

*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 not 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, if applicable. 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 not 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**.*

\$590,200,000

Aggregate Principal Amount



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

consisting of

\$400,000,000

**Taxable System Facilities Revenue Bonds
Series 2020A**

\$190,200,000

**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, and 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 on this transaction. It is expected that the Series 2020 Bonds will be available for delivery through The Depository Trust Company on or about May 5, 2020.

Goldman Sachs & Co. LLC

J.P. Morgan

Morgan Stanley

MATURITY SCHEDULE

\$400,000,000
THE CURATORS OF THE UNIVERSITY OF MISSOURI
TAXABLE SYSTEM FACILITIES REVENUE BONDS
SERIES 2020A

<u>Due November 1,</u>	<u>Principal Amount</u>	<u>Interest Rate (%)</u>	<u>Price (%)</u>	<u>Yield (%)</u>	<u>CUSIP*</u>
2023	\$100,000,000	1.466	100	1.466	231266ML8
2025	100,000,000	1.714	100	1.714	231266MM6
2027	100,000,000	2.012	100	2.012	231266MN4
2050	100,000,000	2.748	100	2.748	231266MP9

\$190,200,000
THE CURATORS OF THE UNIVERSITY OF MISSOURI
SYSTEM FACILITIES REVENUE BONDS
SERIES 2020B

<u>Due November 1,</u>	<u>Principal Amount</u>	<u>Interest Rate (%)</u>	<u>Price (%)</u>	<u>Yield (%)</u>	<u>CUSIP*</u>
2030	\$190,200,000	5.000	129.795	1.860	231266MK0

* 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 COVID-19 Public Health Crisis,”** and **“BONDOWNERS’ RISKS”** sections of this Official Statement and the other risks discussed in this Official Statement, including **“Management’s Discussion and Analysis”** in **Appendix A**. The University undertakes no obligation to update any forward-looking statements contained in this Official Statement to reflect future events or developments.

**INFORMATION CONCERNING OFFERING RESTRICTIONS
IN CERTAIN JURISDICTIONS OUTSIDE THE UNITED STATES**

REFERENCES HEREIN TO THE “ISSUER” MEAN THE CURATORS OF THE UNIVERSITY OF MISSOURI AND REFERENCES TO “BONDS” OR “SECURITIES” MEAN THE SERIES 2020A BONDS OFFERED HEREBY.

MINIMUM UNIT SALES

THE BONDS WILL TRADE AND SETTLE ON A UNIT BASIS (ONE UNIT EQUALING ONE BOND OF \$5,000 PRINCIPAL AMOUNT). FOR ANY SALES MADE OUTSIDE THE UNITED STATES, THE MINIMUM PURCHASE AND TRADING AMOUNT IS 30 UNITS (BEING 30 BONDS IN AN AGGREGATE PRINCIPAL AMOUNT OF \$150,000).

**NOTICE TO INVESTORS IN THE EUROPEAN ECONOMIC AREA
AND UNITED KINGDOM**

THE BONDS ARE NOT INTENDED TO BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO AND SHOULD NOT BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO ANY RETAIL INVESTOR IN THE EUROPEAN ECONOMIC AREA (THE “EEA”) OR THE UNITED KINGDOM. FOR THESE PURPOSES, A RETAIL INVESTOR MEANS A PERSON WHO IS ONE (OR MORE) OF: (I) A RETAIL CLIENT AS DEFINED IN POINT (11) OF ARTICLE 4(1) OF DIRECTIVE 2014/65/EU AS AMENDED (“MIFID II”); (II) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE 2016/97/EU (AS AMENDED), WHERE THAT CUSTOMER WOULD NOT QUALIFY AS A PROFESSIONAL CLIENT AS DEFINED IN POINT (10) OF ARTICLE 4(1) OF MIFID II; OR (III) NOT A QUALIFIED INVESTOR AS DEFINED IN REGULATION 2017/1129 (EU) (AS AMENDED OR SUPERSEDED, THE “PROSPECTUS REGULATION”). CONSEQUENTLY, NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) NO 1286/2014 (AS AMENDED, THE “PRIIPS REGULATION”) FOR OFFERING OR SELLING THE BONDS OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA OR THE UNITED KINGDOM HAS BEEN PREPARED AND THEREFORE OFFERING OR SELLING THE BONDS OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA OR THE UNITED KINGDOM MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION. THIS OFFICIAL STATEMENT HAS BEEN PREPARED ON THE BASIS THAT ANY OFFER OF BONDS IN ANY MEMBER STATE OF THE EEA OR THE UNITED KINGDOM WILL BE MADE PURSUANT TO AN EXEMPTION UNDER THE PROSPECTUS REGULATION FROM THE REQUIREMENT TO PUBLISH A PROSPECTUS FOR OFFERS OF BONDS. THIS OFFICIAL STATEMENT IS NOT A PROSPECTUS FOR THE PURPOSES OF THE PROSPECTUS REGULATION.

NOTICE TO PROSPECTIVE INVESTORS IN THE UNITED KINGDOM

THIS OFFICIAL STATEMENT HAS NOT BEEN APPROVED FOR THE PURPOSES OF SECTION 21 OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (“FSMA”) AND DOES NOT CONSTITUTE AN OFFER TO THE PUBLIC IN ACCORDANCE WITH THE PROVISIONS OF SECTION 85 OF THE FSMA. IT IS FOR DISTRIBUTION ONLY TO, AND IS DIRECTED SOLELY AT, PERSONS WHO (I) ARE INVESTMENT PROFESSIONALS, AS SUCH TERM IS DEFINED IN ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005, AS AMENDED (THE “FINANCIAL PROMOTION ORDER”), (II) ARE PERSONS FALLING WITHIN ARTICLE 49(2)(A) TO (D) OF THE FINANCIAL PROMOTION ORDER, OR (III) ARE PERSONS TO WHOM AN INVITATION OR INDUCEMENT TO ENGAGE IN INVESTMENT ACTIVITY (WITHIN THE MEANING OF SECTION 21 OF THE FSMA) IN CONNECTION WITH THE ISSUE OR SALE OF ANY SECURITIES MAY OTHERWISE BE LAWFULLY COMMUNICATED OR CAUSED TO BE COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS “RELEVANT PERSONS”). THIS OFFICIAL STATEMENT IS DIRECTED ONLY AT RELEVANT PERSONS AND MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS, INCLUDING IN CIRCUMSTANCES IN WHICH SECTION 21(1) OF THE FSMA APPLIES TO THE INSTITUTION. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS OFFICIAL STATEMENT RELATES IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED

