE XI

DEFAULT AND REMEDIES

Section 1101. Acceleration of Maturity in Event of Default. The University covenants and agrees that if it shall default in the payment of the principal of or interest on any of the Bonds as the same becomes due, or if the University or its governing body or any of the officers, agents or employees thereof shall fail or refuse to comply with any of the provisions of this Resolution and such default shall continue for a period of thirty (30) days after written notice thereof to the University (unless such default cannot be cured with thirty (30) days, in which event the University shall have a reasonable time in which to cure such default) at any time thereafter and while such default shall continue, the Owners of twenty-five percent (25%) in principal amount of the Bonds then Outstanding may, by written notice to the University filed in the office of the Secretary of the Board or delivered in person to said Secretary, declare the principal of all Bonds then Outstanding to be due and payable immediately, and upon any such declaration given as aforesaid, all of said Bonds shall become and be immediately due and payable, anything in this Resolution or in the Bonds contained to the contrary notwithstanding. This provision, however, is subject to the condition that if at any time after the principal of said Outstanding Bonds shall have been so declared to be due and payable, all arrears of interest upon all of said Bonds, except interest accrued but not yet due on such Bonds, and all arrears of principal upon all of said Bonds shall have been paid in full, and all other defaults, if any, by the University under the provisions of this Resolution and under the provisions of the statutes of the State of Missouri shall have been cured, then and in every such case the Owners of fifty percent (50%) in principal amount of the Bonds then Outstanding, by written notice to the University given as hereinbefore specified, may rescind and annul such declaration and its consequences, but no such rescission or annulment shall extend to or affect any subsequent default or impair any rights consequent thereon.

Section 1102. Remedies. The provisions of this Resolution, including the covenants and agreements herein contained, shall constitute a contract between the University and the Owners of the Bonds, and the Owner or Owners of not less than ten percent (10%) in principal amount of the Bonds at the time Outstanding shall have the right, for the equal benefit and protection of all Owners of Bonds similarly situated to:

(a) By mandamus or other suit, action or proceedings at law or in equity to enforce his or their rights against the University and its officers, agents and employees, and to require and compel duties and obligations required by the provisions of this Resolution or by the Constitution and laws of the State of Missouri;

(b) By suit, action or other proceedings in equity or at law to require the University, its officers, agents and employees to account as if they were the trustees of an express trust; and

(c) By suit, action or other proceedings in equity or at law to enjoin any acts or things which may be unlawful or in violation of the rights of any Owner of the Bonds.

Section 1103. Limitation on Rights of Bondowners. No one or more Owners of the Bonds secured hereby shall have any right in any manner whatever by his, her or their action to affect, disturb or prejudice the security granted and provided for herein, or to enforce any right hereunder, except in the manner herein provided, and all proceedings at law or in equity shall be instituted, had and maintained for the equal benefit of all Owners of such Outstanding Bonds.

Section 1104. Remedies Cumulative. No remedy conferred herein upon the Owners of Bonds is intended to be exclusive of any other remedy, but each such remedy shall be cumulative and in addition to every other remedy and may be exercised without exhausting and without regard to any other remedy conferred herein. No waiver of any default or breach of duty or contract by the Owner of any Bond shall extend to or affect any subsequent default or breach of duty or contract or shall impair any rights or remedies thereon. No delay or omission of any Bondowner to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or acquiescence therein. Every substantive right and every remedy conferred upon the Owners of the Bonds by this Resolution may be enforced and exercised from time to time and as often as may be deemed expedient. In case any suit, action or proceedings taken by any Bondowner on account of any default or to enforce any right or exercise any remedy shall have been discontinued or abandoned for any reason, or shall have been determined adversely to such Bondowner, then, and in every such case, the University and the Owners of the Bonds shall be restored to their former positions and rights hereunder, respectively, and all rights, remedies, powers and duties of the Bondowners shall continue as if no such suit, action or other proceedings had been brought or taken.

Section 1105. <u>No Obligation to Levy Taxes</u>. The University does not have taxing power and nothing contained in this Resolution shall be construed as imposing on the University or the State any duty or obligation to levy any taxes either to meet any obligation incurred herein or to pay the principal of or interest on the Bonds.

ARTICLE XII

PAYING AGENT AND BOND REGISTRAR, REMARKETING AGENT AND TENDER AGENT

Section 1201. <u>Designation of Paying Agent and Bond Registrar</u>. U.S. Bank National Association, Saint Louis, Missouri, is hereby designated as the University's paying agent for the payment of principal of, redemption premium, if any, and interest on the Bonds and bond registrar with respect to the registration, transfer and exchange of Bonds (herein called the "Paying Agent and Bond Registrar"). The Paying Agent and Bond Registrar shall be paid the fees for its services in connection therewith that it has agreed to in writing with the University prior to the date hereof, which fees shall be paid as other current expenses of the System Facilities are paid.

Section 1202. <u>Successor Paying Agent and Bond Registrar</u>.

(a) Any corporation or association into which the Paying Agent and Bond Registrar may be converted or merged, or with which it may be consolidated, or to which it may sell or transfer its corporate trust business and assets as a whole or substantially as a whole, or any corporation or association resulting from any such conversion, sale, merger, consolidation or transfer to which it is a party, provided that such surviving corporation or association shall maintain an office in the State of Missouri, shall be and become the successor Paying Agent and Bond Registrar hereunder, without the execution or filing of any instrument or any further act, deed or conveyance on the part of any of the parties hereof, anything herein to the contrary notwithstanding.

(b) The Paying Agent and Bond Registrar may resign at any time by giving thirty (30) days' notice to the University. Such resignation shall not take effect until the appointment of a successor Paying Agent and Bond Registrar.

(c) The Paying Agent and Bond Registrar may be removed at any time by an instrument in writing delivered to the Paying Agent and Bond Registrar by the University. In no event, however, shall any removal of the Paying Agent and Bond Registrar take effect until a successor Paying Agent and Bond Registrar shall have been appointed.

(d) In case the Paying Agent and Bond Registrar shall resign or be removed, or be dissolved, or shall be in the course of dissolution or liquidation, or otherwise become incapable of acting as Paying Agent and Bond Registrar, or in case it shall be taken under the control of any public officer or officers, or of a receiver appointed by a court, a successor shall be appointed by the University. Every successor Paying Agent and Bond Registrar appointed pursuant to the provisions of this Section shall be, if there be such an institution willing, qualified and able to accept the duties of the Paying Agent and Bond Registrar upon customary terms, a bank or trust company within the State of Missouri, in good standing and having or being wholly owned by an entity having reported capital and surplus of not less than $25,000,000. Written notice of such appointment shall immediately be given by the University to the Owners of the Series 2020 Bonds. Any successor Paying Agent and Bond Registrar shall execute and deliver an instrument accepting such appointment and thereupon such successor, without any further act, deed or conveyance, shall become fully vested with all rights, powers, duties and obligations of its predecessor, with like effect as if originally named as Paying Agent and Bond Registrar, but such predecessor shall nevertheless, on the written request of the University, or of the successor, execute and deliver such instruments and do such other things as may reasonably be required to more fully and certainly vest and confirm in such successor all rights, powers, duties and obligations of such predecessor. If no successor Paying Agent and Bond Registrar has accepted appointment in the manner provided above within ninety (90) days after the Paying Agent and Bond Registrar has given notice of its resignation as provided above, the Paying Agent and Bond Registrar may petition any court of competent jurisdiction for the appointment of a temporary successor Paying Agent and Bond Registrar; provided that any Paying Agent and Bond Registrar so appointed shall immediately and without further act be superseded by a Paying Agent and Bond Registrar appointed by the University.

Section 1203. Remarketing Agreement; Remarketing Agent. This Section 1203 and its provisions regarding the Remarketing Agreement and the Remarketing Agent shall only be applicable in the event that any of the Series 2020 Bonds are issued as Variable Rate Bonds, and otherwise shall be of no force or effect. The President, the Vice President for Finance, Chief Financial Officer and Treasurer, the Assistant Vice President for Treasury and Real Estate, the Secretary and any other officer of the University or of the Board are hereby authorized and directed to execute one or more Remarketing Agreements on behalf of the University, in substantially the form presented to this meeting and attached hereto as Exhibit M, with such changes therein as shall be approved by such officers, such officers' signatures thereon being conclusive evidence of their approval thereof. Pursuant to the Remarketing Agreement, the University shall, with the consent of the Liquidity Provider (which consent shall not be unreasonably withheld), appoint the Remarketing Agent for the Series 2020 Bonds, subject to the conditions set forth in this Section. The Remarketing Agent shall designate to the Paying Agent and Bond Registrar its principal office and signify its acceptance of the duties and obligations imposed upon it by a written instrument or agreement delivered to the University, the Liquidity Provider and the Paying Agent and Bond Registrar.

Other than the initial Remarketing Agent or any affiliate, subsidiary or successor thereof, the Remarketing Agent shall be authorized by law to perform all the duties imposed upon it by this Resolution and (i) shall have a capitalization of at least **$100,000,000**, or (ii) shall, if the Series 2020 Bonds subject to the Remarketing Agreement are then rated by a Rating Service, (a) be a member of the National Association of Securities Dealers, Inc. and registered as a Municipal Securities Dealer under the Securities Exchange Act of 1934, as amended, or a national banking association, commercial bank or a trust company, and (b) if the Remarketing Agent is not a national banking association, commercial bank or trust company, be rated at least "Baa3/P3" by Moody's and/or "BBB-/A3" by S&P or otherwise qualified by the applicable Rating Service.

The Remarketing Agent may or shall resign and may be removed as Remarketing Agent with respect to the Series 2020 Bonds as provided in the Remarketing Agreement. In the event of the resignation or removal of the Remarketing Agent, the Remarketing Agent shall pay over, assign and deliver any moneys and Series 2020 Bonds held by it in such capacity to its successor or, if there is no successor, to the Paying Agent and Bond Registrar as hereinafter provided.

There shall be no requirement for a Remarketing Agent for any Variable Rate Bonds issued as, or following their conversion to, a Fixed Rate or an Auction Rate.

In the event that the University shall fail to appoint a Remarketing Agent, or in the event that the Remarketing Agent shall resign or be removed, or be dissolved, or if the property or affairs of the Remarketing Agent shall be taken under the control of any state or federal court or administrative body because of bankruptcy or insolvency, or for any other reason, and the University shall not have appointed its successor as Remarketing Agent, the Paying Agent and Bond Registrar, notwithstanding the provisions of the first paragraph of this Section, shall ipso facto be deemed to be the Remarketing Agent for all purposes of this Resolution until such appointment of the successor Remarketing Agent; provided, that the Paying Agent and Bond Registrar, in its capacity as Remarketing Agent, shall not be required to remarket Series 2020 Bonds.

The Paying Agent and Bond Registrar, within 30 days of the resignation or removal of the Remarketing Agent or the appointment of a successor Remarketing Agent, shall give notice thereof by registered or certified mail to the Liquidity Provider, to the applicable Rating Service and to the registered owners of the Series 2020 Bonds.

Section 1204. Tender Agent. This Section 1204 and its provisions regarding the Tender Agent shall only be applicable in the event that the Series 2020 Bonds are issued as Variable Rate Bonds, and otherwise shall be of no force or effect. The Paying Agent and Bond Registrar shall be the initial Tender Agent hereunder. The University may appoint a successor Tender Agent for the Series 2020 Bonds, subject to the conditions set forth herein. The Tender Agent shall designate to the Paying Agent and Bond Registrar its principal office and its acceptance of the duties and obligations imposed upon it hereunder by a written instrument of acceptance delivered to the University, the Remarketing Agent, the Liquidity Provider and Paying Agent and Bond Registrar under which the Tender Agent will agree, particularly:

(a) to hold all Series 2020 Bonds delivered to it hereunder in trust for the benefit of the respective owners which shall have so delivered such Series 2020 Bonds until moneys representing the purchase price of such Series 2020 Bonds shall have been delivered to or for the account of or to the order of such owners;

(b) to hold all moneys delivered to it for the purchase of Series 2020 Bonds in trust solely for the benefit of the person or entity which shall have so delivered such moneys as described in **Article IV** hereof,

(c) to keep such books and records as shall be consistent with customary industry practice and shall accurately reflect the transactions hereunder and to make such books and records available for inspection by the University and the Paying Agent and Bond Registrar at all reasonable times; and

(d) to deliver any notices required by this Resolution to be delivered by the Tender Agent.

Except as otherwise expressly provided herein, no delivery of Series 2020 Bonds to the Tender Agent shall constitute a redemption of the Series 2020 Bonds or any extinguishment of the debt evidenced thereby.

The Tender Agent shall (i) be a corporation duly organized under the laws of the United States of America or any state or territory thereof (ii) be authorized by law to perform all of the duties imposed upon it by this Resolution, (iii) have or be wholly owned by an entity having a combined capital stock, surplus and undivided profits of at least **$25,000,000**, and (iv) if the Series 2020 Bonds are then rated by a Rating Service and the Tender Agent is not a commercial bank or trust company, be rated at least "Baa3/P3" by Moody's and/or "BBB-/A3" by S&P or otherwise qualified by the applicable Rating Service. The Tender Agent shall resign as Tender Agent for the Series 2020 Bonds on the effective date of all Series 2020 Bonds bearing interest at a Fixed Rate or Term Rate to the Maturity Date and at any time prior thereto may resign and be discharged of the duties and obligations created by this Resolution by giving at least 60 days prior written notice by registered or certified mail to the University, the Paying Agent and Bond Registrar and the Remarketing Agent. The Tender Agent may be removed at any time, at the direction of the University, by an instrument signed by the University Representative, filed with the Tender Agent, the Paying Agent and Bond Registrar and the Remarketing Agent designating a successor Tender Agent.

Following the Fixed Rate Conversion Date or the Auction Rate Conversion Date of all the Series 2020 Bonds, there shall be no requirement for the services of a Tender Agent hereunder.

In the event of the resignation or removal of the Tender Agent, the Tender Agent shall pay over, assign and deliver any moneys and Series 2020 Bonds held by it in such capacity to its successor or, if there be no successor, to the Paying Agent and Bond Registrar as hereinafter provided.

In the event that the University shall fail to appoint a Tender Agent hereunder, or in the event that the Tender Agent shall resign or be removed, or be dissolved, or if the property or affairs of the Tender Agent shall be taken under the control of any state or federal court or administrative body because of bankruptcy or insolvency, or for any other reason, and the University shall not have appointed its successor as Tender Agent, the Paying Agent and Bond Registrar, notwithstanding the provisions of the third paragraph of this Section, shall ipso facto be deemed to be the Tender Agent for all purposes of this Resolution until the appointment by the University of the successor Tender Agent.

The Paying Agent and Bond Registrar, within 30 days of the resignation or removal of the Tender Agent or the appointment of a successor Tender Agent, shall give notice thereof by registered or certified mail to the Liquidity Provider, to the applicable Rating Service and to the registered owners of the Series 2020 Bonds.

The Tender Agent shall perform and comply with all of the terms and provisions on its part contained in this Resolution. The relationship between the Tender Agent and the University and the Remarketing Agent is and shall be that of agent and principal only, and nothing herein shall be construed to constitute the Tender Agent a trustee or other fiduciary for the University, the Remarketing Agent or the owner from time to time of the Series 2020 Bonds (except as expressly set forth in this Resolution).

The Paying Agent and Bond Registrar hereby accepts its appointment as the initial Tender Agent hereunder, upon the terms and conditions set forth in this Section. Any such successor Tender Agent shall accept its duties hereunder by a written certificate or tender agent agreement delivered to the Paying Agent and Bond Registrar, which certificate or agreement shall designate the principal office of the Tender Agent.

ARTICLE XIII

DEFEASANCE

Section 1301. Defeasance. When all of the Series 2020 Bonds shall have been paid and discharged, then the requirements contained in this Resolution, except as otherwise provided in Section 803 hereof and subject to Section 1403 hereof, and the pledge of System Revenues made hereunder and all other rights granted hereby shall terminate. Bonds shall be deemed to have been paid and discharged within the meaning of this Resolution or the Prior System Facilities Resolution under which such series of Bonds were issued, as the case may be, if the University shall have paid or provided for the payment of such Bonds in any one or more of the following ways:

(a) by paying or causing to be paid the principal of (including redemption premium, if any) and interest on such Bonds, as and when the same become due and payable;

(b) by delivering such Bonds to the Paying Agent and Bond Registrar for cancellation; or

(c) by depositing with the Paying Agent and Bond Registrar, or other bank located in the State of Missouri and having full trust powers, at or prior to the maturity or redemption date of said Bonds, in trust for and irrevocably appropriated thereto, cash and/or United States Government Obligations in an amount which, together with other moneys deposited therein, and with the interest to be earned thereon, without consideration of any reinvestment thereof, will be sufficient to pay or redeem (when redeemable) and discharge the indebtedness on such Bonds (including the payment of the principal of said Bonds, the redemption premium thereon, if any, and interest accrued to the date of maturity or redemption, as the case may be); provided that, if any such Bonds are to be redeemed prior to the maturity thereof, the University shall have elected to redeem such Bonds and notice of such redemption shall have been given in accordance with the requirements of this Resolution or the Prior System Facilities Resolution under which such series of Bonds were issued, as the case may be, or provision satisfactory to the Paying Agent and Bond Registrar is made for the giving of such notice.

Bonds may be defeased in advance of their maturity or redemption dates only with cash or United States Government Obligations pursuant to subsection (c) above, provided, however, that, if the final payment or redemption date with respect to such Bonds is more than 90 days after such deposit, such Bonds may only be considered defeased upon receipt by the Paying Agent and Bond Registrar of (a) a verification report prepared by independent certified public accountants, or other verification agent, satisfactory to the Paying Agent and Bond Registrar and the University, and (b) an Opinion of Bond Counsel addressed and delivered to the Paying Agent and Bond Registrar and the University to the effect that the payment of the principal of and redemption premium, if any, and interest on all of the Bonds of such series then Outstanding and any and all other amounts required to be paid under the provisions of this Resolution has been provided for in the manner set forth in this Resolution or the Prior System Facilities Resolution under which such series of Bonds were issued, as the case may be.

Any moneys and obligations which at any time shall be deposited with the Paying Agent and Bond Registrar or other bank by or on behalf of the University, for the purpose of paying and discharging any of the Bonds, shall be and are hereby assigned, transferred and set over to the Paying Agent and Bond Registrar or other bank in trust for the respective Owners of such Bonds, and such moneys shall be and are hereby irrevocably appropriated to the payment and discharge thereof. All moneys deposited with the Paying Agent and Bond Registrar or other bank shall be deemed to be deposited in accordance with and subject to all of the provisions contained in this Resolution or the Prior System Facilities Resolution under which such series of Bonds were issued, as the case may be.

ARTICLE XIV

AMENDMENTS

Section 1401. Amendments Not Requiring Consent of Bondowners. The Board may from time to time, without the consent of or notice to any of the Bondowners, amend this Resolution as shall not be inconsistent with the terms and provisions hereof, for any one or more of the following purposes:

(a) to cure any ambiguity or formal defect or omission in this Resolution or to make any other change not prejudicial to the Bondowners;

(b) to grant to or confer upon the Paying Agent and Bond Registrar or the Bondowners any additional rights, remedies, powers or authority that may be lawfully granted to or conferred upon the Bondowners or the Paying Agent and Bond Registrar or either of them;

(c) to more precisely identify the System Revenues or the System Facilities or to substitute or add property thereto or release property therefrom;

(d) to subject to this Resolution additional revenues, properties or collateral;

(e) to issue Additional Bonds as provided in Section 1002 hereof;

(f) to provide for the refunding or advance refunding of any Bond;

(g) to evidence the appointment of a successor paying agent or bond registrar;

(h) to comply with any future requirements of federal tax law required in the opinion of bond counsel to maintain the exclusion of the interest on one or more series of Bonds from gross income for purposes of federal income taxation;

(i) to secure a rating from a nationally recognized rating agency, provided such changes will not restrict, limit or reduce the obligation of the University to pay the principal of, redemption premium, if any, or interest on the Series 2020 Bonds as provided herein or otherwise materially adversely affect the Bondowner; or

(j) to provide for the changes described in Article XV hereof.

Section 1402. Amendments Requiring Consent of Bondowners. The rights and duties of the University, the Board and the Bondowners, and the terms and provisions of the Series 2020 Bonds or of this Resolution, may be amended or modified at any time in any respect by resolution of the Board with the written consent of the Owners of not less than sixty-five percent (65%) in aggregate principal amount of the Series 2020 Bonds then Outstanding, such consent to be evidenced by an instrument or instruments executed by such Owners and duly acknowledged or proved in the manner of a deed to be recorded, and such instrument or instruments shall be filed with the Secretary of the Board, but no such modification or alteration shall:

(a) extend the maturity of any payment of principal or interest due upon any Series 2020 Bond;

(b) effect a reduction in the amount which the University is required to pay by way of principal of or interest on any Series 2020 Bond;

(c) permit the creation of a lien on the System Revenues prior or equal to the lien of the Series 2020 Bonds, except as to Additional Bonds;

(d) permit preference or priority of any Series 2020 Bonds over any other Series 2020 Bonds; or

(e) reduce the percentage in principal amount of Series 2020 Bonds required for the written consent to any modification or alteration of the provisions of this Resolution.

Any provision of the Series 2020 Bonds or of this Resolution may, however, be amended or modified by resolution duly adopted by the Board or, at the direction of the Board, the Executive

Committee, at any time in any respect with the written consent of the Owners of all of the Series 2020 Bonds at the time Outstanding.

Any and all modifications made in the manner hereinabove provided shall not become effective until there has been filed with the Secretary of the Board a copy of the resolution of the Board hereinabove provided for, duly certified, as well as proof of consent to such modification by the Owners of not less than sixty-five percent (65%) in principal amount of the Series 2020 Bonds then Outstanding. It shall not be necessary to note on any of the Outstanding Bonds any reference to such amendment or modification.

Section 1403. Amendment of Prior System Facilities Resolutions.

(a) Each of the Prior System Facilities Resolutions shall be deemed an amendment of the Initial System Facilities Resolution and each Prior System Facilities Resolution which precedes it. Furthermore, any subsequent resolution of the Board and/or the Executive Committee providing for the issuance of Additional Bonds shall, to the extent that any amendments therein shall meet the requirements of Section 1401, be deemed an amendment of the Initial System Facilities Resolution, each Prior System Facilities Resolution which precedes it, and this Resolution. Specifically but without limitation, this Resolution shall be considered an amendment of each of the Prior System Facilities Resolutions.

(b) Regardless of the defeasance of any series of Prior System Bonds in accordance with the provisions of the Prior System Facilities Resolution pursuant to which such series of Prior System Bonds was issued and the release of the pledge of System Revenues with respect the thereto, such Prior System Facilities Resolution shall remain in force and effect as a component of the financing program for the System Facilities established in the Initial System Facilities Resolution, and any references herein to a Prior System Facilities Resolution shall be to such resolution as amended or supplemented by the subsequent Prior System Facilities Resolutions and this Resolution. Specifically but without limitation, the Initial System Facilities Resolution shall remain in full force and effect despite the defeasance of the Series 1993 Bonds and the release of the pledge of System Revenues to secure the Series 1993 Bonds pursuant to the terms of this Resolution in accordance with Section 1301 of the Initial System Facilities Resolution.

ARTICLE XV

POTENTIAL MODIFICATION OF: (1) SECURITY FOR BONDS; (2) BONDS AS TO WHICH SYSTEM REVENUES PROVIDE SECURITY; AND (3) PARITY LIEN BOND TEST

Section 1501. University Financing. The University created a financing program for the System Facilities in the Initial System Facilities Resolution, which financing program has been ratified and confirmed by each of the Prior System Facilities Resolutions and is hereby ratified and confirmed. The University reserves the right to add other facilities and properties to this financing program and to make the Bonds and the security for the Bonds part of a future facility financing program that may be adopted by the University.

Accordingly, notwithstanding any provision herein to the contrary, the University shall have the right to do any or all of the following (as specified by the University in a subsequent resolution of its Board or Executive Committee) provided that, upon the occurrence of such of the following as are to occur, the Bonds retain a rating from any national rating service then rating the Bonds at the request of the University at least equal to that in effect immediately prior to the occurrence of such of the following as are to occur:

(a) change the security for the Bonds (including, but not limited to, the type of revenues, fees and reserves pledged) to add a new type of revenues, fees and reserves to or delete a type of revenues, fees and reserves from the System Revenues or the System Facilities;

(b) add or delete new types of facilities or properties of the University to the System Facilities financed by Bonds;

(c) secure any other bonds or obligations of the University, whether issued prior to or subsequent to the date hereof, by the System Revenues as long as any other security for such other bonds or obligations also secure the Bonds; or

(d) issue Additional Bonds secured by the System Revenues and other security described in (a), (b) or (c) hereof without meeting the requirements of Section 1002 hereof.

Section 1501A. Springing Amendment of Section 1501 - University Financing.

(1) Upon satisfaction of the conditions to effectiveness set forth in subsection (2) of this Section 1501A, Section 1501 of the Resolution is amended (a) to delete "Accordingly," at the beginning of the second paragraph, capitalize the succeeding word "Notwithstanding" and to designate the portion of the existing provision beginning with such second paragraph thereof Subsection "(a)", and (b) to add a new Subsection "(b)" as follows:

(b) In addition to the rights reserved to the University in Subsection (a) of this Section 1501 and notwithstanding any provision herein to the contrary, the University shall have the right to do any or all of the following (as specified by the University in a subsequent resolution of its Board or Executive Committee):

(a) change the security for the Bonds (including, but not limited to, the type of revenues, fees and reserves pledged) to add a new type of revenues, fees and reserves to or delete a type of revenues, fees and reserves from the System Revenues or the System Facilities;

(b) add or delete new types of facilities or properties of the University to the System Facilities financed by Bonds;

(c) secure any other bonds or obligations of the University, whether issued prior to or subsequent to the date hereof, by the System Revenues as long as any other security for such other bonds or obligations also secure the Bonds; or

(d) issue Additional Bonds secured by the System Revenues and other security described in (a), (b) or (c) hereof without meeting the requirements of Section 1002 hereof;

provided that, upon the occurrence of such of the foregoing as are to occur, the University obtains a certificate from its Controller (or other similar officer selected by the University) attesting to the accuracy of the calculations made by the University which shows both of the following:

(1) The System Revenues (excluding the amount of any Student System Facilities Fee designated by the University) derived by the University for the Fiscal Year immediately preceding the occurrence of such of the foregoing as are to occur, shall have been equal to at least two hundred percent (200%) of the Maximum Annual Debt Service required to be paid out of said System Revenues in any Fiscal Year following the date hereof on account of both principal and interest becoming due with respect to the Bonds. In determining the System Revenues for the purpose of this subsection, System Revenues may be adjusted by adding thereto, in the event

the University shall have made and put into effect any increase in the rates, charges or fees constituting System Revenues and such increase shall not have been in effect during all of the Fiscal Year immediately preceding the occurrence of such of the foregoing as are to occur, the estimated amount of the additional System Revenues which would have resulted from the increase in the rates, charges or fees constituting System Revenues during said preceding Fiscal Year had such rate, charge or fee increase been in effect for the entire period; and

(2) The estimated average annual System Revenues derived by the University (excluding the amount of any Student System Facilities Fee designated by the University) in connection with the occurrence of such of the foregoing as are to occur for the two Fiscal Years immediately following the year in which the occurrence of such of the foregoing as are to occur, shall be equal to at least two hundred percent (200%) of the average Annual Debt Service required to be paid out of said System Revenues in any succeeding Fiscal Year following such operation on account of both principal and interest becoming due with respect to all Bonds, including any Additional Bonds proposed to be issued. In determining the amount of estimated System Revenues for the purpose of this subsection, System Revenues may be adjusted by (a) adding thereto any estimated increase in System Revenues resulting from any increase in the rates, charges or fees constituting the System Revenues which are economically feasible, and reasonably considered necessary, and (b) subtracting therefrom any estimated decrease in System Revenues resulting from any deletion of revenues, fees and reserves from the System Revenues due to the deletion of System Facilities; provided that along with any such deletion of such System Revenues such calculation shall also subtract the Annual Debt Service attributable to any Bonds to be refunded, redeemed, defeased or otherwise repaid in connection with such deletion. The computation of estimates shall be made by an officer selected by the University;

(2) If so determined by the University in its sole discretion, the amendments to the Resolution set forth above in this Section 1501A shall become effective upon the consent thereto of the holders of not less than 100% of the aggregate principal amount of the Bonds then Outstanding under the Resolution. By purchasing the Series 2020 Bonds and any Additional Bonds authenticated and delivered pursuant to the terms of the Resolution from the underwriter thereof, the initial beneficial owners of the Series 2020 Bonds and any Additional Bonds authenticated and delivered pursuant to the terms of the Resolution are deemed to consent for themselves and for all subsequent owners of the Series 2020 Bonds and any Additional Bonds authenticated and delivered pursuant to the terms of the Resolution, to the amendments to the Resolution set forth above in this Section 1501A.

Section 1502. Addition of System Facilities and System Revenues. Pursuant to and in furtherance of the foregoing provisions and of the provisions of the Prior System Facilities Resolutions, the University has determined to and does hereby add the facilities of the University constituting the Projects to be financed or refinanced with the proceeds of the Series 2020 Bonds to the System Facilities, all as more fully provided in Exhibit A hereto, has determined to and does hereby add the revenues of such facilities of the University to the System Revenues, all as more fully provided in Exhibit B hereto, and hereby pledges the System Revenues, as so amended, to the payment of the Series 2020 Bonds, all outstanding Prior System Bonds and any Additional Bonds issued in accordance with the terms of this Resolution and the Prior System Facilities Resolutions, on a parity basis.

ARTICLE XVI

MISCELLANEOUS PROVISIONS

Section 1601. Notices, Consents and Other Instruments by Bondowners. Any notice, consent, request, direction, approval, objection or other instrument required by this Resolution to be signed and executed by the Owners of the Bonds may be in any number of concurrent writings of similar tenor and may be signed or executed by such Bondowners in person or by agent appointed in writing. Proof of the execution of any such instrument or of the writing appointing any such agent and of the ownership of Bonds, if made in the following manner, shall be sufficient for any of the purposes of this Resolution, and shall be conclusive in favor of the University and the Paying Agent and Bond Registrar with regard to any action taken, suffered or omitted under any such instrument, namely:

(a) The fact and date of the execution by any person of any such instrument may be proved by a certificate of any officer in any jurisdiction who by law has power to take acknowledgments within such jurisdiction that the person signing such instrument acknowledged before such officer the execution thereof, or by affidavit of any witness to such execution.

(b) The fact of ownership of Bonds, the amount or amounts, numbers and other identification of Bonds, and the date of holding the same shall be proved by the registration books of the University maintained by the Paying Agent and Bond Registrar.

Section 1602. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this Resolution, or of the Series 2020 Bonds, shall ever be held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Resolution, or of the Series 2020 Bonds, but this Resolution, and the Series 2020 Bonds shall be construed and enforced as if such illegal or invalid provision had not been contained herein or therein.

Section 1603. Governing Law. This Resolution shall be governed exclusively by and construed in accordance with the applicable laws of the State of Missouri.

Section 1604. Sale of the Series 2020 Bonds, Approval of Final Terms, and Authorization of Bond Purchase Agreement. The University hereby ratifies and approves the acts of the officers and employees of the University in preparing and distributing a request for qualifications of underwriters dated January 2016, considering the responses thereto by potential underwriters, selecting a pool of qualified senior managing underwriters, interviewing such pool of selected underwriters on April 6, 2020 in anticipation of a negotiated public sale of the Series 2020 Bonds, all as deemed appropriate, and the recommendation of the Original Purchaser, together with any senior managers or co-managers as shall be determined by such officers. The University hereby determines that such process has provided reasonable notice to potential underwriters.

The Series 2020 Bonds shall be issued in accordance with the terms set forth in Exhibit F hereto; provided, however, that the final terms, form, details and incidents of the Series 2020 Bonds, all within the terms set forth in Exhibit F, shall be determined by the execution of the Final Terms Approval by any one or more of the President, the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate of the University on behalf of the University, and the execution thereof by such officer or officers, such officers' signatures thereon being conclusive evidence of their approval and the University's approval thereof. Subject to the limitations set forth in Exhibit F, the final terms with respect to the Series 2020 Bonds, including specifically but without limitation whether the Series 2020 Bonds shall be issued as Fixed Rate Bonds or Variable Rate Bonds, the Series designations, the purchase price for the Series 2020 Bonds, the principal amounts by maturity, the interest rate(s) of the Series 2020 Bonds, applicable optional, extraordinary optional, and/or mandatory sinking fund redemption provisions, and the discount and/or premium, if any, applicable to the sale of the Series 2020 Bonds, shall be approved pursuant to the Final Terms Approval.

The Final Terms Approval will conclusively evidence the approval by the parties executing same of such final terms. Upon completion and execution, the Final Terms Approval will be included in the Transcript of Proceedings relating to the issuance of the Bonds.

The University is hereby authorized to enter into one or more Bond Purchase Agreements with respect to the Series 2020 Bonds (the "Bond Purchase Agreement"), between the University and the Original Purchaser in substantially the form presented to this meeting and attached hereto as Exhibit J, pursuant to which the University agrees to sell the Series 2020 Bonds to the Original Purchaser upon the terms and conditions set forth therein, with such changes therein as shall be approved by the President, the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate of the University, which officers are hereby each individually authorized to execute such documents for and on behalf of the University, such officer's signature thereon being conclusive evidence of such officer's approval and the University's approval thereof.

Section 1605. Official Statement. The use of the Preliminary Official Statement, in substantially the form presented to this meeting of the Board and attached hereto as Exhibit K, by the University in connection with the sale of the Series 2020 Bonds, is hereby authorized and ratified, and the Board does hereby approve and consent to the preparation and use by the University and the Original Purchaser of said Preliminary Official Statement and a final Official Statement in substantially the form of the Preliminary Official Statement (together with the Preliminary Official Statement, collectively, the "Official Statement") in connection with the sale of the Series 2020 Bonds, with such changes therein as shall be approved by any one or more of the President, the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate of the University, and the execution thereof by such officers, such officers' signatures thereon being conclusive evidence of their approval and the University's approval thereof. For the purpose of enabling the Original Purchaser to comply with the requirements of Rule 15c2-12(b)(1) of the Securities and Exchange Commission, the University hereby deems the information regarding the University contained in the Preliminary Official Statement to be "final" as of its date, except for the omission of such information as is permitted by Rule 15c2-12(b)(1), and the appropriate officers of the University or of the Board are hereby authorized, if requested to provide the Original Purchaser a letter or certification to such effect and to take such other actions or execute such other documents as such officers in such officers' reasonable judgment deem necessary to enable the Original Purchaser to comply with the requirements of such Rule.

The University also agrees to provide the Original Purchaser, within seven (7) Business Days of the date of the sale of each series of Series 2020 Bonds sufficient copies of the final Official Statement to enable the Original Purchaser to comply with the requirements of Rule 15c2-12(b)(4) of the Securities and Exchange Commission and with the requirements of Rule G-32 of the Municipal Securities Rulemaking Board ("MSRB").

If, between the date of the Bond Purchase Agreement and (a) the time when the Official Statement is available to any person from the MSRB through its Electronic Municipal Market Access system ("EMMA"), or (b) ninety (90) days (if the Official Statement is not to be delivered to the MSRB) following the date of the closing for the Series 2020 Bonds, or (c) such earlier date that the Original Purchaser notifies the University that it is no longer required to deliver copies of the Official Statement, any event occurs which might or would cause the Official Statement to contain an untrue statement of a material fact or to omit to state a material fact necessary to make the statements therein, in the light of the circumstance under which they were made, not misleading, the University shall notify the Original Purchaser and if, in the opinion of the Original Purchaser, such event requires the preparation and publication of a supplement or amendment to the Official Statement, the University shall supplement or amend the Official Statement in a form and in a manner approved by the Original Purchaser. If the Official Statement is so supplemented or amended prior to the closing date, such approval by the Original Purchaser of a supplement or amendment to the Official Statement shall not preclude the Original

Purchaser from thereafter terminating the Bond Purchase Agreement, and if the Official Statement is so amended or supplemented prior to the closing date, the Original Purchaser may terminate the Bond Purchase Agreement by notification to the University at any time prior to the closing date if, in the reasonable judgment of the Original Purchaser, such amendment or supplement has or will have a material adverse effect on the marketability of the Series 2020 Bonds.

Section 1606. Continuing Disclosure. The University covenants and agrees for the benefit of the owners of the Series 2020 Bonds that it will comply with and carry out all of the provisions of, and the University is hereby authorized to enter into, one or more Continuing Disclosure Agreements with respect to the Series 2020 Bonds (the "Continuing Disclosure Agreement"), in substantially the form presented to this meeting and attached hereto as Exhibit N, upon the terms and conditions set forth therein, with such changes therein as shall be approved by the President, the Vice President for Finance, Chief Financial Officer and Treasurer or the Assistant Vice President for Treasury and Real Estate of the University, which officers are hereby each individually authorized to execute such documents for and on behalf of the University, such officer's signature thereon being conclusive evidence of such officer's approval and the University's approval thereof. Notwithstanding any other provision of this Resolution, failure of the University to comply with the Continuing Disclosure Agreement shall not be considered an event of default hereunder; however, any Bondholder or Beneficial Owner may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the University to comply with its obligations under this Section. For purposes of this Section, "Beneficial Owner" means any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2020 Bonds (including persons holding Series 2020 Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Series 2020 Bonds for federal income tax purposes.

Section 1607. Supplemental Action. The Executive Committee of the Board may adopt any resolution amendatory or supplemental hereto to make additions or changes to the terms of this Resolution prior to the issuance of the Series 2020 Bonds as may in their discretion be deemed necessary or advisable and advantageous to the University. All of the acts and undertakings of the Executive Committee and the officers of the University which are in conformity with the intent and purposes of this Resolution, whether heretofore or hereafter taken or done shall be and the same are hereby in all respects, ratified, confirmed and approved.

Section 1608. Further Authorization. The President, the Secretary, the Vice President for Finance, Chief Financial Officer and Treasurer, the Assistant Vice President for Treasury and Real Estate, and the other officers of the University or the Board are hereby authorized, empowered and directed to do all such acts and things and to execute, acknowledge and deliver all such documents, prior to or following the issuance of the Series 2020 Bonds, including, without limiting the generality of the foregoing, any bond purchase agreement requested by any purchaser of the Series 2020 Bonds, any closing certificate, non-arbitrage certificate or tax filings and/or other tax documentation in connection with the issuance of the Series 2020 Bonds, as may in his, her or their discretion be deemed necessary or desirable in order to carry out or comply with the terms and provisions of this Resolution and the Official Statement, and all of the acts and undertakings of such officers which are in conformity with the intent and purposes of this Resolution, whether heretofore or hereafter taken or done shall be and the same are hereby in all respects, ratified, confirmed and approved. The Board hereby approves the employment by the University of Janney Montgomery Scott LLC as its financial advisor in connection with the sale of the Series 2020 Bonds, of Thompson Coburn LLP, St. Louis, Missouri, as Bond Counsel with respect to the Series 2020 Bonds, of Gilmore & Bell, P.C., Kansas City, Missouri, as Disclosure Counsel to the University with respect to the Series 2020 Bonds. Said entities shall be compensated for their services as deemed appropriate by the officers of the University or of the Board.

Section 1609. Parties Interested Herein. Nothing in this Resolution expressed or implied is intended or shall be construed to confer upon, or to give to, any person or entity, other than the University, the Paying Agent and Bond Registrar and the registered Owners of the Bonds, any right, remedy or claim under or by reason of this Resolution, or any covenant, condition or stipulation hereof, and all covenants, stipulations, promises and agreements in this Resolution contained by and on behalf of the University shall be for the sole and exclusive benefit of the University, the Paying Agent and Bond Registrar and the registered Owners of the Bonds.

Section 1610. Notices.

(a) Unless otherwise expressly specified or permitted by the terms hereof, all notices, consents or other communications required or permitted hereunder shall be deemed sufficiently given or served if given in writing, mailed by first class mail, postage prepaid and addressed as follows:

(i) If to the University, addressed to it at:

University of Missouri System
118 University Hall
Columbia, Missouri 65211
Attention: Vice President for Finance, Chief Financial Officer and Treasurer

with separate copies to the Assistant Vice President for Treasury and Real Estate and the Controller.