IN ONLY WITH RELEVANT PERSONS. ANY PERSON WHO IS NOT A RELEVANT PERSON SHOULD NOT ACT OR RELY ON THIS OFFICIAL STATEMENT OR ANY OF ITS CONTENTS.

NOTICE TO PROSPECTIVE INVESTORS IN HONG KONG

THE BONDS MAY NOT BE OFFERED OR SOLD IN HONG KONG BY MEANS OF ANY DOCUMENT OTHER THAN (I) IN CIRCUMSTANCES WHICH DO NOT CONSTITUTE AN OFFER TO THE PUBLIC WITHIN THE MEANING OF THE COMPANIES (WINDING UP AND MISCELLANEOUS PROVISIONS) ORDINANCE (CAP. 32 OF THE LAWS OF HONG KONG) (“COMPANIES (WINDING UP AND MISCELLANEOUS PROVISIONS) ORDINANCE”) OR WHICH DO NOT CONSTITUTE AN INVITATION TO THE PUBLIC WITHIN THE MEANING OF THE SECURITIES AND FUTURES ORDINANCE (CAP. 571 OF THE LAWS OF HONG KONG) (“SECURITIES AND FUTURES ORDINANCE”), OR (II) TO “PROFESSIONAL INVESTORS” AS DEFINED IN THE SECURITIES AND FUTURES ORDINANCE AND ANY RULES MADE THEREUNDER, OR (III) IN OTHER CIRCUMSTANCES WHICH DO NOT RESULT IN THE DOCUMENT BEING A “PROSPECTUS” AS DEFINED IN THE COMPANIES (WINDING UP AND MISCELLANEOUS PROVISIONS) ORDINANCE, AND NO ADVERTISEMENT, INVITATION OR DOCUMENT RELATING TO THE BONDS MAY BE ISSUED OR MAY BE IN THE POSSESSION OF ANY PERSON FOR THE PURPOSE OF ISSUE (IN EACH CASE WHETHER IN HONG KONG OR ELSEWHERE), WHICH IS DIRECTED AT, OR THE CONTENTS OF WHICH ARE LIKELY TO BE ACCESSED OR READ BY, THE PUBLIC IN HONG KONG (EXCEPT IF PERMITTED TO DO SO UNDER THE SECURITIES LAWS OF HONG KONG) OTHER THAN WITH RESPECT TO BONDS WHICH ARE OR ARE INTENDED TO BE DISPOSED OF ONLY TO PERSONS OUTSIDE HONG KONG OR ONLY TO “PROFESSIONAL INVESTORS” IN HONG KONG AS DEFINED IN THE SECURITIES AND FUTURES ORDINANCE AND ANY RULES MADE THEREUNDER.

NOTICE TO INVESTORS IN CANADA

THE BONDS MAY BE SOLD IN CANADA ONLY TO PURCHASERS PURCHASING, OR DEEMED TO BE PURCHASING, AS PRINCIPAL THAT ARE ACCREDITED INVESTORS, AS DEFINED IN NATIONAL INSTRUMENT 45-106 PROSPECTUS EXEMPTIONS OR SUBSECTION 73.3(1) OF THE SECURITIES ACT (ONTARIO), AND ARE PERMITTED CLIENTS, AS DEFINED IN NATIONAL INSTRUMENT 31-103 REGISTRATION REQUIREMENTS, EXEMPTIONS AND ONGOING REGISTRANT OBLIGATIONS. ANY RESALE OF THE BONDS MUST BE MADE IN ACCORDANCE WITH AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE PROSPECTUS REQUIREMENTS OF APPLICABLE SECURITIES LAWS.

SECURITIES LEGISLATION IN CERTAIN PROVINCES OR TERRITORIES OF CANADA MAY PROVIDE A PURCHASER WITH REMEDIES FOR RESCISSION OR DAMAGES IF THIS OFFICIAL STATEMENT (INCLUDING ANY AMENDMENT THERETO) CONTAINS A MISREPRESENTATION, PROVIDED THAT THE REMEDIES FOR RESCISSION OR DAMAGES ARE EXERCISED BY THE PURCHASER WITHIN THE TIME LIMIT PRESCRIBED BY THE SECURITIES LEGISLATION OF THE PURCHASER’S PROVINCE OR TERRITORY. THE PURCHASER SHOULD REFER TO ANY APPLICABLE PROVISIONS OF THE SECURITIES LEGISLATION OF THE PURCHASER’S PROVINCE OR TERRITORY FOR PARTICULARS OF THESE RIGHTS OR CONSULT WITH A LEGAL ADVISOR.

PURSUANT TO SECTION 3A.3 OF NATIONAL INSTRUMENT 33-105 UNDERWRITING CONFLICTS (NI 33-105), THE UNDERWRITERS ARE NOT REQUIRED TO COMPLY WITH THE DISCLOSURE REQUIREMENTS OF NI 33-105 REGARDING UNDERWRITERS CONFLICTS OF INTEREST IN CONNECTION WITH THIS OFFERING.