(ii) If to the Paying Agent and Bond Registrar, addressed to it at:

U.S. Bank National Association
One U.S. Bank Plaza
505 N. 7th Street, 3rd Floor
Attention Corporate Trust
Mailstop: SL-MO-T3CT
St. Louis, Missouri 63101.

(iii) If to the registered Owner of a Series 2020 Bond, addressed to such Owner at the address shown on the book of the Paying Agent and Bond Registrar kept pursuant hereto.

(iv) If the Series 2020 Bonds are issued as Variable Rate Bonds, to the Tender Agent at the address set forth above for the Paying Agent and Bond Registrar, to the Initial Liquidity Provider at the address set forth above for the University, and to the Remarketing Agent at the notice address therefor set forth in the Remarketing Agreement.

(b) The parties listed above may from time to time by notice in writing to the others designate a different address or addresses for notices hereunder.

Section 1611. Effective Date. This Resolution shall take effect and be in full force immediately from and after its adoption by the Board.

ADOPTED by the Board of Curators of the University of the State of Missouri, this 9th day of April, 2020.

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CERTIFICATE

STATE OF MISSOURI)
) SS.
COUNTY OF BOONE)

I, the undersigned, Secretary of the Board of Curators of the University of the State of Missouri, hereby certify that the above and foregoing constitutes a full, true and correct copy of a Resolution authorizing the issuance of System Facilities Revenue Bonds, Series 2020, of the University, duly adopted by the Board of Curators of the University of the State of Missouri at a meeting duly held on April 9, 2020; that said Resolution has not been modified, amended or repealed, and is in full force and effect as of the date hereof; and that the same is on file in my office.

WITNESS my hand and official seal this ___ day of ________, 2020.

____
Cindy S. Harmon, Secretary of the Board of Curators of the University of the State of Missouri

(Seal)

Exhibit A
to
Resolution

SYSTEM FACILITIES

Columbia Campus

1. Bookstore -- the bookstore presently located in MU Student Center.

2. Dining -- the food service outlets at the Memorial Union, MU Student Center, various housing units, and selected satellite locations.

3. Housing -- the residence halls, dining facilities, and apartments, including without limitation the following facilities: Bingham Cafeteria, Bluford, Brooks, College Avenue, Defoe, Gateway, Gillett, Graham, Hatch, Hudson, Johnston, Mark Twain, Manor House Apartments, McDavid, Mid-Campus (Hawthorn, Galena and Dogwood), Pershing Cafeteria, Rollins Cafeteria, Schurz, Southwest Campus (North, Center and South), Tara Apartments, The Mark on 5th Street, The Restaurants at Southwest, Virginia Avenue (Respect, Responsibility, Excellence and Discovery), Virginia Avenue South, Plaza 900 Cafeteria and Wolpers.

4. Multi-Purpose -- the Hearnes Multi-Purpose Building.

5. Parking -- the system of parking facilities known as the Parking and Transportation Services and residence hall parking.

6. Printing and Publications -- the Printing and Publications Facility located at 2800 Maguire.

7. Recreational -- the Student Recreational Facility and the intramural athletic facility known as Stankowski Field.

8. Student Centers -- the Memorial Union and MU Student Center.

9. Athletics – the Memorial Stadium, the playing surface therein known as Faurot Field, and the Mizzou Football South End Zone Facility, the indoor athletic practice facility known as the Daniel J. Devine Pavilion, the Mizzou Athletics Training Complex, the Taylor Stadium baseball facility, the Mizzou Softball Stadium, the Mizzou Tennis Complex, the University-operated facilities at Old Hawthorne Golf Club, and the Audrey J. Walton Track-Soccer Stadium.

10. Campus Utilities – the cogeneration power plant, campus chilled water plant and related distribution equipment, accessories, fittings, parts and materials, and storm sewer replacement, each located in Columbia, Missouri on the Columbia Campus of the University.

11. Research Reactor – the existing University of Missouri Research Reactor Center and related facilities, equipment and materials located on the Columbia Campus of the University.

12. Arena -- the Mizzou Arena sports facility and related facilities on the Columbia Campus of the University.

13. Laboratory -- laboratory and related facilities at the medical school and the Swine Research Center on the Columbia Campus of the University.

14. University Health System – the University Health System, including in particular University Hospital and Ellis Fischel Cancer Center therein on the Columbia Campus; Women's and Children's Hospital located in Columbia; Missouri Orthopaedic Institute located in Columbia; Missouri Psychiatric Center located in Columbia; the Health System's various health care clinics and related facilities; and the facilities of University Physicians, the organized practice plan for the faculty of the School of Medicine , but specifically not including the School of Medicine, the Sinclair School of Nursing and the School of Health Professions.

Kansas City Campus

1. Bookstore -- the bookstore located in the University Center.

2. Housing -- the Oak Street Hall, Johnson Hall and Hospital Hill student residence halls.

3. Parking -- the various parking facilities on both the Volker and Hospital Hill campuses.

4. Recreational -- the Swinney Recreation Center.

5. Student Center -- the University Center and the Atterbury Student Success Center.

6. Campus Utilities -- central utilities performance improvements on the Kansas City Campus of the University.

Missouri S&T Campus

1. Bookstore -- the bookstore located in the Havener Center.

2. Housing -- the residence halls, dining facilities, and apartments including the following facilities: Miner Village, Residential Commons, Rolla Suites, University Commons and Thomas Jefferson.

3. Multi-Purpose/Recreational -- the Gale Bullman Multi-Purpose Building/Student Recreation Center.

4. Parking -- the various parking facilities.

5. Student Center -- the Havener Center.

St. Louis Campus

1. Bookstore -- the bookstore located in the Millenium Student Center.

2. Housing -- the Oak Hall, Villa Hall and Mansion Hill student residence halls.

3. Parking -- the various parking facilities.

4. Recreational -- the Mark Twain Center and Student Wellness Center.

5. Student Center -- the Millenium Student Center.

6. Telecommunications -- Computer and telephone wiring and cabling equipment throughout the St. Louis Campus.

All Campuses

1. Educational and Administrative -- facilities of the University used for classroom, educational, research, office, administrative or other similar purposes.

Exhibit B
to
Resolution

SYSTEM REVENUES

Columbia Campus

Operating Units

Gross income and revenues derived from the ownership and/or operation of the following facilities described in Exhibit A:

1. Bookstores
2. Dining
3. Housing
4. Parking
5. Student Centers
6. University Health System; including, without limitation, the revenues of the University Physicians' Medical Practice Plan, as more fully described on Exhibit A

Student Fees and Usage Surcharges

Gross income and revenues derived from the imposition and collection of the usage fees related to the following facilities described in Exhibit A:

1. Multi-Purpose Building Fee -- Multi-Purpose
2. Stadium Surcharges -- Stadium
3. Student Recreational Facility Fee – Recreational
4. Student Activities Fee – Recreational
5. Student Union Fee – Student Centers

Kansas City Campus

Operating Units

Gross income and revenues derived from the ownership and/or operation of the following facilities described in Exhibit A:

1. Bookstore
2. Housing

3. Parking

4. Student Center

Student Fees and Usage Surcharges

Gross income and revenues derived from the imposition and collection of the usage fees related to the following facilities described in Exhibit A:

1. Recreational Center Fee -- Recreational

2. University Center Building Fee -- Student Center

Missouri S&T Campus

Operating Units

Gross income and revenues derived from the ownership and/or operation of the following facilities described in Exhibit A:

1. Bookstore

2. Housing

3. Parking

4. Student Center

Student Fees and Usage Surcharges

Gross income and revenues derived from the imposition and collection of the usage fees related to the following facilities described in Exhibit A:

1. Intramural Facility Fee -- Multi-Purpose/Recreational

2. University Center Building Fees -- Havener Center

St. Louis Campus

Operating Units

Gross income and revenues derived from the ownership and/or operation of the following facilities described in Exhibit A:

1. Bookstore

2. Housing

3. Parking

4. Student Center

5. Wellness Center

Student Fees and Usage Surcharges

Gross income and revenues derived from the imposition and collection of the usage fees related to the following facilities described in Exhibit A:

1. Recreational Facility Fee -- Multi-Purpose/Recreational

2. University Center Building Fee – Millenium Student Center

3. Wellness Center Fee – Student Wellness Center

Exhibit C
to
Resolution

OUTSTANDING PRIOR SYSTEM BONDS

Series	Original Principal Amount	Principal Amount Outstanding as of April 9, 2020
Variable Rate Demand System Facilities Refunding Revenue Bonds, Series 2007B	$ 102,250,000	$ 82,540,000
System Facilities Revenue Bonds, Series 2009A	256,300,000	256,300,000
System Facilities Revenue Bonds, Series 2009B	75,760,000	15,100,000
System Facilities Revenue Bonds, Series 2010	252,285,000	252,285,000
System Facilities Revenue Bonds, Series 2011	54,125,000	27,975,000
System Facilities Revenue Bonds, Series 2013A	11,325,000	5,925,000
Taxable System Facilities Revenue Bonds, Series 2013B	150,000,000	150,000,000
System Facilities Revenue Bonds, Series 2014A	294,510,000	240,750,000
Taxable System Facilities Revenue Bonds, Series 2014B	150,000,000	150,000,000
Total	$1,346,555,000	$1,180,875,000

Exhibit D
to
Resolution

PROJECTS

The further determination of Projects to be financed by a series of Bonds within those set forth below may be made in conjunction with pricing and execution of the Final Terms Approval.

Columbia Campus

1. NextGen Precision Health Institute located along Hospital Drive at the corner of Virginia Avenue, consisting of an approximately 265,000 gross square foot, five story facility.

All Campuses

1. Acquisition, construction, renovation, furnishing and equipping of the System Facilities and various facilities and equipment of the University, including housing, dining, bookstore, parking, recreational, athletic, health system, student center, laboratory, classroom, educational, research, office, administrative and other similar facilities.

Exhibit E
to
Resolution

REFUNDED OBLIGATIONS

The final determination of which, if any, of the following Prior System Bonds or other outstanding obligations issued by the University may be defeased and/or refunded with the proceeds of a series of Bonds (which may include the determination not to refund or defease any such bonds or other obligations, and any bonds or other obligations being refunded may be the entire series or a portion of a series of such Prior System Bonds or other obligations) may be made in conjunction with pricing and the Final Terms Approval.

- Variable Rate Demand System Facilities Refunding Revenue Bonds, Series 2007B (any such bond ultimately selected for refunding being referred to as the “Refunded Series 2007B Bonds”)

- System Facilities Revenue Bonds, Series 2009B (any such bond ultimately selected for refunding being referred to as the “Refunded Series 2009B Bonds”)

- System Facilities Revenue Bonds, Series 2011 (any such bond ultimately selected for refunding being referred to as the “Refunded Series 2011 Bonds”)

- System Facilities Revenue Bonds, Series 2014A (any such bond ultimately selected for refunding being referred to as the “Refunded Series 2014A Bonds”)

- Commercial Paper Notes, Series A-1, A-2, A-3 and A-4 (Tax-Exempt) (any such obligation ultimately selected for refunding being referred to as the “Refunded Series A Commercial Paper Notes”)

- Commercial Paper Notes, Series B-4 (Taxable) (any such obligation ultimately selected for refunding being referred to as the “Refunded Series B Commercial Paper Notes”)

To the extent that any proceeds of the Series 2020 Bonds are for any reason not expended for the refunding of the Refunded Obligations or the payment of costs of issuance of the Series 2020 Bonds, such proceeds shall be transferred to the Principal and Interest Account.

Exhibit F
to
<u>Resolution</u>

<u>TERMS OF SERIES 2020 BONDS</u>

The Series 2020 Bonds shall be issued in accordance with the following terms and parameters in one or more series with such series designations and bearing interest at fixed rates of interest on a taxable or tax-exempt basis payable in such manner as shall be determined in the Final Terms Approval referred to in <u>Section 201</u> and <u>Section 1604</u> of the Resolution, if determined in the Final Terms Approval to be in the best interests of the University:

<u>System Facilities Revenue Bonds, Series 2020</u>

A. <u>Original Principal Amount of the New Money Series 2020 Bonds</u>: Series 2020 Bonds, the proceeds of which shall be used to finance the costs of the Projects, pay capitalized interest and pay costs of issuance, in an aggregate principal amount not to exceed $180,000,000, with the designation thereof between respective Series of Series 2020 Bonds to be as determined in the Final Terms Approval.

B. <u>Original Principal Amount of the Refunding Series 2020 Bonds</u>: Series 2020 Bonds, the proceeds of which shall be used to refund the Refunded Obligations and pay costs of issuance, in an aggregate principal amount not to exceed $585,000,000, with the designation thereof between respective Series of Series 2020 Bonds to be as determined in the Final Terms Approval; provided, however, that the determination whether to issue refunding Series 2020 Bonds shall be made in the Final Terms Approval if determined to be in the best interests of the University.

B. <u>Original Issue Premium</u>: Original Issue Premium not to exceed 20.00% of the aggregate principal amount of the Series 2020 Bonds.

C. <u>Original Issue Discount</u>: Original Issue Discount not to exceed 5.00% of the principal amount of the Series 2020 Bonds.

D. <u>Purchase Price/Underwriter's Discount</u>: Aggregate underwriter's discount not in excess of 0.75% of the original principal amount of the Series 2020 Bonds (excluding original issue premium and discount).

E. <u>Maximum Interest Rate</u>: Maximum interest rate of interest borne by any maturity of fixed rate tax-exempt or taxable Series 2020 Bonds not in excess of 5.00%.

F. <u>True Interest Cost</u>: True interest cost not to exceed 5.00%.

G. <u>Final Maturity Date</u>: Final maturity date not later than forty (40) years from date of issuance, with such principal amortization and such mandatory and extraordinary redemption provisions as shall be determined in the Final Terms Approval.

H. <u>Optional Redemption Provisions</u>: Optional redemption on a par and/or declining premium basis as shall be determined in the Final Terms Approval. As to any Series 2020 Bonds determined to be optionally redeemable on a par and/or declining premium basis, such Series 2020 Bonds shall be subject to redemption at par no later than November 1, 2030. As to any Series 2020 Bonds determined to be issued on a taxable basis, such Series 2020 Bonds may be subject to optional redemption at the election of the University at a “Make-Whole Redemption Price,” plus accrued and unpaid interest on the Series 2020 Bonds to be redeemed on the date fixed for redemption.

Exhibit G
to
Resolution

FORM OF FINAL TERMS APPROVAL

In connection with the issuance by The Curators of the University of Missouri, a duly incorporated and created body politic and state educational institution existing under the Constitution and laws of the State of Missouri (the "University"), of its System Facilities Revenue Bonds, Series 2020 (the "Series 2020 Bonds" or the "Bonds"), the following terms as to the Series 2020 Bonds are hereby approved pursuant to Sections 201 and 1604 of the resolution (the "Resolution") adopted by the Board on April 9, 2020, as follows (section references are to the cited section of the Resolution):

1. All capitalized terms used in this Final Terms Approval that are not otherwise defined herein shall have the meanings ascribed to them in the Resolution.

2. The Series 2020 Bonds shall be issued on a [taxable/tax-exempt] basis. The Series 2020 Bonds shall be designated as the "[Taxable] System Facilities Revenue Bonds, Series 2020[_]", "[Taxable] System Facilities Revenue Bonds, Series 2020[_]" and "[Taxable] System Facilities Revenue Bonds, Series 2020[_]".

3. Section 201. Authorization of the Series 2020 Bonds – Original Aggregate Principal Amounts. The Series 2020 Bonds shall be issued in the original principal amount of ________________ Dollars ($___________).

4. Section 201. Authorization of the Series 2020 Bonds – Interest Mode. The Series 2020 Bonds shall be issued as [Fixed/Variable] Rate Bonds. [If issued as Variable Rate Bonds, the initial interest rate mode shall be the _________ mode.]

5. Section 203. Description of the Series 2020 Bonds – Maturity Schedules.

(a) All of the Series 2020 Bonds shall be dated as of the date of their original issuance and delivery, shall become due on November 1 in the years (subject to redemption prior to maturity as provided in Article III of the Resolution), and shall bear interest at the respective rates per annum from the date of original issuance of the Series 2020 Bonds as follows:

SERIES 2020 BONDS

Maturity November 1	Principal Amount	Rate of Interest
	$	%
*		

* Term Bond; final maturity.

(b) The latest maturity date of any Series 2020 Bonds is November 1, 20__, which date is not later than either (i) November 1, 20__, or (ii) the date which is forty (40) years from the date of issuance of the Series 2020 Bonds.

6. Maximum Interest Rate for the Series 2020 Bonds: The Maximum rate of interest borne by any single maturity of (1) fixed rate tax exempt Series 2020 Bonds is _______%, and (2) fixed rate taxable Series 2020 Bonds is _______%.

7. True Interest Cost: The True Interest Cost of the Series 2020 Bonds is ______%.

8. Section 208. Execution, Registration and Delivery of the Series 2020 Bonds – Purchase Price. The purchase price of the Series 2020 Bonds by the Original Purchaser is $________, which is ___% of the original principal amount of the Series 2020 Bonds.

9. Section 301. Optional Redemption of Series 2020 Bonds.

The Series 2020 Bonds shall be subject to optional redemption prior to maturity. The optional redemption provisions applicable to the Series 2020 Bonds are as follows [SELECT AS APPROPRIATE]:

[At the option of the University, the Series 2020 Bonds maturing on November 1, 20[__] and thereafter may be called for redemption and payment prior to maturity, on and after November 1, 20[__] in whole or in part at any time in any order of maturity or sinking fund installment as directed by the University (Series 2020 Bonds of less than all of a single maturity to be selected by lot in multiples of $5,000 by the Paying Agent and Bond Registrar in such equitable manner as it shall designate), at the redemption price of 100% of the principal amount thereof, plus accrued interest thereon to the redemption date.]

or

[The Series 2020 Bonds are subject to optional redemption at the election of the University in whole or in part (if in part, such Series 2020 Bonds to be redeemed will be selected from such maturities as are determined by the University in its discretion and within each maturity pro rata, as described below), at the "Make-Whole Redemption Price," plus accrued and unpaid interest on the Series 2020 Bonds to be redeemed on the date fixed for redemption.

The "Make-Whole Redemption Price" is the greater of (i) one hundred percent (100%) of the principal amount of the Series 2020 Bonds to be redeemed or (ii) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of such Series 2020 Bonds to be redeemed, not including any portion of those payments of interest accrued and unpaid as of the date on which such Series 2020 Bonds are to be redeemed, discounted to the date on which the Series 2020 Bonds are to be redeemed on a semi-annual basis, assuming a 360-day year consisting of twelve 30-day months, at the "Treasury Rate" defined below, plus __ basis points.

"Treasury Rate" means, with respect to any redemption date for a particular Series 2020 Bond, the yield to maturity as of such redemption date of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two Business Days prior to the redemption date (excluding inflation indexed securities) (or, if such Statistical Release is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to the maturity date of the Series 2020 Bond to be redeemed; provided, however, that if the period from the redemption date to such maturity date is less than one year, the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year will be used.

If less than all of the Series 2020 Bonds of a maturity shall be called for redemption, such Series 2020 Bonds of a maturity shall be redeemed in part, on a pro rata basis; provided that, so long as the Series 2020 Bonds are held in book-entry only form, the selection for redemption of such Series 2020 Bonds of a maturity shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata basis, the Series 2020 Bonds will be selected for redemption in accordance with DTC procedures, by lot or in such other manner as is in accordance with applicable DTC operational arrangements.]

10. Section 302. Mandatory Sinking Fund Redemption of Series 2020 Bonds. The Series 2020 Bonds [shall/shall not] be subject to mandatory sinking fund redemption prior to maturity. The mandatory sinking fund redemption provisions applicable to the Series 2020 Bonds are as follows [SELECT AS APPROPRIATE]:

[**There are no Term Bonds subject to mandatory sinking fund redemption prior to maturity.**]

[**The Term Bonds identified in Section 302 are subject to mandatory sinking fund redemption pursuant to Section 302 on the dates and in the amounts as follows:**]

11. Section 601. Disposition of Series 2020 Bond Proceeds and Other Moneys. The proceeds received from the sale of the Series 2020 Bonds, including any accrued interest thereon, **[together with certain other moneys of the University,]** shall be deposited simultaneously with the delivery of the Series 2020 Bonds as follows:

(a) The accrued interest, if any, received from the sale of the Series 2020 Bonds shall be deposited in the Principal and Interest Account;

(b) The sum of $_____________ received from the proceeds of the sale of the Series 2020 Bonds shall be deposited in the Costs of Issuance Account; and

(c) All remaining proceeds received from the sale of the Series 2020 Bonds in the amount of $______________ [and $_________ from other available moneys of the University] shall be deposited in the Projects Account.

12. Determinations. The undersigned has determined that the issuance of the Bonds is in the best interests of the University based on market conditions and other considerations and will result in debt service savings, debt service restructuring and will otherwise be advantageous to the University, and that the terms set forth in this Final Terms Approval are within the limitations of the terms of the Series 2020 Bonds as set forth in Exhibit F to the Resolution.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK;
ADOPTION/EXECUTION FOLLOWS ON SUCCEEDING PAGE.]

EXECUTION OF FINAL TERMS APPROVAL

The undersigned is an officer, or are officers, of the University designated in the Resolution as authorized to execute this Final Terms Approval, and, as such, hereby approve and adopt the foregoing final terms as the act and deed of the University in accordance with the provisions and requirements of the Resolution.

The undersigned represents that he (or they) consulted with the President and/or the Chair of the Finance Committee of the Board regarding the final terms herein prior to execution of this Final Terms Approval and said other officer concurred with the said final terms.

Executed and delivered this ___ day of _____________, 2020.

THE CURATORS OF THE UNIVERSITY OF MISSOURI

By: ____
[Ryan Rapp, Vice President for Finance, Chief Financial Officer and Treasurer]

By: ____
[Kevin Hogg, Assistant Vice President for Treasury and Real Estate]

[NAME/TITLE OF AUTHORIZED OFFICER(S) EXECUTING THE FINAL TERMS APPROVAL TO REMAIN, AND THOSE NOT EXECUTING TO BE REMOVED.]

Exhibit H
to
Resolution

FORM OF SERIES 2020 BOND

UNITED STATES OF AMERICA
STATE OF MISSOURI

Registered No. R-___	Registered $________

THE CURATORS OF THE UNIVERSITY OF MISSOURI
[TAXABLE] SYSTEM FACILITIES REVENUE BOND
SERIES 2020[_]

Rate of Interest	Maturity Date	Dated Date	CUSIP Number
____%	November 1, ____	_________, 2020	_____

REGISTERED OWNER: ____

PRINCIPAL AMOUNT: ____ DOLLARS

THE CURATORS OF THE UNIVERSITY OF MISSOURI, a duly incorporated and created body politic and state educational institution existing under the Constitution and laws of the State of Missouri (the "University"), acting through the Board of Curators of the University of the State of Missouri (the "Board"), the governing body of the University, hereby acknowledges to owe and, for value received, hereby promises to pay to the Registered Owner shown above, or registered assigns, but solely out of the Principal and Interest Account as hereinafter provided, the Principal Amount shown above on the Maturity Date shown above, and to pay interest thereon at the Interest Rate per annum shown above (computed on the basis of a 360-day year of twelve 30-day months) from the Dated Date shown above or from the most recent Interest Payment Date to which interest has been paid or duly provided for, payable semiannually on May 1 and November 1 in each year, beginning on ________ 1, 201_, until said Principal Amount shall have been paid.

[ALTERNATE INTEREST RATE PROVISIONS FOR SERIES 2020 BONDS INITIALLY ISSUED AS VARIABLE RATE BONDS: Interest Rate Provisions. The Series 2020[_] Bonds shall bear interest at a Daily Rate, Weekly Rate, Commercial Paper Rate, Term Rate or Fixed Rate, determined as provided in the Resolution, from their date or from the most recent Interest Payment Date to which interest has been paid or duly provided for; provided that in no event will the interest rate on any Series 2020[_] Bonds exceed the Maximum Rate. Each series of Series 2020[_] Bonds may operate at any time in any one Rate Period, and other series of Series 2020[_] Bonds may operate in other Rate Periods simultaneously, provided that all Series 2020[_] Bonds of any particular series shall operate in the same Rate Period at any given time. All Series 2020[_] Bonds shall accrue interest at a Daily Rate on the date of original issuance and thereafter unless and until the Rate Period for any series of Series 2020[_] Bonds is converted to a different Rate Period pursuant to the hereinafter-defined Resolution.

Interest shall be payable in arrears on each Interest Payment Date, commencing on the first Interest Payment Date after the date of original issuance of the Series 2020[_] Bonds. The amount of interest payable with respect to any Series 2020[_] Bonds on any Interest Payment Date shall be computed (1) during Daily Rate Periods, on the basis of a 365- or 366- day year for the number of days actually elapsed, (2) during Commercial Paper Rate Periods or Weekly Rate Periods, on the basis of a 365- or 366-day year for the number of days actually elapsed, based on the calendar year in which the Commercial Paper Rate Period or the Weekly Rate Period commences, and (3) during Fixed Rate Periods and Term Rate Periods, on the basis of a 360-day year of twelve 30-day months.

The Interest Rate for each Rate Period shall be determined by the Remarketing Agent as the lowest rate of interest which, in the judgment of the Remarketing Agent, would cause the Series 2020[_] Bonds to have a market value as of the date of determination equal to the principal amount thereof, taking into account prevailing market conditions. With respect to Commercial Paper Rates, the Remarketing Agent shall determine the Commercial Paper Rate and the Commercial Paper Rate Period for each Series 2020[_] Bond at such rate and for such period as it deems advisable in order to minimize the net interest cost on the Series 2020[_] Bonds, taking into account prevailing market conditions.

Each Interest Rate in effect for Series 2020[_] Bonds shall be available to owners on the date such Interest Rate is determined, between 1:00 p.m. and 5:00 p.m., New York City time, from the Remarketing Agent or the Tender Agent at their principal offices.

The University may elect to convert any Series 2020[_] Bonds from one type of Rate Period to another as provided in the Resolution. Pursuant to the Remarketing Agreement, the University may delegate and assign to the Remarketing Agent, and may rescind such delegation and assignment the University's right to elect to convert any Series 2020[_] Bonds from one type of Rate Period to another (except to a Fixed Rate Period), in which case the Remarketing Agent shall agree to carry out any such conversion in the manner and at the times specified in the Resolution.**]**

The principal of, and redemption premium, if any, and interest on this Bond, subject to prior redemption as hereinafter provided, shall be paid at maturity or upon earlier redemption to the person in whose name such Bond is registered at the maturity or redemption date thereof, upon presentation and surrender of such Bond at the payment office of U.S. Bank National Association, Saint Louis, Missouri, or its successors or assigns (the "Paying Agent and Bond Registrar"). The interest payable on this Bond on any Interest Payment Date shall be paid (other than at maturity or redemption) by check or draft mailed by the Paying Agent and Bond Registrar to the person in whose name such Bond is registered on the registration books maintained by the Paying Agent and Bond Registrar at the close of business on the Record Date for such interest, which shall be the fifteenth day (whether or not a Business Day) of the calendar month next preceding such Interest Payment Date. The principal of, redemption premium, if any, and interest on this Bond shall be payable in any coin or currency which, on the respective dates of payment thereof, is legal tender for the payment of debts due the United States of America.

This Bond is one of a duly authorized series of bonds designated "System Facilities Revenue Bonds, Series 2020[_]," aggregating the principal amount of **$[Principal Amount]** (the "Bonds"), which are issued by the University for the purpose of providing funds for the payment of all or a portion of the costs of (a) acquiring, constructing, improving, renovating, furnishing and equipping certain additions and improvements (the "Projects") to various facilities of the University located on one or more of the four campuses of the University (collectively, together with other facilities as described in the Resolution, the "System Facilities"), and (b) paying certain costs of issuance of the Bonds, all as more particularly described in the Resolution (as hereinafter defined). The Bonds are issued under the authority of and in full compliance with the Constitution and laws of the State of Missouri and pursuant to a resolution duly adopted by the Board on _______________, 2020 (the "Resolution"), the terms of which Resolution are incorporated herein by reference. The Bonds are equally and ratably secured by a first lien on and pledge of the gross income and revenues arising from the operation of the System Facilities and the Student System Facilities Fee (the "System Revenues," as more fully defined in the Resolution). The University has the ability to modify the security for the Bonds under the circumstances set forth in Article XV of the Resolution, which circumstances include the retention of the then existing credit ratings on the Bonds.

The Bonds stand on a parity and are equally and ratably secured with respect to the payment of principal and interest from the System Revenues derived by the University from the operation of the System Facilities and in all other respects with the University's outstanding Prior System Bonds (as defined in the Resolution) and any Additional Bonds issued on a parity with the Bonds pursuant to the Resolution.

The Bonds maturing on November 1, 20[__], and thereafter may be called for redemption and payment, at the option of the Board on and after November 1, 20[__], in whole or in part at any time in any order of maturity or sinking fund installment as directed by the University (Bonds of less than all of a single maturity to be selected by lot in multiples of $5,000 by the Paying Agent and Bond Registrar in such equitable manner as it shall designate) at the redemption price of 100% of the principal amount thereof, plus accrued interest thereon to the redemption date, without premium.

The Bonds maturing in the year ____ and ____ (the "Term Bonds") shall be subject to mandatory redemption and payment prior to maturity pursuant to the requirements of the Resolution, at the principal amount thereof plus accrued interest to the redemption date, without premium. The University shall redeem, on November 1 in each of the following years, the following principal amounts of such Term Bonds:

Series 2020[_] Bonds
Maturing November 1, ____

Year	Principal Amount
20__	$__________
20__	__________
20__	__________
20__	__________
20__*	__________

* Maturity

Series 2020[_] Bonds
Maturing November 1, ____

Year	Principal Amount
20__	$__________
20__	__________
20__	__________
20__	__________
20__*	__________

* Maturity

The Paying Agent and Bond Registrar shall, in each year in which Term Bonds are to be redeemed pursuant to the terms of the Resolution, make timely selection of such Term Bonds or portions thereof to be so redeemed and shall give notice thereof as provided in the Resolution without further instructions from the University. The Paying Agent and Bond Registrar may, upon instructions from the University, use moneys on hand in the Revenue Account at any time to purchase Term Bonds in the open market at a price not in excess of their principal amount, and each Term Bond so purchased shall be credited at 100% of the principal amount thereof on the obligation of the University to redeem Term Bonds of the same maturity on the next mandatory redemption date applicable to such Term Bonds, and the principal amount of Term Bonds of such maturity to be redeemed by operation of the Resolution shall be reduced accordingly.

At the University's option, said option to be exercised on or before the 60th day next preceding any scheduled mandatory Redemption Date by the University providing a certificate to the Paying Agent and Bond Registrar selecting one or more of the items set forth hereafter, the University may: (i) deliver to the Paying Agent and Bond Registrar for cancellation Term Bonds in the aggregate principal amount desired; or (ii) furnish to the Paying Agent and Bond Registrar funds, together with appropriate instructions, for the purpose of purchasing any of said Term Bonds from any Owner thereof whereupon the Paying Agent and Bond Registrar shall expend such funds for such purposes to such extent as may be practical; or (iii) receive a credit in respect to the mandatory redemption obligation of the University under this subsection for any Term Bonds of the same maturity which prior to such date have been redeemed (other than through the operation of the requirements of this subsection) and cancelled by the Paying Agent and Bond Registrar and not theretofore applied as a credit against any redemption obligation under this subsection. Each Term Bond so delivered or previously purchased or redeemed shall be credited at 100% of the principal amount thereof on the obligation of the University to redeem Term Bonds of the same maturity on such redemption date, and any excess of such amount shall be credited on future mandatory redemption obligations for Term Bonds of the same maturity in chronological order and the principal amount of Term Bonds of the same maturity to be redeemed by operation of the requirements of this subsection shall be accordingly reduced. If the University intends to exercise the option granted by the provisions of clauses (i), (ii) or (iii) of the Resolution, the University will, on or before the 60th day next preceding the scheduled mandatory Redemption Date, furnish the Paying Agent and Bond Registrar a certificate indicating to what extent the provisions of said clauses (i), (ii) and (iii) are to be complied with in respect to such mandatory redemption payment.

The Bonds are also subject to redemption and payment prior to their stated maturity date at the option of the University in whole or in part at any time at a redemption price of one hundred percent (100%) of the principal amount thereof, plus accrued interest thereon to the redemption date, upon or after the occurrence, of any of the following conditions or events:

(1) if title to, or the use for a limited period of, all or a substantial portion of the System Facilities is condemned by any authority having the power of eminent domain;

(2) if title to all or a substantial portion of the System Facilities is found to be deficient or nonexistent to the extent, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, that the efficient utilization of a substantial portion of the System Facilities by the University is impaired;

(3) if all or a substantial portion of the System Facilities is damaged or destroyed by fire or other casualty; or

(4) if as a result of changes in the Constitution of the State of Missouri, or of legislative or administrative action by the State of Missouri or any political subdivision thereof, or by the United States, or by reason of any action instituted in any court, the Resolution shall become void or unenforceable, or, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, impossible of performance without unreasonable delay, or in any other way, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, by reason of such change of circumstances, unreasonable burdens or excessive liabilities are imposed on the University.

Notice of the selection or call for redemption identifying the Bonds or portions thereof to be redeemed, shall be given by the Paying Agent and Bond Registrar by mailing a copy of the redemption notice by first class mail addressed to the registered Owner of each Bond, each of said Notices to be mailed at least thirty (30) days prior to the date fixed for redemption. Whenever any Bond is called for redemption and payment as aforesaid, all interest on said Bond shall cease from and after the date for which such call is made, provided funds are available for the payment of said Bond at the price specified herein.

With respect to optional redemptions or extraordinary optional redemptions, such notice may be conditional upon moneys being on deposit with the Paying Agent and Bond Registrar on or prior to the redemption date in an amount sufficient to pay the redemption price plus premium, if any, on the redemption date. If such notice is conditional and moneys are not received, such notice shall be of no force and effect, the Paying Agent and Bond Registrar shall not redeem such Bonds and the Paying Agent and Bond Registrar shall give notice, in the same manner in which the notice of redemption was given, that such moneys were not so received and that such Bonds will not be redeemed

The Bonds shall be redeemed in any order of maturity as directed by the University and only in Minimum Authorized Denominations or any integral multiple thereof. When less than all of the Outstanding Bonds of any maturity are to be redeemed and paid prior to maturity, such Bonds shall be selected by the Paying Agent and Bond Registrar in Minimum Authorized Denominations by lot in such equitable manner as the Paying Agent and Bond Registrar may determine.

In the case of a partial redemption of Bonds when Bonds of denominations greater than the Minimum Authorized Denomination are then Outstanding, then for all purposes in connection with such redemption each Minimum Authorized Denomination of face value shall be treated as though it were a separate Bond of the Minimum Authorized Denomination. If it is determined that one or more, but not all, of the Minimum Authorized Denominations represented by any fully registered Bond is selected for redemption, then upon notice of intention to redeem such Minimum Authorized Denomination, the Owner of such fully registered Bond or his or her attorney or legal representative shall forthwith present and surrender such Bond to the Paying Agent and Bond Registrar (1) for payment of the redemption price (including the premium, if any, and interest to the date fixed for redemption) of the Minimum Authorized Denomination called for redemption, and (2) for exchange, without charge to the Owner thereof, for a new Bond or Bonds of the aggregate principal amount of the unredeemed portion of the principal amount of such fully registered Bond. If the Owner of any such fully registered Bond of a denomination greater than the Minimum Authorized Denomination shall fail to present such Bond to the Paying Agent and Bond Registrar for payment and exchange as aforesaid, such Bond shall, nevertheless, become due and payable on the redemption date to the extent of the Minimum Authorized Denomination called for redemption (and to that extent only).

[ADDITIONAL PROVISIONS REGARDING TENDER AND PURCHASE OF SERIES 2020 BONDS INITIALLY ISSUED AS VARIABLE RATE BONDS: Tender and Purchase of Series 2020[_] Bonds. The Series 2020[_] Bonds are subject to optional and mandatory tender for purchase, in accordance with the terms and provisions of the Resolution, as follows:

Optional Tenders for Purchase. The owners of Series 2020[_] Bonds accruing interest at Daily or Weekly Rates may elect to have their Series 2020[_] Bonds (or portions thereof in authorized denominations) purchased, in accordance with the provisions of the Resolution, at the Purchase Price on the following Purchase Dates:

(1) Series 2020[_] Bonds accruing interest at Daily Rates may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon written or Electronic notice of tender given to the Tender Agent and the Paying Agent and Bond Registrar not later than 9:00 a.m., New York City time, on the Purchase Date.

(2) Series 2020[_] Bonds accruing interest at Weekly Rates may be tendered for purchase at the Purchase Price payable in immediately available funds on any Business Day upon written or Electronic notice of tender to the Tender Agent and the Paying Agent and Bond Registrar not later than 5:00 p.m., New York City time, on a Business Day not fewer than seven days prior to the Purchase Date.

Each notice of tender:

(1) shall in the case of a written notice, be delivered to the Tender Agent and the Paying Agent and Bond Registrar at its Notice Address and be in form satisfactory to the Tender Agent;

(2) shall state (A) the principal amount of Series 2020[_] Bonds to which the notice relates, (B) that the owner irrevocably demands purchase of such Series 2020[_] Bond or a specified portion thereof, (C) the date on which such Series 2020[_] Bond or portion is to be purchased, and (D) payment instructions with respect to the Purchase Price; and

(3) shall automatically constitute (A) an irrevocable offer to sell the Series 2020[_] Bonds (or portion thereof) to which the notice relates on the Purchase Date at the Purchase Price, (B) an irrevocable authorization and instruction to the Registrar to effect transfer of such Series 2020[_] Bond (or portion thereof) upon payment of the Purchase Price to the Tender Agent on the Purchase Date, (C) an irrevocable authorization and instruction to the Tender Agent to effect the exchange of the Series 2020[_] Bond to be purchased in whole or in part for other Series 2020[_] Bonds in an equal aggregate principal amount so as to facilitate the sale of such Series 2020[_] Bond (or portion thereof to be purchased), and (D) an acknowledgment that such owner will have no further rights with respect to such Series 2020[_] Bond (or portion thereof) upon payment of the Purchase Price thereof to the Tender Agent on the

Purchase Date, except for the right of such owner to receive such Purchase Price upon delivery of such Series 2020[_] Bond to the Tender Agent, and that after the Purchase Date such owner will hold any undelivered certificate as agent for the Tender Agent. The determination of the Tender Agent as to whether a notice of tender has been properly delivered pursuant to the foregoing shall be conclusive and binding upon the owner.

Mandatory Tenders for Purchase. The Series 2020[_] Bonds are subject to mandatory tender and purchase, in accordance with the provisions of the Resolution, as follows:

Each Series 2020[_] Bond accruing interest at a Commercial Paper Rate is subject to mandatory tender for purchase on each Interest Payment Date applicable to such Series 2020[_] Bond at the Purchase Price. The owner of any Series 2020[_] Bond accruing interest at a Commercial Paper Rate shall provide the Tender Agent with written payment instructions for the Purchase Price on or before tender thereof to the Tender Agent.

Series 2020[_] Bonds to be converted from one type of Rate Period to a different type of Rate Period (except conversions from the Daily Rate to the Weekly Rate or from the Weekly Rate to the Daily Rate), are subject to mandatory tender for purchase on the Conversion Date, at the Purchase Price.

When the Series 2020[_] Bonds bear interest at a Term Rate and a new Term Rate Period is to be determined, the Series 2020[_] Bonds will be subject to mandatory tender on the effective date of the new Term Rate Period at the Purchase Price.

The Series 2020[_] Bonds supported by a Liquidity Facility are subject to mandatory tender for purchase on the Business Day preceding the Termination of the Liquidity Facility or the substitution of an Alternate Liquidity Facility. Series 2020[_] Bonds not supported by a Liquidity Facility are subject to mandatory tender for purchase on the Business Day preceding the day on which a Liquidity Facility becomes effective unless the written evidence from each Rating Service confirms that the effectiveness of such Liquidity Facility will not in and of itself result in a reduction or withdrawal of the rating that would otherwise apply to the Series 2020[_] Bonds if such Liquidity Facility were not to become effective.

The Tender Agent shall give notice of such mandatory tender for purchase, as provided in the Resolution, to the affected owners of Series 2020[_] Bonds by first class mail not less than 20 days before the mandatory tender date. If the Series 2020[_] Bonds are in certificated form, such notice shall include information with respect to required delivery of Series 2020[_] Bond certificates and payment of the Purchase Price.

<u>Liquidity Facility</u>. Initially, payment of the purchase price for Series 2020[_] Bonds tendered or acquired to be tendered for purchase will be supported by the agreement of the University as the Initial Liquidity Provider under the Resolution (the "Initial Liquidity Facility"). Under the Initial Liquidity Facility, subject to certain terms and conditions and to the extent provided for therein and described in the Resolution, the Initial Liquidity Provider agrees to make funds available to pay the purchase price for Series 2020[_] Bonds that are tendered or required to be tendered for purchase and not remarketed or for which remarketing proceeds or moneys deposited by the University with the Paying Agent and Bond Registrar under certain circumstances are not available. The University may replace the Initial Liquidity Facility under certain circumstances described in the Resolution with an Alternate Liquidity Facility issued by a different Liquidity Provider. The University further may decide not to support the payment of the purchase price for Series 2020[_] Bonds with any Liquidity Facility issued by a Liquidity Provider, but may instead choose to be solely responsible for the full payment of the purchase price for Series 2020[_] Bonds that are tendered or required to be tendered for purchase and are not

remarketed, or for which remarketing proceeds are not delivered. Series 2020[_] Bonds in a Term Rate Period that extends to the maturity date of such Series 2020[_] Bonds or in a Fixed Rate period are not subject to optional or mandatory tender for purchase and, therefore, will not be supported by the Initial Liquidity Facility or any other Liquidity Facility.]

The Bonds are special obligations of the University payable solely from, and secured as to the payment of principal and interest by a first lien on and pledge of the System Revenues and said System Revenues shall be set aside for that purpose in a special fund held pursuant to the Resolution and identified therein as the System Facilities Revenue Account (as defined in the Resolution). As used herein the term "System Revenues" means the gross income and revenues derived from (a) the ownership and/or operation of the System Facilities, (b) the imposition and collection of certain specifically assessed student fees and stadium surcharges and (c) a portion of the Tuition and Fees collected from all students attending the University in an amount equal to Maximum Annual Debt Service on the Bonds, designated by the University as a Student System Facilities Fee in connection with the System Facilities. The term Tuition and Fees is the basic fee for course enrollment paid by all students enrolled at the University. The term "Maximum Annual Debt Service on the Bonds" means an amount equal to the maximum amount of principal payable in any future Fiscal Year on the Bonds, the Prior System Bonds and any Additional Bonds secured on a parity with the Bonds, computed in accordance with the Resolution, together with interest thereon. "System Revenues" also includes the gross income and revenues derived from the ownership and/or operation of such facilities, or the imposition and collection of such fees, as may at some future date may be added to the System Revenues by University action. This Bond shall not be deemed to be an indebtedness or general obligation of the State of Missouri, of the University, of the Board or of the individual members of said Board. The University has no authority to tax.

Under the conditions set forth in the Resolution, the University has the right to issue additional parity bonds payable from the same source and secured by the same revenues as the Bonds; provided, however, that such additional bonds may be so issued only in accordance with and subject to the covenants, conditions and restrictions relating thereto set forth in the Resolution. The Resolution permits, with certain exceptions as therein provided, the amendment of the Resolution without the consent of Owners of the Bonds in certain circumstances and the amendment of the Resolution and the modification of the rights and duties of the University and the Owners of the Bonds, by resolution of the University with the written consent of the Owners of not less than sixty-five percent (65%) in principal amount of the Bonds then Outstanding (as defined in the Resolution).

The University covenants and agrees with each and every owner of the Bonds to keep and perform all covenants and agreements contained in the Resolution, and that it will apply the proceeds thereof to the purposes for which said Bonds are authorized to be issued; that it will continuously operate the System Facilities at all times when the University is in regular session; that it will adopt such regulations for the System Facilities and will fix and maintain such reasonable rates and charges for the use of the System Facilities as will in its judgment provide revenues sufficient to pay the reasonable costs of operating and maintaining said properties out of System Revenues, and to provide and maintain the Principal and Interest Account in an amount adequate to promptly pay the principal of and the interest on this Bond and the issue of which it forms a part, as the same become due; and that it will collect, account for, and apply the aforesaid revenues, all in accordance with and as provided for by the Resolution. Reference is made to the Resolution for a description of the covenants and agreements made by the University with respect to the collection, segregation and application of the revenues of the System Facilities, the nature and extent of the security of the Bonds, the rights, duties and obligations of the University with respect thereto, and the rights of the Owners thereof.

This Bond is transferable, as provided in the Resolution, only upon the registration books kept for that purpose at the above-mentioned office of the Paying Agent and Bond Registrar by the registered Owner hereof in person or by his duly authorized attorney, upon surrender of this Bond together with a written instrument of transfer satisfactory to the Paying Agent and Bond Registrar duly executed by the registered Owner or his duly authorized attorney, and thereupon a new Bond or Bonds in the same aggregate principal amount shall be issued to the transferee in exchange therefor as provided in the Resolution, and upon payment of the charges therein prescribed. The University, the Board and the Paying Agent and Bond Registrar may deem and treat the person in whose name this Bond is registered as the absolute Owner hereof for the purpose of receiving payment of, or on account of, the principal or redemption price hereof and interest due hereon and for all other purposes. For purposes of any vote, consent, objection, direction, request or other action under the Resolution by Owners of a specified amount of the Bonds, an Owner of a Bond will be deemed to hold an amount of Bonds equal to the principal amount thereof.

The Bonds are issuable in the form of fully registered Bonds without coupons in the denominations of $5,000 or any integral multiples thereof. Subject to the conditions and upon the payment of the charges provided in the Resolution, the Owner of this Bond may surrender the same (together with a written instrument of transfer satisfactory to the Paying Agent and Bond Registrar duly executed by the registered Owner or his duly authorized attorney), in exchange for an equal aggregate principal amount of Bonds of the same maturity in any denomination authorized by the Resolution.

[ALTERNATE AUTHORIZED DENOMINATION PROVISIONS FOR SERIES 2020 BONDS INITIALLY ISSUED AS VARIABLE RATE BONDS: The Bonds are issuable in the form of fully registered Bonds without coupons and, when bearing interest at a Daily Rate, Weekly Rate or Commercial Paper Rate, shall be in the denomination of $100,000 or any integral multiple of $5,000 in excess thereof, and, when bearing interest at the Term Rate that extends to the Maturity Date or Fixed Rate, shall be in the denomination of $5,000 or any integral multiple thereof. Subject to the conditions and upon the payment of the charges provided in the Resolution, the Owner of this Bond may surrender the same (together with a written instrument of transfer satisfactory to the Paying Agent and Bond Registrar duly executed by the registered Owner or his duly authorized attorney), in exchange for an equal aggregate principal amount of Bonds of the same maturity in any denomination authorized by the Resolution.]

This Bond shall not be valid or become obligatory for any purpose or be entitled to any security or benefit under the Resolution until the Certificate of Authentication hereon shall have been executed by the Paying Agent and Bond Registrar.

When all of the Bonds shall have been paid and discharged or provision for their payment and discharge has been made in accordance with the terms of the Resolution, then the requirements contained in the Resolution, the pledge of revenues and the rights granted thereunder shall terminate.

IT IS HEREBY CERTIFIED AND DECLARED that all acts, conditions and things required to exist, happen and be performed precedent to and in the issuance of the Bonds have existed, happened and been performed in due time, form and manner as required by law, and that before the issuance of the Bonds provision has been duly made for the collection and segregation of the revenues of the System Facilities and for the application of the same as hereinbefore provided.

IN WITNESS WHEREOF, THE CURATORS OF THE UNIVERSITY OF MISSOURI has executed this Bond by causing it to be signed by the manual or facsimile signature of the President of the Board of Curators of the University of the State of Missouri, the governing body of the University, and attested by the manual or facsimile signature of the Secretary of said Board, and its official seal to be affixed hereto or imprinted hereon, and this Bond to be dated the Dated Date shown above.

THE CURATORS OF THE UNIVERSITY OF MISSOURI

By ______________________________

President, Board of Curators of the
University of the State of Missouri

(Seal)

ATTEST:

____

Secretary of the Board of Curators of the
University of the State of Missouri

CERTIFICATE OF AUTHENTICATION

This Bond is one of the Bonds described in the within-mentioned Resolution.

Registration Date: __________

U.S. BANK NATIONAL ASSOCIATION
Saint Louis, Missouri
Paying Agent and Bond Registrar

By ___________________________________
Authorized Signatory

ASSIGNMENT

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and transfers unto _____
____
(Print or Type Name, Address and
Social Security Number of Transferee)

the within Bond and all rights thereunder, and hereby irrevocably constitutes and appoints _________________ attorney to transfer the within Bond on the books kept by the Paying Agent and Bond Registrar for the registration thereof, with full power of substitution in the premises.

Dated: ____________________

____
NOTICE: The signature to this assignment must correspond with the name of the Registered Owner as it appears upon the face of the within Bond in every particular.

Signature Guaranteed By:

____
(Name of Eligible Guarantor Institution as defined in SEC Rule 17Ad-15 (17 CFR 240.17Ad-15))

By _______________________________________
Title:

Exhibit I
to
Resolution

FORM OF TAX COMPLIANCE AGREEMENT

On file with the Secretary of the Board of Curators

Exhibit J
to
Resolution

FORM OF BOND PURCHASE AGREEMENT

On file with the Secretary of the Board of Curators

Exhibit K
to
<u>Resolution</u>

FORM OF PRELIMINARY OFFICIAL STATEMENT

On file with the Secretary of the Board of Curators

Exhibit L
to
<u>Resolution</u>

<u>FORM OF ESCROW TRUST AGREEMENT</u>

On file with the Secretary of the Board of Curators

Exhibit M
to
Resolution

FORM OF REMARKETING AGREEMENT

On file with the Secretary of the Board of Curators

Exhibit N
to
Resolution

FORM OF CONTINUING DISCLOSURE AGREEMENT

April 9, 2020

NEW ISSUE
BOOK-ENTRY ONLY

Ratings: Moody's: "Aa1"
S&P: "AA+"
See "RATINGS."

*In the opinion of Thompson Coburn LLP, Bond Counsel, conditioned on continuing compliance with certain requirements of the Internal Revenue Code of 1986, as amended (the **"Code"**), interest on the Series 2020B Bonds is excluded from gross income for federal income tax purposes, but interest on the Series 2020A Bonds is <u>not</u> excluded from gross income for federal income tax purposes. Also, in the opinion of Bond Counsel, interest on the Series 2020B Bonds is not a specific item of tax preference for purposes of the federal alternative minimum tax. In the opinion of Bond Counsel, interest on the Series 2020 Bonds is exempt from income taxation by the State of Missouri. The Series 2020B Bonds have <u>not</u> been designated "qualified tax-exempt obligations" within the meaning of Section 265(b)(3) of the Code (relating to financial institution deductibility of interest expense). See the section herein captioned **"TAX MATTERS"** and the forms of opinion of Bond Counsel attached hereto as **Appendix E**.*

$[Principal Amount]*
Aggregate Principal Amount
THE CURATORS OF THE UNIVERSITY OF MISSOURI
SYSTEM FACILITIES REVENUE BONDS
SERIES 2020

consisting of

$[Principal Amount A]*
Taxable System Facilities Revenue Bonds
Series 2020A

$[Principal Amount B]*
System Facilities Revenue Bonds
Series 2020B

Dated: Date of Issuance

Maturity Schedule – See Inside Cover

The Series 2020 Bonds are issuable in book-entry only form in denominations of $5,000 or any integral multiple thereof. Interest on the Series 2020 Bonds will be payable on each May 1 and November 1, beginning November 1, 2020.

The Series 2020 Bonds are subject to redemption prior to maturity as described herein.

The Series 2020 Bonds and the interest thereon are special, limited obligations of The Curators of the University of Missouri (the **"University"**). The Series 2020 Bonds are payable solely from, and secured as to the payment of principal of, redemption premium, if any, and interest on the Series 2020 Bonds by a first lien on and pledge of the System Revenues, as defined herein. The Series 2020 Bonds stand on a parity with and are equally and ratably secured with respect to the payment of principal and interest from the System Revenues and in all other respects with certain other outstanding revenue bonds of the University as described under **"SECURITY FOR THE SERIES 2020 BONDS - Outstanding Parity Bonds."** The Series 2020 Bonds are not obligations of the State of Missouri. The University has no power to tax.

The Series 2020 Bonds are offered when, as and if delivered by the University, and accepted by the Underwriters, subject to the approval of legality by Thompson Coburn LLP, St. Louis, Missouri, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for the University by the Office of the General Counsel of the University, and by Gilmore & Bell, P.C., Kansas City, Missouri, Disclosure Counsel to the University, and for the Underwriters by Greenberg Traurig, LLP, Boston, Massachusetts. Janney Montgomery Scott LLC, serves as Financial Advisor to the University in this transaction. It is expected that the Series 2020 Bonds will be available for delivery through The Depository Trust Company on or about May __, 2020.

JPMorgan Logo **Goldman, Sachs Logo** Morgan Stanley Logo

This Official Statement is dated April __, 2020.

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* Preliminary; subject to change

April 9, 2020

MATURITY SCHEDULE

\$[Principal Amount A][*]
THE CURATORS OF THE UNIVERSITY OF MISSOURI
TAXABLE SYSTEM FACILITIES REVENUE BONDS
SERIES 2020A

\$[Principal Amount A]* _____% Term Bond due Nov. 1, 2050; Price: ____%; Yield: ____%
CUSIP: 231266___[†]

\$[Principal Amount B]*
THE CURATORS OF THE UNIVERSITY OF MISSOURI
SYSTEM FACILITIES REVENUE BONDS
SERIES 2020B

\$[Principal Amount B]* _____% Term Bond due Nov. 1, 2030; Price: ____%; Yield: ____%
CUSIP: 231266___

[*] Preliminary; subject to change

[†] CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein provided by CUSIP Global Services, managed on behalf of the American Bankers Association by S&P Capital IQ. The CUSIP numbers are not intended to create a database and do not serve in any way as a substitute for the CUSIP service. CUSIP numbers have been assigned by an independent company not affiliated with the University and are provided solely for convenience and reference. Neither the University nor the Underwriters take responsibility for the accuracy of the CUSIP numbers.

REGARDING USE OF THIS OFFICIAL STATEMENT

The Series 2020 Bonds have not been registered with the United States Securities and Exchange Commission under the Securities Act of 1933, as amended, nor has the Resolution been qualified under the Trust Indenture Act of 1939, as amended, in reliance upon exemptions contained in such acts. In making an investment decision, investors must rely on their own examinations of the University and the terms of the offering. The Series 2020 Bonds have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this Official Statement. Any representation to the contrary is a criminal offense.

In connection with the offering of the Series 2020 Bonds, the Underwriters may over allot or effect transactions that stabilize or maintain the market prices of the Series 2020 Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

No dealer, broker, salesman or other person has been authorized by the University, the Underwriters or the Financial Advisor to give any information or to make any representations with respect to the Series 2020 Bonds other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2020 Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information set forth herein has been furnished by the University and other sources which are believed to be reliable, but such information is not guaranteed as to accuracy or completeness and is not to be construed as a representation by the Financial Advisor. Statements contained in this Official Statement that involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as a representation of fact. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that the information herein is correct as of any time subsequent to its date.

FORWARD-LOOKING STATEMENTS

This Official Statement contains "forward-looking statements" which are unaudited. These forward-looking statements include statements about the University's future plans, strategies and projections, and other statements that are not historical in nature. These forward-looking statements are based on the current expectations of management of the University. When used in this Official Statement, the words "estimate," "intend," "expect," "projected" and similar expressions are intended to identify forward-looking statements. Forward-looking statements involve future risks and uncertainties that could cause actual results and experience to differ materially from the anticipated results or other expectations expressed in forward-looking statements. These future risks and uncertainties include the risks described under **"INTRODUCTION – Recent Developments – The Coronavirus Public Health Crisis,"** and **"BONDOWNERS' RISKS"** sections of this Official Statement and the other risks discussed in this Official Statement, including **Appendix A**. The University undertakes no obligation to update any forward-looking statements contained in this Official Statement to reflect future events or developments.

[**Discuss Notices to Foreign Investors**]

TABLE OF CONTENTS

BOARD OF CURATORS
OF THE
UNIVERSITY OF THE STATE OF MISSOURI

GENERAL OFFICERS

Mun Y. Choi, President
Ryan D. Rapp, Vice President for Finance, Chief Financial Officer and Treasurer
Beth Chancellor, Interim Vice President for Information Technology
Steven W. Graham, Senior Associate Vice President for Academic Affairs
Marsha B. Fischer, Associate Vice President for Human Resources
Mun Y. Choi, Interim Chancellor, University of Missouri – Columbia
C. Mauli Agrawal, Chancellor, University of Missouri – Kansas City
Mohammad Dehghani, Chancellor, Missouri University of Science and Technology
Kristin Sobolik, Interim Chancellor, University of Missouri – St. Louis

BOND COUNSEL

Thompson Coburn LLP
St. Louis, Missouri

DISCLOSURE COUNSEL

Gilmore & Bell, P.C.
Kansas City, Missouri

FINANCIAL ADVISOR

Janney Montgomery Scott LLC
New York, New York

April 9, 2020

OFFICIAL STATEMENT

$[Principal Amount]*
Aggregate Principal Amount
THE CURATORS OF THE UNIVERSITY OF MISSOURI
SYSTEM FACILITIES REVENUE BONDS
SERIES 2020

consisting of

$[Principal Amount A]*	**$[Principal Amount B]***
Taxable System Facilities Revenue Bonds	**System Facilities Revenue Bonds**
Series 2020A	**Series 2020B**

INTRODUCTION

The following introductory statement is subject in all respects to more complete information contained elsewhere in this Official Statement. The order and placement of materials in this Official Statement, including the Appendices hereto, are not to be deemed to be a determination of relevance, materiality or relative importance, and this Official Statement, including the cover page, the inside cover page, and Appendices, should be considered in its entirety. All capitalized terms used in this Official Statement that are not otherwise defined herein shall have the meanings ascribed to them in ***Appendix D****.*

Purpose of the Official Statement

The purpose of this Official Statement is to furnish information relating to The Curators of the University of Missouri (the "***University***"), the University's System Facilities described below, the University's Taxable System Facilities Revenue Bonds, Series 2020A (the ***"Series 2020A Bonds"***) to be issued in the aggregate principal amount of $[Principal Amount A]* and the University's System Facilities Revenue Bonds, Series 2020B (the ***"Series 2020B Bonds"*** and together with the Series 2020A Bonds, the ***"Series 2020 Bonds"***) to be issued in the aggregate principal amount of $[Principal Amount B]*. See **"PLAN OF FINANCE."**

The University

The University is a duly incorporated and created body politic and state educational institution existing under the Constitution and laws of the State of Missouri (the ***"State"***), and is governed by the Board of Curators of the University of the State of Missouri (the "***Board***"). The University consists of four campuses located in the following Missouri cities: Columbia, Kansas City, Rolla and St. Louis. The four-campus system administration is located in Columbia. The University includes 38 schools, colleges and divisions and had a Fall 2019 enrollment of more than 70,000 full and part-time students. The University is the only public institution in Missouri offering professional and doctoral degrees. Approximately one-fourth of its enrollment consists of professional and graduate students. The University owns and operates the University Health System, which is a system of hospitals and clinics serving the health care needs of central Missouri, and includes University Physicians, which is the organized practice plan for the faculty of the University of Missouri – Columbia School of Medicine. The University also administers a statewide cooperative extension service with centers located in nearly all of Missouri's 114 counties. See **Appendix A** for additional information about the University.

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* Preliminary; subject to change

Recent Developments – The Coronavirus Public Health Crisis

The University is addressing several challenges due to COVID-19. The severity of the economic challenge and duration of the public health crisis is not fully known at this time. University leadership is looking at the immediate need to work together to ensure proper fiscal stewardship of the University. The University's stated goal is to be as prepared as possible. To that end, the University's decision-making is first focus on the next 60 days and taking careful actions in the short run. This will prepare the University to mitigate the long-term impacts as they become clear.

The University remains focused on the financial priorities below and the resources necessary to achieve them:

- Ensuring students receive a high-quality education.
- Supporting retention and recruitment of students.
- Continuing research and scholarship, especially related to the public health crisis and precision health.
- Supporting the University's response to the public health crisis and other engagement activities.
- Supporting activities that sustain and grow revenues for the University.

In response to the likely financial impact on the University, the University implemented the following steps applicable to all campuses as of March 27, 2020:

- A hiring and promotion freeze.
- A freeze on raises, including merit raises.
- A freeze on non-essential capital spending and real estate purchases.
- Limits on travel and food purchases, unless related to the areas of focus.
- Prohibition on discretionary spending that are unrelated to University priorities outlined above.

The University leadership is actively monitoring the public health crisis and is working closely with local and state public health officials and following guidelines from the Centers for Disease Control and Prevention to help protect its communities. Campus-specific precautions are also being taken at the four University campuses, as government directives vary by city, with various "shelter-in-place" orders in effect in Columbia, Kansas City, Rolla, and St. Louis. A statewide shelter-in-place order was issued by the Governor for the entire State of Missouri on April 3, 2020. MU Health Care is preparing for the potential influx of patients and is also providing a drive-through testing site in Columbia. Specific actions taken by the University include:

- Suspension of all in-person classes at all four campuses effective March 16.
- After spring break, all classes have been transitioned to online platforms for delivery of content through the end of the spring semester.
- Cancelled all University-sponsored spring break events / travel.
- Suspended all sports activities for the spring semester.
- Cancelled all travel abroad programs and assisted students in returning to the United States.
- Assisted international students at all four campuses in responding to the COVID-19 crisis.
- Arranged for refunds of a portion of room and board costs for affected students.
- Organized emergency response teams within MU Health Care, finance department and other departments to focus responses to the COVID-19 crisis.

The impacts of the public health crisis and the associated equity market declines on the University are difficult to predict at this stage, but are discussed in **"BONDOWNERS' RISKS"** and in **Appendix A** in conjunction with (i) enrollment; (ii) State appropriations for the University, (iii) investments, (iv) demands upon the personnel and facilities of MU Health Care in responding to the health care needs of the community and the State, and (v) gifts and other support for the University. See **"University Health System," "University Historical Enrollment," "University Investments,"** and **"State Appropriations"** in **Appendix A**.

The Series 2020 Bonds

The Series 2020 Bonds are being issued pursuant to and in full compliance with the Constitution and Statutes of the State of Missouri, a Resolution adopted by the Board on April 9, 2020, (the "***Resolution***").

The Series 2020 Bonds are being issued for the purpose of (i) refunding the Refunded Bonds (defined below), (ii) financing the acquisition, construction, furnishing and equipping of certain improvements to the System Facilities described herein (the ***"Projects"***), (iii) refinancing all outstanding commercial paper notes (***"CP Notes"***) issued by the University, which are outstanding in the principal amount of approximately $362 million, and (iv) paying the costs of issuance of the Series 2020 Bonds. See **"PLAN OF FINANCE."**

Sources of Revenue and Security for the Series 2020 Bonds

The Series 2020 Bonds and the interest thereon are special limited obligations of the University. The Series 2020 Bonds are payable solely from, and secured as to the payment of principal of, redemption premium, if any, and interest on the Series 2020 Bonds, by a first lien on and pledge of the gross income and revenues derived from the following (collectively, the ***"System Revenues"***): (i) the ownership or operation of certain facilities of the University described herein (the ***"System Facilities"***); (ii) the imposition and collection of certain specifically assessed student fees and stadium usage surcharges; and (iii) the portion of the tuition and fees collected from all students attending the University that is designated by the University as a ***"Student System Facilities Fee"*** in connection with the System Facilities in an amount equal to the Maximum Annual Debt Service on the Series 2020 Bonds, nine outstanding revenue bond issues of the University that are on a parity with the Series 2020 Bonds (the ***"Prior System Bonds"***), and any Additional Bonds hereafter issued by the University and secured on a parity with the Series 2020 Bonds. See **"SECURITY FOR THE SERIES 2020 BONDS."** All or a portion of several series of Prior System Bonds will be refunded with Series 2020 Bonds proceeds. See **"PLAN OF FINANCE – The Refundings."** The Series 2020 Bonds are not obligations of the State of Missouri. The University has no power to tax.

The following defined terms are used in this Official Statement and in the Resolution with respect to various series of revenue bonds payable from the System Revenues:

- ***"Series 2020 Bonds"*** means, collectively, the University's Taxable System Facilities Revenue Bonds, Series 2020A in the principal amount of $[Principal Amount A]* and the University's System Facilities Revenue Bonds, Series 2020B in the principal amount of $[Principal Amount B]*.

- ***"Prior System Bonds"*** means the outstanding revenue bond issues of the University in the outstanding principal amount of $1,180,875,000 as of May 1, 2020, which are payable from the System Revenues on a parity with the Series 2020 Bonds, but excluding the Refunded Bonds. See **"Outstanding Parity Bonds"** in **Appendix A**.

- ***"Additional Bonds"*** means any series of revenue bonds hereafter issued by the University payable from the System Revenues on a parity with the Series 2020 Bonds, the Prior System Bonds and any other series of Additional Bonds then outstanding.

- ***"Bonds"*** means the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter outstanding, all of which are payable from the System Revenues on a parity basis.

- ***"Refunded Bonds"*** means the University's System Facilities Revenue Bonds described below under **"PLAN OF FINACE – The Refundings."** The expected principal amount of Refunded Bonds to be current or advance refunded with a portion of the proceeds of the Series 2020 Bonds is $94,095,000.

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* Preliminary; subject to change

Additional Information

The references to and summaries of the Resolution, and other documents referred to herein and in **Appendix D**, and to the laws of the State, do not purport to be complete, and all such references are qualified in their entirety by reference to the complete provisions thereof. Copies of all documents referred to herein are on file with the Financial Advisor and the University and may be obtained, without charge, by written request.

PLAN OF FINANCE

The Series 2020 Bonds

The Series 2020 Bonds are being issued pursuant to and in full compliance with the Constitution and Statutes of the State of Missouri and the Resolution. The Series 2020 Bonds are being issued for the purpose of (i) refunding the Refunded Bonds defined below, (ii) financing the costs of the Projects described below, (iii) refinancing approximately all outstanding CP Notes of the University, which are outstanding in the principal amount of approximately $362 million, and (iv) paying the costs of issuance of the Series 2020 Bonds.

The Projects

In June 2019, the University leaders and state and national officials broke ground on the NextGen Precision Health Institute at the University of Missouri-Columbia, a central facility supporting a systemwide precision health initiative. The event served as an official launch for the NextGen Precision Health Initiative, which is intended to harness and support the research activities of the University's four campuses and MU Health Care (as described in **Appendix A**) toward a sign goal: personalized treatments for society's toughest diseases. The initiative is designed to accelerate medical breakthroughs for patients in Missouri and beyond, increase collaboration among University scientists and industry partners, attract research funding, generate jobs, and train a new generation of health care scientists and practitioners who will help Missouri address the health care needs of the future.

Approximately $175,000,000 of Series 2020 Bond proceeds are expected to be used to fund the NextGen Precision Health facility on the Columbia campus and to fund other capital projects throughout the University's facilities (collectively, the ***"Projects"***).

The Refundings

The University reserves the right, at the time of pricing of the Series 2020 Bonds, to determine the series and maturities of all outstanding Prior System Bonds to be refunded or defeased with proceeds of the Series 2020 Bonds, which determination will be made based on market conditions at the time of offering of the Series 2020 Bonds, the savings associated with the identified refunding opportunities, and other capital planning considerations of the University beyond interest rate savings. As of the date of this Preliminary Official Statement, the Refunded Bonds to be refunded are expected to be in the principal amount of $94,095,000.

The proceeds of the Series 2020A Bonds are expected to be applied to refund all or a portion of the outstanding maturities of listed below for the following series of outstanding System Facilities Revenue Bonds:

- System Facilities Revenue Bonds, Series 2009B in the outstanding principal amount of $15,100,000 (the ***"Series 2009B Bonds"***)
- System Facilities Revenue Bonds, Series 2011 in the in the outstanding principal amount of $27,975,000 (the ***"Series 2011 Bonds"***)
- System Facilities Revenue Bonds, Series 2014A in the in the outstanding principal amount of $240,750,000 (the ***"Series 2014A Bonds"***)

The maturities of the Series 2009B Bonds, the Series 2011 Bonds and the Series 2014A Bonds to be current or advance refunded with proceeds of the Series 2020A Bonds described below are collectively referred to as the ***"Refunded Bonds."***

The University will use a portion of the proceeds of the Series 2020A Bonds to current refund the following maturities of the Series 2009B Bonds, the Series 2011 Bonds and the Series 2014A Bonds at a redemption price equal to **100%** of the principal thereof plus accrued and unpaid interest to the redemption date shown below (the ***"Current Refunded Bonds"***). These maturities of the Refunded Bonds are expected to be called for redemption in approximately 30 days after the date of this Official Statement.

Series 2009B Bonds

Maturity Nov. 1,	Interest Rate	Principal Amount Outstanding	Principal Amount Refunded	CUSIP
2020	3.375%	$1,920,000	$1,920,000	231266FQ5
2020	5.000	5,455,000	5,455,000	231266FZ5
2021	3.500	3,290,000	3,290,000	231266FR3
2021	5.000	4,435,000	4,435,000	231266GA9

Series 2014A Bonds

Maturity Nov. 1,	Current Interest Rate	Principal Amount Outstanding	Principal Amount Refunded	CUSIP
2037	4.00%	$30,025,000	$30,025,000	231266MC8

The University will use a portion of the proceeds of the Series 2020A Bonds to advance refund the following maturities of the following series of Refunded Bonds (the ***"Advance Refunded Bonds"***):

Series 2011 Bonds

Maturity Nov. 1,	Interest Rate	Principal Amount Outstanding	Principal Amount Defeased	CUSIP	Redemption Date
2020	3.000%	$ 600,000	$ 600,000	231266GL5	Nov. 1, 2021
2020	4.000	2,885,000	2,885,000	231266GW1	Nov. 1, 2021
2021	5.000	3,625,000	3,625,000	231266GM3	Nov. 1, 2021
2022	3.125	625,000	625,000	231266GN1	Nov. 1, 2021
2022	5.000	3,185,000	3,185,000	231266GX9	Nov. 1, 2021
2023	3.250	1,000,000	1,000,000	231266GP6	Nov. 1, 2021
2023	5.000	3,005,000	3,005,000	231266GY7	Nov. 1, 2021
2024	5.000	3,030,000	3,030,000	231266GQ4	Nov. 1, 2021
2025	3.500	950,000	950,000	231266GR2	Nov. 1, 2021
2025	5.000	2,235,000	2,235,000	231266GZ4	Nov. 1, 2021
2026	5.000	3,330,000	3,330,000	231266GS0	Nov. 1, 2021
2027	3.750	690,000	690,000	231266GT8	Nov. 1, 2021
2027	5.000	2,815,000	2,815,000	231266HA8	Nov. 1, 2021

Series 2014A Bonds

Maturity Nov. 1,	Interest Rate	Principal Amount Outstanding	Principal Amount Defeassed	CUSIP	Redemption Date
2028	5.00%	$10,410,000	$10,410,000	231266 LU9	Nov. 1, 2024
2029	5.00%	$10,585,000	$10,585,000	231266 MF1	Nov. 1, 2024

A portion of the proceeds of the Series 2020A Bonds will be used to purchase certain direct obligations of the United States of America (the ***"Escrowed Securities"***) that will be deposited in trust under an Escrow Trust Agreement dated as of May 1, 2020 (the ***"Escrow Agreement"***) between the University and U.S. Bank National Association, as escrow agent (the ***"Escrow Agent"***). The Escrowed Securities will mature in such amounts and at such times as shall be sufficient, together with the interest to accrue thereon, to pay the principal of and interest on the Advance Refunded Bonds until the redemption date thereof shown in the table above. The Advance Refunded Bonds will be redeemed on the redemption dates shown above at a redemption price equal to **100%** of the principal amount thereof plus accrued interest thereon to the redemption date. See **"VERIFICATION OF MATHEMATICAL COMPUTATIONS."**

Refinancing of CP Notes

The University will use the proceeds of the Series 2020A Bonds and the Series 2020B Bonds to refinance all outstanding CP Notes in the amount of approximately $362 million, all of which CP Notes mature within 90 days after the expected date of issuance of the Series 2020 Bonds.

Sources and Uses of Funds

The following is a summary of the estimated sources and uses of funds in connection with the issuance of the Series 2020 Bonds:

Sources of Funds:	
Par amount of Series 2020A Bonds	$
Par amount of Series 2020B Bonds	
Net original issue premium (Series 2020B Bonds)	
Total sources of funds	$
Uses of Funds:	
Refunding of Refunded Bonds	$
Refinancing of CP Notes	
Deposit to the Projects Account	
Costs of Issuance (including Underwriters' discount)	
Total uses of funds	$

Prior System Bonds

The Prior System Bonds in the aggregate outstanding principal amount of $_____________ as of May 1, 2020 (which amount includes the Refunded Bonds in the principal amount of $94,095,000), are secured by the System Revenues on a parity with the Series 2020 Bonds. See **"SECURITY FOR THE SERIES 2020 BONDS - Outstanding Parity Bonds."**

After the issuance of the Series 2020 Bonds, the University will have no outstanding long-term indebtedness other than the Series 2020 Bonds and the Prior System Bonds.

Commercial Paper Program

The University has established a commercial paper program authorizing the University to have outstanding CP Notes at any one time up to a maximum principal amount of $375,000,000. The CP Notes are limited obligations of the University payable solely out of and secured by a pledge of the University's Unrestricted Revenues. ***"Unrestricted Revenues"*** means in any year state appropriations for general operations, student fee revenues, and all other operating revenues of the University other than System Facilities Revenues for such year plus any unencumbered balances from previous years.

As of May 1, 2020, the University had approximately $361.7 million principal amount of CP Notes outstanding. See **"Commercial Paper Program"** in **Appendix A**. As discussed above, all outstanding CP Notes are expected to be refinanced with proceeds of the Series 2020 Bonds.

Future Financing Plans

The University does not contemplate any long-term borrowings in the foreseeable future for capital needs of the University other than the Series 2020 Bonds. In view of the COVID-19 public health crisis, the University will be reviewing all significant capital projects for essentiality to the core missions of the University, as discussed above under **"INTRODUCTION – The Coronavirus Public Health Crisis."** The University may issue CP Notes in the future to fund certain capital projects.

THE SERIES 2020A BONDS AND SERIES 2020B BONDS

Authority and Purpose

The Series 2020A Bonds and Series 2020B Bonds are being issued pursuant to and in full compliance with the Constitution and Statutes of the State of Missouri and the Resolution. The Series 2020A Bonds and Series 2020B Bonds are being issued for the purpose of (i) refunding the Refunded Bonds, (ii) financing the costs of the Projects described above, (iii) refinancing all outstanding CP Notes, and (iv) paying the costs of issuance of the Series 2020 Bonds.

Description of the Series 2020 Bonds

The Series 2020A Bonds and Series 2020B Bonds will be issuable in the form of fully registered bonds, without coupons, in the denomination of $5,000 or any integral multiple thereof. Purchasers will not receive certificates; the Series 2020A Bonds and Series 2020B Bonds will be available in book-entry form only. The Series 2020A Bonds and Series 2020B Bonds will be issued in the aggregate principal amount set forth on the cover page of this Official Statement, will be dated the date of original issuance and delivery thereof, and will mature in the years and in the principal amounts shown on the inside cover page of this Official Statement. The Series 2020A Bonds and Series 2020B Bonds will bear interest from the date of issuance and delivery, computed on the basis of a 360-day year consisting of twelve 30-day months, at the rates per annum set forth on the inside cover page of this Official Statement, which interest will be payable semiannually on May 1 and November 1 in each year, beginning on November 1, 2020. Principal of, redemption premium, if any, and interest on the Series 2020A Bonds and Series 2020B Bonds are payable at maturity or upon earlier redemption to the person in whose name the Bond is registered at maturity, or redemption date thereof, upon presentation and surrender of the Bond at the principal corporate trust office of U.S. Bank National Association, St. Louis, Missouri (the ***"Paying Agent"***). Interest on the Series 2020A Bonds and Series 2020B Bonds is payable (except on maturity or upon earlier redemption) by check or draft mailed by the Paying Agent to the person in whose name each Series 2020A Bond or Series 2020B Bond is registered on the 15th day of the month next preceding an interest payment date at such person's address as it appears on the bond registration books kept by the Paying Agent.

Redemption Provisions

Optional Redemption - Series 2020A Bonds. The Series 2020A Bonds are subject to optional redemption at the election of the University in whole or in part at any time on or after May 1, 2030 at a redemption price equal to 100% of the principal amount to be redeemed plus accrued and unpaid interest on the Series 2020A Bonds to be redeemed to the date fixed for redemption.

Optional Redemption - Series 2020B Bonds. The Series 2020B Bonds are not subject to optional redemption prior to maturity.

Extraordinary Optional Redemption.

The Series 2020 Bonds are subject to redemption and payment prior to the stated maturity date thereof in whole or in part, at the option of the University, at any time at a redemption price of **100%** of the principal amount thereof, plus accrued interest thereon to the redemption date, upon or after the occurrence of any of the following conditions or events:

(1) if title to, or the use for a limited period of, all or a substantial portion of the System Facilities is condemned by any authority having the power of eminent domain;

(2) if title to all or a substantial portion of the System Facilities is found to be deficient or nonexistent to the extent, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, that the efficient utilization of a substantial portion of the System Facilities by the University is impaired;

(3) if all or a substantial portion of the System Facilities is damaged or destroyed by fire, flooding, tornadoes or other casualty; or

(4) if as a result of changes in the Constitution of the State of Missouri, or of legislative or administrative action by the State of Missouri or any political subdivision thereof, or by the United States, or by reason of any action instituted in any court, the Resolution shall become void or unenforceable, or, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, impossible of performance without unreasonable delay, or in any other way, in the judgment of the University as reflected in a resolution of the Board or the Executive Committee, by reason of such change of circumstances, unreasonable burdens or excessive liabilities are imposed on the University.

Notice of Redemption. Notice of the University's intent to redeem (including, when only a portion of the Series 2020 Bonds are to be redeemed, the numbers of such Series 2020 Bonds and the principal amounts thereof) shall be given by or on behalf of the University to the Paying Agent and Bond Registrar. Notice of the selection or call for redemption identifying the Series 2020 Bonds or portions thereof to be redeemed, shall be given by the Paying Agent and Bond Registrar by mailing a copy of the redemption notice by first class mail, not less than 20 nor more than 60 days prior to the date fixed for redemption, in each case to the Owner of each Series 2020 Bond to be redeemed in whole or in part at the address shown on the registration books; provided, however, that any defect in giving such notice by mailing as aforesaid shall not affect the validity of any proceeding for the redemption of any Series 2020 Bond. Any notice mailed as provided in the Resolution shall be conclusively presumed to have been duly given, whether or not the Owner receives the notice.

Such notice may be conditioned upon moneys being on deposit with the Paying Agent and Bond Registrar on or prior to the redemption date in an amount sufficient to pay the redemption price plus premium, if any, on the redemption date. If such notice is conditional and moneys are not received, such notice shall be of no force and effect, the Paying Agent and Bond Registrar shall not redeem such Series 2020 Bonds and the Paying Agent and Bond Registrar shall give notice, in the same manner in which the notice of redemption was given, that such moneys were not so received and that such Series 2020 Bonds will not be redeemed.

Selection of Bonds to be Redeemed. The Series 2020 Bonds may be redeemed in any order of maturity as directed by the University and only in the principal amount of $5,000 or any integral multiple thereof. Except as provided above with respect to the optional redemption of Series 2020A Bonds, when less than all of the outstanding Series 2020 Bonds of any maturity are to be redeemed and paid prior to maturity, such Series 2020 Bonds will be selected by the Paying Agent by lot in multiples of $5,000.