NOTICE TO INVESTORS IN KOREA

THE BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED WITH THE FINANCIAL SERVICES COMMISSION OF KOREA FOR PUBLIC OFFERING IN KOREA UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT AND ITS SUBORDINATE DECREES AND REGULATIONS (COLLECTIVELY THE “FSCMA”). THE BONDS MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, OR OFFERED OR SOLD TO ANY PERSON FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN KOREA OR TO ANY RESIDENT OF KOREA EXCEPT AS OTHERWISE PERMITTED UNDER THE APPLICABLE LAWS AND REGULATIONS OF KOREA, INCLUDING THE FSCMA AND THE FOREIGN EXCHANGE TRANSACTION LAW AND ITS SUBORDINATE DECREES AND REGULATIONS (COLLECTIVELY, THE “FETL”). WITHOUT PREJUDICE TO THE FOREGOING, THE NUMBER OF BONDS OFFERED IN KOREA OR TO A RESIDENT IN KOREA SHALL BE LESS THAN FIFTY AND FOR A PERIOD OF ONE YEAR FROM THE ISSUE DATE OF THE BONDS, NONE OF THE BONDS MAY BE DIVIDED RESULTING IN AN INCREASED NUMBER OF THE BONDS. FURTHERMORE, THE BONDS MAY NOT BE RESOLD TO KOREAN RESIDENTS UNLESS THE PURCHASER OF THE BONDS COMPLIES WITH ALL APPLICABLE REGULATORY REQUIREMENTS (INCLUDING BUT NOT LIMITED TO GOVERNMENT REPORTING REQUIREMENTS UNDER THE FETL) IN CONNECTION WITH THE PURCHASE OF THE BONDS.

NOTICE TO INVESTORS IN SINGAPORE

THIS OFFERING CIRCULAR HAS NOT BEEN REGISTERED AS A PROSPECTUS WITH THE MONETARY AUTHORITY OF SINGAPORE. ACCORDINGLY, THIS OFFERING CIRCULAR AND ANY OTHER DOCUMENT OR MATERIAL IN CONNECTION WITH THE OFFER OR SALE, OR INVITATION FOR SUBSCRIPTION OR PURCHASE, OF THE BONDS MAY NOT BE CIRCULATED OR DISTRIBUTED, NOR MAY THE BONDS BE OFFERED OR SOLD, OR BE MADE THE SUBJECT OF AN INVITATION FOR SUBSCRIPTION OR PURCHASE, WHETHER DIRECTLY OR INDIRECTLY, TO PERSONS IN SINGAPORE OTHER THAN (I) TO AN INSTITUTIONAL INVESTOR (AS DEFINED IN SECTION 4A OF THE SECURITIES AND FUTURES ACT, CHAPTER 289 OF SINGAPORE (THE “SFA”)) UNDER SECTION 274 OF THE SFA, (II) TO A RELEVANT PERSON (AS DEFINED IN SECTION 275(2) OF THE SFA) PURSUANT TO SECTION 275(1) OF THE SFA, OR ANY PERSON PURSUANT TO SECTION 275(1A) OF THE SFA, AND IN ACCORDANCE WITH THE CONDITIONS SPECIFIED IN SECTION 275 OF THE SFA OR (III) OTHERWISE PURSUANT TO, AND IN ACCORDANCE WITH THE CONDITIONS OF, ANY OTHER APPLICABLE PROVISION OF THE SFA, IN EACH CASE SUBJECT TO CONDITIONS SET FORTH IN THE SFA.

WHERE THE BONDS ARE SUBSCRIBED OR PURCHASED UNDER SECTION 275 OF THE SFA BY A RELEVANT PERSON WHICH IS A CORPORATION (WHICH IS NOT AN ACCREDITED INVESTOR (AS DEFINED IN SECTION 4A OF THE SFA)) THE SOLE BUSINESS OF WHICH IS TO HOLD INVESTMENTS AND THE ENTIRE SHARE CAPITAL OF WHICH IS OWNED BY ONE OR MORE INDIVIDUALS, EACH OF WHOM IS AN ACCREDITED INVESTOR, THE SECURITIES (AS DEFINED IN SECTION 239(1) OF THE SFA) OF THAT CORPORATION SHALL NOT BE TRANSFERABLE FOR 6 MONTHS AFTER THAT CORPORATION HAS ACQUIRED THE BONDS UNDER SECTION 275 OF THE SFA EXCEPT: (1) TO AN INSTITUTIONAL INVESTOR UNDER SECTION 274 OF THE SFA OR TO A RELEVANT PERSON (AS DEFINED IN SECTION 275(2) OF THE SFA), (2) WHERE SUCH TRANSFER ARISES FROM AN OFFER IN THAT CORPORATION’S SECURITIES PURSUANT TO SECTION 275(1A) OF THE SFA, (3) WHERE NO CONSIDERATION IS OR WILL BE GIVEN FOR THE TRANSFER, (4) WHERE THE TRANSFER IS BY OPERATION OF LAW, (5) AS SPECIFIED IN SECTION 276(7) OF THE SFA, OR (6) AS SPECIFIED IN REGULATION 32 OF THE SECURITIES AND FUTURES (OFFERS OF INVESTMENTS) (SHARES AND DEBENTURES) REGULATIONS 2005 OF SINGAPORE (“REGULATION 32”).

WHERE THE BONDS ARE SUBSCRIBED OR PURCHASED UNDER SECTION 275 OF THE SFA BY A RELEVANT PERSON WHICH IS A TRUST (WHERE THE TRUSTEE IS NOT AN ACCREDITED INVESTOR (AS DEFINED IN SECTION 4A OF THE SFA)) WHOSE SOLE PURPOSE IS TO HOLD INVESTMENTS AND EACH BENEFICIARY OF THE TRUST IS AN ACCREDITED

INVESTOR, THE BENEFICIARIES' RIGHTS AND INTEREST (HOWSOEVER DESCRIBED) IN THAT TRUST SHALL NOT BE TRANSFERABLE FOR 6 MONTHS AFTER THAT TRUST HAS ACQUIRED THE BONDS UNDER SECTION 275 OF THE SFA EXCEPT: (1) TO AN INSTITUTIONAL INVESTOR UNDER SECTION 274 OF THE SFA OR TO A RELEVANT PERSON (AS DEFINED IN SECTION 275(2) OF THE SFA), (2) WHERE SUCH TRANSFER ARISES FROM AN OFFER THAT IS MADE ON TERMS THAT SUCH RIGHTS OR INTEREST ARE ACQUIRED AT A CONSIDERATION OF NOT LESS THAN S\$200,000 (OR ITS EQUIVALENT IN A FOREIGN CURRENCY) FOR EACH TRANSACTION (WHETHER SUCH AMOUNT IS TO BE PAID FOR IN CASH OR BY EXCHANGE OF SECURITIES OR OTHER ASSETS), (3) WHERE NO CONSIDERATION IS OR WILL BE GIVEN FOR THE TRANSFER, (4) WHERE THE TRANSFER IS BY OPERATION OF LAW, (5) AS SPECIFIED IN SECTION 276(7) OF THE SFA, OR (6) AS SPECIFIED IN REGULATION 32.

NOTICE TO INVESTORS IN JAPAN

THE SECURITIES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INSTRUMENTS AND EXCHANGE ACT OF JAPAN (ACT NO. 25 OF 1948, AS AMENDED), OR THE FIEA. THE SECURITIES MAY NOT BE OFFERED OR SOLD, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO OR FOR THE BENEFIT OF ANY RESIDENT OF JAPAN (INCLUDING ANY PERSON RESIDENT IN JAPAN OR ANY CORPORATION OR OTHER ENTITY ORGANIZED UNDER THE LAWS OF JAPAN OR ORGANIZED UNDER THE LAWS OF ANY OTHER JURISDICTION BUT HAVING A BRANCH IN JAPAN) OR TO OTHERS FOR REOFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO OR FOR THE BENEFIT OF ANY RESIDENT OF JAPAN, EXCEPT PURSUANT TO AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE FIEA AND OTHERWISE IN COMPLIANCE WITH ANY RELEVANT LAWS AND REGULATIONS OF JAPAN.

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BOARD OF CURATORS OF THE UNIVERSITY OF THE STATE OF MISSOURI

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Maurice B. Graham, Board Vice Chair
Darryl M. Chatman
Greg E. Hoberock
Jeffrey L. Layman

Phillip H. Snowden
David L. Steelman
Robin R. Wenneker
Michael A. Williams
Avery Welker, Student Representative

Cindy S. Harmon, Secretary of Board of Curators
Stephen J. Owens, General Counsel

GENERAL OFFICERS

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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, 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

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OFFICIAL STATEMENT

\$590,200,000

Aggregate Principal Amount

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

consisting of

\$400,000,000

**Taxable System Facilities Revenue Bonds
Series 2020A**

\$190,200,000

**System Facilities Revenue Bonds
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 \$400,000,000 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 \$190,200,000. 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. 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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Recent Developments – The COVID-19 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 working 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 focusing on the next 60 - 90 days and taking careful actions in the short run. The University believes this will prepare the University to mitigate the long-term impacts as they become clear.

The University remains focused on the following priorities 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 adverse 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 priorities listed in the preceding paragraph.
- Prohibition on discretionary spending that are unrelated to University priorities listed in the preceding paragraph.

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 the University campuses and surrounding 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 Governor Parson 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 additional actions taken by the University include:

- Suspension of all in-person classes at all four campuses effective March 16, 2020.
- Cancelled all University-sponsored spring break events / travel.
- After spring break, all classes were transitioned to online platforms for delivery of content through the end of the Spring 2020 semester.
- Suspended all sports activities for the Spring 2020 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.
- Closed all residence halls (other than those needed for international or certain other students) and arranged for refunds of room and board costs for a portion of the Spring 2020 semester for affected students.
- Organized emergency response teams within MU Health Care, the University's finance and certain other departments to focus responses to the COVID-19 crisis.
- Salary reductions for the President of the University, chancellors, cabinet members, deans and certain other senior leaders and administrators.

The full 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 communities it serves and the State, (v) increased pressures on the funded status of the University's retirement plan, and (vi) gifts and other support for the University. See **"University Health System," "University Historical Enrollment," "State Appropriations," "University Investments,"** and **"Retirement Trust and OPEB Trust"** in **Appendix A** for a discussion of these aspects of University operations. See **"Management's Discussion and Analysis"** in **Appendix A** for a discussion of the preliminary and estimated financial impacts on and cost containment efforts of the University.

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 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, and 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 \$400,000,000 and the University's System Facilities Revenue Bonds, Series 2020B in the principal amount of \$190,200,000.
- **"Prior System Bonds"** means the revenue bonds issued by the University in the aggregate outstanding principal amount of \$1,180,875,000 as of April 1, 2020 (which amount includes the Refunded Bonds in the principal amount to be refunded of \$103,475,000) that are payable from the System Revenues on a parity with the Series 2020 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 FINANCE – The Refundings.”** The principal amount of Refunded Bonds to be refunded with a portion of the proceeds of the Series 2020 Bonds is \$103,475,000.