Effect of Redemption. Whenever any Series 2020 Bond is called for redemption and payment, all interest on such Series 2020 Bond shall cease from and after the date for which such call is made, provided funds are available for its payment at the price specified.

Registration, Transfer and Exchange

The Series 2020 Bonds will be issued only in fully registered form. Any Series 2020 Bond may be transferred only upon the surrender thereof to the principal corporate trust office of the Paying Agent duly endorsed for transfer or accompanied by a written instrument of transfer duly executed by the registered owner or his attorney or legal representative in such form as shall be satisfactory to the Paying Agent. The Paying Agent will charge the owner requesting any change in registration, exchange or transfer a fee covering any tax or other governmental charge in connection therewith.

The foregoing provisions for the registration, transfer and exchange of the Series 2020 Bonds will not be applicable to purchasers of the Series 2020 Bonds so long as the Series 2020 Bonds are subject to the DTC or other book-entry only system.

SECURITY FOR THE SERIES 2020 BONDS

General

The Series 2020 Bonds and the interest thereon constitute special, limited obligations of the University, payable solely from, and secured as to the payment of principal of, redemption premium, if any, and interest by a first lien on and pledge of the System Revenues, and the System Revenues (other than the Student System Facilities Fee) will be set aside for that purpose in a special fund held pursuant to the Resolution and identified therein as the System Facilities Revenue Account. See **"Appendix D - Definitions and Summary of the Resolution."** System Revenues consist of the gross income and revenues derived from the following: (1) the ownership or operation of System Facilities described herein, (2) the imposition and collection of certain specifically assessed student fees and stadium usage surcharges, and (3) the Student System Facilities Fee. Any amounts remaining in the Student Facilities Revenue Account after required deposits to the Principal and Interest Account may be used by the University for any lawful purpose. See **"Appendix D - Definitions and Summary of the Resolution – Application of Revenues."**

System Facilities -- Operating Units

The gross income and revenues derived from the ownership or operation of various System Facilities are pledged to the payment of the Series 2020 Bonds and the Prior System Bonds and included within the term "System Revenues." The System Facilities include:

Bookstores – the campus bookstores located on each of the four campuses of the University;

Housing – certain student residence halls, apartments and related dining and other facilities located on each of the four campuses of the University, but excluding University Meadows on the St. Louis Campus;

Parking – the existing parking and transportation systems, including residence hall parking, located on each of the four campuses of the University, including revenues derived from parking fees and fines;

Student Centers – the Memorial Union and MU Student Center located on the Columbia Campus, the University Center and the Student Union on the Kansas City Campus, the Havener Center on the

Missouri S&T Campus, and the University Center and the Student Center on the St. Louis Campus, including the dining and other student services located therein; and

University Health System – the facilities of the University Health System (the ***"University Health System"***), including the facilities of University Hospital located on the Columbia Campus (which includes the Ellis Fischel Cancer Center); Women's and Children's Hospital, located in Columbia, Missouri; the Missouri Psychiatric Center, located in Columbia, Missouri; the Missouri Orthopaedic Institute located in Columbia, Missouri; and the other facilities and health care clinics of the University Health System, including the facilities of University Physicians, the organized practice plan for the faculty of the School of Medicine. The School of Medicine, the Sinclair School of Nursing and the School of Health Professions are not part of the University Health System, and none of the revenues of those Schools is included in the System Revenues.

The term "System Facilities" also includes various other facilities of the University, including:

Athletics – the Mizzou Arena and various athletic practice and competition facilities constituting the Sports Complex on the Columbia Campus, including the Hearnes Multi-Purpose Building, Memorial Stadium, and the Mizzou Football South End Zone facility, Daniel J. Devine Pavilion, the Mizzou Athletics Training Complex, the Taylor Stadium baseball facility, the Mizzou Softball Stadium, the Mizzou Tennis Complex, the University-operated facilities at Old Hawthorne Golf Club, and Audrey J. Walton Track-Soccer Stadium;

Printing and Publications – the printing and publications facility of the University located in Columbia, Missouri;

Campus Utilities – the cogeneration power plant, chilled water plant, and storm sewer replacement on the Columbia Campus and central utilities performance contracting on the Kansas City Campus;

Research Reactor – the research reactor on the Columbia Campus;

Laboratory – the laboratory and related facilities at the School of Medicine and the Swine Research Center on the Columbia Campus; and

Miscellaneous – various miscellaneous facilities and equipment of the University located on each of the four campuses including classroom, educational, research, office, administrative and other similar facilities.

It is the intention of the University generally to include only revenue producing facilities within the System Facilities.

Under the Resolution, the University may sell at fair market value or abandon the use of the System Facilities, or any material part thereof, or any extension or improvement thereof, only if certain conditions set forth in the Resolution are satisfied. See **"Appendix D - Definitions and Summary of the Resolution – Particular Covenants of the University – Restriction on Mortgage, Sale or Disposition of the System Facilities."**

Student Fees and Usage Surcharges

The gross income and revenues derived from the imposition and collection of certain usage fees are also pledged to the payment of the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University in accordance with the Resolution. The usage fees that are pledged and included in the "System Revenues" include:

Recreational Facility Fees – (a) the Multi-Purpose Building Fee and the Student Recreational Facility Fee relating to the Hearnes Multipurpose Center and the Student Recreational Center, and the Student Activities Fee relating to Stankowski Field, paid by each enrolled student on the Columbia Campus, (b) the Recreational Center Fee relating to the Swinney Recreation Center paid by each enrolled student on the Kansas City Campus, (c) the Intramural Facility Fee relating to the Gale Bullman Multipurpose Building paid by each enrolled student on the Missouri S&T Campus, and (d) the Wellness Center Fee and Recreational Facility Fee paid by each enrolled student on the St. Louis Campus;

Stadium Surcharges – separate admission surcharges, presently collected in the aggregate amount of $8.00 per paid admission to home regular season varsity football games of the University of Missouri - Columbia, relating to Memorial Stadium on the Columbia Campus; and

Student Center Fees – (a) the Student Union Fee paid by each enrolled student on the Columbia Campus, (b) the Student Center Building Fee paid by each enrolled student on the Kansas City Campus, (c) the Havener Center Building Fee paid by each enrolled student on the Missouri S&T Campus, and (d) the University Center Building Fee paid by each enrolled student on the St. Louis Campus.

Student System Facilities Fees

The Student System Facilities Fee consists of the portion of the Tuition and Fees collected from all students enrolled at the University that has been designated by the University as a student fee for the use of the System Facilities in an amount equal to the Maximum Annual Debt Service on the Bonds. The Student System Facilities Fee is included in the "System Revenues" and is pledged to the payment of the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University, but is not required to be deposited in the System Facilities Revenue Account established under the Resolution. Once all deposits to the Principal and Interest Account required under the Resolution have been made in any fiscal year, the University may expend the System Revenues, including the Student System Facilities Fee, for any lawful purpose, including the payment of the CP Notes and the interest thereon. The University may increase, but may not decrease, the amount of the Student System Facilities Fee as a percentage of Maximum Annual Debt Service.

Tuition and Fees, net of provision for doubtful accounts, for the fiscal year ended June 30, 2019 were $857,456,000. Scholarship allowances were $232,764,000, for a total net Tuition and Fees of $624,692,000. The total Student System Facilities Fee with respect to the Prior System Bonds for the fiscal year ended June 30, 2019 was $118,890,135.

Rate Covenant

Pursuant to the Resolution, the University covenants to continuously operate and maintain the System Facilities and continue to fix and maintain such reasonable rates and charges for the use of the System Facilities as will allow it to collect System Revenues sufficient to (a) provide and maintain the System Facilities Revenue Account and the Principal and Interest Account (as defined in the Resolution) in amounts adequate to pay promptly the principal of and interest on the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University and secured on a parity with the Series 2020 Bonds as and when the same become due; and (b) enable the University to have in each fiscal year System Revenues (excluding the Student System Facilities Fee) in an amount that will be not less than 200% of the Annual Debt Service required to be paid by the University in that fiscal year on account of both principal of and interest on all Bonds at the time Outstanding.

Outstanding Parity Bonds

In 1993, the University adopted resolutions that authorized the issuance of its System Facilities Revenue Bonds, Series 1993 (the ***"Series 1993 Bonds"***), none of which remain outstanding. The Series 1993 Bond resolution (the ***"Original Resolution"***) established a system facility financing program for the University, which included the Series 1993 Bonds and any Additional Bonds thereafter issued by the University in conformance with the provisions of the Original Resolution.

Since 1993, the University has issued various series of Prior System Bonds, which were outstanding in the aggregate principal amount of $1,180,875,000 as of May 1, 2020 (which amount includes the Refunded

Bonds in the expected principal amount to be refunded of $94,095,000). See **"Outstanding Parity Bonds"** in **Appendix A**.

The Series 2020 Bonds are "Additional Bonds" within the meaning of the Prior System Bond resolutions and stand on a parity with and are equally and ratably secured with respect to the payment of principal and interest from the System Revenues derived by the University from the operation of the System Facilities and in all other respects with the Prior System Bonds, all as defined and provided in the Resolution. The Prior System Bonds specified above enjoy complete equality of lien on and claim against the System Revenues with the Series 2020 Bonds.

Additional Bonds

Prior Lien Bonds. The University covenants and agrees that so long as any of the Series 2020 Bonds remain outstanding and unpaid, the University will not issue any Additional Bonds or other debt obligations payable out of the System Revenues or any part thereof that are superior to the Series 2020 Bonds; provided, however, that nothing in the Resolution will preclude the University from issuing any Additional Bonds or other debt obligations to refund, in whole or in part, the Series 2020 Bonds.

Parity Lien Bonds. The University may issue one or more series of Additional Bonds to finance the acquisition, construction, improvement, renovation, furnishing or equipping of System Facilities Additions (see **"Appendix D - Definitions and Summary of the Resolution"**) or to refund indebtedness previously incurred to finance the acquisition, construction, improvement, renovation, furnishing or equipping of the System Facilities or System Facilities Additions, to be secured by a parity lien on and ratably payable from the System Revenues pledged to the Series 2020 Bonds and the Prior System Bonds, provided that all the following conditions are met:

(a) The University is not in default in the payment of principal of or interest on the Series 2020 Bonds, any Prior System Bonds or any Additional Bonds or in making any payment at the time required to be made into the respective funds and accounts created by and referred to in the Resolution; and

(b) The System Facilities Additions are made part of, if not already a part of, the System Facilities, and the System Revenues are pledged as security for the additional parity bonds and all Bonds Outstanding against the System Facilities; and

(c) The University obtains a certificate from its Controller (or other similar officer selected by the University), attesting to the accuracy of the calculations made by the University, that shows both of the following:

(1) The System Revenues (excluding the amount of any Student System Facilities Fee designated by the University) derived by the University for the fiscal year immediately preceding the issuance of Additional Bonds have been equal to at least 200% of the Maximum Annual Debt Service required to be paid out of the System Revenues in any current or future fiscal year on account of both principal and interest becoming due with respect to the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds. In determining the System Revenues for the purpose described in this paragraph, System Revenues may be adjusted by adding thereto, in the event the University has made and put into effect any increase in the rates, charges or fees constituting the System Revenues and the increase has not been in effect during all the fiscal year immediately preceding the issuance of the Additional Bonds, the estimated amount of the additional System Revenues that would have resulted from the increase in the rates, charges or fees constituting the System Revenues during the preceding fiscal year had the rate increase been in effect for the entire period; and

(2) The estimated average annual System Revenues derived by the University (excluding the amount of any Student System Facilities Fee designated by the University) in connection with the issuance of the Additional Bonds for the two fiscal years immediately following the year in which the additional facilities for which the cost of acquisition,

construction, improvement, renovation, furnishing or equipping of which is being financed by such Additional Bonds, are to be in operation, will be equal to at least 200% of the average Annual Debt Service required to be paid out of the System Revenues in any succeeding fiscal year following such operation on account of both principal and interest becoming due with respect to all Bonds, including the Additional Bonds proposed to be issued. In determining the amount of estimated System Revenues for the purpose described in this paragraph, System Revenues may be adjusted by adding thereto any estimated increase in System Revenues resulting from any increase in the rates, charges or fees constituting the System Revenues that are economically feasible and reasonably considered necessary. The computation of estimates will be made by its Controller (or other similar officer selected by the University).

Additional Bonds of the University issued under the conditions set forth above will stand on a parity with the Series 2020 Bonds and the Prior System Bonds and will enjoy complete equality of lien on and claim against the System Revenues with the Series 2020 Bonds and the Prior System Bonds, and the University may make equal provision for paying the bonds and the interest thereon out of the System Facilities Revenue Account and may likewise provide for the creation of reasonable principal and interest accounts for the payment of the Additional Bonds and the interest thereon.

Special Additional Bonds. The University may also issue additional series of revenue bonds or provide for existing bonds or obligations to be secured by a parity lien on and ratably payable from the System Revenues with the Series 2020 Bonds and the Prior System Bonds and otherwise as set forth in **Article X** of the Resolution. See **"Appendix D - Definitions and Summary of the Resolution."**

Junior Lien Bonds. The University may issue one or more additional series of revenue bonds or other revenue obligations payable out of the System Revenues that are junior and subordinate to the Series 2020 Bonds and the Prior System Bonds provided at the time of the issuance of the additional revenue bonds or obligations all the following conditions are met:

(a) The University is not in default in the payment of principal of or interest on the Series 2020 Bonds, any Prior System Bonds or any Additional Bonds or in making any payment at the time required to be made into the respective funds and accounts created by and referred to in the Resolution; and

(b) Any System Facilities Additions financed with junior lien bonds are made a part of, if not already a part of, the System Facilities, and the System Revenues derived therefrom are pledged as security for the additional revenue bonds or other obligations and all Bonds and Additional Bonds outstanding against the System Facilities; and

(c) The University obtains a certificate from its Controller (or other similar officer selected by the University), attesting to the accuracy of the calculations made by the University, that demonstrates that the System Revenues (excluding the amount of any Student System Facilities Fee designated by the University) derived by the University for the fiscal year immediately preceding the issuance of additional revenue bonds or other obligations that are junior and subordinate to the Series 2020 Bonds are equal to at least 200% of the sum of (i) the average Annual Debt Service required to be paid out of the System Revenues in any succeeding fiscal year (other than the last year) on account of both principal and interest becoming due with respect to all revenue obligations payable out of the System Revenues, and (ii) the average Annual Debt Service required to be paid out of the System Revenues in any succeeding fiscal year on account of both principal and interest becoming due with respect to the additional junior lien bonds or other obligations proposed to be issued. In determining the System Revenues for the purpose described in this paragraph, System Revenues may be adjusted by adding thereto, if the University has made and put into effect an increase in the rates or charges constituting the System Revenues and the increase will not have been in effect during all of the fiscal year immediately preceding the issuance of additional revenue bonds or other obligations, the estimated amount of the additional System Revenues that would have resulted from the increase in the rates, charges or fees constituting the System Revenues during the preceding fiscal year had the rate increase been in effect for the entire period.

The additional revenue bonds or obligations will be junior and subordinate to the Series 2020 Bonds and the Prior System Bonds so that if at any time the University is in default in paying either interest on or principal of the Series 2020 Bonds, or if the University is in default in making any payments required to be made by it under the Resolution, the University will make no payments of either principal of or interest on the junior and subordinate revenue bonds or obligations until the default or defaults are cured. In the event of the issuance of any junior and subordinate revenue bonds or obligations, the University, subject to the provisions above, may make provision for paying the principal of and interest on the junior lien revenue bonds or obligations out of moneys in the System Facilities Revenue Account.

Refunding Bonds. The University will have the right, if it finds it desirable, to refund any of the Series 2020 Bonds or Prior System Bonds then subject to redemption or becoming due, under the provisions of any law then available. The Bonds or any part thereof may be refunded and the refunding bonds so issued will stand on a parity or enjoy complete equality of pledge upon the System Revenues with any Series 2020 Bonds and Prior System Bonds that are not refunded without complying with the provisions of the foregoing as to Additional Bonds as long as there are debt service savings to the University by virtue of the refunding. See **"Appendix D - Definitions and Summary of the Resolution."**

Type of Indebtedness. So long as the other covenants of the Resolution applicable to that indebtedness are met, the Additional Bonds or junior lien bonds may be issued on either a fixed rate or a variable rate basis, and the University may use derivative products.

Operation and Maintenance of System Facilities

The University intends to pay the cost of operation and maintenance of the System Facilities from excess System Revenues (excluding the Student System Facilities Fee) available for that purpose. The University also intends to pay the costs of operation and maintenance of the System Facilities financed by the Prior System Bonds from excess System Revenues available for that purpose should excess System Revenues exist. In the past, the System Revenues (excluding the Student System Facilities Fee) have been adequate to pay the costs of operation and maintenance of the System Facilities, including facilities financed by the Prior System Bonds.

The University has historically maintained reserves for repair and replacement relative to the System Facilities and intends to continue to maintain those reserves after the issuance of the Series 2020 Bonds. The existence of those reserves is not required by the Resolution, but is considered by the University to be a good business practice. The amount of reserves may change from time to time. As of June 30, 2019, the amounts held in the reserves for repair and replacement relative to the System Facilities aggregated $143,761,799, which amount is included in the unrestricted net position in the financial statements of the University.

Limited Obligations

The Series 2020 Bonds and the interest thereon are special, limited obligations of the University payable solely from, and secured as to the payment of principal, redemption premium, if any, and interest, by a first lien on and pledge of the System Revenues. The Series 2020 Bonds will not constitute an indebtedness or general obligation of the State of Missouri, the University, the Board, or any individual member of the Board. Under the Resolution, the Board will pledge and grant a continuing security interest in the System Revenues as long as the Series 2020 Bonds are outstanding. The owners of the Series 2020 Bonds will have no right to demand payment out of any other funds of the University.

Changes to System Revenues or Facilities and Issuance of Additional Bonds or other Obligations

The University created a financing program for the System Facilities to be secured by the System Revenues in connection with the issuance of the Series 1993 Bonds and the Prior System Bonds. The Series 2020 Bonds are a part of that financing program. Under the Resolution and the resolutions authorizing the Prior System Bonds, the University may subsequently add other facilities and properties to the System Facilities, add other revenues to the System Revenues and secure other bonds or obligations by the System Revenues on a parity with the Series 2020 Bonds and the Prior System Bonds.

Under the Resolution, the University also has the right to do any or all of the following provided that, upon the occurrence of any of the following, the Bonds retain a rating from any national rating service then rating the Bonds at the request of the University at least equal to that in effect immediately prior to the occurrence of the following:

(a) change the security for the Bonds (including the type of revenues, fees and reserves pledged) to add a new type of revenues, fees and reserves to or delete a type of revenues, fees and reserves from the System Revenues or the System Facilities;

(b) add or delete new types of facilities or properties of the University to the System Facilities financed by Bonds;

(c) secure any other bonds or obligations of the University, whether issued prior or subsequent to the date of the Resolution, by the System Revenues as long as any other security for such other bonds or obligations also secure the Bonds; or

(d) issue Additional Bonds secured by the System Revenues and other security described in paragraph (a), (b) or (c) without meeting the requirements of the Resolution for the issuance of Additional Bonds on a parity with the Bonds.

See **"Appendix D - Definitions and Summary of the Resolution - Potential Modification of (1) Security for the Series 2020 Bonds; (2) Bonds as to Which System Revenues Provide Security; and (3) Parity Lien Bond Test."**

BONDOWNERS' RISKS

The following is a discussion of certain risks that could affect payments to be made by the University with respect to the Series 2020 Bonds. Such discussion is not, and is not intended to be, exhaustive and should be read in conjunction with all other parts of this Official Statement and should not be considered as a complete description of all risks that could affect such payments. Prospective purchasers of the Series 2020 Bonds should analyze carefully the information contained in this Official Statement, including the Appendices to this Official Statement.

Limited Obligations

The Series 2020 Bonds and the interest thereon are special, limited obligations of the University payable solely from, and secured as to the payment of principal, redemption premium, if any, and interest, by a first lien on and pledge of the System Revenues. The Series 2020 Bonds will not constitute an indebtedness or general obligation of the State of Missouri, the University, the Board, or any individual member of the Board. Under the Resolution, the Board will pledge and grant a continuing security interest in the System Revenues as long as the Series 2020 Bonds are outstanding. The owners of the Series 2020 Bonds will have no right to demand payment out of any other funds of the University.

Enrollment

A significant decrease in the University's enrollment could adversely affect the University's financial position and results of operations. Declines in enrollment, particularly at its Columbia campus, in Fall 2016 and 2017 after widely publicized campus unrest on the Columbia campus in fiscal year 2016, had an adverse effect on the University's enrollment and its results of operations. The University cannot yet predict the impact of the COVID-19 public health crisis and the closing of in-person classes in the spring semester will have on Fall 2020 enrollment or on enrollment trends in the future. The admissions office of the University is working closely with prospective students, and other student life offices are working closely with current students to maximize first-time enrollment and minimize attrition for returning students.

State Appropriations

The University has historically received over $400 million per year in recurring State appropriations. The level of State appropriations and the Governor's ability and willingness to withhold a portion of the appropriated funds in accordance with his State Constitutional authority have varied over the years, primarily due to the levels of State projected and actual revenues for a given fiscal year. See the discussion under the caption **"State Appropriations"** in **Appendix A** for the main factors affecting fluctuations in State appropriations in the past five fiscal years. Future revenue shortfalls for the State or increased spending pressures for the State in other areas, or a combination of the two, may adversely affect future State appropriations for the University and the level of Governor withholdings of appropriated amounts.

On April 1, 2020, Missouri Governor Michael Parson announced budget withholdings due to the economic impact of the COVID-19 public health crisis. With Governor Parson's announcement, the withholdings to the University of Missouri will total approximately $36.5 million, in addition to the Governor's normal 3% withholding. See **"State Appropriations"** in **Appendix A**.

Financial Aid

A significant percentage of the University's undergraduate and graduate students receive financial support in the form of federally supported loans and scholarships and grants from the University. See the caption "**Financial Aid**" in **Appendix A** to this Official Statement. There can be no assurance that the amount of federally supported loans will remain stable or increase in the future. If the amount of such loans decreases in the future, there can be no assurance that the University will be able to increase the amount of financial aid it provides. Any change in the availability of financial aid could adversely affect the University's enrollment.

Tuition

A significant portion of the University's revenues are provided through tuition and related fees. Although the University in the past has been able to raise tuition and related fees in sufficient amounts without adversely affecting enrollment, there can be no assurance that it will continue to be able to do so in the future.

Gifts, Grants and Bequests

On an ongoing basis, the University solicits gifts and bequests for both current operating purposes and other needs. In addition, the University receives various grants from private foundations and from agencies of the federal government. See the caption **"Capital Campaigns"** in **Appendix A**. There can be no assurance that the amounts of gifts, grants and bequests received by the University will remain stable or increase in the future. The University experienced declines in giving and financial support of the University in the past, particularly in fiscal 2017 and 2018 as a result of the impact of highly publicized campus unrest on the Columbia campus in fiscal 2016. The University cannot predict the impact the recent dramatic market declines may have on giving to the University for the balance of the current fiscal year or fiscal year 2021.

MU Health Care Revenues

For the fiscal year ended June 30, 2019, MU Health Care (as defined in **Appendix A**) had total operating revenues of approximately $1,086 million or approximately 36% of the total operating revenues of the University for fiscal year 2019. There can be no assurances that revenues will remain stable or will increase in the future or that the operation of MU Health Care will contribute to revenues in excess of expense for any fiscal year. MU Health Care and the health care industry in general are subject to federal, state and local legislation and regulation by a number of governmental and private agencies, including those that administer the Medicare program, the Medicaid program, federal, state and local agencies responsible for administration of inspection, licensing and accrediting of health care facilities and health planning programs, and other federal, state and local governmental agencies. As a result, the health care industry and the MU Health Care are sensitive to legislative changes in such programs. See **"MU Health Care Financial and Operating Data"** in **Appendix A** for the historical results of operations of MU Health Care for the five fiscal years ended June 30, 2019.

The University and the leadership of MU Health Care are preparing for increased demands in responding to the health needs of those affected by COVID-19 and the potential extraordinary demands on its personnel and facilities. At this point, the University cannot predict the financial or operational impacts of the public health crisis on the personnel, facilities or results of operations of MU Health Care.

University Investments

As of December 31, 2019, the University's General Pool described in **Appendix A** had a market value of approximately $2.3 billion, and the University's Endowment Pool described in **Appendix A** had a market value of approximately $1.83 billion. The General Pool is less susceptible to fluctuations in the equity markets due to the short-term, liquid nature of investments in the General Pool. The Endowment Pool has a significant position in equity markets, and thus bears the risk of declines in the overall equity markets.

As widely reported, U.S. and international equity markets have declined dramatically since the COVID-19 public health crisis disrupted financial markets in March 2020. While the University has experienced growth in the Endowment Pool since fiscal year 2016, that may not be the case for fiscal year 2020 due to recent market turmoil. The value of all University investments will fluctuate over time, and certain periods may have significant declines in values due to a wide range of national and international economic and market conditions. The University's efforts to balance risk and reward in its investment portfolios will not fully protect the University from significant periods of market decline.

Variable Rate Indebtedness and Swaps

The University has previously issued and has outstanding, and may issue additional, variable rate indebtedness, the interest rates on which are adjusted periodically in accordance with the terms of the securities based on current market conditions. The University's commercial paper program is variable rate financing, as the maximum term of CP Notes is 270 days. When CP Notes mature, they must either be paid from System Revenues or refinanced with a new issuance of CP Notes. Interest rates on variable rate indebtedness and CP Notes vary on a periodic basis. Increases in short-term interest rates directly affect the rates paid by the University on its variable rate indebtedness. The dislocations in the short-term municipal markets (taxable and tax-exempt) beginning in mid-March 2020 as a result market reactions to the COVID-19 public health crisis had a direct and dramatic (albeit short-term) adverse impact on the rates being paid by the University on its short-term indebtedness that was repricing during that period.

Although all outstanding CP Notes are expected to be refinanced with proceeds of the Series 2020 Bonds, the $375 million CP Note program will remain in place after the issuance of the Series 2020 Bonds, and the University may issue CP Notes in the future to fund various capital needs of the University.

The University has entered into and, in the future, may enter into swap or rate lock agreements related to interest rates on certain of its indebtedness or other corporate purposes (the "swaps"). The swaps would be subject to periodic "mark-to-market" valuations and at any time may have a negative value to the University. A swap counterparty may terminate a swap upon the occurrence of certain "termination events" or "events of default." The University may also terminate the swaps at any time. If either the counterparty to a swap or the University terminates any of the swaps while the swap has a negative value to the University, the University could be required to make a termination payment to the counterparty to the terminated swap, and such payment could be material. If the financial condition of a swap counterparty were to deteriorate, that counterparty may fail to honor its obligations under the applicable swap.

Tax-Exempt Status and Risk of Audit

For information with respect to events that may require interest on the Series 2020B Bonds to be included in gross income for purposes of federal income taxation and not be exempt from income taxation by the State of Missouri, see "**TAX MATTERS.**" Furthermore, the Resolution does not require the University to redeem any of the Series 2020B Bonds or to pay any additional interest, redemption premium or penalty in the event that interest on the Series 2020B Bonds becomes taxable.

The Internal Revenue Service (the **"Service"**) has an ongoing program to audit tax-exempt obligations to determine whether interest on such obligations should be included in gross income for federal income tax purposes. Owners of the Series 2020B Bonds are advised that, if an audit of the Series 2020B Bonds were commenced, in accordance with its current published procedures, the Service is likely to treat the University as the taxpayer, and the owners of the Series 2020B Bonds may not have a right to participate in such audit. Public awareness of any audit could adversely affect the market value and liquidity of the Series 2020B Bonds during the pendency of the audit, regardless of the ultimate outcome of the audit.

Impact of COVID-19 Public Health Crisis

See the discussion above under **"INTRODUCTION - Recent Developments – the Coronavirus Public Health Crisis**" and the discussions in the risk factors above relating to the impact of the COVID-19 public health crisis on the University. Supplemental to those discussions, the outbreak of COVID-19 is having a significant adverse effect on the world and the University, and the responses nationally to the crisis are covered in national and local news on a daily basis. The various responses of the University are discussed throughout this Official Statement, and certain of the risks to the University associated with the public health crisis are discussed in the risk factors above. Significant potential risks to the University include:

- Adverse impact on State appropriations for the University.
- Adverse impact on enrollment in Fall 2020 and thereafter.
- Adverse impact on demand for student housing in Fall 2020 and thereafter.
- Adverse impact on the demands on the personnel and facilities of MU Health Care and incurrence of expenses that are not covered by traditional reimbursements or any of the extraordinary Federal government aid programs and interventions (including the CARES Act adopted in late March 2020).
- Adverse impact on the value of the University's investments.
- Adverse impact on the ability or willingness of donors (who are likely to be experiencing significant market losses in their investments) to support the University at historical levels of annual and capital giving.

The University anticipates it will receive federal aid in various forms under the three COVID-19 related relief bills that have already been signed into law this spring. But, the University cannot predict the amount of federal aid that may be received, and anticipates that whatever the level of federal aid it will not fully offset the costs to and other impacts on the University. The continued spread of COVID-19 is changing daily, and the University cannot predict the range of impacts or the magnitude of the impact of the public health crisis on any aspect of University operations at this time.

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DEBT SERVICE REQUIREMENTS

The following table sets forth the future annual debt service requirements relating to the System Facilities, consisting of the Series 2020 Bonds and the Prior System Bonds (excluding the Refunded Bonds), calculated on a fiscal year basis and rounded to the nearest dollar. The University issued the Series 2010A Bonds and the Series 2009A Bonds as "Build America Bonds." For purposes of the table below, interest included for the Series 2010A Bonds and the Series 2009A Bonds is the gross interest expense on those two series of Bonds before the 35% interest subsidy payments that the University originally expected to receive from the U.S. Treasury as a result of the qualification of those two series of Bonds as "Build America Bonds" under the Code. For purposes of the Resolution and the Prior System Bond resolutions, however, "Annual Debt Service" and "Maximum Annual Debt Service" on the Bonds are computed after giving effect to (i.e. deducting) the interest subsidy payments received or expected to be received by the University from the U.S. Treasury with respect to any series of Bonds designated as Build America Bonds. The University is obligated to pay the interest on the Series 2010A Bonds and the Series 2009A Bonds at the stated interest rates thereon irrespective of whether the University receives any interest subsidy payments from the U.S. Treasury. See the discussion under ***"Outstanding Parity Bonds"*** in **Appendix A** regarding reductions in the interest subsidy payments since fiscal 2014. The table does not give effect to any outstanding interest rate swaps and excludes debt service on any CP Notes that may be issued by the University during the periods shown.

Fiscal Year Ending June 30,	Prior System Bonds Principal and Interest [(1) (2)]	Series 2020 Bonds) Principal	Series 2020 Bonds) Interest	Total Debt Service Relating to System Facilities
2020	$	$	$	$
2021				
2022				
2023				
2024				
2025		-		
2026		-		
2027		-		
2028		-		
2029				
2030				
2031				
2032				
2033				
2034				
2035				
2036				
2037				
2038				
2039				
2040				
2041				
2042				
2043				
2044				
2045				
2046				
2047				
2048				
2049				
2050	-	-	-	-
Total	$	$	$	$

(1) Prior System Bonds in the outstanding principal amount of $________ as of June 30, 2019 bear interest at variable rates that are set daily or weekly in accordance with the Prior System Bond resolutions. For purposes of the preceding table, the University has assumed that all the outstanding variable rate Prior System Bonds bear interest at a fixed rate of 4.0% per annum throughout the maturity of each series of variable rate bonds.

(2) Excludes the debt service on the Refunded Bonds expected to be refunded with proceeds of the Series 2020 Bonds.

PLEDGED REVENUES OF THE SYSTEM

The Series 2020 Bonds are payable solely from, and secured as to the payment of principal of, redemption premium, if any, and interest on the Series 2020 Bonds, by a first lien on and pledge of the System Revenues, which consist of revenues derived from (i) the ownership or operation of the System Facilities; (ii) the imposition and collection of certain specifically assessed student fees and stadium usage surcharges; and (iii) the Student System Facilities Fee. See **"SECURITY FOR THE SERIES 2020 BONDS."**

The following table sets forth the historical System Revenues pledged to secure the outstanding Bonds for the five fiscal years ended June 30, 2019.

Historical Pledged System Revenues
($ in thousands)

	Fiscal Years Ended June 30,				
	2015	**2016**	**2017**	**2018**	**2019**
Operating Revenues					
Specifically Assessed Student Fees	$ 23,761	$ 23,006	$ 29,484	$ 28,551	$ 27,867
Bookstore	56,010	54,673	47,662	41,470	38,380
Housing and Food Service, Net	115,097	116,622	107,753	102,287	105,953
Patient Medical Services, Net	942,160	1,012,410	1,126,221	1,194,432	1,288,005
Parking/Other	33,973	33,124	38,098	39,425	35,561
Total	1,171,001	1,239,835	1,349,218	1,406,165	1,495,766
Student System Facilities Fee (1)	134,538,563	119,239,810	118,551,229	118,715,646	118,890,135
Total	$135,709,564	$120,479,645	$119,900,447	$120,121,811	$120,365,901

(1) The Student System Facilities Fee is included in the System Revenues and is pledged to the payment of the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University. The University is not, however, required to deposit the Student System Facilities Fee in the System Facilities Revenue Account. Once all deposits to the Principal and Interest Account required under the Resolution have been made in any fiscal year, the University may expend the System Revenues, including the Student System Facilities Fee, for any lawful purpose.

The Series 2020 Bonds are special, limited obligations of the University payable solely from, and secured as to the payment of principal and interest by a first lien on and pledge of, the System Revenues, which (other than the Student System Facilities Fee) are to be set aside for that purpose in a special fund, known as the System Facilities Revenue Account, held pursuant to the Resolution. The University covenants and agrees in the Resolution that as long as any of the Series 2020 Bonds remain Outstanding and unpaid, all System Revenues, other than the Student System Facilities Fee, will be credited to the System Facilities Revenue Account. All moneys then held in the System Facilities Revenue Account are required to be applied first to the Principal and Interest Account for the Series 2020 Bonds and all Prior System Bonds, on a parity basis (and to any subaccounts established with respect to any Additional Bonds hereafter issued by the University), to the extent necessary for the payment of all principal of and interest on the Bonds. All amounts paid and credited to the Principal and Interest Account are required to be used by the University for the sole purpose of paying the interest on and principal of the Bonds as and when the same become due and the payment of any fees of the respective paying agent and bond registrars in connection with the Bonds. Once required deposits have been made to the Principal and Interest Account for each fiscal year, the University may use the amounts on deposit in the System Facilities Revenue Account for any lawful purpose, including the payment of principal of and interest on the CP Notes.

TAX MATTERS

Tax Exemption

The opinion of Thompson Coburn LLP, Bond Counsel, to be delivered upon the issuance of the Series 2020B Bonds, a form of which is attached hereto as **Appendix E - FORM OF OPINION OF BOND COUNSEL**, will state that, under existing law, interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof as discussed in the portion of this Official Statement captioned "**TAX MATTERS--Original Issue Discount**") is excluded from gross income for federal income tax purposes, but interest on the Series 2020A Bonds is not excluded from gross income for federal income tax purposes.

Bond Counsel's opinion will be subject to the condition that the University comply with all requirements of the Code that must be satisfied in order that interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) be, and continue to be, excluded from gross income for federal income tax purposes. The University is to covenant in the Resolution and the Tax Compliance Agreement to comply with all such requirements. In addition, Bond Counsel will rely on representations by the University and others, with respect to matters solely within their knowledge, which Bond Counsel has not independently verified. Failure to comply with the requirements of the Code (including due to the foregoing representations being determined to be inaccurate or incomplete) may cause interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) to become included in gross income for federal income tax purposes retroactive to the date of issuance of the Series 2020B Bonds. Bond Counsel has not been retained to monitor compliance with requirements such as described above subsequent to the issuance of the Series 2020B Bonds. In addition, the Resolution does not require the University to redeem any of the Series 2020B Bonds or to pay any additional interest, redemption premium or penalty if the interest on the Series 2020B Bonds becomes included in gross income for federal income tax purposes.

In addition, the opinion of Bond Counsel will state that, under existing law, interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) is not a specific item of tax preference for purposes of the federal alternative minimum tax, if applicable. Furthermore, the opinion of Bond Counsel will state that, under existing law, the Series 2020B Bonds are not "qualified tax-exempt obligations" within the meaning of Section 265(b)(3) of the Code (relating to financial institution deductibility of interest expense).

The opinion of Bond Counsel will state that, under existing law, interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) is exempt from income taxation by the State of Missouri.

Except as stated above, the opinion of Bond Counsel will express no opinion as to any federal, state or local tax consequences arising with respect to the Series 2020B Bonds.

Bond Counsel's opinions are based on Bond Counsel's knowledge of facts as of the date thereof. Further, Bond Counsel's opinions are based on existing legal authorities, cover certain matters not directly addressed by such authorities and represent Bond Counsel's legal judgment as to the proper treatment of the Series 2020B Bonds for federal and State of Missouri income tax purposes. Such opinions are not a guarantee of result and are not binding on the Service or the courts. Furthermore, Bond Counsel cannot give and has not given any opinion or assurance about the future activities of the University or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the Service. Bond Counsel assumes no duty to update or supplement its opinions to reflect any facts or circumstances that may thereafter come to Bond Counsel's attention or to reflect any changes in any law that may thereafter occur.

Original Issue Discount

The initial public offering prices of certain maturities of the Series 2020 Bonds, as set forth on the inside cover page of this Official Statement, may be less than the respective stated redemption prices at maturity (such Series 2020 Bonds are hereinafter referred to as "OID Bonds"). An amount equal to the difference between the initial public offering price of an OID Bond (assuming a substantial amount of such maturity is first sold at that price) and its stated redemption price at maturity constitutes original issue discount. The amount of original issue discount properly accruable with respect to a Series 2020B Bond which is an OID Bond (a "Series 2020B OID Bond") is excluded from gross income for federal income tax purposes (subject to the condition of compliance by the University with the requirements of the Code), but the amount of original issue discount properly accruable with respect to a Series 2020A Bond with is an OID Bond is not excluded from gross income for federal income tax purposes. The amount of original issue discount properly accruable with respect to an OID Bond is exempt from income taxation by the State of Missouri. The amount of properly accruable original issue discount during the period that the owner holds an OID Bond is added to the owner's tax basis for purposes of determining gain or loss upon maturity, redemption, prior sale or other disposition of such OID Bond.

Under Section 1288 of the Code, original issue discount on tax-exempt bonds accrues on a compound basis. The amount of original issue discount that accrues during any accrual period to an owner of an OID Bond who purchases such OID Bond in this initial offering at the initial offering price generally equals (i) the issue price of such OID Bond plus the amount of original issue discount accrued in all prior accrual periods, multiplied by (ii) the yield to maturity of such OID Bond (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period), less (iii) any interest on such OID Bond payable during, or otherwise allocable to, such accrual period. The amount of original issue discount so accrued in a particular accrual period will be considered to be received ratably on each day of the accrual period. Each owner of an OID Bond may select accrual periods that may vary in length over the term of the OID Bond, provided that each accrual period is no longer than one year and each scheduled payment of principal or interest occurs either on the final day of an accrual period or on the first day of an accrual period.

Original issue discount on an OID Bond as described above is not a specific item of tax preference for purposes of the federal alternative minimum tax.

Owners of OID Series 2020 Bonds (and particularly those not purchasing in this initial offering at the initial offering prices) should consult their own tax advisors with respect to the determination and treatment of original issue discount for federal and State of Missouri income tax purposes and with respect to other tax consequences of owning or disposing of such OID Series 2020 Bonds.

Premium

An amount equal to the excess of the purchase price of a Series 2020 Bond over its stated redemption price at maturity constitutes amortizable bond premium on such Series 2020 Bond. A purchaser of a Series 2020 Bond generally must amortize any premium over such Series 2020 Bond's term using constant yield principles, based on the purchaser's yield on the Series 2020 Bond to maturity; provided that the premium must be amortized over the period to a call date with respect to the Series 2020 Bond, based on the purchaser's yield on the Series 2020 Bond to such call date, if the call by the University on such date would minimize the purchaser's yield on the Series 2020 Bond. As premium is amortized, the purchaser's basis in such Series 2020 Bond (and the amount of tax-exempt qualified stated interest) will be reduced by the amount of amortizable premium properly allocable to such purchaser. This will result in an increase in the gain (or decrease in the loss) to be recognized for federal and State of Missouri income tax purposes upon a sale or disposition of such Series 2020 Bond prior to its maturity. Even though the purchaser's basis is reduced, no federal or State of Missouri income tax deduction is allowed.

Owners of Series 2020B Bonds who purchase at a premium (whether at the time of initial issuance or subsequent thereto) should consult their own tax advisors with respect to the determination and treatment of premium for federal and State of Missouri income tax purposes and with respect to other tax consequences of owning or disposing of such Series 2020B Bonds.

Market Discount

If a Series 2020 Bond is purchased at any time for a price that is less than the Series 2020 Bond's stated redemption price at maturity, in the case of a Series 2020 Bond other than an OID Bond (or, its revised issue price, in the case of an OID Bond, defined as the sum of the issue price of such OID Bond and the aggregate amount of the original issue discount previously accrued thereon), the purchaser will be treated as having purchased such Series 2020 Bond at a "market discount," unless such market discount is less than a statutory de minimis amount). Under the market discount rules, an owner of a Series 2020 Bond will be required to treat any principal payment (or, in the case of an OID Bond, any payment that does not constitute qualified stated interest) on, or any gain realized on the sale, exchange, retirement or other disposition (including certain nontaxable dispositions such as gifts) of, such Series 2020 Bond as ordinary income to the extent of the market discount which has previously not been included in gross income and is treated as having accrued on such Series 2020 Bond at the time of such payment or disposition. An owner of a Series 2020 Bond may instead elect to include market discount in gross income each taxable year as it accrues with respect to all debt instruments (including a Series 2020 Bond) acquired in the taxable year for which the election is made. Such election would apply to the taxable year for which it is made and for all subsequent taxable years and could be revoked only with the consent of the Service. The accrued market discount on a Series 2020 Bond is generally determined on a ratable basis, unless the owner of the Series 2020 Bond elects with respect to such Series 2020 Bond to determine accrued market discount under a constant yield method similar to that applicable to original issue discount.

The applicability of the market discount rules may adversely affect the liquidity or secondary market price of a Series 2020 Bond. Owners of Series 2020 Bonds should consult their own tax advisors regarding the potential implications of the market discount rules with respect to the Series 2020 Bonds.

Collateral Tax Consequences

Prospective purchasers of the Series 2020B Bonds should be aware that the ownership of the Series 2020B Bonds may result in other federal and State of Missouri income tax consequences to certain taxpayers, including, without limitation, financial institutions, insurance companies, individual recipients of Social Security or Railroad Retirement benefits, certain S corporations with Subchapter C earnings and profits, foreign corporations subject to the branch profits tax, taxpayers who have incurred or continued indebtedness to purchase or carry, or have paid or incurred certain expenses allocated to, the Series 2020B Bonds, individuals who may be eligible for the earned income credit, owners who dispose of any Series 2020 Bond prior to its stated maturity (whether by sale or otherwise) and owners who purchase any Series 2020 Bond at a price different from its initial offering price. All prospective purchasers of the Series 2020 Bonds should consult their own tax advisors as to the applicability and the impact of any other tax consequences (which may depend upon their particular tax status or other tax items), as well as to the treatment of interest on the Series 2020 Bonds (including any original issue discount properly allocable to an owner thereof) under state or local laws.

Under the Code, all taxpayers are required to report on their federal income tax returns the amount of interest received or accrued (including properly allocable original issue discount to the extent applicable) during the year that is excluded from gross income for federal income tax purposes. This requirement applies to interest on all tax-exempt obligations, including, but not limited to, the Series 2020B Bonds. Also, the Code requires the reporting by payors of tax-exempt interest (and tax-exempt original issue discount to the extent applicable) in a manner similar to that for interest (and original issue discount) on taxable obligations. Generally, payors (including paying agents and other middlemen and nominees) of tax-exempt interest (such as interest on the Series 2020B Bonds) to non-corporate payees are subject to federal income tax annual information return and payee statement reporting and recordkeeping requirements. Also, as to payor reportable payments of tax-exempt interest (such as payments to non-corporate payees), the general rules of federal income tax backup withholding will apply to such payments, if the payee fails to provide the correct taxpayer identification number or certification of foreign or other exempt status or fails to report in full taxable dividend and interest income. However, no backup withholding for tax-exempt original issue discount will be required until such time as the Service provides future guidance.

Future Legislation

Federal, state or local legislation, if enacted in the future, may cause interest on the Series 2020B Bonds to be subject, directly or indirectly, to federal or State of Missouri income taxation or otherwise adversely affect the federal, state or local tax consequences of ownership or disposition of, and, whether or not enacted, may adversely affect the value and liquidity of, the Series 2020B Bonds.

LEGAL MATTERS

Legal matters incident to the authorization, sale and delivery of the Series 2020 Bonds are subject to the approval of Thompson Coburn LLP, St. Louis, Missouri, Bond Counsel, whose approving opinions will be delivered with the Series 2020 Bonds. The proposed forms of opinion of Bond Counsel are attached hereto as **Appendix E**. Certain legal matters will be passed upon for the University by the Office of the General Counsel of University, and by Gilmore & Bell, P.C., Kansas City, Missouri, as Disclosure Counsel to the University, and for the Underwriters by Greenberg Traurig, LLP, Boston, Massachusetts.

The various legal opinions to be delivered concurrently with the delivery of the Series 2020 Bonds express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. By rendering a legal opinion, the opinion giver does not become an insurer or guarantor of that expression of professional judgment, of the transactions opined upon, or of the future performance of parties to such transaction, nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

CONTINUING DISCLOSURE

The University will enter into a Continuing Disclosure Agreement (the ***"Continuing Disclosure Agreement"***) with Digital Assurance Certification, L.L.C., as dissemination agent (the ***"Dissemination Agent"***) in conjunction with the issuance of the Series 2020 Bonds. The Continuing Disclosure Agreement is for the benefit of the owners and Beneficial Owners of the Series 2020 Bonds in order to assist the Underwriters for the Series 2020 Bonds in complying with Rule 15c2-12, as amended, of the Securities and Exchange Commission (the ***"Rule"***). The University is the only "obligated person" with responsibility for continuing disclosure.

Annual Reports

Pursuant to the Continuing Disclosure Agreement, the University will, or will cause the Dissemination Agent to, not later than 180 days after the end of the University's fiscal year, file with the Municipal Securities Rulemaking Board (***"MSRB"***) through the Electronic Municipal Market Access system ***("EMMA")*** operated by the MSRB the following financial information and operating data (the ***"Annual Report"***):

(a) The audited financial statements of the University for the prior fiscal year, prepared in accordance with generally accepted accounting principles as promulgated from time to time by the Governmental Accounting Standards Board. If the University's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to the Continuing Disclosure Agreement, the Annual Report will contain unaudited financial statements in a format similar to the financial statements contained in this Official Statement, and the audited financial statements will be filed in the same manner as the Annual Report when they become available.

(b) Updates as of the end of the prior fiscal year of certain financial information and operating data in substantially the same format contained in the following tables under the following headings in the final Official Statement:

<u>Tables in Official Statement:</u>
(1) PLEDGED REVENUES OF THE SYSTEM – Historical Pledged System Revenues;
<u>Tables in Appendix A:</u>

(2) MU Health Care Financial and Operating Data – MU Health Care Utilization Data;
(3) MU Health Care Financial and Operating Data – MU Health Care – Summary Financial Information;
(4) MU Health Care Financial and Operating Data – MU Health Care Sources of Patient Service Revenue;
(5) University Historical Enrollment – Enrollment (Full- and Part-Time);
(6) Student Applications, Acceptances and Matriculations;
(7) Student Quality Indicators;
(8) Full-Time Ranked Faculty – Full Time Ranked Faculty;
(9) University Investments – Endowment Pool – Asset Mix
(10) University Investments - University of Missouri System Endowment Pool;
(11) Undergraduate Student Fees;
(12) Financial Aid;
(13) Retirement Trust and OPEB Trust – Summary Financial Information of the Plan; and
(14) Retirement Trust and OPEB Trust – Plan Investments.

Quarterly Liquidity Information

In conjunction with the first issuance of CP Notes, the University agreed that for so long as any CP Notes are outstanding the University will provide to the Dissemination Agent for filing with the MSRB on EMMA not later than 60 days following the end of each fiscal quarter, certain unaudited liquidity information for the University as of the last business day of the preceding fiscal quarter, consisting generally of various liquidity categories and amounts as well as any corresponding liabilities supported by such internal liquidity. The University intends to make the same information available voluntarily with respect to the outstanding Bonds.

Voluntary University Health System Reporting

The University is not required by the Continuing Disclosure Agreement (or any previous continuing disclosure undertaking made by the University) to file any quarterly filings on EMMA of financial information or operating data with respect to the University or the System Facilities (including the University Health System). The University does, however, file voluntary quarterly filings with the MSRB on EMMA, of selected consolidated quarterly and year-to-date, actual, budgeted and actual compared to budget balance sheet information and statement of revenues, expenses and changes in net assets of the University Health System.

The University presently intends to continue to make voluntary filings on EMMA of this or similar financial information for the University Health System for the foreseeable future, but is not obligated to do so under the Continuing Disclosure Agreement or any similar undertaking or agreement by the University.

Event Notices

Pursuant to the Continuing Disclosure Agreement, the University also will give, or cause the Dissemination Agent to give, notice of the occurrence of any of the following events with respect to the Series 2020 Bonds promptly after the occurrence of the event listed, but no later than 10 business days after the occurrence of the event:

(1) principal and interest payment delinquencies;
(2) non-payment related defaults, if material;
(3) unscheduled draws on debt service reserves reflecting financial difficulties;
(4) unscheduled draws on credit enhancements reflecting financial difficulties;
(5) substitution of credit or liquidity providers, or their failure to perform;
(6) adverse tax opinions; the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Series 2020B Bond, or other material events affecting the tax status of the Series 2020B Bonds;
(7) modifications to rights of bondholders, if material;

(8) bond calls, if material, and tender offers;
(9) defeasances;
(10) release, substitution or sale of property securing repayment of the Series 2020 Bonds, if material;
(11) rating changes;
(12) bankruptcy, insolvency, receivership or similar event of the University;
(13) the consummation of a merger, consolidation, or acquisition involving the University or the sale of all or substantially all of the assets of the University, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
(14) appointment of a successor or additional trustee or the change of name of the trustee, if material;
(15) incurrence of a Financial Obligation by the University, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation, any of which affect security holders, if material; and
(16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the University, any of which reflect financial difficulties.

For purposes of the Continuing Disclosure Agreement, ***"Financial Obligation"*** means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of (a) or (b) in this definition; provided however, the term Financial Obligation shall not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

Other Terms

The University may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under the Continuing Disclosure Agreement, and may discharge any such Agent, with or without appointing a successor Dissemination Agent.

The Dissemination Agent is not responsible in any manner for the content of any notice or report prepared by the University pursuant to the Continuing Disclosure Agreement. The Dissemination Agent is Digital Assurance Certification, L.L.C.

Notwithstanding any other provision of the Continuing Disclosure Agreement, the University and the Dissemination Agent may amend the Continuing Disclosure Agreement (and the Dissemination Agent shall agree to any amendment so requested by the University) and any provision of the Continuing Disclosure Agreement may be waived, provided Bond Counsel or other counsel experienced in federal securities law matters provides the Dissemination Agent with its opinion that the undertaking of the University, as so amended or after giving effect to such waiver, is in compliance with the Rule and all current amendments thereto and interpretations thereof that are applicable to the Continuing Disclosure Agreement.

In the event of a failure of the University or the Dissemination Agent to comply with any provision of the Continuing Disclosure Agreement, any owner or Beneficial Owner of the Series 2020 Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the University or the Dissemination Agent, as the case may be, to comply with its obligations under the Continuing Disclosure Agreement. A default under the Continuing Disclosure Agreement shall not be deemed an event of default under the Resolution and the sole remedy under the Continuing Disclosure Agreement in the event of any failure of the University or the Dissemination Agent to comply with the Continuing Disclosure Agreement shall be an action to compel performance.

Electronic Municipal Market Access System (EMMA)

All Annual Reports and notices of Material Events required to be filed by the University or the Dissemination Agent pursuant to the Continuing Disclosure Agreement must filed with the MSRB on EMMA. EMMA is an internet-based, online portal for free investor access to municipal bond information, including offering documents, material event notices, real-time municipal securities trade prices and MSRB education resources, available at *www.emma.msrb.org*. Nothing contained on EMMA relating to the University or any Prior System Bonds is incorporated by reference in this Official Statement.

The voluntary quarterly reports described above prepared by the University with respect to the University Health System are also filed by the University with the MSRB on EMMA and are available to all persons at the EMMA website.

Compliance with Prior Continuing Disclosure Undertakings

[*To be updated*] In the past five years, the University has not failed to comply in any material respect with any previous undertakings with regard to the Rule to provide annual reports or notices of material events. [*Update for any required disclosures.*]

Website Information

The University maintains a public website on which it posts:

- Audited Financial Statements of the University and the University Health System
- Summaries of University Debt
- Offering Documents relating to University Debt
- University Debt Policy
- Annual Operating Budgets
- Annual Appropriations Requests
- Endowment Fund Information
- Retirement Fund Information
- Finance & Administration Strategic Plan
- University Strategic Plan

Certain of the foregoing information is available on the University's website, at www.umsystem.edu/ums/fa/treasurer. None of the information included on the University's website is incorporated by reference into this Official Statement.

FINANCIAL ADVISOR

The University has retained Janney Montgomery Scott LLC, as Financial Advisor (the ***"Financial Advisor"***) for the sale of the Series 2020 Bonds. The Financial Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume any responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. In addition to providing financial advisory services, the Financial Advisor is also engaged in the business of underwriting, trading, and distribution of municipal and other public securities.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

Issuance of the Series 2020A Bonds will be subject to delivery by Robert Thomas, CPA, LLC, certified public accountants, of a report verifying the mathematical accuracy of certain computations relating to the adequacy of the maturing principal amounts of the Escrowed Securities, interest earned thereon and certain uninvested cash to pay the principal and redemption price of, and interest on, the Advance Refunded Bonds (as described above under **"PLAN OF FINANCE - The Refundings"**) as such principal and redemption price and interest become due and payable.

INDEPENDENT AUDITORS

The financial statements of the University of Missouri System for the fiscal years ended June 30, 2018 and 2019, included as **Appendix B** to this Official Statement have been audited by BKD, LLP, independent auditors, as stated in their reports, which also appear in **Appendix B**.

RATINGS

S&P Global Ratings and Moody's Investors Service, Inc. have assigned the Series 2020 Bonds the ratings of "AA+" and "Aa1," respectively. These ratings reflect only the respective views of those organizations at the time the ratings were given. An explanation of the significance of those ratings may be obtained from the respective rating agencies.

The University furnished the rating agencies with certain information and materials relating to the Series 2020 Bonds and the University that have not been included in this Official Statement. Generally, rating agencies base their ratings on the information and materials so furnished and on investigations, studies and assumptions by the rating agencies.

There is no assurance that a particular rating will be maintained for any given period of time or that it will not be revised downward or withdrawn entirely by either or both rating agencies if, in the judgment of either or both, circumstances so warrant. Any downward change or withdrawal of the ratings may have an adverse effect on the market price and marketability of the Series 2020 Bonds.

UNDERWRITING

The Series 2020 Bonds are being purchased for reoffering by the underwriters named on the cover page (collectively, the ***"Underwriters"***), for whom Goldman, Sachs & Co. will act as representative, pursuant to a Bond Purchase Agreement between the University and the Underwriters. The Underwriters have agreed to purchase all, but not less than all, of the Series 2020A Bonds at a price of $___________ (which gives effect to an underwriting discount in the amount of $___________) and the Series 2020B Bonds at a price of $___________ (which gives effect to original issue premium of $___________, and reflecting an underwriting discount in the amount of $___________) on the terms set forth in the Bond Purchase Agreement.

The Underwriters may offer and sell the Series 2020 Bonds to certain dealers (including dealers depositing the Series 2020 Bonds into investment trusts) and others at prices lower than the public offering prices stated on the inside cover page. The initial public offering prices may be changed from time to time by the Underwriters.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the University, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the University.

The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

MISCELLANEOUS

The references to and summaries of the Resolution, and other documents referred to herein and in **Appendix D**, and to the laws of the State, do not purport to be complete, and all such references are qualified in their entirety by reference to the complete provisions thereof. Copies of all documents referred to herein are on file with the Financial Advisor and the University and may be obtained, without charge, by written request. All estimates and other statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact.

The attached appendices are integral parts of this Official Statement and must be read together with all of the foregoing statements.

The closing documents will include a certificate by the proper official of the University that, to the best of his or her knowledge and belief at the time of the acceptance of the delivery of the Series 2020 Bonds, this Official Statement and any information furnished by the University supplementary thereto did not and do not contain any untrue statement of material fact or omit to state a material fact necessary in order to make the statements made in light of the circumstances under which they were made, not misleading in any material respect.

This Official Statement has been duly authorized and approved by the University and duly executed and delivered on its behalf by the official signing below.

THE CURATORS OF THE UNIVERSITY OF MISSOURI

By ____

Vice President for Finance, Chief Financial Officer and Treasurer

APPENDIX A

THE CURATORS OF THE UNIVERSITY OF MISSOURI

APPENDIX B

AUDITED FINANCIAL STATEMENTS OF THE UNIVERSITY OF MISSOURI SYSTEM FOR THE FISCAL YEARS ENDED JUNE 30, 2019 AND 2018

APPENDIX C

BOOK-ENTRY ONLY SYSTEM

BOOK-ENTRY ONLY SYSTEM

The following information concerning DTC and its book-entry system has been furnished for use in this Official Statement by DTC. None of the University, the Paying Agent and Bond Registrar, or the Underwriters take any responsibility for the accuracy or completeness of such information.

DTC acts as securities depository for the Series 2020 Bonds. The Series 2020 Bonds will be issued as fully registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully registered certificate will be issued for each maturity of the Series 2020 Bonds in the aggregate principal amount of such maturity and will be deposited with the Paying Agent and Bond Registrar on behalf of DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants (**"*Direct Participants*"**) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (**"*DTCC*"**). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("***Indirect Participants***"). DTC has Standard & Poor's rating of "AA+." The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at **www.dtcc.com**.

Purchases of the Series 2020 Bonds under the DTC system must be made by or through Direct Participants, which receive a credit for the Series 2020 Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond (the **"*Beneficial Owner*"**) is in turn recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2020 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2020 Bonds, except in the event that use of the Book-Entry system for the Series 2020 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2020 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2020 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2020 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2020 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2020 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2020 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Resolution. For example, Beneficial Owners of the Series 2020 Bonds may wish to ascertain that the nominee holding the Series 2020 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them. Redemption notices shall be sent to DTC. If less than all of the Series 2020 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2020 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the University as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2020 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal and interest and redemption price on the Series 2020 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the University or the Paying Agent and Bond Registrar on a payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the University or the Paying Agent and Bond Registrar, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest on the Series 2020 Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the University and the Paying Agent and Bond Registrar, disbursement of such payments to Direct Participants shall be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2020 Bonds at any time by giving reasonable notice to the University and the Paying Agent and Bond Registrar. Under such circumstances, in the event that a successor securities depository is not obtained, Bond certificates are required to be printed and delivered as described in the Resolution.

The University may decide to discontinue use of the system of Book-Entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered as described in the Resolution.

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APPENDIX A

THE CURATORS OF THE UNIVERSITY OF MISSOURI

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THE CURATORS OF THE UNIVERSITY OF MISSOURI

History and Background

The Curators of the University of Missouri (the ***"University"***), created by the Geyer Act of the Tenth General Assembly of Missouri in 1839, is the oldest state university west of the Mississippi. The University was patterned after the ideals of Thomas Jefferson, a vigorous advocate of public higher education. After passage of the Morrill Act by Congress, the University became a land-grant institution in 1870.

The University had its beginnings in Columbia, Missouri. It remained a single-campus institution until 1870 when the Rolla campus (now known as the Missouri University of Science and Technology) was opened. Two campuses were added in 1963 when an entirely new campus was started in St. Louis, Missouri and the private University of Kansas City in Kansas City, Missouri, became the University of Missouri-Kansas City. Together, University of Missouri-Columbia (the ***"MU Campus"*** or ***"MU"***), University of Missouri-Kansas City (the ***"UMKC Campus"*** or ***"UMKC"***), Missouri University of Science and Technology (the ***"Missouri S&T Campus"*** or ***"Missouri S&T"***), University of Missouri-St. Louis (the ***"UMSL Campus"*** or ***"UMSL"***), the University Health System (defined below), the extension program described below, and ten research and technology parks constitute the ***"University of Missouri System."***

Board of Curators

Under the State Constitution, the University of Missouri System is governed by the Board of Curators of the University of the State of Missouri (the ***"Board"***). This nine-member Board is appointed by the Governor and confirmed by the State Senate, with each appointment being for a six-year term. No more than five members can be from the same political party, and at least one, but no more than two members, shall be from each of the eight congressional districts. The State Constitution provides that the Board has sole authority to govern the University. The State General Assembly has the responsibility to provide adequate funds to maintain the University.

The Board has the following standing committees that meet as business requires:

Executive Committee. The Executive Committee, when the Board is not in session, has the powers of the Board to take such action as the Executive Committee deems to be in the best interest of the University to the extent such action is in accordance with the bylaws of the University and the rules and regulations of the Board.

Academic, Student Affairs, Research and Economic Development Committee. The Academic, Student Affairs, Research and Economic Development Committee has referred to it matters relating to curricula, faculty, students, research and economic development and intercollegiate athletics.

Audit, Compliance and Ethics Committee. The Audit, Compliance and Ethics Committee assists the Board in fulfilling its oversight responsibilities relating to the integrity of the University's financial statements, the systems of internal control, the performance of the University's independent auditors and internal audit function, the independent auditor's qualifications and independence, and the University's compliance with legal and regulatory requirements.

Governance, Compensation and Human Resources Committee. The Governance, Compensation and Human Resources Committee helps the Board function effectively, efficiently and with integrity and may have referred to it matters relating to the compensation, benefits and other human resource functions of the University and associated programs and policies.

Finance Committee. The Finance Committee has referred to it matters relating to the fiscal, accounting and fundraising functions of the University and associated programs and policies.

Health Affairs Committee. The Health Affairs Committee assists the Board in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University's teaching, research and clinical missions. The Health Affairs Committee receives and reviews regular reports from MU Health Care and the MU School of Medicine's faculty practice plan.

General Officers

The Board appoints the President of the University, who is the chief executive and academic officer of the University of Missouri System, which includes four campuses, a health care system, an extension program, and ten research and technology parks. The Board, upon recommendation of the President, appoints a Chancellor to direct each campus, a Vice President for Finance, Chief Financial Officer and Treasurer, a Vice President for Information Technology, a Senior Associate Vice President for Academic Affairs, an Associate Vice President for Human Resources, all of whom report to the President, and a General Counsel, who reports directly to the Board.

The following is summary biographical information relating to the President of the University, the Chancellor of each Campus of the University, the General Counsel of the University, the Vice President for Finance, Chief Financial Officer and Treasurer of the University, and the Treasurer and Chief Investment Officer of the University.

Mun Y. Choi, 56, President of the University of Missouri System and Interim Chancellor of the University of Missouri-Columbia. Dr. Choi became the 24th President of the University in March 2017. Before serving as the President of the University of Missouri System, Dr. Choi's 25-year career in higher education included serving as assistant and associate professor at the University of Illinois at Chicago, department head of mechanical engineering and mechanics at Drexel University, then dean of engineering at the University of Connecticut, and provost and executive vice president at the University of Connecticut. Dr. Choi earned a bachelor's degree in General Engineering from the University of Illinois at Urbana-Champaign and a master's degree and Ph.D. in Mechanical & Aerospace Engineering from Princeton University.

C. Mauli Agrawal, 61*, *Chancellor of the University of Missouri-Kansas City. Dr. Agrawal became Chancellor of UMKC in June 2018. Prior to assuming the Chancellorship, Dr. Agrawal served as interim provost and vice president for academic affairs at the University of Texas at San Antonio where he had previously served as vice president for research and dean of the College of Engineering. Dr. Agrawal has been a professor of orthopedics and bioengineering at the University of Texas Health Science Center in San Antonio, one of the largest medical schools in the United States. Dr. Agrawal holds a bachelor's degree in mechanical engineering from Indian Institute of Technology (Kanpur, India), a master's degree in mechanical engineering from Clemson University, and a Ph.D. in mechanical engineering from Duke University.

Mohammad Dehghani, 64, Chancellor of the Missouri University of Science and Technology. Dr. Dehghani became chancellor of Missouri S&T in August 2019. He joined Missouri S&T from Stevens Institute of Technology in Hoboken, New Jersey, where he served as vice provost for research, innovation and entrepreneurship since 2013. Before joining Stevens, Dr. Dehghani was a professor of mechanical engineering and founding director of the Johns Hopkins University System Institute. He also previously led the New Technologies Division at the Lawrence Livermore National Laboratory – a $1.8 billion, 7,000 employee multidisciplinary applied science and engineering national security laboratory. Dr. Dehghani holds a Ph.D. in mechanical engineering from Louisiana State University, where he earned master's of science and bachelor's degrees in mechanical engineering. Dr. Dehghani completed a postdoctoral National Science Foundation internship at Massachusetts Institute of Technology.

Kristin Sobolik, 56, Interim Chancellor of the University of Missouri-St. Louis. Dr. Sobolik currently serves as Interim Chancellor, Provost and Executive Vice Chancellor for Academic Affairs at UMSL. Prior to coming to UMSL, Dr. Sobolik was the Dean of the College of Liberal Arts at Wright State University. Dr. Sobolik served as a Professor of Anthropology and Climate Change at the University of Maine. Dr. Sobolik earned a bachelor's degree in biology from the University of Iowa and a master's and doctorate in anthropology from Texas A&M University.

Stephen J. Owens, 65, General Counsel of the University of Missouri System. Mr. Owens became General Counsel of the University in January 2008. Mr. Owens served as Interim Chancellor of the University of Missouri-Columbia from November 15, 2013 until February 1, 2014, following the retirement of Chancellor Brady Deaton. Previously, Mr. Owens served as Interim President of the University from January 7, 2011 to February 14, 2012, following the resignation of the then current President of the University. Prior to joining the University, Mr. Owens was a partner and Chairman of the Class Action and Complex Litigation Division of Stinson Morrison Hecker, LLP. Mr. Owens earned a Bachelor of Science degree in Public Administration from the University of Missouri-Columbia in 1977 and a law degree from Wake Forest University in 1980.

Ryan Rapp, 39, Vice President for Finance, Chief Financial Officer and Treasurer of the University of Missouri System. Mr. Rapp assumed the responsibilities of the Vice President for Finance and Chief Financial Officer in July 2017, and the responsibility of Treasurer in September 2019. Prior to assuming these roles, Mr. Rapp served as the associate vice president and chief audit executive for the University of Missouri System and was responsible for establishing the new division of Internal Audit and Consulting Services. Mr. Rapp, who has worked for the University of Missouri System since 2010, also previously served as assistant vice president and controller. Prior to joining the University of Missouri System, Rapp worked at the accounting firm PricewaterhouseCoopers. Mr. Rapp graduated from MU Trulaske College of Business in 2004 with a master's in accounting and accounting information systems and a bachelor's in accounting. Mr. Rapp is a Certified Public Accountant.

Thomas F. Richards, 50, Chief Investment Officer of the University of Missouri System. Mr. Richards became Treasurer and Chief Investment Officer in January 2011. In July 2013, Mr. Richards was appointed Interim Vice President for Finance for the University and concurrently served in that capacity through August 2014. Prior to joining the University, Mr. Richards served as the Chief Financial Officer of Landmark Bank, N.A. Prior to that, Mr. Richards served as an audit manager in the financial services practice of PricewaterhouseCoopers LLP in Indianapolis, Indiana. Mr. Richards, a CPA, earned his bachelor's degree from the University of Michigan. He received the Rising Star Award from the National Association of College and University Business Officers in 2013.

The chart on the following page shows the organizational structure and relationships among the Board, the President of the University, the Chancellors of each Campus of the University and certain other officers of the University.

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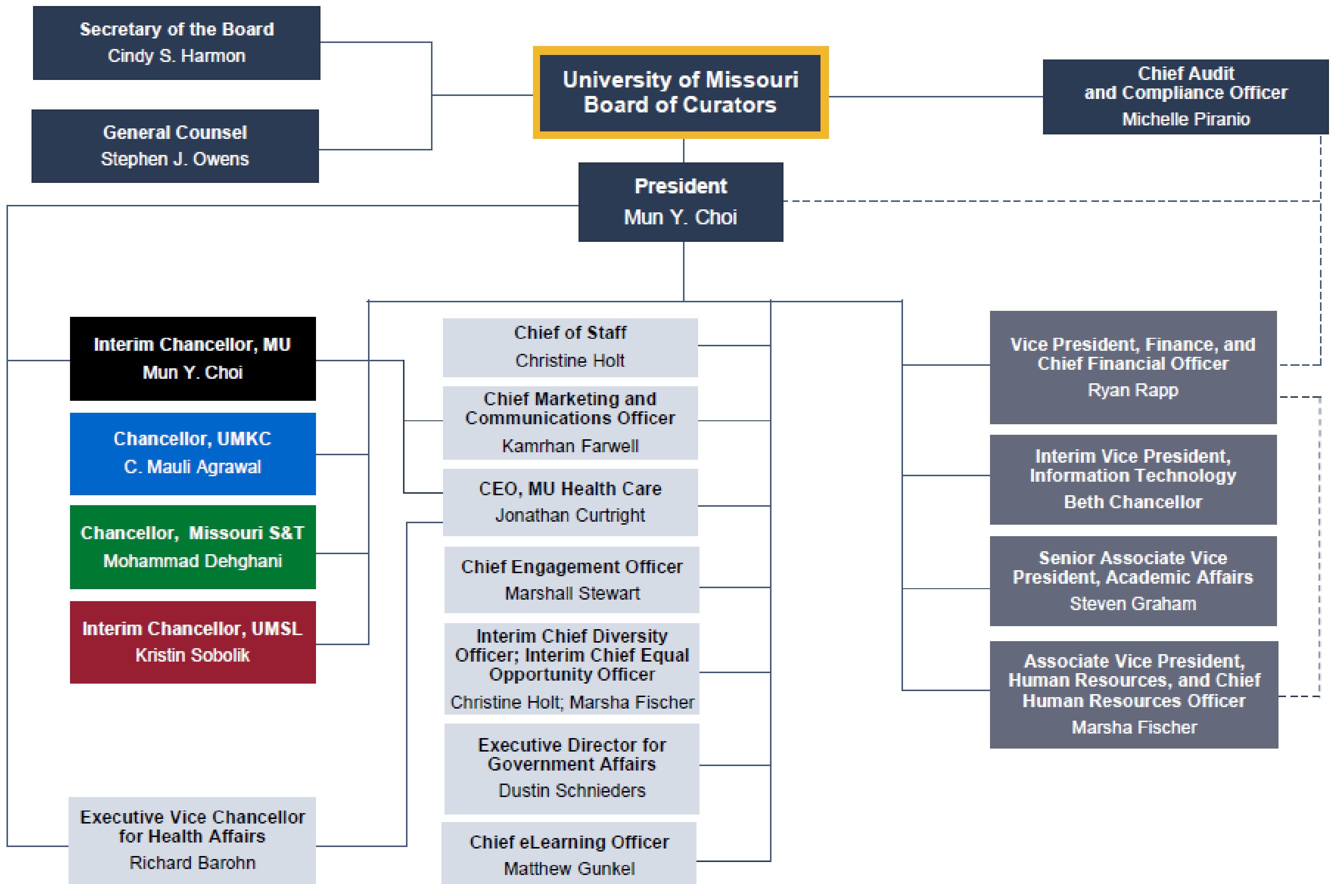
University of Missouri System



University of Missouri System

The University of Missouri System includes four campuses with 38 schools, colleges and divisions, and a Fall 2019 enrollment of over 70,000 full- and part-time students. The four-campus system administration is located in Columbia. Approximately one-fourth of the University's enrollment consists of professional and graduate students. The University also administers a statewide cooperative extension service consisting of centers located in nearly all of Missouri's 114 counties. The extension service is aided by local extension councils in every Missouri county which help guide local educational programming.

Internal Audit and Enterprise Risk Management

Ethics, Compliance and Audit Services provides the University of Missouri System independent, objective assurance and consulting services designed to add value and improve University operations. Ethics, Compliance and Audit Services reports directly to the Board and its mission is authorized by the Internal Audit Charter. Additionally, the Board has a designated Audit, Compliance and Ethics committee that oversees the audit function.

Strategic Planning and Inclusive Excellence

In September 2018, the Board approved new strategic plans for each of the four University of Missouri System campuses. The plans are intended to be transformative, collaborative and transparent, and created to support the Missouri Compacts for Achieving Excellence:

- Excellence in Student Success
- Excellence in Research and Creative Works
- Excellence in Engagement and Outreach
- Inclusive Excellence
- Excellence in Operations, Planning and Stewardship

Additional information about the University's strategic planning process is available at http://www.umsystem.edu/strategicplan. None of the information on the University's website, including strategic plan information referenced above, is incorporated by reference into this Official Statement.

In the wake of publicized campus protests in 2015, the University of Missouri System established its Office of Inclusion, Diversity and Equity in July 2016 and subsequently adopted Inclusive Excellence Plans applicable to the University of Missouri System and each campus. Additional information about the University's Office of Diversity, Equity and Inclusion and the Inclusive Excellence Plans is available at https://www.umsystem.edu/ums/dei. None of the information available through this webpage is incorporated by reference into this Official Statement.

Accreditations

The University of Missouri's four campuses are all fully accredited, and institutional accreditation is obtained through the North Central Association of Colleges and Schools. Individual schools and colleges are accredited by their respective professional accrediting bodies. In addition, the University of Missouri-Columbia is a member of the Association of American Universities, which is an association of 65 leading research universities in the United States and Canada.

University of Missouri-Columbia

The University of Missouri-Columbia (the ***"MU Campus"*** or ***"MU"***) is the largest campus in the University of Missouri System with nearly one-half of the University's enrollment. MU had a Fall 2019 enrollment of 30,014 full- and part-time students. Established in 1839, MU has 13 schools and colleges offering more than 300 degree programs and emphasis areas, including more than 125 online options. MU is home of the world's first School of Journalism, the oldest agricultural experiment field west of the Mississippi River, and the nation's first electrical engineering department. It is one of only five universities in the United States with law, medicine, veterinary medicine and a nuclear research reactor on one campus. MU is home to the University Health System, an integrated health network that includes five hospitals totaling 612 acute care beds, which support the teaching efforts of the Schools of Medicine, Nursing, and Health Professions. MU also includes a College of Agriculture, Food and Natural Resources, a Graduate School, an Honors College, a College of Arts and Science, a College of Business, a College of Education, a College of Engineering, a School of Journalism, a College of Human Environmental Sciences, a School of Law, and a College of Veterinary Medicine, as well as various cooperative programs. MU has been designated a Doctoral/Research Universities Extensive by the Carnegie Foundation for Advancement of Teaching. MU is also a member of the National Association of State Universities and Land-Grant Colleges.

University of Missouri-Kansas City

While the University of Missouri-Kansas City (the ***"UMKC Campus"*** or ***"UMKC"***) has been a part of the University since 1963, classes began on the UMKC Campus 30 years earlier as a private institution, the University of Kansas City. Three of the professional schools on the UMKC Campus (dentistry, law and pharmacy) were founded in the nineteenth century and subsequently merged into the University of Kansas City. UMKC also has a Graduate School, an Honors College, a College of Arts and Sciences, Schools of Biological and Chemical Sciences, Management, Education, Computing and Engineering, Medicine, Nursing and Health Studies, the Conservatory of Music and Dance, and various cooperative programs. UMKC had a Fall 2019 enrollment of 16,388 full- and part-time students. UMKC includes both the main Volker campus, located just south of the Country Club Plaza, and the Health Sciences campus, located in midtown Kansas City. It is primarily a commuter campus, and 31% of its students are enrolled in graduate or professional programs, the highest ratio on any of the University's campuses.

Missouri S&T

Missouri University of Science and Technology (the ***"Missouri S&T Campus"*** or ***"Missouri S&T"***) is located in the City of Rolla, which is approximately 100 miles southwest of St. Louis. Missouri S&T had a Fall 2019 enrollment of 8,088 full- and part-time students. Founded in 1870, Missouri S&T was originally known as the Missouri School of Mines and Metallurgy. From 1964 to 2008, the Missouri S&T Campus was known as the University of Missouri-Rolla. The campus is located on a 284 acre site in the City of Rolla and provides off-campus programs at the Engineering Education Center in St. Louis and Missouri State University in Springfield. The campus is strategically structured with academic programs belonging to two colleges- the College of Engineering and Computing and the College of Arts, Sciences and Business. This structuring is part of a strategic plan focused on providing the best return on investment to key customer groups – students, employers, research partners and donors. Missouri S&T ranks third nationally among engineering colleges and sixth nationally for best return on investment among public universities.

University of Missouri-St. Louis

From its beginning in 1963, the University of Missouri-St. Louis (the ***"UMSL Campus"*** or ***"UMSL"***) has grown to become the largest public research university in eastern Missouri. UMSL had a Fall 2019 enrollment of 15,988 full- and part-time students. UMSL offers an academic structure consisting of a Graduate School, an Honors College, Joint Undergraduate Engineering Program with Washington University, the School of Social Work, the Colleges of Arts and Sciences, Business Administration, Education, Fine and Performing Arts, Nursing and Optometry, and various cooperative programs. UMSL serves primarily residents of the St. Louis metropolitan area.

University Health System

University Health System – General. The University Health System and the facilities, revenues and expenses thereof became a part of the System Facilities in the fiscal year ended June 30, 2006.

The University Health System consists of the University of Missouri Health Care (***"MU Health Care"***), a system of hospitals and clinics serving the health care needs of central Missouri, and University Physicians, which is the organized practice plan for the faculty of the University of Missouri-Columbia School of Medicine (**"*MU School of Medicine*"**), and various facilities utilized by University Physicians. The flagship hospital of MU Health Care is University Hospital, a 326-staffed bed hospital located on the MU Campus, which offers a wide spectrum of general and specialty care services and is the only Level I trauma center and helicopter service in central Missouri. University Hospital includes Missouri Psychiatric Center, a 61-staffed bed acute psychiatric center, and Ellis Fischel Cancer Center, a specialty cancer facility. A freestanding Missouri Orthopedic Institute is located near the University Hospital, with 35 inpatient beds and 12 operating rooms.

MU Health Care also includes Women's and Children's Hospital, a 160-staffed bed acute-care facility located in Columbia, various other health care facilities and clinics.

The MU School of Medicine, the Sinclair School of Nursing and the School of Health Professions are not part of the University Health System, and none of the revenues of those Schools is included in the System Revenues.

MU Health Care treats patients from every county in the State and considers its primary service area to be seven counties in central Missouri (including Boone County, in which the principal MU Health Care facilities are located) and its secondary service area to be 18 surrounding counties. University Hospital (including Ellis Fischel Cancer Center) and Women's and Children's Hospital are accredited by The Joint Commission.

The Executive Vice Chancellor for Health Affairs is a dual appointment which reports to the University of Missouri System President and the MU Chancellor. Dr. Richard Barohn was recently hired after a national search and will begin in the position on May 11, 2020. He will be responsible for developing and implementing a comprehensive strategy that affirms MU Health Care as a nationally recognized leader in patient care and continues the MU School of Medicine's legacy of education and scholarly excellent.

For the fiscal year ended June 30, 2019, MU Health Care had total operating revenues of approximately $1,086 million or approximately 36% of the total operating revenues of the University for fiscal year 2019. Future changes in the health care market and regulations, including health care reform and third-party health care programs could adversely affect the financial condition and results of operations of the University. See **"MU Health Care Financial and Operating Data"** in this **Appendix A** and **"BONDOWNERS' RISKS – MU Health Care Revenues"** in this Official Statement.