Deemed Consent of Bondowners

The Resolution includes a provision that will be effective only when no Prior System Bonds are outstanding. The purchasers of the Series 2020 Bonds pursuant to this Official Statement are deemed to have consented, through their purchase of the Series 2020 Bonds, to the provision in the Resolution described under the caption **“SECURITY FOR THE SERIES 2020 BONDS - Changes to System Revenues or Facilities and Issuance of Additional Bonds or other Obligations.”** The provision provides that the University may, among other matters, 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 or to add or delete new types of facilities or properties of the University to the System Facilities financed by Bonds if the University demonstrates compliance with certain financial conditions described under **“SECURITY FOR THE SERIES 2020 BONDS - Changes to System Revenues or Facilities and Issuance of Additional Bonds or other Obligations.”** The Prior Bond Resolutions permit similar changes but only with confirmation that the Bonds will 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 proposed change to the security for the Bonds or related 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 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 single 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 finance the NextGen Precision Health Institute facility and other capital projects throughout the University’s campuses (collectively, the **“Projects”**).

The Refundings

A portion of the proceeds of the Series 2020A Bonds will be applied to refund all or a portion of the following series of System Facilities Revenue Bonds:

- System Facilities Revenue Bonds, Series 2009B, outstanding in the principal amount of \$15,100,000 (the “**Series 2009B Bonds**”)
- System Facilities Revenue Bonds, Series 2011, outstanding in the principal amount of \$27,975,000 (the “**Series 2011 Bonds**”)
- System Facilities Revenue Bonds, Series 2014A, outstanding in the 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 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 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 Current Refunded Bonds will be called for redemption approximately 30 days after the date of issuance of the Series 2020 Bonds.

Series 2009B Bonds

<u>Maturity November 1,</u>	<u>Interest Rate</u>	<u>Principal Amount Outstanding</u>	<u>Principal Amount Refunded</u>	<u>CUSIP</u>
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

<u>Maturity November 1,</u>	<u>Current Interest Rate</u>	<u>Principal Amount Outstanding</u>	<u>Principal Amount Refunded</u>	<u>CUSIP</u>
2037	4.000%	\$30,025,000	\$30,025,000	231266MC8

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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 the Refunded Bonds (the “*Advance Refunded Bonds*”):

Series 2011 Bonds

<u>Maturity November 1,</u>	<u>Interest Rate</u>	<u>Principal Amount Outstanding</u>	<u>Principal Amount Defeased</u>	<u>CUSIP</u>
2020	3.000%	\$ 600,000	\$ 600,000	231266GL5
2020	4.000	2,885,000	2,885,000	231266GW1
2021	5.000	3,625,000	3,625,000	231266GM3
2022	3.125	625,000	625,000	231266GN1
2022	5.000	3,185,000	3,185,000	231266GX9
2023	3.250	1,000,000	1,000,000	231266GP6
2023	5.000	3,005,000	3,005,000	231266GY7
2024	5.000	3,030,000	3,030,000	231266GQ4
2025	3.500	950,000	950,000	231266GR2
2025	5.000	2,235,000	2,235,000	231266GZ4
2026	5.000	3,330,000	3,330,000	231266GS0
2027	3.750	690,000	690,000	231266GT8
2027	5.000	2,815,000	2,815,000	231266HA8

Series 2014A Bonds

<u>Maturity November 1,</u>	<u>Interest Rate</u>	<u>Principal Amount Outstanding</u>	<u>Principal Amount Defeased</u>	<u>CUSIP</u>
2020	5.000%	\$ 9,625,000	\$ 9,625,000	231266 LL9
2021	5.000	10,115,000	10,115,000	231266 LM7
2022	5.000	10,635,000	10,635,000	231266 LN5

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 maturity dates shown above or earlier redemption date for the Series 2011 Bonds. The Series 2011 Bonds listed above maturing on and after November 1, 2021 will be called for redemption on November 1, 2021 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 a portion of the proceeds of the Series 2020 Bonds to refinance all outstanding CP Notes in the principal amount of approximately \$362 million, all of which CP Notes mature within 90 days after the 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	\$400,000,000
Par amount of Series 2020B Bonds	190,200,000
Original issue premium (Series 2020B Bonds)	<u>56,670,090</u>
Total sources of funds	<u>\$646,870,090</u>

Uses of Funds:

Refunding of Refunded Bonds	\$107,636,864
Refinancing of CP Notes	361,730,000
Deposit to the Projects Account	175,000,000
Costs of Issuance (including Underwriters' discount)	<u>2,503,226</u>
Total uses of funds	<u>\$646,870,090</u>

Prior System Bonds

The Prior System Bonds in the aggregate outstanding principal amount of \$1,180,875,000 as of April 1, 2020 (which amount includes the Refunded Bonds in the principal amount to be refunded of \$103,475,000), 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 Revenues for such year plus any unencumbered balances from previous years.

As of April 1, 2020, the University had approximately \$362 million principal amount of CP Notes outstanding. See **“Commercial Paper Program”** in **Appendix A**. As discussed above, all outstanding CP Notes will 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 COVID-19 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 at Par - Series 2020A Bonds. On or after the applicable Par Call Date (as defined in the next sentence of this paragraph), the Series 2020A Bonds maturing on November 1, 2025, November 1, 2027, and November 1, 2050 will be subject to optional redemption at any time prior to maturity, in whole or in part (and, if in part, on a pro rata basis, subject to the provisions described below under ***“Selection of Bonds to be Redeemed”***), at the direction of the University, on any Business Day, at **100%** of the principal amount of such Series 2020A Bonds to be redeemed, plus accrued and unpaid interest on such Series 2020A Bonds to be redeemed to the date fixed for redemption. ***“Par Call Date”*** means October 1, 2025 for the Series 2020A Bonds maturing on November 1, 2025, September 1, 2027 for the Series 2020A Bonds maturing on November 1, 2027, and May 1, 2050 for the Series 2020A Bonds maturing on November 1, 2050.