University Health System - Biographical Information. The following is summary biographical information for the Executive Vice Chancellor for Health Affairs and the Chief Executive Officer of MU Health Care:

Dr. Richard Barohn, 64, Executive Vice Chancellor for Health Affairs. Dr. Barohn was appointed Executive Vice Chancellor for Health Affairs effective May 11, 2020, after a national search. He served as the chair of the Department of Neurology for 16 years at the University of Kansas Medical Center and was vice chancellor for research and president of the Research Institute since 2014. Dr. Barohn also served as the director of Frontiers: University of Kansas Clinical and Translational Science Institute. Dr. Barohn earned a medical degree from the University of Missouri-Kansas City. He completed his residency in neurology at the Wilford Hall U.S. Air Force Medical Center in San Antonio, Texas as well as a fellowship training in neuromuscular diseases at The Ohio State University.

Jonathan Curtright, 51, Chief Executive Officer, MU Health Care. Mr. Curtright was appointed interim chief executive officer effective in February 2017 and in July 2017 he was named as both chief executive officer and chief operating officer. He joined MU Health Care in February 2016 as Chief Operating Officer and has been responsible for all acute and ambulatory care operations, as well as achieving short- and long-term clinical and operational goals. Prior to this appointment at MU Health Care, Mr. Curtright served as Chief Operating Officer at Indiana University Health where he led Methodist and University hospitals, the largest academic medical center in the state, as well as Chief Operating Officer at the University of Kentucky HealthCare in Lexington, Kentucky. He also served as an administrator for various departments at the Mayo Clinic in Rochester, Minnesota, including its cardiovascular services with more than 160 physicians and 700 full-time employees. Mr. Curtright holds degrees in economics, finance, health administration and business administration, all from the University of Missouri.

MU Health Care Financial and Operating Data

The table below summarizes selected utilization data for MU Health Care for each of the five fiscal years ended June 30, 2019.

MU Health Care Utilization Data

	Fiscal Years Ended June 30,				
	2015	**2016**	**2017**	**2018**	**2019**
Acute Staffed Beds	538	569	595	602	603
Patient Days	129,255	134,039	142,302	147,313	153,053
Average Daily Census [1]	354.1	366.2	389.9	403.6	419.3
Length of stay (days)[1]	4.99	5.07	5.27	5.49	5.54
Discharges [1]	25,879	26,439	26,995	26,847	27,651
Outpatient Visits	840,300	877,341	915,257	963,990	1,033,652

(1) Excludes normal newborns.

For additional financial information regarding the University Health System, see the financial information as of and for the fiscal year ended June 30, 2019, set forth in the Financial Statements included as **Appendix B** to this Official Statement. The University voluntarily posts certain quarterly information relating to the University Health System on EMMA. See the unaudited quarterly financial information for MU Health Care as of December 31, 2019, which has been posted on EMMA and is incorporated by reference in this Official Statement.

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The following table summarizes certain financial information for MU Health Care for each of the five fiscal years ended June 30, 2019.

MU Health Care – Summary Financial Information
($ in thousands)

Fiscal Years Ended June 30,

	2015	**2016**	**2017**	**2018**	**2019**
Net patient service revenue	$738,781	$777,069	$862,455	$918,721	$973,458
Other operating revenues	20,031	19,463	20,959	23,745	23,948
Retail pharmacy revenues[1]	30,408	43,419	61,277	72,147	88,565
Total operating revenues	789,220	839,951	944,690	1,014,613	1,085,972
Operating expenses	730,897	766,483	846,175	910,654	983,865
Operating income (loss)	58,324	73,468	98,516	103,959	102,106
Net non-operating revenues	(19,264)	(9,781)	449	(1,497)	(9,570)
Income before contributions and transfers	$39,060	$63,687	$98,965	$102,462	$92,536

(1) In February 2019, the University Health System reclassified retail pharmacy revenues previously reported as a component of net patient service revenue to retail pharmacy revenue, a separate component of other operating revenues.

The following table summarizes the gross patient service revenue payor mix for the five fiscal years ended June 30, 2019.

MU Health Care
Sources of Patient Service Revenue

	Fiscal Years Ended June 30,				
Source of Payment	**2015**	**2016**	**2017**	**2018**	**2019**
Medicare	36.5%	36.1%	36.6%	38.3%	38.0%
Medicaid	22.5	21.8	20.5	20.2	20.2
Managed Care / Commercial Insurance	30.0	32.8	33.8	32.4	32.0
Self Pay / Other	11.0	9.3	9.1	9.1	9.8
Total	100.0%	100.0%	100.0%	100.0%	100.0%

The payments to MU Health Care from third-party payors can vary depending upon a number of factors, including federal and State funding of Medicare and Medicaid, changes in reimbursement methodologies and changes to managed care and other insurance contracts with the Health System.

MU Health Care – Competition. MU Health Care's principal competitors are Boone Hospital Center (***"BHC"***), a 311-bed hospital located in Columbia, Missouri which is affiliated with BJC Health System, headquartered in St. Louis, Missouri and SSM Health St. Mary's Hospital – Jefferson City (***"SSMH-JC"***), a 92-bed hospital located in Jefferson City, Missouri which is affiliated with SSM Health, headquartered in St. Louis, Missouri. Capital Region Medical Center ("***CRMC"***), a 114-bed hospital also located in Jefferson City, Missouri, is affiliated with MU Health Care and is included in the audited financial statements of the University as a part of the University of Missouri-Columbia Medical Alliance which is a discretely presented component unit. See Note 1 of the Notes to Financial Statements included as **Appendix B.** Although CRMC is not a MU Health Care facility, CRMC is not considered a competitor. The following table depicts the market share of MU Health Care, BHC, CRMC, SSM-JC and other facilities within the 25-county service area of MU Health Care for fiscal years 2016 through 2019. Historically, approximately 85% of MU Health Care's discharges originate from the MU Health Care Service Area.

Market Share – Combined Service Area

	Fiscal Years Ended June 30,							
	2016		**2017**		**2018**		**2019**	
Combined Service Area	**Discharges**	**% Share**	**Discharges**	**% Share**	**Discharges**	**% Share**	**Discharges**	**% Share**
MU Health Care[1]	23,071	27.2%	23,868	27.8%	23,939	28.3%	24,676	29.5%
Capital Region Medical Center	4,923	5.8	5,243	6.1	5,572	6.6	5,741	6.9
Other Facilities	56,788	67.0	56,610	66.0	55,221	65.2	53,274	63.7
Total CSA	84,782	100.0%	85,721	100.0%	84,732	100.0%	83,691	100.0%

(1) MU Health Care consists of University Hospital and Women's and Children's Hospital.

Source: Missouri Hospital Association.

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University Historical Enrollment

The following table sets forth the historical head count enrollment for the University.

Enrollment (Full- and Part-Time)

Historical Enrollment

Fall	MU	UMKC	Missouri S&T	UMSL	Total
2015	35,424	16,685	8,886	16,738	77,733
2016	33,239	16,936	8,835	16,989	75,999
2017	30,844	16,372	8,883	16,715	72,814
2018	29,843	16,375	8,601	16,441	71,260
2019	30,014	16,388	8,088	15,988	70,478

Student Applications, Acceptances, and Matriculations

The following table sets forth the number of applications, acceptances and matriculations for new undergraduate students of the University for the fall semesters 2015 through 2019.

Campus	Fall	Category	Applications	Acceptances	Matriculations
MU					
	2015	Freshmen	21,988	17,180	6,194
		Transfers	3,319	2,215	1,191
	2016	Freshmen	21,107	15,767	4,780
		Transfers	2,824	1,756	994
	2017	Freshmen	16,373	12,787	4,140
		Transfers	2,604	1,647	996
	2018	Freshmen	19,124	14,789	4,887
		Transfers	2,464	1,530	1,022
	2019	Freshmen	20,016	16,158	5,664
		Transfers	2,489	1,677	1,143
UMKC					
	2015	Freshmen	4,400	2,764	1,025
		Transfers	2,939	2,018	1,315
	2016	Freshmen	5,108	3,184	1,195
		Transfers	2,868	1,900	1,246
	2017	Freshmen	5,074	3,263	1,220
		Transfers	2,833	1,848	1,184
	2018	Freshmen	6,127	3,544	1,197
		Transfers	2,540	1,554	1,165
	2019	Freshmen	5,677	3,519	1,244
		Transfers	2,401	1,433	1,095

Student Applications, Acceptances, and Matriculations (continued)

Missouri S&T

	2015	Freshmen	3,592	3,164	1,489
		Transfers	826	579	430
	2016	Freshmen	43,349	3,334	1,482
		Transfers	793	558	401
	2017	Freshmen	3,890	3,248	1,426
		Transfers	682	510	352
	2018	Freshmen	4,362	3,670	1,334
		Transfers	691	504	318
	2019	Freshmen	5,097	4,041	1,171
		Transfers	728	508	278

UMSL

	2015	Freshmen	2,430	1,389	526
		Transfers	3,174	2,240	1,571
	2016	Freshmen	2,628	1,413	451
		Transfers	3,257	2,221	1,580
	2017	Freshmen	2,716	1,563	495
		Transfers	3,237	2,191	1,540
	2018	Freshmen	3,562	1,859	517
		Transfers	2,906	1,856	1,300
	2019	Freshmen	3,591	1,872	467
		Transfers	2,610	1,572	1,382

Degrees Granted

The following tables set forth the number of degrees awarded by campus and school/college therein during the 2018-2019 academic year.

Degrees Granted

MU

School/College	Bachelor	Professional	Master	Doctorate	UG/Grad Certificate	Education Specialist	Total
Agriculture, Food & Natural Resources	664	-	69	47	-	-	780
Arts and Sciences	1,882	-	222	139	-	-	2,243
Business	901	-	235	7	142	-	1,285
Education	254	-	400	85	-	59	798
Engineering	742	-	98	41	-	-	881
Health Professions	788	-	122	3	58	-	971
Human Environmental Sciences	312	-	41	14	-	-	367
Journalism	533	-	82	6	-	-	621
Law	-	93	10	-	14	-	117
Medicine	-	95	53	8	-	-	156
Nursing	204	-	7	54	-	-	265
Social Work	34	-	79	2	-	-	115
Veterinary Medicine	-	111	13	2	-	-	126
Graduate Studies	-	-	42	18	230	-	290
Other Undergraduate Studies	-	-	-	-	1,761	-	1,761
MU Campus Total	6,314	357	1,473	426	2,147	59	10,776

Degrees Granted (continued)

UMKC

School/College	Bachelor	Professional	Master	Doctorate	UG/Grad Certificate	Education Specialist	Total
Arts and Sciences	731	-	191	3	40	-	965
Biological Sciences	158	-	8	-	-	-	166
Computing and Engineering	219	-	223	-	4	-	446
Conservatory of Music and Dance	59	-	42	28	3	-	132
Dentistry	33	105	4	-	14	-	156
Education	32	-	87	17	-	24	160
Law	-	137	15	-	-	-	152
Management	320	-	195	1	-	-	516
Medicine	-	95	45	-	3	-	143
Nursing	226	-	49	45	16	-	336
Pharmacy	-	149	-	-	-	-	149
Graduate Studies	-	-	-	41	13	-	54
UMKC Campus Total	1,778	486	859	135	93	24	3,375

Missouri S&T

School/College	Bachelor	Professional	Master	Doctorate	UG/Grad Certificate	Education Specialist	Total
Arts and Sciences	225	-	61	10	57	-	353
Engineering and Computing	1,163	-	456	91	408	-	2,118
Missouri S&T Campus Total	1,388	-	517	101	465	-	2,471

UMSL

School/College	Bachelor	Professional	Master	Doctorate	UG/Grad Certificate	Education Specialist	Total
Arts and Sciences	914	-	139	27	81	-	1,161
Business Administration	533	-	218	3	26	-	780
Education	145	-	286	37	36	23	527
Nursing	194	-	3	25	19	-	241
Optometry	-	39	-	-	-	-	39
Social Work	81	-	71	-	-	-	152
Graduate School	-	-	11	-	28	-	39
Engineering	54	-	-	-	-	-	54
UMSL Campus Total	1,921	39	728	92	190	23	2,993
University Total	11,401	882	3,577	754	2,895	106	19,615

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Student Quality Indicators

The academic demands of the University's curriculum require that students admitted possess a satisfactory preparatory education. The following tables set forth the high school class rank of freshmen entering the University during the Fall 2019 term and the average ACT test scores for the last five years for incoming freshmen for each campus of the University, the State of Missouri, and the United States.

High School Class Rank of Incoming Freshmen, Fall 2019

High School Class Rank	MU	UMKC	Missouri S&T	UMSL
Top 10%	33%	31%	41%	32%
Top 20%	55	50	63	54
Top 40%	82	78	90	83

Average First Time Freshman ACT

Fall	MU	UMKC	Missouri S&T	UMSL	State of Missouri	National
2015	26.0	24.8	28.1	24.1	21.7	21.0
2016	26.0	24.5	28.1	24.0	20.2	20.8
2017	25.9	24.7	28.1	24.4	20.4	21.0
2018	25.9	24.8	28.2	24.1	20.0	20.8
2019	26.3	24.2	28.7	24.5	20.8	20.7

Demographics of Student Population

Although virtually every state and numerous foreign countries are represented in the University's on-campus student population, Missouri students represented over 74% of the student body in the Fall 2019 term. The following table summarizes the historical geographic origin of students attending the University at the commencement of the Fall semester for each of the last five academic years.

Student Geographic Origin

Campus	Fall	Missouri	Illinois, Iowa and Kansas	Other States	International
MU	2015	21,607	6,528	5,038	2,221
	2016	20,304	6,113	4,659	2,132
	2017	18,961	5,590	4,383	1,878
	2018	18,627	5,194	4,347	1,642
	2019	19,386	4,861	4,275	1,462
UMKC	2015	11,325	2,920	1,027	1,411
	2016	11,803	2,865	983	1,280
	2017	11,395	2,893	1,004	1,077
	2018	11,463	2,952	977	981
	2019	11,335	3,105	947	997

Student Geographic Origin (Continued)

Missouri S&T	2015	5,894	697	968	1,233
	2016	6,180	709	860	1,082
	2017	6,257	716	910	990
	2018	6,169	673	908	840
	2019	5,810	632	872	758
UMSL	2015	14,977	805	436	512
	2016	15,331	760	368	524
	2017	15,133	751	369	461
	2018	14,849	799	385	404
	2019	14,408	806	386	387

Full-Time Ranked Faculty

The following table sets forth for the last five fiscal years the number of full-time ranked faculty, and the percentages who are tenured and hold terminal degrees for each campus of the University.

Full-Time Ranked Faculty

Campus	Academic Year	Full-Time Ranked Faculty	Percentage of Faculty Tenured	Percentage of Faculty With Terminal Degrees
MU	2015-2016	1,878	45	89
	2016-2017	1,906	45	89
	2017-2018	1,872	45	88
	2018-2019	1,958	43	87
	2019-2020	2,132	35	80
UMKC	2015-2016	669	49	87
	2016-2017	687	46	86
	2017-2018	678	47	87
	2018-2019	659	47	86
	2019-2020	598	44	86
Missouri S&T	2015-2016	368	60	93
	2016-2017	382	58	93
	2017-2018	375	60	94
	2018-2019	374	60	95
	2019-2020	351	58	94
UMSL	2015-2016	444	50	79
	2016-2017	431	47	78
	2017-2018	433	45	76
	2018-2019	417	43	76
	2019-2020	396	41	77

Selected Financial Data of the University

The table on the following page presents a summary of the Revenues, Expenses and Changes in Net Position of the University for the five fiscal years ended June 30, 2019, which is derived from the audited financial statements of the University, and with respect to the fiscal years ended June 30, 2019 and 2018, reference is made to the audited financial statements of the University attached as **Appendix B** to this Official Statement. In the opinion of the University's management, except as elsewhere described in this Official Statement, there has been no material adverse change in the financial condition of the University since June 30, 2019, the date of the last audited financial statements. The summary financial information in the following table excludes revenues, expenses and changes in net assets attributable to the University's discretely presented component unit and the pension trust funds.

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Summary of Revenues, Expenses and Changes in Net Position of the University
(in thousands)

	Fiscal Years Ended June 30, 2015	2016	2017	2018	2019
Operating Revenues:					
Tuition and Fees (net of provision for doubtful accounts)*	$ 870,637	$ 898,906	$ 868,784	$ 861,913	$ 857,456
Less: Scholarship Allowances	217,648	226,632	219,567	226,434	232,764
Net Tuition and Fees	652,989	672,274	649,217	635,479	624,692
Federal Grants and Contracts	155,797	155,134	158,414	157,587	165,427
State and Local Grants and Contracts	53,926	57,690	60,934	59,966	60,584
Private Grants and Contracts	70,296	67,348	70,527	74,782	83,489
Sales and Services of Educational Activities	25,074	25,406	26,492	26,193	19,264
Auxiliary Enterprises:					
Patient Medical Services, Net	944,161	1,205,084	1,323,006	1,400,335	1,510,024
Housing and Dining Services, Net*	114,361	115,351	106,468	100,837	102,603
Bookstores	55,941	54,590	47,598	41,429	38,348
Other Auxiliary Enterprises, Net*	263,135	274,817	293,407	295,451	305,736
Other Operating Revenues	66,849	74,663	63,680	59,119	76,731
Total Operating Revenues	**2,402,529**	**2,702,357**	**2,799,743**	**2,851,178**	**2,986,898**
Operating Expenses:					
Salaries and Wages	1,407,428	1,522,480	1,583,221	1,591,397	1,642,679
Benefits	396,886	461,209	456,370	475,748	577,660
Supplies, Services and Other Operating Expenses	858,939	970,963	975,232	1,006,586	1,111,726
Scholarships and Fellowships	66,860	70,353	69,289	68,047	67,367
Depreciation	194,075	201,691	210,226	213,477	215,539
Total Operating Expenses	**2,924,188**	**3,226,696**	**3,294,338**	**3,355,255**	**3,614,971**
Operating Loss before State Appropriations	**(521,659)**	**(524,339)**	**(494,595)**	**(504,077)**	**(628,073)**
State Appropriations	435,511	438,813	417,912	401,705	408,797
Operating Loss after State Appropriations, before Nonoperating Revenues (Expenses)	**(86,148)**	**(85,526)**	**(76,683)**	**(102,372)**	**(219,276)**
Nonoperating Revenues (Expenses):					
Federal Appropriations	28,399	27,041	27,128	26,665	27,026
Federal Pell Grants	59,072	57,313	52,875	55,400	56,594
Investment and Endowment Income, Net of Fees	38,187	22,696	283,263	199,040	197,059
Private Gifts	68,615	80,972	71,249	77,883	86,405
Interest Expense	(67,651)	(65,061)	(70,037)	(71,043)	(66,585)
Other Nonoperating Revenues (Expenses)	13,972	(3,514)	959	(307)	139
Net Nonoperating Revenues (Expenses)	**140,594**	**119,447**	**365,437**	**287,638**	**300,638**
Income before Capital Contributions, Additions to Permanent Endowments, Special Item and Extraordinary Item	**54,446**	**33,921**	**288,754**	**185,266**	**81,362**
State Capital Appropriations and State Bond Funds	3,610	29,166	49,519	29,765	-
Capital Gifts and Grants	21,083	15,990	34,371	21,083	67,106
Private Gifts for Endowment Purposes	30,288	29,477	31,358	46,851	30,524
Special and Extraordinary Items	-	-	-	(17,908)	-
Increase in Net Position	**109,427**	**108,554**	**404,002**	**265,057**	**178,992**
Net Position, Beginning of Period	**4,134,970**	**4,244,397**	**4,485,060**	**4,603,337**	**4,868,394**
Cumulative Effect of Change in Accounting Principles	-	132,109	(285,725)	-	-
Net Position, Beginning of Period, as Adjusted	**4,134,970**	**4,376,506**	**4,199,335**	**4,603,337**	**4,868,394**
Net Position, End of Period	$4,244,397	**$4,485,060**	**$4,603,337**	**$4,868,394**	**$5,047,386**

* For various line items, the net amount is disclosed in the table above, and the offsetting amounts have been excluded for summary purposes.

Change in Accounting Principles

The cumulative effect of change in accounting principles reflected in the summary of the Revenues, Expenses and Changes in Net Position of the University on the preceding page were $132.1 million and ($285.7) million for the fiscal years ended June 30, 2016 and 2017, respectively. Effective for fiscal year 2017, the University adopted Statement No. 80, Blending Requirements for Certain Component Units, which established additional blending requirements for component units that are organized as not-for-profit corporations in which the primary government is the sole corporate member. In adopting this standard, the University recognized the effect of a change in accounting principle in the amount of $132.1 million in net position at the beginning of fiscal year 2016. Effective for fiscal year 2018, the University adopted Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other than Pensions as well as Statement No. 81, Irrevocable Split-Interest Agreements. Statement No. 75 relating to Other Postemployment Benefits (OPEB), was issued to recognize a liability similar to the requirements relating to pension benefits. The adoption of this statement resulted in a reduction of beginning net position of $274.7 million for fiscal year 2017. The effect of a change in accounting principle amount for fiscal year 2017 also included the impact of implementing GASB Statement No. 81, which was issued to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for beneficiaries in these arraignments. The implementation of this statement resulted in a reduction of fiscal year 2017 beginning net position of $11.0 million.

State Appropriations

Article IV, Section 27 of the State Constitution authorizes the Governor to control the rate at which any appropriation is expended during the period of the appropriation by allotment or other means. This section also authorizes the Governor to reduce the expenditures of the State or any of its agencies below their appropriations whenever the actual revenues are less than the revenue estimates upon which the appropriations were based. The normal Governor's reserve from appropriated funds is 3%, and the University budgets with the expectation that the actual funds received by the University will always be 3% less than the amount appropriated due to the withholding of the normal Governor's reserve. The effect of the withholdings in any year is to reduce the State's overall budget.

The following table sets forth the State appropriations for general operations appropriated, withheld and received by the University for fiscal year 2020 and the preceding four fiscal years.

State Appropriations for General Operations
University of Missouri System

Fiscal Year	Recurring State Appropriations	Recurring State Appropriations Withheld (Governor's reserve)	% Withholding	Recurring State Appropriations Received	Recurring Percent Increase/ Decrease
2016	$447,136,572	$13,414,099	3.0%	$433,722,473	1.5%
2017	465,417,171	52,667,712	11.3	412,749,459	-4.8
2018	427,922,068	31,764,798	7.4	396,157,270	-4.0
2019	417,179,876	12,532,856	3.0	404,647,020	2.1
2020(1)	427,311,876	49,319,356	11.5	377,992,520	-6.6

(1) Estimated. The amounts shown reflect the April 1, 2020, announcement by Missouri Governor Michael Parson of additional state budget withholdings due to the economic impact of the COVID-19 public health crisis, which is expected to result in $36.5 million in additional withholdings above the normal 3% Governor's reserve.

Increases in fiscal year 2016 over the prior year were specific line items including performance funding of $5.7 million, UMSL International Collaboration and Economic Opportunity of $500,000 and UMKC Center for Neighborhood Initiative of $485,000. The core appropriations did not increase from the prior year.

Reductions in recurring State appropriations received in fiscal years 2017 and 2018 were directly related to overall reductions to all Missouri higher education institutions in response to concerns over State revenue resources. In fiscal year 2017, the University saw withholdings in specific operating line items as well as $31 million in core operating appropriations. In fiscal year 2018, the core reductions were made permanent reductions along with the line items having both permanent and temporary reductions.

Fiscal year 2019 appropriations decreased from fiscal year 2018, but the actual amount received increased due to a lower Governor's withholding percentage in fiscal year 2019.

The major increase for fiscal year 2020 was a $10 million line item for the NextGen Precision Health Initiative that unites the System's four public research universities, MU Health Care and private partners toward a single goal of personalized treatments for society's toughest diseases. This is an important initiative for the University and the State. See **"PLAN OF FINANCE – The Projects"** in this Official Statement for a description of Series 2020 Bond proceeds expected to be used to finance a portion of the capital costs associated with the NexGen Precision Health Initiative.

Future revenue shortfalls for the State or increased spending pressures for the State in other areas, or a combination of the two, may adversely affect future State appropriations for the University and the level of Governor withholdings of appropriated amounts.

University Investments

Investment policies are established by the Board. The policies ensure that funds are managed in accordance with the Revised Statutes of Missouri and prudent investment practices. The use of external investment managers has been authorized by the Board. Substantially all University cash and investments are managed centrally, primarily in the General Pool and Endowment Pool, each as described below.

General Pool. The General Pool represents the University's cash and reserves, including operating funds, auxiliary funds, service operations funds, self-insurance funds, debt service funds, and plant funds. The General Pool is to be managed in a way that both recognizes and balances the underlying needs of the pool, including accommodation of University cash flow cyclicality, satisfaction of various ongoing liquidity needs, maximization of risk-adjusted investment returns, diversification and preservation of capital. The General Pool investment policy adopted as of June 30, 2018, permits the General Pool to be invested in the following asset sectors: Cash and Cash Equivalents and Short-Term Investments, U.S. Government Securities, Fixed Income, Absolute Return/Risk Parity, and Venture Capital. As of June 30, 2019, approximately 39.6% of the General Pool consisted of high-grade, short-duration, fixed income securities, money market funds and commercial paper all of which were available to support the liquidity requirements of the University's variable rate bonds and commercial paper notes (for which the University provides self-liquidity). The General Pool had a market value of approximately $2.3 billion as of December 31, 2019.

The University voluntarily posts certain liquidity information on EMMA for each month end. See the unaudited liquidity information as of February 29, 2020, which has been posted on EMMA and is incorporated by reference in this Official Statement. See **"INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE"** in this Official Statement.

Endowment Pool. When appropriate and permissible, endowment and similar funds are pooled for investment purposes, with the objective of achieving long-term returns sufficient to preserve principal by protecting against inflation and to meet endowment spending targets. The Endowment Pool is managed in a manner that maximizes returns while attempting to minimize losses during adverse economic and market events. As such, the portfolio seeks meaningful diversification of assets, which necessarily means less equity risk and more long-term bond exposure relative to peers. Included in this portfolio is a portable alpha component which seeks to add returns over the benchmark. The portable alpha component cannot be more than 25% of the Endowment Pool. As of June 30, 2019, the portable alpha was 18.5% of the Endowment Pool. The long-term target asset mix and actual asset mix as of June 30, 2019 are set forth on the following table.

Endowment Pool – Asset Mix

Investment Sectors	Target Asset Mix	Actual Asset Mix June 30, 2019
Public Equity	35.0%	36.7%
Private Equity	10.0	11.1
Public Debt	29.0	24.6
Private Debt	3.0	3.0
Risk Balanced	10.0	10.1
Commodities	5.0	5.1
Real Estate	8.0	8.3
Cash	0.0	1.1

The market values of the Endowment Pool as of June 30th for the last five fiscal years are set forth below.

University of Missouri System Endowment Pool

As of June 30,	Market Value
2015	$1,405,453,000
2016	1,364,410,000
2017	1,543,307,000
2018	1,698,303,000
2019	1,778,230,000

The market value of the Endowment Pool as of December 31, 2019 was $1.833 billion.

The Endowment Pool includes true endowment and quasi endowment funds. The market value of certain investments in the Endowment Pool (primarily, absolute return, private equity, and real estate) is reported on a lagged basis of one to three months. For the fiscal year ended June 30, 2019, the Endowment Pool had an annual return of 5.7%.

The Endowment Pool's spending policy was revised in fiscal year 2012 to distribute 4.5% of the trailing 28-quarter average of the endowment's total market value. The change from 5% to 4.5% was phased in over several years to minimize any impact on annual distributions. In addition, the University distributes 1% of the trailing 28-quarter average of the endowment's total market value to support internal endowment administration and development functions.

Starting in fiscal year 2018, the University began transitioning the spending rate from 4.5% to 4.0% in a methodical manner over a period not to exceed the seven years ending June 30, 2024. Upon completion of this transition, the Endowment Pool's spending policy will apply a rate of 4.0% to a base equal to the 28-quarter trailing average market value as of December 31 of the prior year. Also, starting in fiscal year 2018, the University increased its Endowment Pool administrative fee from 1.0% to 1.25%. The administrative fee is calculated by applying a rate of 1.25% to the base of the 28-quarter trailing average market value as of December 31.

For additional information on the University's investments, see Note 3 of the Notes to Financial Statements included as **Appendix B**.

Capital Campaigns

Each of the four campuses of the University has recently completed or has an ongoing major capital campaign, as follows:

- Since the launch of the campaign on July 1, 2011, MU's capital campaign has raised $1.356 billion on its $1.3 billion goal and is scheduled to close June 2020. By February 2020, MU's endowment had grown by more than $500 million, accomplishing the campaign's goal for MU's endowment to reach $1.1 billion. In fiscal year 2019, MU set a new productivity record, raising more than $200 million in gifts and pledges in one year, adding $192 million to the campaign (campaign numbers exclude gifts that are contingent). This marked an 18% increase over the previous record of $170 million, which was also set during the campaign and announced in 2016. The milestone for fiscal year 2019 included a record-breaking 29 gifts of $1 million or more booked in one year, up dramatically from nine major gifts per year prior to the campaign's launch.
- UMKC is continuing to expand its fundraising operations in preparation for the next comprehensive campaign. New gifts and pledges, planned gifts, and gifts in-kind for fiscal year 2019 exceeded $43 million in support of UMKC and are either managed by the UMKC Foundation, UMKC, the University of Missouri System, affiliated organizations, or organizations that have restricted support for UMKC. Total gifts for these capital campaigns and other giving to UMKC totaled $41.2 million in fiscal year 2018 and $43.6 million in fiscal year 2019. As of March 30, 2020, the UMKC Foundation has secured $50.75M in new gifts and pledges, planned gifts and gifts in-kind for fiscal year 2020.
- Missouri S&T's comprehensive campaign commenced July 1, 2015, and is currently in the quiet phase. The goal is anticipated to be in the $125 - $135 million range, and expected to conclude sometime after Missouri S&T's 150th Anniversary in 2021. $72.2 million has been raised to date.
- UMSL raised a total of $29.2 million in fiscal year 2019 against a goal of $28 million.

Total gifts for these capital campaigns and other giving to the University of Missouri System totaled $161.63 million in fiscal year 2018 and $200 million in fiscal year 2019.

Undergraduate Student Fees

The following table sets forth the total annual Academic, Educational and Required Fees charged to each full-time undergraduate student at the University who is a resident of Missouri for each of the four campuses for the academic years 2015-2016 through 2019-2020. Academic year 2021 total tuition and required fees will increase at 5.1% for MU and UMKC, 5.3% for Missouri S&T and 5.6% for UMSL.

Academic Year	MU	UMKC	Missouri S&T	UMSL
2015-2016	$ 9,509	$ 9,553	$ 9,620	$10,065
2016-2017	9,518	9,563	9,629	10,065
2017-2018	9,787	9,763	9,831	10,275
2018-2019	9,972	9,967	10,037	10,491
2019-2020	10,477	10,471	10,567	11,079

The annual rate of increase in undergraduate tuition and required fees charged to all Missouri resident students is governed by Section 173.1003 of the Revised Statutes of Missouri, which limits annual tuition and required fee increases to a rate no greater than the consumer price index (CPI) plus an amount (up to 5%) that would produce an increase in net tuition revenue no greater than the dollar amount by which state operating support for the University was reduced for the prior fiscal year. If tuition and fees are increased by more than the limit described above, the University could be subject to a penalty of up to 5% of the current year State operating appropriation, unless a waiver is granted by the Commissioner of the Missouri Department of Higher Education.

Financial Aid

The following table sets forth the total financial aid awarded by the University for fiscal year 2019, the number of students receiving financial aid and the average amount awarded per student.

Financial Aid

	MU	UMKC	Missouri S&T	UMSL	Total
Total Financial Aid Awarded[(1)]	$441,977,548	$193,893,024	$131,575,887	$122,038,030	$889,484,489
Aid from Institutional Sources	196,711,986	48,797,844	58,018,874	34,029,893	337,558,597
Students Receiving Aid	24,599	10,886	8,178	10,296	53,959
Total Financial Aid Awarded Per Student	17,967	17,811	16,089	11,853	16,484

(1) Financial Aid includes the Scholarships and Allowances included in the University's Statement of Revenues, Expenses and Changes in Net Position as well as student loans and federal aid.

Management's Discussion and Analysis

For Management's Discussion and Analysis for the fiscal years ended June 30, 2019 and 2018, see the financial statements of the University for the fiscal years ended June 30, 2019 and 2018 included as ***Appendix B*** *to this Official Statement.*

The results of operations for the fiscal years ending June 30, 2020 and thereafter are likely to be directly affected by the impacts of the COVID-19 public health crisis on the University, as discussed throughout this Official Statement. The known financial impacts of on the University include the following:

- The announced $36.5 million of additional withholdings of State appropriations for the University, announced on April 1, 2020 by Governor Parsons.
- Approximately $___ million of refunds and credits being paid by the University for room and board refunds for spring semester 2020.
- [*Other known costs*]

In addition, the public health crisis in expected to have additional impacts on the University, which could be adverse and could be meaningful, including:

- Likely decline in the market value of the University's investments and the investments in the Retirement Plan as a result of the market responses to the COVID-19 crisis and the corresponding shut-down of the economy.
- Reduced levels of gifts and grants to the University.
- Impacts on Fall 2020 enrollment at all four campuses of the University.
- Decreased utilization of University residence halls and dining facilities.
- Increased personnel costs at MU Health Care associated with responding to the public health crisis.
- Increased demands on the MU Health Care facilities and operations without corresponding reimbursements from government or private sources.
- [*Other possible impacts*]

The University cannot predict the impact of the public health crisis on the fiscal year 2020 results of operations or any future fiscal years, beyond the few known impacts listed above. As discussed under **"INTRODUCTION – Recent Developments – COVID-19 Public Health Crisis,"** the University is implementing and will continue to implement a wide range of responses to the current and evolving public health crisis, while continuing to support the missions of the University.

Blended Component Units

The University reports four blended component units, which includes Missouri Renewable Energy Corporation (***"MREC"***), the University of Missouri-Columbia Medical Alliance (the ***"Medical Alliance"***), Columbia Surgical Services (***"CSS"***), and Columbia Family Medical Services (***"CFMS"***). MREC is a for-profit corporation, in which the University holds the majority equity interest, and provides green energy facilities exclusively to the University. The Medical Alliance is a not-for-profit entity which was established to facilitate the creation of an integrated healthcare delivery system for mid-Missouri. Capital Region Medical Center in Jefferson City, Missouri, operates as an affiliate of the Medical Alliance and provides inpatient, outpatient and emergency care services to the surrounding community. CSS and CFMS are not-for-profit corporations in which the University is the sole member. Both CSS and CFMS provide medical services in conjunction with MU Health Care.

The below table displays the changes in net position for the blended component units for fiscal year 2019, in thousands of dollars.

	MREC	Medical Alliance	CSS	CFMS
Net Position, Beginning of Year	$9,929	$144,529	$ 26	$368
Change in Net Position	(958)	11,908	329	(10)
Net Position, End of Year	$8,971	$156,437	$355	$358

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Retirement Trust and OPEB Trust

The University operates the University of Missouri Retirement, Disability and Death Benefit Plan (the ***"Retirement Plan"***) and the University of Missouri Other Post-employment Benefits Plan (the ***"OPEB Plan"*** and, collectively with the University Retirement Plan, the ***"Plan"***), which are single employer, defined benefit plans. The assets of the Plan are held in trust and are restricted for use only to pay for benefits and expenses of the Plan. Therefore, the net position and changes in net position are reflected separately from the operations of the University. The table below sets forth comparative summary financial statements for the Plan as of and for the three fiscal years ended June 30, 2019.

Summary Financial Information
of the Plan
(in thousands)

	Fiscal Years Ended June 30,		
Net Assets Held for Plan	**2017**	**2018**	**2019**
Assets:			
Cash and Cash Equivalents and Collateral for Securities Lending	$ 500,767	$ 590,482	$ 576,376
Investments and Related Receivables	3,253,829	3,421,311	3,496,043
Total Assets	3,754,596	4,011,793	4,072,419
Liabilities:			
Payables and Accrued Liabilities	71,263	133,375	170,398
Collateral for Securities Lending	161,264	158,979	106,182
Total Liabilities	232,527	292,354	276,580
Net Assets Held in Trust for Retirement and OPEB	$3,522,069	$3,719,439	$3,795,839
Changes in Plan Net Assets			
Net Revenues and Other Additions:			
Net Investment Income	$ 368,419	$ 325,278	$ 187,823
Contributions and other Revenues	147,993	142,569	172,710
Total Net Revenues and Other Additions	516,412	467,847	360,533
Expenses and Other Deductions:			
Administrative Expenses	3,207	2,363	2,529
Payments to Retirees and Beneficiaries	246,907	268,114	281,604
Total Expenses and Other Deductions	250,114	270,477	284,133
Increase (Decrease) in Net Position Held in Trust for Retirement and OPEB	266,298	197,370	76,400
Net Position Held in Trust for Retirement and OPEB, Beginning of Year	3,255,771	3,522,069	3,719,439
Net Position Held in Trust for Retirement and OPEB, End of Year	$3,522,069	$3,719,439	$3,795,839

Net position held for the Plan increased by $76.4 million, from $3.72 billion at fiscal year ended June 30, 2018 to $3.80 billion at fiscal year ended June 30, 2019. The increase is a result of net investment income of $187.8 million and plan contributions of $172.7 million outpacing expenses.

The time-weighted return of the Plan for the fiscal year ended June 30, 2019 was 5.5%, compared to the benchmark index of 6.4%. The allocation of Plan investments and the time-weighted return on those investments for the fiscal year ended June 30, 2019 is shown in the following table:

Plan Investments
Fiscal Year ended June 30, 2019

	Asset Distribution	**Total Return**	**Benchmark Index Return** [(1)]
Public Equity	33.7%	4.4%	5.9%
Private Equity	10.4	14.3	13.2
Public Debt	27.3	5.1	5.2
Private Debt	4.9	5.7	4.0
Risk Balanced	9.9	6.9	8.7
Commodities	5.5	(8.9)	(6.8)
Real Estate	7.0	9.3	6.6
Cash	1.3	3.2	2.8
Total (Composite)	100.0	5.5	6.4

(1) Benchmark index returns are calculated by independent investment consultants based on returns of similar security portfolios.

The Board approved changes to the retirement plan options available to employees in 2012 and in 2019. In each case, the changes applied only to new employees of the University after the effective date of the changes. A comparison of the various plans, consisting of the plans applicable to (a) employees hired before October 1, 2012 (the ***"Defined Benefit Plan"***), (b) employees hired on or after October 1, 2012 but before October 1, 2019 (the ***"Hybrid Plan"***), and (c) employees hired on or after October 1, 2019 (the ***"Defined Contribution Plan"***), is set forth on the following page. Effective October 1, 2019, the Defined Benefit Plan and the Hybrid Plans were closed to new entrants.

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Employee Retirement Plan Comparison

	Defined Contribution Plan	Hybrid Plan	Defined Benefit Plan
Implementation Date	**Employees hired on or after October 1, 2019**	**Employees hired on or after October 1, 2012 but before October 1, 2019**	**Employees and retirees hired on or before September 30, 2012**
	Defined Benefit Portion	***Defined Benefit Portion***	***Defined Benefit Portion***
Multiplier Formula	N/A	1% of Pay, average of 5 highest consecutive years of salary	2.2% of Pay, average of 5 highest consecutive years of salary
University Contribution	N/A	8.41% of salary	12.01% of salary
Vesting	N/A	5 years	5 years
Employee Mandatory DB Contribution	N/A	1% up to $50,000, 2% of amount above $50,000	1% up to $50,000, 2% of amount above $50,000
Minimum Value Accumulation	N/A	None	5% of pay per year with 7.5% interest
	Defined Contribution Portion	***Defined Contribution Portion***	***Defined Contribution Portion***
University Automatic Contribution	N/A	2% of salary	N/A
University Match	100% up to 8% of salary	100% up to an additional 3% of salary	N/A
Vesting	3 years	3 years	N/A
Estimated University Contribution	7.0% of salary	3.32% of salary	N/A

The University obtains an actuarial valuation of the assets and liabilities of the Retirement Plan as of October 1 of each year.

The University reviews assumptions underlying the actuarial valuation of the assets and liabilities of the Retirement Plans no less often than once every five years in consultation with its consulting actuaries. Changes in assumptions may have a significant effect on the actuarial valuation of the assets and liabilities of the Retirement Plan and thus on the annually required contributions to that plan. In fiscal year 2017, the University completed its five-year review of assumptions, which updates were included in the actuarial report as of October 1, 2019.

Key actuarial assumptions and methodologies used in the actuarial valuation report dated as of October 1, 2019 include the following:

- a net long-term rate of investment return, after expenses, of 7.2% per annum;
- for purposes of determining the actuarially required contributions, the actuarial value of assets is determined utilizing expected return asset valuation method, which smooths unrecognized return (gain or loss) for each fiscal year over a five-year period, with actuarial value further adjusted, if necessary, to be within 20% of the market value;
- actuarial gains and losses resulting from differences between actual and assumed experience are recognized immediately in the Plan's actuarial accrued liabilities; and
- unfunded actuarial liability is recognized for funding purposes assuming it is amortized on a level basis over a period of 24 years from the valuation date.

The following table sets forth the schedule of funding progress for the Retirement Plan as of the five most recent actuarial valuation dates:

Retirement Plan – Schedule of Funding Progress
(unaudited; $ in thousands)

Actuarial Valuation Date Oct 1	Actuarial Valuation of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL / (Excess Funding) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL (Excess) as a % of Covered Payroll ([b-a]/(c))
2015	$3,289,216	$3,763,247	$474,031	87.4%	$1,129,784	42.0%
2016	3,433,435	3,892,721	459,286	88.2	1,144,412	40.1
2017	3,572,150	4,310,862	738,712	82.9	1,146,836	64.4
2018	3,668,672	4,466,919	798,247	82.1	1,187,434	67.2
2019	3,763,642	4,668,270	904,628	80.6	1,227,342	73.7

As discussed above, the Retirement Plan uses actuarial asset value smoothing and recognizes investment gains and losses over five years for actuarial valuation purposes. Accordingly, the market value of Retirement Plan assets differs from the actuarial value of those assets. The following table compares the actuarial valuation of assets as of each of the five most recent valuation dates to the market value of the Retirement Plan assets as of those dates, in dollars, and the funded ratio of the Retirement Plan based on both actuarial value and market value as of those dates.

Retirement Plan – Actuarial Value of Assets Compared to Market Value
(unaudited; $ in thousands)

Oct 1	Actuarial Valuation of Assets	Market Value of Assets	% of Actuarial Value to Market Value	Funded Ratio[(1)] (Actuarial Value)	Funded Ratio [(2)] (Market Value)
2015	$3,289,216	$3,109,173	105.8%	87.4%	82.6%
2016	3,433,435	3,303,240	103.9	88.2	84.9
2017	3,572,150	3,572,075	100.0	82.9	82.9
2018	3,668,672	3,684,545	99.6	82.1	82.5
2019	3,763,642	3,735,405	100.8	80.6	80.0

(1) Actuarial value of assets divided by actuarial accrued liability.
(2) Market value of assets divided by actuarial accrued liability.

The Net Pension Liability of the University as of June 30, 2019, is $814,210,000, as set forth in Table 13.2 of the Notes to Financial Statements of the University included as **Appendix B**. For additional information relating to the Retirement Plan, see Notes 3, 13 and 17 of the Notes to Financial Statements of the University included as **Appendix B** and the unaudited Required Supplemental Information starting on page 86 of **Appendix B**.

Other Post-Employment Benefits

Effective June 2008, the University established a trust, the assets of which are irrevocable and legally protected from creditors and dedicated to providing post-employment benefits in accordance with terms of the plan. Contribution requirements of employees and the University are established and may be amended by the University's management. The terms and conditions governing the post-employment benefits to which its employees are entitled are at the sole authority and discretion of the University's Board of Curators.

Under the OPEB Plan, the University provides post-employment benefits to eligible retirees and long-term disability claimants, including medical, dental, and life insurance benefits to employees who retire from the University after attaining age 55 and before reaching age 60 with ten or more years of service, or after attaining age 60 with five or more years of service. As of January 1, 2018, employees must be 60 years old and have 20 years of service at the date of retirement to access the same percentage subsidy as retirees prior to January 1, 2018. Employees with age plus years of service less than 80 but with more than 5 years of service as of January 1, 2018 will receive a subsidy of $100 per year of service up to a maximum of $2,500 annually. Employees with less than five years of service as of January 1, 2018 will not receive an insurance subsidy or be eligible to participate in the University's plans.

The University has no obligation to make contributions in advance of when insurance premiums or claims are due for payment and currently funds postemployment benefits at a level no less than on a pay-as-you-go basis. In fiscal years 2019 and 2018, the University contributed $23,363,000 and $18,590,000, respectively.

As of June 30, 2019, the OPEB Plan was 7.81% funded. The total liability for postemployment benefits was $492,066,000 with a plan fiduciary net position of $38,426,000, resulting in a net OPEB liability of $453,640,000. The covered payroll was $677,089,000 and the ratio of net OPEB liability to covered payroll was 67.0%.

For additional information relating to the OPEB Plan, see Notes 3, 14 and 17 of the Notes to Financial Statements of the University included as **Appendix B** and the unaudited Required Supplemental Information starting on page 86 of **Appendix B**.

Outstanding Parity Bonds

In 1993, the University adopted resolutions that authorized the issuance of its System Facilities Revenue Bonds, Series 1993 (the ***"Series 1993 Bonds"***), none of which remain outstanding. The Series 1993 Bond resolution (the ***"Original Resolution"***) established a system facility financing program for the University, which included the Series 1993 Bonds and any Additional Bonds thereafter issued by the University in conformance with the provisions of the Original Resolution.

Since 1993, the University has issued various series of Prior System Bonds (as defined below), all of which constitute Additional Bonds under the Original Resolution. The University currently has outstanding the following series of Prior System Bonds, all of which stand on a parity with the Series 2020 Bonds. Principal amounts outstanding for all Prior System Bonds are as of May 1, 2020:

- Variable Rate Demand System Facilities Revenue Bonds, Series 2007B, in the outstanding principal amount of $82,540,000;

- Taxable System Facilities Revenue Bonds, Series 2009A (Build America Bonds), in the outstanding principal amount of $256,300,000;

- System Facilities Revenue Bonds, Series 2009B, in the outstanding principal amount of $15,100,000, all of which are expected to be current refunded with proceeds of the Series 2020A Bonds;

- Taxable System Facilities Revenue Bonds, Series 2010A (Build America Bonds), in the outstanding principal amount of $252,285,000;

- System Facilities Revenue Bonds, Series 2011, in the outstanding principal amount of $27,975,000, all of which are expected to be advance refunded with proceeds of the Series 2020A Bonds;

- System Facilities Revenue Bonds, Series 2013A in the outstanding principal amount of $5,925,000;

- Taxable System Facilities Revenue Bonds, Series 2013B in the outstanding principal amount of $150,000,000; and

- System Facilities Revenue Bonds, Series 2014A, in the outstanding principal amount of $240,750,000, $51,020,000 principal amount of which is expected to be current or advance refunded with proceeds of the Series 2020A Bonds.

- System Facilities Revenue Bonds, Series 2014B, in the outstanding principal amount of $150,000,000.

The bonds referred to above are collectively referred to as the ***"Prior System Bonds,"*** which are outstanding in the aggregate principal amount of $1,180,875,000 as of May 1, 2020, and are expected to be outstanding in the principal amount of $1,086,780,000 after the issuance of the Series 2020 Bonds and the application of the proceeds thereof.

The Series 2020 Bonds are "Additional Bonds" within the meaning of the Prior System Bond resolutions and stand on a parity with and are equally and ratably secured with respect to the payment of principal and interest from the System Revenues derived by the University from the operation of the System Facilities and in all other respects with the Prior System Bonds, all as defined and provided in the Resolution. The Prior System Bonds specified are secured by a parity lien on and claim against the System Revenues with the Series 2020 Bonds.

The Series 2009A Bonds and the Series 2010A Bonds were designated "Build America Bonds" at the time of issuance. As such, under then current law, the University expected to receive interest subsidy payments from the U.S. Treasury in an amount equal to 35% of the interest payable by the University on the Series 2009A Bonds and the Series 2010A Bonds (assuming continuing compliance by the University with various Internal Revenue Code requirements relating to Build America Bonds). Since 2013, the federal Budget Control Act (as subsequently modified and amended) has resulted in the reduction of federal Interest Subsidy Payments to issuers of certain qualified bonds subject to sequestration (including the Build America Bonds). Sequestration resulted in a 6.2% reduction of Interest Subsidy Payments for the federal fiscal year that ended September 30, 2019 and will result in a 5.9% reduction for the federal fiscal year ending September 30, 2020. Absent the reduction caused by sequestration, the University's Interest Subsidy Payment during its fiscal year ending June 30, 2020 would have been approximately $10.4 million. Sequestration is currently scheduled to continue until the close of federal fiscal year 2024. Sequestration or other Congressional action may reduce or eliminate the expected Interest Subsidy Payments for the Series 2009A Bonds and Series 2010A Bonds in future years.

Commercial Paper Program

On October 20, 2011, the Board of Curators established the Commercial Paper Program pursuant to which the University is authorized to have outstanding at any one time up to $375,000,000 principal amount of commercial paper notes (***"CP Notes"***). The CP Notes are designated as Series A (Tax-Exempt) and Series B (Taxable) and may be issued from time to time for the purpose of (i) financing and refinancing the costs of certain capital projects approved by the University, (ii) providing funds for operational uses, capital management activities and other general cash uses of the University (i.e. working capital), and (iii) paying the costs of issuance of the CP Notes. Only proceeds of the Series B (Taxable) CP Notes may be issued for working capital purposes. The CP Notes are required to mature on a business day that is not more than 270 days from the date of issue and are not subject to redemption prior to maturity, with not more than $100,000,000 maturing in any seven-day period.

The CP Notes are limited obligations of the University payable solely out of and secured by a pledge of the University's Unrestricted Revenues. ***"Unrestricted Revenues"*** means in any year State appropriations for general operations, student fee revenues, and all other operating revenues of the University other than System Facilities Revenues, for such year, plus any unencumbered balances from previous years. The owners of the CP Notes have no right to demand payment out of any other funds of the University, including the System Facilities Revenues. The CP Notes and the interest thereon do not constitute an indebtedness of the State, and the CP Notes do not constitute an indebtedness of the University within the meaning of any constitutional or statutory limitation upon the incurring of indebtedness, but in each fiscal year will be payable solely out of the Unrestricted Revenues.

Unrestricted Revenues excludes the System Facilities Revenues, which secure solely the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University.

Liquidity support for the Commercial Paper Program is provided solely by the University. As of March 31, 2020, the University had approximately $360 million principal amount of CP Notes outstanding. All outstanding CP Notes are expected to be refinanced with proceeds of the Series 2020 Bonds. See **"PLAN OF FINANCE – Refinancing of CP Notes"** in this Official Statement.

University Self-Liquidity

The University provides self-liquidity for all outstanding variable rate Prior System Bonds and for outstanding CP Notes. As a result, the University is obligated to repurchase, with funds of the University, any variable rate bonds that are tendered for remarketing and are not successfully remarketed, and to pay at maturity any CP Notes to the extent proceeds of a new issue of CP Notes are not available for such purpose. The University maintains substantial liquidity in its General Pool for the purpose of providing liquidity for its outstanding variable rate Prior System Bonds and for its Commercial Paper Program. Since the inception of the University's variable rate debt program over 13 years ago, variable rate Prior System Bond remarketings have been consistently successful and the University has never been called upon to provide self-liquidity. The Commercial Paper Program was established in late Fall 2011, and the first issuance of CP Notes occurred in January 2012. The maturing CP Notes have typically been paid with proceeds of a new issuance of CP Notes. As of February 29, 2020, the University had approximately $2.5 billion in its General Pool, of which approximately 39% was in high-grade, short-duration, fixed income securities and commercial paper.

All outstanding CP Notes, in the approximate amount of $362 million, are expected to be refinanced with proceeds of the Series 2020 Bonds. See **"PLAN OF FINANCE – Refinancing of CP Notes"** in this Official Statement.

For additional financial information regarding the University's liquidity, see the unaudited liquidity information as of February 29, 2020, which has been posted on EMMA and which is incorporated by reference in this Official Statement. See **"INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE"** in this Official Statement.

Swap Agreements

The University has entered into three interest rate swap agreements in an aggregate notional amount of $167.94 million as of December 1, 2019. Under the swap agreements, the University makes fixed rate payments and receives variable rate payments. The fixed swap rates are 3.95% ($40 million notional amount, with a maturity date of November 1, 2032), 3.798% (approximately $82.54 million notional amount, with a maturity date of November 1, 2031) and 3.902% (approximately $45.4 million notional amount, with a maturity date of August 3, 2026). The University receives variable rate payments on the $40 million and $45.4 million swaps equal to SIFMA, while it receives payments on the $82.54 million swap equal to 68% of one-month LIBOR. The $82.54 million swap specifically hedges the Series 2007B Bonds, the effectiveness of which has been determined using the synthetic instrument method under GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*. The $40 million and $45.4 million swaps do not specifically hedge any currently outstanding Bonds, but serve to reduce the overall exposure to interest rate risk on all outstanding variable rate debt obligations of the University. The counterparty to the $82.54 million and $40 million swap agreements is JPMorgan Chase Bank, N.A. The counterparty to the $45.4 million swap agreement is Bank of America, N.A.

The University's fixed rate payment obligations and termination payment obligations to the counterparty under the swap agreements are limited obligations of the University payable solely from System Revenues on a parity basis with the Series 2020 Bonds, the Prior System Bonds and any Additional Bonds hereafter issued by the University. Under the $82.54 million and $40 million swap agreements, the University and the counterparty are required to post collateral if the termination payment amount calculated on each valuation date exceeds a certain amount (which varies based on the credit rating of the party posting collateral). Under the $45.4 million swap agreement, the swap counterparty is required to post collateral with the University if the market value calculated on each valuation date exceeds a ratings-dependent threshold; the University is not required to post collateral with this swap counterparty. The market values of all three swaps are computed daily by the counterparty based on fluctuations in interest rates. The University may choose to terminate the swaps at any time, subject to payment of any applicable termination fees. See Note 10 of the Notes to Financial Statements included as **Appendix B** to this Official Statement.

As of March 31, 2020, the market value to the University of the $86.185 million and $40 million swaps was an aggregate of approximately ($37.5) million. The University is required to post collateral with the counterparty when the negative market value exceeds $30 million, based on the current long-term rating of the University.

As of March 31, 2020, the market value to the University of the $46.55 million swap was approximately ($8.75) million.

Litigation

There is not now pending or, to the knowledge of the University, threatened any litigation (a) to restrain or enjoin the issuance or delivery of the Series 2020 Bonds, (b) challenging the proceedings or authority under which the Series 2020 Bonds are to be issued, (c) materially affecting the security for the Series 2020 Bonds, or (d) which would otherwise materially adversely affect the financial condition of the University.

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

AUDIT, COMPLIANCE AND ETHICS COMMITTEE

Jeff L. Layman, Chair

Maurice B. Graham

David L. Steelman

Robin R. Wenneker

1. The Audit Committee will assist the Board of Curators in fulfilling its oversight responsibilities relating to: the integrity of the University's financial statements, the systems of internal control, the performance of the University's independent auditors and internal audit function, the independent auditor's qualifications and independence, and the University's compliance with legal and regulatory requirements.

   a. The University Chief Audit Officer or some other person(s) designated by the President shall be an ex officio member of the Committee.

   b. The Audit Committee shall be the Board Committee on audit.

   c. The Audit Committee shall meet four times per year to consider business related to its audit function. Sufficient opportunity for the internal and independent auditors to meet with the Committee should be provided. At least annually, the Audit Committee, as part of its audit function, shall meet solely with the independent auditor and the internal auditor.

   d. The Audit Committee in its audit role may investigate any matter brought to its attention with full access to all records, facilities, and personnel of the University and the authority to engage other individuals as necessary to carry out its duties.

   e. The responsibilities of the Audit Committee in its audit function include, but are not limited to, a review of the internal audit plan, a review of audits completed, a review of annual audited financial statements, and recommending to the full Board of Curators the appointment of the University's independent and internal auditors.

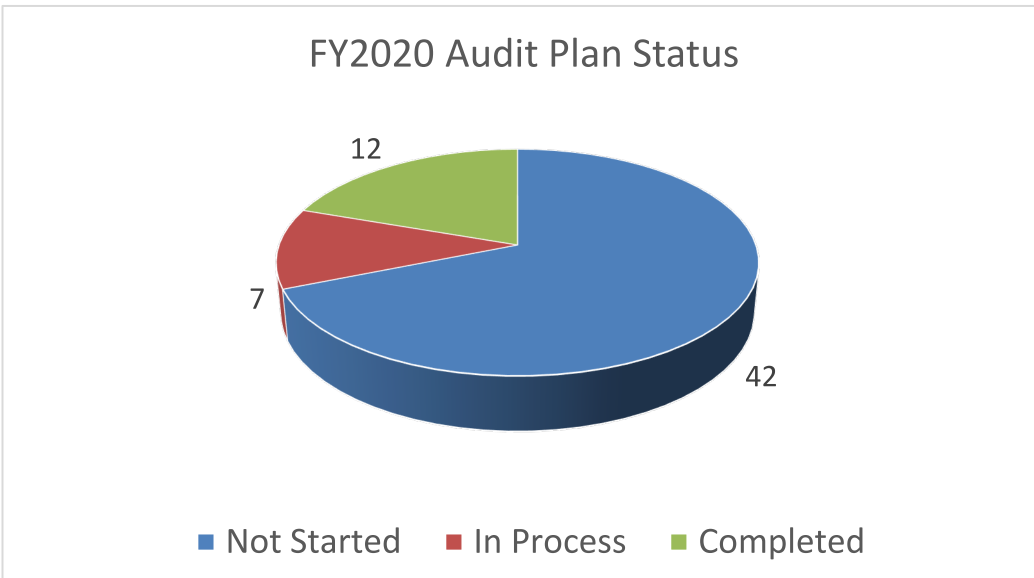
   f. The Audit Committee may establish processes, procedures, and regulations governing their oversight of the internal and external audit process.

Internal Audit and Consulting Quarterly Report
UM

Status of the FY2020 Annual Audit Plan

- Twelve audits completed
- Seven audits in process
- Forty-two audits not started

The following graph represents the status of the FY2020 Audit Plan.



<u>Audit Performance</u>

Since the February 2020 meeting of the Audit Committee, Internal Audit completed and issued two assurance reports and completed all FY2020 procedures related to monitoring of management action plans.

Internal Audit Assurance Reports	Report Risk Rating
Revenue Generating Physician Contracts	1 2 3 4 5
Maxient Security Review	1 2 3 4 5

There is a time-lag between when field work is completed and when a report is issued in order to provide appropriate time for agreed upon action plans to be written.

The assurance report includes an executive summary with our assessed level of risk, as well as a summary of issues and management's action plan. An executive summary of this assurance audit is included for your information. The full audit reports are available upon request from the Office of Internal Audit and Consulting Services.

Criteria Used for Assessment of Risk:

5 ***Extreme*** – Very significant impact to the Institution, campus, or unit. Significantly material in terms of financial impact, external compliance violation, adverse publicity, significant or pervasive weakness in control environment, significant inefficiencies, etc. Typically requires campus and UM System administration along with Board attention to resolve.

4 ***High*** – Major impact to the Institution, campus, or unit. Material in terms of financial impact, external compliance violation, adverse publicity, significant or pervasive weakness in control environment, significant inefficiencies, etc. Typically requires campus and/or UM System administration to resolve.

3 ***Medium*** – Moderate in terms of impact to the Institution, campus, or unit. Individual instance or an aggregate of low risk items considered moderate in terms of financial impact, compliance violation, adverse publicity, weakness in control environment, efficiency, etc. Typically requires leadership attention for the selected audit area to resolve with some input from campus and/or UM System administration.

2 ***Low*** – Minor in terms of impact to the Institution, campus, or unit. Relatively immaterial in terms of financial impact, no external compliance violation, little adverse publicity, minor inefficiencies, etc. Typically limited to leadership of the selected audit area to resolve.

1 ***Negligible*** – Incidental or no impact to the Institution, campus, or unit. Immaterial or no financial impact, no external compliance violation, no adverse publicity, minor inefficiencies, etc. Typically requires little or no action to resolve.

Internal Audit Summary Report
MUHC, Revenue Generating Physician Contracts
December 2019

Report Risk Rating:
1 2 3 4 5

Audit Background
Revenue-generating physician services contracts that were the subject of this audit included professional service agreements, interpretation service agreements, telemedicine services, medical examiner services, and medical directorships. Three distinct areas within MU Health (MUH) have responsibility for some aspect of revenue generating physician contracts with assistance from the Office of General Counsel, Office of Corporate Responsibility and Network Development. These areas are:

1. School of Medicine (SOM) Departments
   a. Originate request to provide clinical services
   b. Lead negotiations with the outside entity
   c. Are responsible to deliver and bill services and manage compliance oversight activity in accordance with the contract

2. Office of Payer Strategy and Health System Contracting (HSC)
   a. Coordinates information gathering/tracking to facilitate contract development
   b. Conducts periodic reviews of contracts and handles renewals and terminations

3. University Physician's Finance (UP)
   a. Coordinates obtaining a fair market value analysis between VMG, a third-party vendor, and SOM departments.

Issues Summary
- Three medical directorships were referred to Legal and MUH Compliance for further analysis of time-reporting issues, and a fourth is being analyzed because the terms did not specify provider hours or documentation requirements.

- Although multiple functions across MU Health have a role in contracting, there has been limited governance or oversight of the process. Efforts are underway, through the Strategic Initiatives Advisory Group, to establish a governance structure that more formally defines and guides clinical outreach activities across MU Health.

Management Action Plan Summary
Four agreements are under further review by Legal and MUH Compliance to determine if any legal or regulatory exposure exists. Results of this analysis will determine whether/what corrective action will be necessary. Recommendations for improved oversight and support of contracting activities were shared with leadership.

Risk Rating Rationale
The exceptions noted were limited to one type of agreement with limited financial impact; evidence of external compliance violations has not yet been determined.

Internal Audit Summary Report
System Maxient Conduct Manager Information Security Program Review
February 2020

Report Risk Rating:

1 2 3 4 5

Audit Background

Maxient Conduct Manager is an online student conduct reporting and tracking system that manages student discipline, academic integrity, care and concern records, and Title IX matters. Currently, 24 departments across the University of Missouri system (UMS) use Conduct Manager for case management activities.

Conduct Manager stores personally identifiable information (PII) as well as extremely sensitive information; it is important the system is compliant with the Information and Security (InfoSec) Program and it adequately protects sensitive data it stores and transmits.

As a vendor-hosted system, many of the InfoSec Program requirements are controlled by the vendor, except for certain access controls that must be managed by functional administrators at each site. At UMS, those functional administrators (two at each of the four campuses and one at the System) form the Maxient Governance Committee. This committee is responsible for establishing governance practices, making configuration and application changes, and addressing application issues. Additionally, functional administrators grant and revoke access to the Conduct Manager application.

Issues Summary

Basic access controls, including who is granted access, what documentation is needed, and what training is required are documented in a draft Maxient Governance Plan that is not yet consistently used.

There are missing and/or inconsistently applied access controls required by the Data Classification System that applies to Maxient:

a. Access privileges are not consistently reviewed at appropriate intervals. A review of user accounts revealed several aged accounts that should be addressed.
b. There is no consistent practice of immediately revoking access when employees leave the University or custodial department.
c. Not all privileged users are required to sign confidentiality agreements.

Management Action Plan Summary

1. Finalize and implement the Maxient Governance Plan or an alternative governance document.
2. Include provisions for reviewing and revoking user access and requiring confidentiality agreements in the finalized Maxient Governance Plan/governance document.

Risk Rating Rationale

Conduct Manager is out of compliance with some areas of the InfoSec Program. A risk rating of two (2) was assigned due to the limited number of privileged users. Formally adopting the draft Governance Plan will provide all committee members the guidance needed to consistently manage both users and access controls.

In addition, the Office of Internal Audit and Consulting Services completed one investigation and continues to monitor risks associated with the revenue cycle implementation initiative at MU Health.

Audits Currently in Process

Audit Area	Overall Objective	Status	Risk Area(s)
MU-Grant Effort Reporting	Provide assurance that internal controls related to grant effort verification are adequate to comply with federal Uniform Guidance requirements.	Reporting	Compliance
MU- Lab Safety	Assessment of hazardous chemical use and compliance with regulations.	Reporting	Environmental Health & Safety
UMSL – Lab Safety	Determine if adequate controls are in place to provide safe working conditions for faculty, students and staff who work in labs which house hazardous chemicals.	Field Work	Environmental Health & Safety
MU- Conflict of Interest/Commitment Process	Evaluation of processes used to identify, assess and manage conflicts of interest and commitment.	Planning	Compliance
MUHC – EMR Extension to Lake Regional	Organized Health Care Arrangement (OHCA) post-implementation review	Planning	Compliance
MU – International Programs Study Abroad	Assessment of controls over study abroad programs through the International Center and other academic units.	Planning	Student Safety, Reputation
MU – Data Center	Review of data center operations with an emphasis on monitoring	Planning	IT Security

In addition, five investigations are currently in process.

Management Action Plan Status as of February 29, 2020

Follow-up procedures are performed twice a year to verify status of management actions for previously issued audit reports. For this time period, ten (10) action items were due for completion by February 29, 2020.

The following table lists audit reports with open action items. The highlighted reports indicate at least one action plan for that audit was reviewed for completion in the time period July 16, 2019 – February 29, 2020. Nine (9) of 10 action plans due this period have been completed, and one (1) has a revised due date.

<u>Revised Due Date</u>:

One action plan for University of Missouri System (UMS) - Cash Handling was revised and extended. This action is reported in the "Revised Due Date" column of the table on the following page.

System Cash Handling – Medium Risk

The System Cash Handling action plan focused on ensuring appropriate practices are in place to ensure effective cash handling, especially in smaller departments. Cash collection is being eliminated from the system through implementation of an e-commerce solution, which also helps to ensure appropriate segregation of duties. The action plan with a revised due date is specific to departments still managing cash, as there is a need to perform additional due diligence to ensure revised policies and processes are in place and being followed consistently, in support of safeguarding financial assets.

Management Action Plan Summary as of February 29, 2020

Entity	Report Name	Risk Rating	Total # of Action Plans in Report	Complete	Not Due	Past Due	Revised Due Date	Will not be Implemented
MUH	School of Medicine Clinical Trials/Research Infrastructure	Medium	3	1	2			
	School of Medicine HR Processes	High	6	2	2			2
	School of Medicine Dept of Surgery - Financial Processes	Medium	4	3	1			
	Controlled Substances Diversion Prevention	High	19		19			
	Revenue-Generating Physician Contracts	Low	3		3			
	Cardiology PACS	Low	4	4				
UMKC	Institute for Human Development	High	11		11			
UMS	External Student Funded Accounts	Medium	1		1			
	Cash Handling	Medium	3	2			**1**	
	Vendor Master File Management	Medium	3	3				
	Maxient Conduct Manager InfoSec Review	Low	2		2			
	One Card Process	Medium	8		8			
		Totals	**67**	**15**	**49**	**0**	**1**	**2**

KEY: Audits with action plans due between July 16, 2019 and February 29, 2020 are highlighted in GOLD. Audits in **BOLD** font have revised due dates; RED are past due.

University of Missouri System Board of Curators

April 9, 2020

Audit Committee

Internal Audit and Consulting Report
UM

Summary of Internal Audit Activity Since Feb 2020 Report to the Audit Committee

- Completed two internal audits, one investigation, and all FY2020 procedures related to monitoring of management action plans

- Finalizing two internal audit reports

- Five internal audits in process

- Actively working five investigations

Revenue Generating Physician Contracts
MU Health

Report Risk Rating:

1 2 3 4 5

Summary Observations

- Health System Contracting office is following a consistent approach and adequately coordinating the development of contracts, as well as tracking existing agreements for review, renewal and need for fair market value (FMV) re-analysis.
- Three medical directorships were referred to Office of General Counsel and MUH Compliance for further analysis of time-reporting issues, and a fourth is being analyzed because the terms did not specify provider hours or documentation requirements.

Management Actions

- Four agreements are under further review by Legal and MUH Compliance to determine if any legal or regulatory exposure exists. The results of this analysis will determine whether/what corrective action will be necessary.

Maxient Conduct Manager
Information Security Program Review
UM System

Report Risk Rating:

1 2 3 4 5

Summary Observations

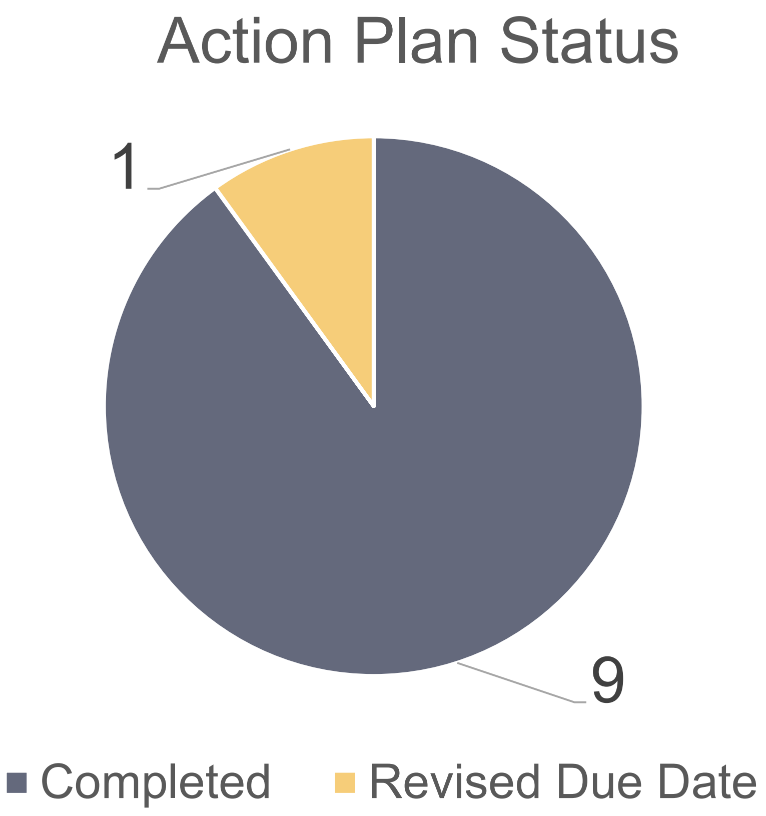
- Issues with reviewing and revoking access were identified
- Not all users are required to sign confidentiality agreements

Management Actions

- Finalize and implement the Maxient Governance Plan
- Include provisions for reviewing and revoking user access and requiring confidentiality agreements

Status of Management Action Plans

As of February 29, 2020



- Ten action plan items in three audits were reviewed for completion as of February 29, 2020.
- Nine of ten, or 90 percent were completed.
- One action plan was extended (Cash Handling).

Questions?

Compliance Program Implementation Status
UM

Status of Establishing the Compliance Oversight Function for the UM System

An effective compliance program has multiple activities in place that together encourage and reinforce the culture and behaviors consistent with our principles and values as we perform our work in meeting our mission obligations. The overall objective is to establish an oversight compliance function that:

1. Reinforces a culture of integrity and accountability
2. Empowers staff, faculty and leadership to “own” and take responsibility for doing what’s right and reporting concerns
3. Is consistent with the Federal Sentencing Guidelines Effective Elements

Recruiting the executive directors, developing and establishing the Code of Conduct, building the system-wide team by meeting with compliance professionals and senior leaders at each university and completing a gap analysis/risk assessment of areas with regulatory and compliance obligations are the top four priorities.

The following is a status update for establishing the foundation for an ongoing effective compliance program.

Recruiting

- Candidates for the executive directors for internal audit and compliance have been sourced and interviews are underway to narrow the pool to the top 2-3 candidates for onsite visits.
- Recruiting and onboarding these leaders is a critical component for progressing with establishing a firm foundation for a system-wide compliance program.

Code of Conduct

- The agreement is being finalized between Navex Global and UM System to use their Code of Conduct Development Team for designing and writing the code. Input will be utilized from key stakeholders throughout the System.
- Establishment of the Code of Conduct Steering Committee is underway.
- Target implementation date is mid-September 2020.

Building the System-wide Team and Overall Support

- The Chief Audit and Compliance Officer has met with the chancellors, provosts, CFOs and vice chancellors of research at each UM System university.
- A presentation was made to the Executive Compliance Committee of the Health System and meetings with the Chief Compliance Officer have occurred.

- Meetings have occurred with Research Compliance, and the Office of Sponsored Programs at MU; meetings with other compliance professionals are being scheduled as the calendar allows.

Gap Analysis/Risk Assessment

- Engaging the compliance professionals to assist in assessing what is being done well and where there are opportunities for improvement is the approach for conducting the gap analysis/risk assessment. Work has progressed slowly, but will move more quickly once compliance staff are onboard. Priority will be given to those areas with the highest risk and largest gaps.
- Areas to assess include:

  Research
  Security/Privacy
  Campus Safety
  Environmental Health & Safety
  Title IX/Office of Civil Rights
  Diversity, Equity and Inclusion
  Human Resources (Employee regulations)
  Admissions
  Registrars/Enrollment (FERPA; Identity Theft)
  Donors and gifts
  Financial Aid
  Finance (GLBA, PCI Compliance, Identity Theft, IRS)
  International Students/programs/travel
  Contract Compliance

Other Initiatives

- A draft policy for the Protection of Minors on Campus has been developed and input is being gathered from key stakeholders with the expectation that staff, faculty and volunteers working with minors will follow training and registration requirements for summer activities. Full compliance with the policy is expected by December 2020 at the latest. Work is underway to establish a website that accommodates registering of minors on campus programs, training, and ordering of background checks.
- MU Research Compliance has a plan for expanding export control expertise across the UM System. The Chief Audit and Compliance Officer is working with Research Compliance to develop the proposal for consideration and approval.

University of Missouri System Board of Curators

April 9, 2020

Audit Committee

Compliance Program Implementation Status
UM

Oversight Compliance Function

Objective:

- Reinforce a culture of Integrity and Accountability
- Empowers staff, faculty and leadership to “own” and take responsibility for doing what’s right and reporting concerns
- Is consistent with the Federal Sentencing Guidelines Effective Elements

Top Priorities

- Recruitment
- Code of Conduct
- Building the System-wide Team and Overall Support
- Gap Analysis/Risk Assessment
- Other Initiatives

Questions?

HEALTH AFFAIRS

HEALTH AFFAIRS COMMITTEE

Maurice B. Graham, Chair

Ronald G. Ashworth (non-curator)

John R. Phillips (non-curator)

David L. Steelman

Robin R. Wenneker

Michael A. Williams

1. The Health Affairs Committee shall include curators and may include additional non-curator members appointed by the Board Chair, subject to approval of the Board. The Board Chair, subject to approval of the Board, shall determine the number of curators and non-curator members to appoint to the Committee; provided that, the number of non-curator members on the Committee shall not exceed the number of curator members on the Committee, unless the Committee temporarily has more non-curator members than curator members because a curator member of the Committee has resigned from the Board or the Committee. Committee members may be reappointed to serve additional terms. Non-curator members may resign their committee membership by providing written notice to the Board chair. Non-curator members of the Health Affairs Committee serve at the pleasure of the Board of Curators and may be removed by the Board Chair at any time, subject to approval of the Board. Non-curator vacancies shall be filled in the same manner as original appointments.

2. The Health Affairs Committee will assist the Board of Curators in overseeing the clinical health care operations of the University and in coordinating those operations in furtherance of the University's teaching, research, and clinical missions. The Health Affairs Committee shall receive and review regular reports from University of Missouri Health Care ("MU Health Care") and the MU School of Medicine's faculty practice plan ("University Physicians"). Areas of oversight for the Health Affairs Committee shall minimally include: mission, strategy, governance, compliance, operations, and coordination of the clinical, teaching, and research missions. The Health Affairs Committee may also request information and reports, receive referrals from the Board and University officers, and initiate such other actions as may be appropriate or necessary to assist the Board in overseeing health care issues and coordinating clinical, teaching, and research missions of other System and campus units.

3. The Health Affairs Committee shall meet at least four times per year to consider business related to the clinical health care operations of the University and coordination of those operations in furtherance of the University's teaching, research, and clinical missions. The Health Affairs Committee shall receive reports from appropriate officers of MU Health Care and University Physicians at such meetings and may also request information and reports from other

campus or System officers as appropriate. The Board Chair, subject to approval of the Board, may appoint a staff liaison to the committee to assist in developing the agenda for Committee meetings and transmitting Committee recommendations.

4. A quorum for the transaction of any and all business of the Committee shall exist when:

a. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held in conjunction with meetings of the Board; or

b. Both all Curators members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are not held in conjunction with meetings of the Board; or

c. Both a majority of all Curator members of the Committee and a majority of all members of the Committee are participating for Committee meetings which are held solely for the purpose of reviewing and overseeing compliance matters.

5. The Health Affairs Committee may identify significant issues related to health care matters of the University and require advance approval and coordination of those issues in furtherance of the teaching, research, and clinical missions of the University.

MU Health Care Update to the Health Affairs Committee
Jonathan W. Curtright, CEO

Dear Health Affairs Committee:

Listed below please find a brief update on MU Health Care (MUHC). Given the challenging circumstances facing our community, state, and nation, this document will comprise the full update to the Health Affairs Committee (HAC). Curator Graham, President Choi, Dean Zweig, and I will describe this update verbally during the upcoming Health Affairs Committee, but, perhaps more importantly, this meeting will provide time for dialogue between MU's leadership with the HAC on Covid 19 planning.

Covid 19 Planning and Execution

MU Health (School of Medicine and Health System) leaders, staff, and faculty are working every day to develop and execute comprehensive plans to answer the challenges created by Covid 19.

- Incident Command System (ICS) -- We have stood up the hospital ICS under the able leadership of Mary Beck, Chief Nursing officer, and Steve Whitt, MD, Chief Clinical Officer. This ICS has active participation and leadership from the SOM, finance, operations, nursing, human resources, media relations and communications, and many others. This team meets every day at 11 am to deploy the resources of our health care system to meet the challenges of this pandemic in our state and community.
- Testing – ICS has created a drive-up sample acquisition location in the parking lot of the MU softball field as well as the parking lot of Women's and Children's Hospital. We have created a public/private partnership between MU Health Care, School of Medicine, Veterinary Medicine, and a private company (GeneTrait) to provide local testing of acquired samples within 24 hours.
- Communications – MU Health Care's Communication and Public Relations leadership has worked with the Governor's Office, Mayor's Office, and MU Campus and System to ensure that the key leaders of the School of Medicine and MU Health Care are leading the effort to provide timely and accurate information to communicate with the public on this myriad aspects of Covid 19 planning. In addition, we have created multiple ways to communicate with our internal audiences including Zoom meetings, Intranet/Internet sites (www.muhealth.org/covid19), virtual town hall meetings, and daily Covid 19 emails. All of these systems have been replicated at CRMC.

Academic Health Center Strategic Planning

We are nearly finished with the third and final phase of strategic planning in consultation with Kaufman Hall. We will present a final draft with required resources of the proposed strategic plan to Campus and System leadership and ultimately the Health Affairs Committee and Board of Curators in the near future. Three domains of work have been completed: 1) Research and Making a Distinct Impact (Dean Zweig, Chair), 2) Scale, Growth, and Clinical Excellence (Curtright, Chair), and 3) MU Integration (Provost Ramchand, Chair). Several "golden" threads or themes have surfaced and are driving our overall efforts that make this plan "uniquely Mizzou."

- Deliver world-class precision medicine to Missourians. Optimize our investment in NextGen Precision Health
- Fulfill the rural, land-grant mission
- Empower our team through a culture of inclusive excellence and innovation
- Achieve scale to support clinical and academic excellence
- Cultivate relationships to increase philanthropy

Quality and Safety – MU Health Care continues its journey for sustained and hard-wired performance in quality, safety, service, and efficiency.