Optional Redemption at Make-Whole Redemption Price – Series 2020A Bonds. The Series 2020A Bonds maturing November 1, 2023 will be subject to optional redemption prior to maturity, and the Series 2020A Bonds maturing November 1, 2025, 2027, and 2050 will be subject to optional redemption prior to the applicable Par Call Date, at the direction of the University, in whole or in part (and, if in part, on a pro rata basis, subject to the provisions described below under ***“Selection of Bonds to be Redeemed”***), on any Business Day, at the Make-Whole Redemption Price. The University shall retain an independent accounting firm or an independent financial advisor to determine the Make-Whole Redemption Price and perform all actions and make all calculations required to determine the Make-Whole Redemption Price. The Paying Agent and the University may conclusively rely on such accounting firm’s or financial advisor’s calculations in connection with, and its determination of, the Make-Whole Redemption Price, and neither the Paying Agent nor the University will have any liability for their reliance. The determination of the Make-Whole Redemption Price by such accounting firm or financial advisor shall be conclusive and binding on the Paying Agent, the University and the Owners of the Series 2020A Bonds.

“Make-Whole Redemption Price” means (a) the greater of (i) 100% of the principal amount of Series 2020A Bonds to be redeemed and (ii) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of such Series 2020A Bonds, not including any portion of those payments of interest accrued and unpaid as of the date on which such Series 2020A Bonds is to be redeemed, discounted to the date on which such Series 2020A Bonds is to be redeemed on a semi-annual basis assuming a 360-day year consisting of twelve 30-day months at the adjusted Treasury Rate plus twenty (20) basis points with respect to the Series 2020A Bonds maturing November 1, 2023, and twenty-five (25) basis points with respect to the Series 2020A Bonds maturing November 1, 2025, 2027 and 2050, plus (b) accrued and unpaid interest on such Series 2020A Bonds to the redemption date.

“Treasury Rate” means, with respect to any redemption date, the rate per annum equal to the semiannual equivalent yield to maturity or interpolated (on a day count basis) of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

“Comparable Treasury Issue” means the United States Treasury security or securities selected by a Designated Investment Banker as having an actual or interpolated maturity comparable to the remaining term of the Series 2020A Bonds to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of a comparable maturity to the remaining term of such Series 2020A Bonds.

“Comparable Treasury Price” means, with respect to any redemption date, the average of the Primary Treasury Dealer Quotations for such redemption date or, if the Designated Investment Banker obtains only one Primary Treasury Dealer Quotation, such Primary Treasury Dealer Quotation.

“Designated Investment Banker” means a Primary Treasury Dealer appointed by the University.

“Primary Treasury Dealer” means one or more entities appointed by the University, which, in each case, is a primary U.S. Government securities dealer in The City of New York, New York, and its successors.

“Primary Treasury Dealer Quotations” means, with respect to each Primary Treasury Dealer and any redemption date, the average, as determined by the Designated Investment Banker, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Designated Investment Banker by such Primary Treasury Dealer at 3:30 p.m. New York time on the third Business Day preceding such redemption date.

“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 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.

Optional Redemption - Series 2020B Bonds. The Series 2020B Bonds are not subject to optional redemption prior to maturity, except as provided immediately below under ***“Extraordinary Optional Redemption.”***

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 series and 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. If less than all of the Series 2020A Bonds are called for optional redemption, the University will select the maturity or maturities from which the Series 2020A Bonds are to be redeemed. If the Series 2020A Bonds are registered in book-entry only form and so long as The Depository Trust Company ("**DTC**") or a successor securities depository is the sole registered owner of the Series 2020A Bonds, if less than all of the Series 2020A Bonds of a maturity are called for prior redemption, the particular Series 2020A Bonds or portions thereof to be redeemed shall be selected on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Series 2020A Bonds are held in book-entry form, the selection for redemption of such Series 2020A Bonds shall be made in accordance with the operational arrangements of DTC then in effect.

It is the University's intent that redemption allocations made by DTC be made on a pro rata pass-through distribution of principal basis as described above. However, neither the University nor the Underwriters can provide any assurance that DTC, DTC's Direct and Indirect Participants (as defined herein) or any other intermediary will allocate the redemption of Series 2020A Bonds on such basis. If the DTC operational arrangements do not allow for the redemption of the Series 2020A Bonds on a pro rata pass-through distribution of principal basis as discussed above, then the Series 2020A Bonds will be selected for redemption, in accordance with DTC procedures.

The Series 2020B Bonds may be redeemed as directed by the University and only in the principal amount of \$5,000 or any integral multiple thereof. When less than all of the outstanding Series 2020B Bonds

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 Depository Trust Company or other book-entry only system.

Book-Entry Only System and Global Clearance Procedures

When delivered, the Series 2020 Bonds will be registered in the name of Cede & Co., the nominee of DTC. DTC will act as the securities depository for the Series 2020 Bonds. Purchases of the Series 2020 Bonds may be made in book-entry form only, through brokers and dealers who are, or who act through, Direct Participants (as defined in **Appendix C**). Beneficial Owners of the Series 2020 Bonds will not receive physical delivery of certificated securities (except under certain circumstances described in the Resolution). Payment of the principal of, and redemption premium, if any, and interest on the Series 2020 Bonds are payable by the Paying Agent to DTC, which will in turn remit such payments to the Direct Participants, which will in turn remit such payments to the Beneficial Owners of the Series 2020 Bonds. In addition, so long as Cede & Co. is the registered owner of the Series 2020 Bonds, the right of any Beneficial Owner to receive payment for any Bond will be based only upon and subject to the procedures and limitations of the DTC book-entry system. Beneficial interests in the Series 2020 Bonds may be held through DTC, Clearstream Banking, S.A. ("**Clearstream Banking**") or Euroclear Bank S.A./N.V. as operator of the Euroclear System ("**Euroclear**"), directly as a participant or indirectly through organizations that are participants in such system. See "**Appendix C – Book-Entry Only System and Global Clearance Procedures.**"

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 located on the Kansas City Campus, the Havener Center located on the Missouri S&T Campus, and the University Center and the Student Center located 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 facilities 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 Hearnese 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 April 1, 2020 (which amount includes the Refunded Bonds in the principal amount to be refunded of \$103,475,000). 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 Additional 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 has the right to do any or all 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.

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 200% of the Maximum Annual Debt Service required to be paid out of said System Revenues in any Fiscal Year following the date of the Resolution 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 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;

Under the Prior Bond Resolutions, the University has the right to take any or all of the actions described in (a) through (d) above only if 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 proposed change. Accordingly, while any Prior System Bonds remain outstanding, the University may only take any of the actions described in paragraphs (a) through (d) above upon receipt of the foregoing rating confirmation and irrespective of its ability to meet the financial conditions described in paragraphs (1) and (2) above. **The purchasers of the Series 2020 Bonds, by their purchase of the Series 2020 Bonds, are deemed to have consented to the actions described in paragraphs (a) through (d) above but without the requirement that the University first obtain a confirmation of the rating on the Series 2020 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; (3) Parity Lien Bond Test;**” and “**Amendments – Amendments of the Prior System Facilities Resolutions.**”

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 and Tuition

A significant decrease in the University’s enrollment could adversely affect the University’s financial position and results of operations. The University estimates that a 1% decline in enrollment would result in an approximately \$10 million decline in revenues (including tuition, fees and charges for auxiliary student services). 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. Prior to the COVID-19 public health crisis, the University estimated the enrollment trend for Fall 2020 would be a continued increase from the lower levels in 2016 and 2017. The University, however, cannot yet predict how the COVID-19 public health crisis and the closing of in-person classes in the Spring 2020 semester may impact Fall 2020 enrollment or 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.

A significant portion of the University's revenues are provided through tuition and related fees. There are statutory limits on the extent to which the University can raise 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 be able to do so in the future. The extent to which the University will have the flexibility to make further increases in tuition or fees in the foreseeable future to offset withholdings or cuts in State appropriations or other impacts of the public health crisis on the revenues of the University is unknown at this time.

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.

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 years 2017 and 2018 as a result of the impact of highly publicized campus unrest on the Columbia campus in fiscal year 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. The growth in MU Health Care revenue in fiscal year 2020 compared to the growth rate seen in the past few years had already begun to slow prior to the impact of the COVID-19

crisis. MU Health Care will experience impacts to revenue as a result of the deferral of elective or optional procedures and other services, which commenced in March 2020 due to the COVID-19 outbreak. MU Health Care anticipates revenues to be impacted by approximately \$13.5 million per month that elective procedures remain deferred, however, this is only an estimate and the full impact of the public health crisis on fiscal year 2020 revenues of MU Health Care cannot be predicted at this time and the further impact on fiscal year 2021 revenues is unknown. There can be no assurances that the operation of MU Health Care will contribute to revenues in excess of expenses 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 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 for extraordinary demands experienced in other parts of the county on 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. 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, such as the current public health crisis. 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.

University Retirement Plan and OPEB Plan

The University’s Retirement Plan and OPEB Plan (each as defined in **Appendix A**) are described in **Appendix A**. The Retirement Plan has a funded ratio (actuarial value) of 80.6% as of October 1, 2019, down from 87.4% as of October 1, 2015. The significant decline in equity market values since the outbreak of the COVID-19 virus is directly affecting the market value of assets held in the Retirement Plan (which total over \$3.0 billion) and the OPEB Plan (which total less than \$40 million). The impact of the COVID-19 public health crisis will exacerbate the increasing funding pressures on the University with respect to the Retirement Plan, although those additional pressures will be longer-term due to the actuarial smoothing utilized in determining the annual actuarially required employer contributions to the Retirement Plan. See **“Retirement Trust and OPEB Trust”** in **Appendix A**.

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-lived) 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 will 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 COVID-19 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, the nation and the University. 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, particularly international students.
- Adverse impact on tuition revenue.
- Adverse impact on demand for student housing and other auxiliary services 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 investments in the University’s Retirement Plan, thus adversely affecting the funded status of the plan and likely increased future annual contributions to the plan.
- Adverse impact on research funding by the federal and State governments and private entities.
- Adverse impact on the ability or willingness of donors (who may be experiencing significant adverse economic impacts personally as a result of the public health crisis) to support the University at historical levels of annual and capital giving.

The University currently anticipates it will receive federal aid in the aggregate amount of approximately \$48 million under the three COVID-19 related relief bills that have already been signed into law this spring. But, the University cannot predict the ultimate amount or timing 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.

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.

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Debt Service Requirements

Fiscal Year Ending June 30.	Prior System Bonds Principal and Interest ^{(1) (2)}	Series 2020 Bonds		Total Debt Service Relating to System Facilities
		Principal	Interest	
2021	\$ 60,526,177		\$ 17,256,111	\$ 77,782,288
2022	60,525,277		17,450,000	77,975,277
2023	70,284,791		17,450,000	87,734,791
2024	80,967,323	\$100,000,000	16,717,000	197,684,323
2025	89,679,641		15,984,000	105,663,641
2026	89,263,351	100,000,000	15,127,000	204,390,351
2027	89,017,709		14,270,000	103,287,709
2028	76,284,072	100,000,000	13,264,000	189,548,072
2029	76,009,848		12,258,000	88,267,848
2030	75,740,882		12,258,000	87,998,882
2031	75,439,818	190,200,000	7,503,000	273,142,818
2032	75,141,053		2,748,000	77,889,053
2033	64,986,157		2,748,000	67,734,157
2034	64,666,289		2,748,000	67,414,289
2035	64,325,757		2,748,000	67,073,757
2036	63,982,320		2,748,000	66,730,320
2037	49,369,388		2,748,000	52,117,388
2038	48,996,471		2,748,000	51,744,471
2039	48,612,430		2,748,000	51,360,430
2040	129,870,235		2,748,000	132,618,235
2041	105,067,674		2,748,000	107,815,674
2042	100,196,891		2,748,000	102,944,891
2043	13,666,500		2,748,000	16,414,500
2044	160,011,000		2,748,000	162,759,000
2045	6,355,500		2,748,000	9,103,500
2046	6,355,500		2,748,000	9,103,500
2047	6,355,500		2,748,000	9,103,500
2048	6,355,500		2,748,000	9,103,500
2049	6,355,500		2,748,000	9,103,500
2050	6,355,500		2,748,000	9,103,500
2051	6,355,500	100,000,000	1,374,000	107,729,500
2052	6,355,500			6,355,500
2053	6,355,500			6,355,500
2054	6,355,500			6,355,500
2055	<u>153,177,750</u>	<u> </u>	<u> </u>	<u>153,177,750</u>
Total	\$2,049,363,804	\$590,200,000	\$213,123,111	\$2,852,686,915