- Mortality Rate -- Mortality observed to expected performance is showing the best improvements of any of the key domains of performance. FYTD 2020, MUHC's mortality rate has improved to the 30th percentile of the Vizient rankings. This is especially significant as mortality performance is the largest driver of the Vizient Quality and Accountability Rankings.
- 30- Day Readmission Rate – Unplanned 30-day readmission rates are currently in the 53rd percentile. We are making improvement on this metric as the past month improved to the 27th percentile.
- Coding and Documentation of Co-Morbidities – During the past HAC, we communicated our plans to focus on documenting the main co-morbidities driving our overall case mix index (CMI). To-date, we have seen a significant increase in documented obesity and heart failure. This documentation substantively improves our CMI, mortality rates, and overall financial reimbursement.

Clinical Patient Volumes

MUHC's clinical volumes remain above budget and prior year in discharges, patient days, adjusted discharges, adjusted patient days and clinic visits.

One area of concern remains our surgical volumes. In total, MUHC's surgical volumes are greater than prior year, but slightly below budget by 0.50%. This total performance is acutely unfavorable financially as the major decrease has been in inpatient surgical cases – which is a highly profitable area of our clinical practice. We will need to watch this performance very closely the remainder of the year especially given decreases to elective surgical volumes from the Covid 19 pandemic.

MU Health Care's latest inpatient market share in the 25-county region improved to 29.5% from 28.3%. This performance was especially beneficial as Capital Region Medical Center also improved its regional market share.

The impact of Covid 19 will be significant on our daily operations, clinical visits, and surgical volumes. This decrement in volumes will certainly impact our overall efficiency and financial performance for FY 2020 and, perhaps even FY 2021.

Financial Performance

YTD, our margins remain solid albeit below budgeted performance (0.8% in margin percent and $4.9M in margin dollars). The major variance to plan remains in our net patient revenues as our contractual allowances have grown by nearly 200 basis points. (To put this in context, each 100 basis points represents approximately $20M of net patient revenue. We anticipated approximately half of this increase in contractual allowances in our budget).

Operational performance has been strong as we have held our total expenses per adjusted patient day 2.1% below budget. The work completed to-date to decrease our operating expenses matched with increasing volumes is working; yet, our challenge remains having gross patient revenues flow to the income statement as net patient revenues.

In terms of liquidity and capital relative to Covid 19 impact, MUHC has postponed the WCH envelop project to ensure we maintain inpatient clinical capacity. Further, we are actively reevaluating any capital outlays for the remainder of FY2020 and FY2021. We must maintain the strength of our balance sheet and overall liquidity for MU.

Development

After a comprehensive RFP process, we have signed a contract with the Gobel Group to provide consultation on philanthropy for MU Health (Health System and SOM). The Gobel Group had strong distinction in the following areas:

- One focus – they only provide consultation in health care philanthropy. Through this focus, they understand the unique challenges and pressures facing both health care and specifically, academic health centers.
- Grateful Patient Programs – They understand the need for grateful patient programs as the true foundation for health care philanthropy. They will identify grateful patient programs that provide the most value for each specific health care system that they have as a client.
- Data Analytics – Gobel Group utilizes data in a significant manner to drive grateful patient programs and development programs overall.
- Culture and Fit – The team has its roots in Nebraska and has consulted peer organizations in the Midwest including KU Medicine.

The selection team unanimously and independently agreed that the Gobel Group would provide the greatest focus matched with a fresh and innovative approach to philanthropy at MU Health.

Thank you to the HAC for its continued governance, leadership, and support for MU Health Care. We are experiencing very difficult and challenging times; yet, our team is performing at a high level for both our normal operations and the Covid plans.

Best regards,
Jonathan Curtright
CEO, MU Health Care

Cc: President Choi
Chancellor Cartwright
Rick Barohn, MD
Steven Zweig, MD

MU School of Medicine Report to the Health Affairs Committee of the Board of Curators – April 2020

Education: The School of Medicine immediately followed the guidelines of UM system regarding classroom education; changing all learning of first and second-year medical students to distance learning. This has gone well so far as we have a good history of using ZOOM to include medical students training offsite. We planned to continue to support clinical education of third and fourth-year students (with restricted participation in the care of potentially COVID 19 infected individuals). On March 17, 2020, we received guidance from the Association of American Medicine Colleges (AAMC) and the Liaison Committee on Medication Education (LCME) that all medical students pause all student clinical rotations until at least March 31 "to develop appropriate educational strategies and alternative clinical experiences to best assure safe, meaningful clinical learning for students. It will also help with current concerns about the availability of personal protective equipment (PPE)."

Graduate students in medical school departments are following the guidelines put down by the Graduate School.

Graduate medical education programs (resident and fellow physicians) continue to provide clinical care and training from attending physicians consistent with MUHC guidelines and their Accreditation Council of Graduate Medical Education (ACGME) guidelines.

Patient care: Care of patients by MU faculty who are members of University Physicians continues uninterruptedly. Departmental and School of Medicine leadership have worked hand in hand with MU Health Care leaders to support the COVID 19 incident Command process and all other detailed processes crucial to safely and effectively care for our patients regardless of their diagnoses. We have also continued to recruit and hire physician faculty vital to our clinical, teaching and research missions.

Research: Research by our faculty continues but may be negatively impacted in the long term by less efficient work solutions to accommodate health and safety guidelines. We continue to recruit and hire successful researchers as faculty. We are also seriously engaged in the programmatic planning for the Precision Health Institute with SOM faculty members serving as two of five faculty leads of thematic areas. Our research strategic plan, including a tentative hiring plan, is integrated with strengths in MU Health Care and on the MU campus.

Finances: So far this year, finances are strong.

We are currently (as of March 1) operating about 5% better than the budget ($14 million).

Externally sponsored research expenditures are also up about 13% over budget (or 34% over last year to date).

It is significant however that 60% of the SOM budget derives from clinical revenue. With so much of our budget based on a steady source of billings and collections, we are at risk for great fluctuations created by COVID-19. We are being called upon to care for either acute or chronically ill patients – often via unreimbursed telehealth or other novel settings - to reduce the likelihood of infection for either patient or provider. Since ours is a tiered response appropriate to COVID 19 conditions in ours and surrounding communities, it is difficult to estimate the impact on service, billings, and collections that support our SOM finances. Unlike a typical natural disaster, there is no clear beginning and endpoint to our changes in clinical services.

With our MU Health Care colleagues, we are committed to staying informed and organized, communicating with our stakeholders as one. We will support processes that can rapidly respond to change. We will continue to be concerned about everyone's safety. Under all circumstances, we will continue to support our mission in patient care, education, and research, valuing each person's commitment to this mission.

While this ever-changing environment will continue to challenge us, we know we will get through this together.

Steven Zweig, MD, MSPH
Interim Dean
MU School of Medicine

MU Campus Coronavirus Research Meeting

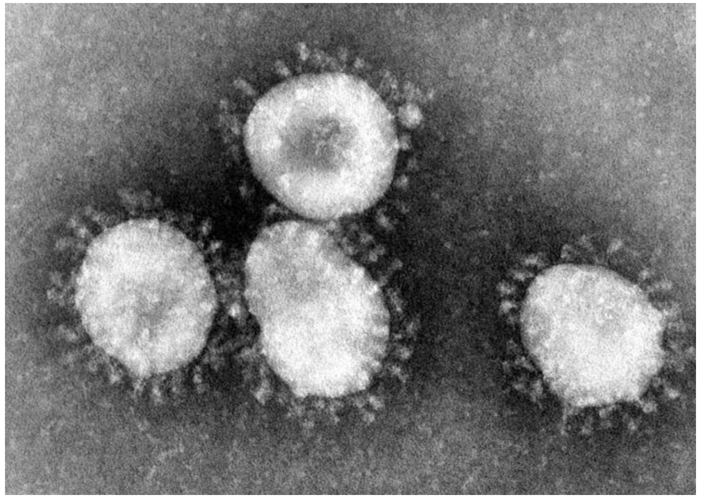
Friday, March 20, 2020

Organizers:

George Smith, PhD

Marc Johnson, PhD

Tom Quinn, PhD



Summary

- The conference was held via zoom and lasted about 2.5 hrs. Over 25 investigators from across the MU campus participated.
- Drs. George Smith, Marc Johnson, and Tom Quinn conceived and organized the mini-symposium.
- Multiple individuals and small teams made presentations, as summarized in the following tables.
  - Multiple colleges were involved
  - Basic, clinical, translational, and population scientists participated
- **Current research at MU addresses coronovirus transmission, animal infections and animal models, diagnosis, immune response, and strategies for treatment.** There were questions and answers throughout the presentations, leading to real-time formation of new collaborations.
- Since the event, the participants have continued to share ideas and discuss experiments on-line, and they will continue to do so in the weeks and months ahead.

Speaker	College	Presentation
1° presenter: Marc Johnson, PhD *Team members*: E. Teixeiro, M. Daniels, D. Burke-Aguero	SOM SOM	Dr. Johnson reviewed SARS CoV-2 interactions with the renin-angiotensin system (which regulates blood pressure), as well as its lifecycle, genome structure, and spike proteins. He also discussed viral pseudotyping, his current coronavirus research interest. Dr. Teixeiro discussed T cell responses against respiratory infections. Dr. Burke-Aguero and Dr. Daniels discussed the use of RNA aptamers (small RNAs with high binding specificity, like antibodies) to target COVID-19 spike proteins.
Margaret Lange, PhD	SOM	The Lange lab seeks to identify SARS-CoV-2 genomic elements that bind and activate nucleic acid-sensing pattern recognition receptors. Dr. Lange's research deals with innate immunity – i.e. nonspecific defense mechanisms that activate immediately or within hours of microbe invasion.
Raghu Kannan, PhD	SOM/COE	The Kannan lab plans to develop rapid screening tests for SARS-CoV-2. The CDC recommends reverse transcription PCR to detect viral RNA in nasophayngeal swabs. Dr. Kannan is using novel approaches to develop faster diagnostic tests that maintain high sensitivity and specificity.
1° presenter: Kamal Singh, PhD *Team members*: T. Quinn, M. Johnson	SOM	This team is developing and testing small molecules and peptides that inhibit SARS CoV-2 entry into cells.
1° presenter: Xiao Heng, PhD *Team members*: K. Singh, S-J Chen, X. Zou, Q. Yu	CAFNR SOM, A&S, COE	This multi-disciplinary team studies the structure of SARS-CoV-2 RNA and uses the high-resolution data to develop drugs that block viral replication. The investigators are also developing new approaches to rapidly detect the presence of viral RNA in biological samples.

Speaker	College	Presentation
1° presenter: Henry Wan, PhD *Team members*: M. Almasri, G. Guidoboni, J. McElroy, L. Sattenspiel, B. Wang, C. Wikle, D. Xu	SOM/CVM/COE COE, SOM, A&S,	This trans-disciplinary group is attempting to answer multiple questions, including 1) How does COVID-19 interact with other respiratory diseases, such as influenza? 2) What are the best approaches to measure COVID-19 in the environment in order to better understand its spread? 3) What animal models best mimic the pathogenesis and transmission of COVID-19 in humans?
Dima Dandachi, MD	SOM	Dr. Dandachi, an ID specialist, briefly reviewed COVID-19 emergence in Missouri, including 6 recent cases seen at MU Health. Dr. Dandachi discussed potential drug treatments, including Remdesivir and hydroxychloroquine, as well as a human subject study being initiated in SOM.
Debra Anderson, PhD	CVM	Dr. Anderson studies zoonotic respiratory diseases. Her lab is studying the role of toll-like receptor 7 (TLR7) in SARS CoV-2 infection. Dr. Anderson also is collaborating with E. Bryda, director of MU's Rat Resource & Research Center, to develop a human ACE2 transgenic rat model of coronavirus infection.
1° presenter: Michael Chapman, PhD *Team members*: D. Pintel, D. Duan, C. Lorson	SOM/CAFNR SOM/CVM	This group studies adeno-associated virus (AAV) and parvoviruses. Dr. Chapman and colleagues are developing a novel strategy to express native SARS-CoV-2 peptides on AAV.
1° presenter: Randall Prather, PhD *Team members*: K. Wells, K. Lee, B. Telugu	CAFNR	Dr. Prather introduced the MULE (MU Livestock Engineering) Team. This highly experienced group uses genetic engineering approaches and can create large-animal models of COVID-19 infection, which could play a major role in testing the effectiveness of new treatments.

University of Missouri Health Care
Health Affairs Committee

Financial Report
Fiscal Year 2020, February Year-to-Date

Consolidated Financial Results ($000's)	Actual	Plan	Prior Year
Net Revenues	$ 736,306	$ 723,306	$ 701,297
Operating Expenses	(684,336)	(666,392)	(647,131)
Operating Income	51,970	56,914	54,167
Non-operating Revenues, Net	(24,694)	(18,925)	(21,602)
Change in Net Assets	$ 27,275	$ 37,988	$ 32,565

Overview

Year-to-date financial performance is unfavorable to plan, higher patient utilization is offset by continued degradation in payer reimbursements that erode net revenue gains. The impact of COVID-19 in March caused a disruption in day-to-day operations and will continue to have an impact for the remainder of the fiscal year. MUHC leadership is working with the State of Missouri and hospital advocates to help support MUHC, a Safety Net facility, to ensure resources are available.

Performance Updates

- Average Daily Census is .9% higher than plan and 3.9% higher than prior year
  - Increase in volumes at University Hospital offset lower than anticipated volumes at Women's and Children's Hospital
  - Continued unfavorable revenue and volume variances expected for Women's and Children's Hospital related to upcoming Missouri Center for Outpatient Surgery move.
- OR Cases are 1.1% lower than plan and 2% higher than prior year
- Clinic visits are 2.9% higher than plan and 4.8% higher than prior year
  - Efforts to improve access and grow primary and specialty care continue to be successful
- Net income of $27.2M was $10.7M unfavorable to plan

Ratios and Benchmarks

Most ratios and benchmarks continue to track with Moody's A rated medians with Days Cash on Hand and Net Days Revenue in AR unfavorable to medians

Financial Ratios and Benchmarks	Actual	Plan	Prior Year	Moody's A-Rated
Operating Margin	7.1%	7.9%	7.7%	2.2%
Annualized Return on Total Assets	4.3%	4.9%	3.9%	3.9%
Cash to Total Debt	191.9%	206.0%	183.8%	131.3%
Debt to Capitalization	23.9%	23.8%	26.2%	32.2%
Maximum Annual Debt Service Coverage	3.9	3.9	4.1	4.7
Days Cash on Hand	196.0	208.0	208.9	215.1
Net Days Revenue in AR	50.1	50.1	52.4	45.9

April 9, 2020

Memo

To: Board of Curators – Health Affairs Committee
University of Missouri System

From: Jennifer May
MU Health Chief Compliance Officer

Date: April 2, 2020

Re: Quarterly Compliance Update

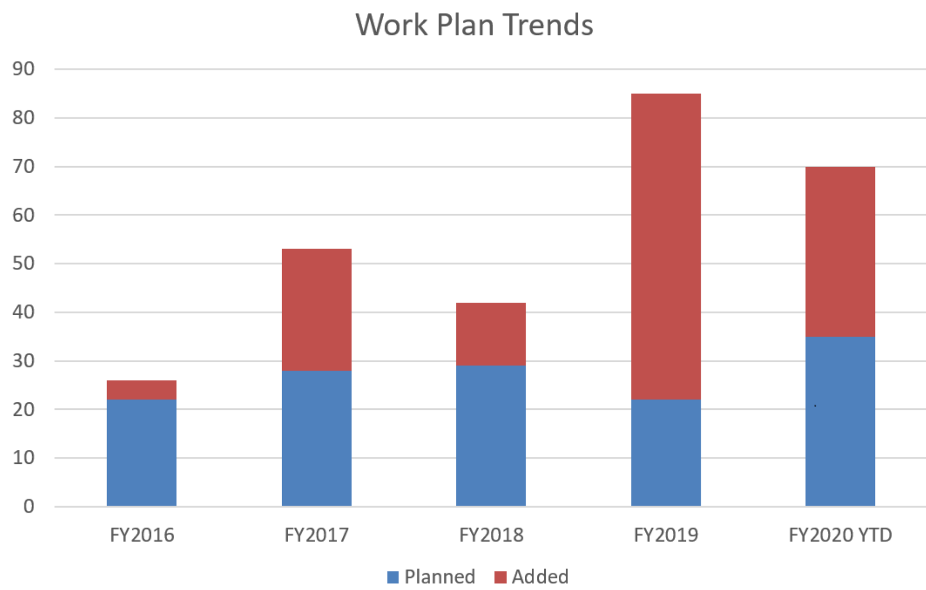
I. Corporate Integrity Agreement Update
   A. Reporting Period 4 runs from July 1, 2019 through June 30, 2020.
   B. The Department of Health and Human Services (DHSS) Office of Inspector General (OIG) Monitor verified receipt of the Annual Report for Reporting Period 3 on October 1, 2019. Comments on the report contents have not yet been received.
   C. Reporting Period 4 Claims Review facility selection is in process.
   D. Employee completion of training requirements are due May 31, 2020.
   E. Submitted a proposal to the OIG Monitor to modify training requirements for Reporting Period 5.

II. MU Health Corporate Compliance Structure
   A. No changes to the compliance organization chart dated November 2019.

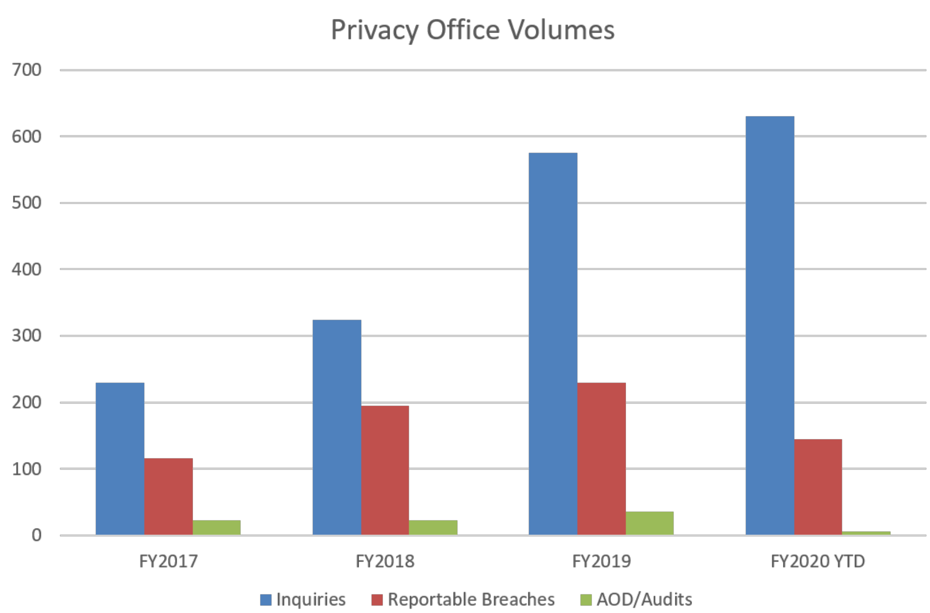
III. Compliance Program Update
   A. Acute focus on patient privacy education to staff and monitoring of record accesses related to COVID-19 patients and those being tested.
   B. Telehealth – Relaxed regulations for the use of telehealth during the COVID-19 national emergency were released in mid-March. Working with physicians, virtual care staff, coding staff and information technology teams, the organization was able to develop a process to leverage the relaxed rules and bring a telehealth option to patients in mid-Missouri.
   C. Federal Exclusion Screening (OIG/SAMS) – Compliance staff conducts monthly screening employees and vendors to ensure they are not on the exclusion list. Recently, staff have begun cross-training departments to perform their own exclusion searches. As our health system grows, additional parties are required to be screened. By diversifying who is capable of performing searches, the organization can more efficiently screen all required individuals.
   D. Utilization Review Audit – Tested the effectiveness of the Utilization Review processes in determining the medical necessity as identified by Medicare Conditions of Participation of inpatient admissions. Results were positive and identified opportunities to further improve documentation.

E. Continued focus on collaboration with the MU Division of Information Technology and the School of Medicine to enhance the data and information security posture.

F. Compliance Monitoring: FY2020 Work Plan Volumes



G. Privacy Program: Privacy Office Work Volumes



ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

ACADEMIC, STUDENT AFFAIRS, RESEARCH AND ECONOMIC DEVELOPMENT COMMITTEE

Darryl M. Chatman, Chair

Greg E. Hoberock

Jeff L. Layman

Phil H. Snowden

The Academic, Student Affairs, Research and Economic Development Committee may have referred to it matters relating to curricula, faculty, students, research and economic development.

1. The Vice President for Research and Economic Development and the Senior Associate Vice President for Academic Affairs or some other person(s) designated by the President, and the Student Representative shall be ex officio members of this Committee and be responsible for transmitting Committee recommendations.

2. Academic and student affairs matters considered by the Committee may include, but are not limited to reviewing, implementing and monitoring strategies and policies regarding educational and instructional quality; student and faculty welfare; alignment of the University's academic mission with resources; academic programs and degrees; articulation and the transfer of students to and among member institutions; admission requirements, student services, academic standards, and requirements for graduation; distance learning, telecommunicated education and applications of educational and information technology in support of teaching, learning, research and creative activities; campus management of faculty workloads to assure equity, efficiency and effectiveness in the disposition of faculty efforts; learning climate, working climate and support mechanisms for faculty, staff and students; and faculty, staff and student conduct.

3. Research and economic development matters considered by the Committee may include, but are not limited to reviewing, implementing and monitoring strategies and policies regarding the University's overall contribution to the economic development of the state and to support professional development, outreach, and research at all University institutions within the context of their unique missions; aligning the University's research mission with its resources; the University's role in enhancing its research enterprise and bolstering the state's economy (such matters may include the advancement and growth of basic, applied, and clinical research; technology transfer; entrepreneurship; industry partnerships; and the development of intellectual capital for the benefit of the state); highlighting successful research and economic development efforts, partnerships, and innovations involving University institutions; and reporting on and ensuring accountability for research and economic development activities at University institutions.

University of Missouri

Board of Curators

Academic, Student Affairs and
Research and Economic Development Committee Meeting

Thursday, April 2, 2020
10:30 A.M.

This Committee Meeting is being held in conjunction with the April 9, 2020 Board of Curators Meeting.

Originating:
From remote locations via conference telephone.

Public Session Dial-In Number: 888-606-4788
Participant Code: 177492#

AGENDA

PUBLIC SESSION – 10:30 A.M.

Call to Order – Chair Chatman

Roll Call of the Committee

Information
1. Academic Programs Enrollment Report (Steve Graham)

Action
1. UMKC Test Optional Admissions (Steve Graham and Mauli Agrawal)

Recess

Academic Programs Enrollment Report

Executive Summary

The Academic Programs Enrollment report is designed to provide an overview of degree programs approved across the four universities in the last 15 years. The goal of the report is fourfold to: (1) track the progress of new programs and provide feedback to the UM provosts, (2) identify programs that might need additional attention, (3) examine the effectiveness of specific interventions, and (4) improve the front-end approval process. The summary below provides key takeaways from the March 2020 edition of the report across these four categories.

- 51 programs have been approved in the last decade, 14 of which have launched in the last academic year or have not yet enrolled students. Of the remaining 37 programs, 24 (65%) are listed as either exceeding expectations (19%) or, if not meeting initial enrollment projections, are financially and academically viable (46%).
- About a third of programs have been identified as needing some additional review, with 6 programs flagged as needing special attention. For each program marked for review, Academic Affairs has consulted with the universities and developed recommendations and plans for future follow up.
- Multiple themes emerge among the twelve programs we reviewed. For some, tangible changes have been made—new marketing arrangements, new leadership, changing modality, and other changes—that warrant additional time and monitoring. A small number of programs required further discussion in the short term. In some cases, the academic unit has decided it is appropriate to discontinue the program in the future.

This enhanced review report has enabled Academic Affairs to make several process improvements. These will include early intervention in Years 2 and 5 to assess progress, re-evaluate enrollment projections based on new information, troubleshoot issues, and act quickly. New proposals will also be required to demonstrate more concrete support from academic leaders in the form of integration into existing efforts or alignment with key priorities of the academic unit. All proposals will be required to develop a more in-depth business plan with an exit strategy and a single individual primarily responsible for oversight of the new program. And while making enrollment projections is inherently difficult, additional steps have been included to reduce the guesswork and minimize unnecessary risk by (a) requiring Burning Glass market analysis for all new programs, (b) partnering with the Office of eLearning to better evaluate online programs, and (c) asking that programs not hire new faculty until the enrollment and program income merit it.

This enhanced reporting will enable us to more nimbly and innovatively identify and respond to potential issues in proposed and newly-approved programs, benefiting both students and our institution's academic enterprise.

Academic Programs
Enrollment Report

University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST.LOUIS

Last Updated March 24, 2020

University	Program Name	Yr. Since 1st Enrollment	Min. Enroll. For Viability	Est. Steady State Enroll.	Current Enrollment	Status
UMSL	BS Media Studies	13	54	54	**110**	1 - Exceeding
MU	Bachelor of Health Science	11	65	270	**1772**	1 - Exceeding
MU	BA Film Studies	10	37	37	**105**	1 - Exceeding
UMKC	Bachelor of Health Science	9	132	356	**503**	1 - Exceeding
MU	BA Digital Storytelling	5	44	54	**150**	1 - Exceeding
UMSL	BS Psychology	5	20	60	**230**	1 - Exceeding
S&T	MS Industrial and Org. Psych.	6	29	29	**35**	1 - Exceeding
MU	PhD Public Affairs	11	20	30	**23**	2- On track
UMKC	MS Anesthesiology	12	11	40	**41**	2- On track
UMKC	MFA Creative Writing & Media Arts	11	21	40	**23**	2- On track
S&T	MS Explosives Engineering	10	18	20	**17**	2- On track
UMKC	PhD Entrepreneurship & Innovation	9	5	21	**6**	2- On track
S&T	BA Multidisciplinary Studies	7	30	39	**35**	2- On track
S&T	PhD Explosives Engineering	6	9	12	**13**	2- On track
UMSL	Doctor of Business Administration	3	40	40	**29**	2- On track
UMSL	BS Actuarial Science	2	30	41	**18**	2- On track
MU	MS Data Science & Analytics	4	50	140	**75**	2- On track
UMSL	BA International Relations	2	20	53	**9**	2- On track
UMKC	Master of Med. Sci. Physician Asst.	6	30	60	**39**	2- On track
MU	MS Dietetics	2	20	20	**13**	2- On track
MU	BS Biomedical Engineering	2	100	200	**71**	2- On track
MU	PhD Music Education	2	15	15	**13**	2- On track
UMKC	Master of Health Professions Ed.	6	13	13	**12**	2- On track
UMKC	BA Film and Media Arts	4	12	48	**35**	2- On track
UMSL	MEd Educational Psychology	7	14	28	**11**	3 - Review
UMKC	MS Finance	9	40	100	**48**	3 - Reviewed
UMKC	BM Jazz Studies	7	50	50	**40**	3 - Reviewed
MU	MS Finance	2	54	96	**28**	3 - Reviewed
MU	BHS Public Health	3	60	60	**37**	3 - Reviewed
S&T	MS Explosives Technology	3	13	27	**4**	3 - Reviewed
MU	LLM American Law	4	5	15	**0**	4 - Reviewed
MU	BHS Athletic Training	7	60	114	**34**	4 - Reviewed
UMKC	MA Teaching	9	60	60	**20**	4 - Reviewed
UMKC	MS Entrepreneurial Real Estate	9	32	64	**19**	4 - Reviewed
UMKC	BS Public Health	3	134	188	**27**	4 - Reviewed
MU	MS Applied Behavior Analysis	4	39	39	**10**	4 - Reviewed
S&T	BS History	4		15		TBD
UMSL	BS Computing Technology	1	25	250		TBD
UMSL	BS Cybersecurity	1	108	330		TBD
UMSL	MS Cybersecurity	1	10	104		TBD

MU	MS Care Management	1	40	45		TBD
MU	BS Human Environmental Sciences	1	10	70		TBD
MU	BS Microbiology	1	86	210		TBD
UMSL	BS Sport Management	0	92	163		TBD
UMSL	BA Organizational Leadership	0	18	80		TBD
MU	MAT Athletic Training	0	46	46		TBD
MU	BA Constitutional Democracy	0	45	240		TBD
MU	MA Atlantic History & Politics	0	10	20		TBD
MU	MS Business	0	15	80		TBD
MU	DOT Occupational Therapy	0	132	147		TBD
MU	BS Fitness Programming/Mgmt.	0	20	195		TBD

Test Optional UMKC Undergraduate Admissions: Executive Summary

Background and Rationale

Test optional admissions practices (TOPs) are expanding in higher education, as the result of efforts to remove barriers to educational access, and improve the workforce pipeline and economic development. Research demonstrates that TOPs can increase the total number of applicants, increase inclusion of diverse and under-represented student groups, and that in many populations high school GPA is more highly correlated with college cumulative GPA and graduation rate than standardized test scores (Allensworth and Clark, 2020 Syverson, Franks, & Hiss, 2018). *Data on our own FTFC students who entered between 2016 and 2018 demonstrated that the best predictor of first term GPA and year 1 retention was high school GPA, not ACT/SAT score*. Over 1,000 universities have adopted TOPs for undergraduate admissions (Carnahan, 2019) or variations, including 20 Missouri schools (public and private), as well as several AAU institutions (see appendix). Most notable are all Texas state universities (by law) and recently University of Nebraska.

UMKC Admission Practices and Test Optional Modification

In Fall 2014, UMKC implemented an admissions criteria rubric that produced an index score for each applicant. The index score was a weighted combination of ACT/SAT and UM Core GPA[1]. The index score, combined with the applicant's high school math core completion status, determined who was auto-admitted unconditionally, who was auto-admitted conditionally, and who needed a holistic review for further consideration. Using this rubric and practice, no student was automatically denied admission. ACT/ACT-converted SAT scores from admitted students over the last three years range from 13 to 36.

In December 2019, the admission rubric was modified such that inclusion of the ACT/SAT requirement for most students[2] with ≥ 2.75 UM Core GPA was optional. Those students with a UM Core GPA ≥ 2.75 + math core completion are fully admitted to UMKC. For students with a UM Core GPA ≥ 2.75, but they have not completed the math core, they are conditionally admitted. All students admitted without test scores are offered the opportunity to enter the UMKC Summer Bridge Scholars Program on a space-available basis. Applicants with a UM Core GPAs below 2.75 still require an ACT/SAT score for consideration and the index score is used to determine admission status. To date, 126 students (77 without an ACT/SAT on record/verified) have been offered admission without consideration of their test score; 11 students (6 without an ACT/SAT on record/verified have accepted their offer).

Impact of Test Optional Practices at UMKC

Students: Test optional admission practices will result in a more inclusive student body (URM, Pell eligible, rural). Based on national data, and our comprehensive student success framework, we anticipate that student admitted without standardized test will have the same outcomes as those who meet historical test criteria.

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[1] UM Core GPA = 4 units of English, 4 units of Mathematics (Algebra I or higher), 3 units of Science, 3 units of Social Studies, 2 units of a single Foreign Language, and 1 unit of Fine Arts

[2] Students from these programs/units and groups require an ACT/SAT, regardless of GPA: Architecture and Urban Planning, Conservatory, School of Computing and Engineering, School of Medicine, School of Pharmacy School of Dentistry, School of Nursing and Health Studies (exception: students applying to the BHS and Public Health program may apply test-optional), Honors College, Students interested in automatic scholarships, Students who are homeschooled, Student-athletes

Test Optional UMKC Undergraduate Admissions: Executive Summary

Program Quality: Test optional admission will not alter the quality of academic programs. UMKC is an urban, access institution and our academic and student support services are designed with the needs of a diverse student body in mind. HLC and program-specific accreditation ensures that we adhere to best practices in pedagogy, curriculum, and assessment to ensure that our students are successful.

Financial: Test optional admission practices have a financial benefit to our students and University. Many students will begin college will less financial burden associated with test taking/preparation and we anticipate an increase in the number of applications, admitted, and yielded students.

Appendix: AAU Institutions Engaging Test Optional Practices

Institution/State Initiative	Test Optional Practice
Texas Top 10% Automatic Admissions Law University of Texas at Austin (AAU) *Others (non-AAU)* University of Houston Texas Tech University of Texas at San Antonio	Students in the top 10% are admitted at any Texas public college or university, regardless of ACT/SAT score. This is required by Texas law. Top 6% from HS are admitted automatically based on HS performance alone Top 10% from HS are admitted automatically based only on HS performance Top 10% from HS are admitted automatically based only on HS performance Top 25% from HS are admitted automatically based only on HS performance
Brandeis	No longer requires citizens and permanent residents of the US or Canada to submit SAT or ACT scores.
Indiana University	Students applying August 1, 2020 for undergraduate admission can choose at the point of application whether to have SAT or ACT test scores considered as part of the application.
NYU	Test Flexible: SAT/ACT not required if other college level exams specified by school, such as SAT Subject Test, Advanced Placement, or Int'l Baccalaureate, submitted
University of Arizona	Official SAT/ACT scores is optional for admissions consideration, with exception. An SAT/ACT score may be requested during the admissions comprehensive review.
University of Chicago	Domestic first-year applicants may select UChicago's test-optional method of application and not supply SAT or ACT scores with their application.
University of Rochester	Beginning with students applying for the fall of 2020, the University of Rochester will adopt a test-optional application policy as part of our holistic review for undergraduate admissions. This review process incorporates a variety of factors, including many kinds of academic and non-academic factors and realizes that standardized tests may not be an accurate reflection of a student's abilities.

Sources: (1), (2), (3), (4), (5), (6), (7), (8)

UMKC FULL-TIME, FIRST-TIME COLLEGE COHORTS FS2016-18
FIRST TERM UMKC GPA & RETENTION BY HIGH SCHOOL GPA CATEGORY

FULL-TIME, FIRST TIME COLLEGE FS16-18	HIGH SCHOOL GPA 2.75+		HIGH SCHOOL GPA <2.75	
BY HIGH SCHOOL CORE COMPLETION STATUS	AVG TERM 1 GPA	RETENTION	AVG TERM 1 GPA	RETENTION
HIGH SCHOOL CORE MET (77% of sample)	3.18	78.6%	2.03	52.3%
HIGH SCHOOL CORE NOT MET (23% of sample)	3.05	74.9%	1.88	44.9%
FULL SAMPLE	3.16	77.9%	1.97	49.3%

Test Optional UMKC Undergraduate Admissions: Policy Statement

Applicants[1] with a UM Core GPA ≥ 2.75 and math core completion are fully admitted. Applicants with a UM Core GPA ≥ 2.75, but who have not completed the math core, are conditionally admitted. Applicants with a UM Core GPAs below 2.75 require an ACT/SAT score for consideration for admission.

[1] Students from these programs/units and groups require an ACT/SAT, regardless of GPA: Architecture and Urban Planning, Conservatory, School of Computing and Engineering, School of Medicine, School of Pharmacy School of Dentistry, School of Nursing and Health Studies (exception: students applying to the BHS and Public Health program may apply test-optional), Honors College, Students interested in automatic scholarships, Students who are homeschooled, Student-athletes

No. 1

Recommended Action - Approval of Test Optional Admissions Policy at the University of Missouri – Kansas City

It was recommended by Senior Associate Vice President Steve Graham, endorsed by President Choi, recommended by the Academic, Student Affairs and Research & Economic Development Committee, moved by Curator ______________, seconded by Curator __________________, that the following action be taken:

> that Test Optional Admissions Policy at the University of Missouri – Kansas City be approved as attached contingent on receipt by the Board of satisfactory information regarding retention rates, graduation rates and other indicators of student success for students whose entering GPA was between 2.5 and 3.0.

Roll call vote of the Committee:	YES	NO
Curator Chatman		
Curator Hoberock		
Curator Layman		
Curator Snowden		

The motion_____________.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _____________.

Additional Data (4/3/20)

UMKC Test Optional Admission Proposal

At the ASARED meeting on April 2, 2020, there was a request for UMKC to provide additional historical data regarding GPAs and retention rates for students who had a UM Core GPA near 2.75, which is the proposed trigger for the test-optional policy.

As is seen below, incoming students with a UM Core GPA of less than 2.75 have an average UMKC GPA of 2.09 and a retention rate of ~51%. In contrast, students with a UM Core GPA in the range of 2.75-2.99 have a UMKC GPA of ~2.4 and a retention rate of 57.5%. It is felt that students in the first category (yellow, GPA 2.09, Retention 51%) have only marginal success at UMKC and should be admitted only after additional review that includes ACT/SAT test scores. Students in the other categories (green) have higher UMKC GPAs and more consistent retention rates. It is proposed to admit them based on UM Core GPA. It is anticipated with the additional help of the RooStrong Culture of Care model their performance will be even better than recorded below.

Once again, *we will not be lowering standards as the students in all the green categories are already admitted to UMKC*. The proposed test optional policy triggered at a 2.75 UM Core GPA will only expedite their entry into UMKC while maintaining current academic standards.

FULL-TIME, FIRST TIME COLLEGE FS16-18 BY HIGH SCHOOL CORE COMPLETION STATUS	UM Core GPA 2.50 to 2.74				UM Core GPA 2.75 to 2.99				UM Core GPA 3.00 to 3.24				UM Core GPA 3.25 to 3.49			
	N	ACT RANGE	AVG TERM 1 GPA	RETENTION	N	ACT RANGE	AVG TERM 1 GPA	RETENTION	N	ACT RANGE	AVG TERM 1 GPA	RETENTION	N	ACT RANGE	AVG TERM 1 GPA	RETENTION
HIGH SCHOOL CORE MET	134	16-33	2.13	53.7%	207	14-33	2.45	57.5%	358	16-33	2.77	66.8%	417	13-34	2.94	74.8%
HIGH SCHOOL CORE NOT MET	80	16-31	2.03	46.3%	78	15-33	2.23	57.7%	117	13-32	2.65	65.0%	121	15-34	2.92	69.4%
FULL SAMPLE	214	16-33	2.09	50.9%	285	14-33	2.39	57.5%	475	13-33	2.74	66.3%	538	13-34	2.94	73.6%

As previously indicated, decision tree analyses demonstrated that the best predictor of first term GPA and year 1 retention was UM Core GPA. This was the true for students who both completed the High School Core Curriculum ($p<.001$) and for those who did not at the time of admission ($p<.001$). When evaluating first term GPA, the ACT only provided additional prediction for students with a high school GPA between 3.1 and 3.4 and those above a 3.7. When evaluating year 1 retention, the ACT only provided additional prediction when examining retention of students with GPAs above 3.6.

GENERAL BUSINESS (continued)

GOOD AND WELFARE OF THE BOARD

There are no materials for this information item.

No. 3

Recommended Action – Resolution for Executive Session of the Board of Curators Meeting April 9, 2020

It was moved by Curator _________ and seconded by Curator __________, that there shall be an executive session with a closed record and closed vote of the Board of Curators meeting April 9, 2020 for consideration of:

- **Section 610.021(1), RSMo**, relating to matters identified in that provision, which include legal actions, causes of action or litigation, and confidential or privileged communications with counsel; and
- **Section 610.021(2), RSMo,** relating to matters identified in that provision, which include leasing, purchase, or sale of real estate; and
- **Section 610.021(3), RSMo**, relating to matters identified in that provision, which include hiring, firing, disciplining, or promoting of particular employees; and
- **Section 610.021(12), RSMo,** relating to matters identified in that provision, which include sealed bids and related documents and sealed proposals and related documents or documents related to a negotiated contract; and
- **Section 610.021 (13), RSMo**, relating to matters identified in that provision, which include individually identifiable personnel records, performance ratings, or records pertaining to employees or applicants for employment; and
- **Section 610.021 (14), RSMo,** relating to matters identified in that provision, which include records which are protected from disclosure by law.

Roll call vote of the Board:	YES	NO
Curator Brncic		
Curator Chatman		
Curator Graham		
Curator Hoberock		
Curator Layman		
Curator Snowden		
Curator Steelman		
Curator Wenneker		
Curator Williams		

The motion _________________.