⁽¹⁾ Prior System Bonds in the outstanding principal amount of \$86,185,000 as of June 30, 2019 bear interest at variable rates that are set daily or weekly in accordance with the Prior System Bond resolution. 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.

⁽²⁾ Excludes the debt service on the Refunded Bonds to be refunded with proceeds of the Series 2020 Bonds.

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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 <i>(\$ in thousands)</i>					
	Fiscal Years Ended June 30,				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
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	<u>33,973</u>	<u>33,124</u>	<u>38,098</u>	<u>39,425</u>	<u>35,561</u>
Total	1,171,001	1,239,835	1,349,218	1,406,165	1,495,766
Student System Facilities Fee ⁽¹⁾	<u>134,538</u>	<u>119,239</u>	<u>118,551</u>	<u>118,715</u>	<u>118,890</u>
Total	<u>\$1,305,539</u>	<u>\$1,359,074</u>	<u>\$1,467,769</u>	<u>\$1,524,880</u>	<u>\$1,614,656</u>

⁽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

Introduction

The following discussion summarizes certain material U.S. federal and State of Missouri income tax considerations generally applicable to the purchase, U.S. Ownership, and disposition of the Series 2020 Bonds by the beneficial U.S. Owners thereof (“**U.S. Owners**”). The discussion is limited to the tax consequences to the initial owners of the Series 2020 Bonds who purchase the Series 2020 Bonds at the issue price, within the meaning of Section 1273 of the Internal Revenue Code of 1986, as amended (“**Code**”). The discussion does not address the tax consequences to subsequent purchasers of the Series 2020 Bonds, including but not limited to the impact of the so-called “market discount” rules set forth in Sections 1276-1278 of the Code.

The discussion does not purport to be, and is not, a complete analysis of all of the potential U.S. federal or State of Missouri income tax consequences relating to the purchase, ownership, and disposition of the Series 2020 Bonds. For example, the discussion does not address any state (other than State of Missouri income tax), local, non-U.S., U.S. federal estate, or U.S. federal gift tax consequences. The U.S. federal income taxation with respect to an investment in the Series 2020 Bonds is complex and may involve, among other things, significant issues as to the timing, character, source, and allocation of gains and losses. The discussion is necessarily general and is not intended to be applicable to all categories of purchasers, some of which, such as banks, thrifts, insurance companies, regulated investment companies, real estate mortgage investment conduits, dealers and traders in securities that elect to mark to market their securities portfolios, U.S. Owners who do not own the Series 2020 Bonds as capital assets, and non-U.S. Owners (as hereinafter defined) classified for U.S. federal income tax purposes as “controlled foreign corporations,” “passive foreign investment companies,” “personal holding companies,” or “expatriates,” may be subject to special rules. The discussion also does not address the special rules applicable to purchasers who hold the Series 2020 Bonds as part of a hedge, straddle, conversion, constructive ownership or constructive sale transaction, or other risk reduction transaction. The discussion assumes the Series 2020 Bonds are held as capital assets within the meaning of Section 1221 of the Code. Prospective investors are advised to consult their own tax advisors regarding federal, state, local, foreign and other tax considerations of holding and disposing of the Series 2020 Bonds.

The discussion is based on the Code, Treasury Regulations issued under the Code (“**Treasury Regulations**”), administrative rulings, and judicial decisions as in effect at the time this Official Statement is being written, all of which are subject to change (possibly with retroactive effect) or different interpretations. No assurance can be given that future legislation, administrative guidance, administrative rulings, or judicial decisions will not modify the conclusions set forth herein. The actual tax and financial consequences of the ownership or sale of the Series 2020 Bonds will vary depending upon each U.S. Owner’s circumstances.

Moreover, the legislation commonly referred to as the “Tax Cuts and Jobs Act” (“**2017 Tax Reform Act**”) changed the U.S. taxation of individuals, sole proprietorships, corporations, and pass-through entities. Most provisions in the 2017 Tax Reform Act which apply to individuals are set to expire on December 31, 2025, which means U.S. federal income tax law as applied to individuals reverts back to the law as it existed prior to the effectiveness of the 2017 Tax Reform Act. Although this section of the Official Statement summarizes certain key changes made by the 2017 Tax Reform Act and explains, where appropriate, how an expiration of those provisions may affect U.S. Owners, it is not intended to be an exhaustive discussion of those provisions.

Nomenclature

This section uses certain nomenclature to distinguish between the tax treatment applicable to different types of U.S. Owners. For purposes of this discussion, a “U.S. Owner” is an Owner of a Series 2020 Bond that, for U.S. federal income tax purposes, is: (i) a citizen or resident of the United States (as such residency is determined for U.S. federal income tax purposes); (ii) a corporation, or an entity treated as a corporation for U.S. federal income tax purposes, in either case created or organized in or under the laws of the United States or of any political subdivision thereof; (iii) an estate, the income of which is subject to U.S. federal income taxation regardless of its source; or (iv) a trust, the administration of which is subject to the primary supervision of a court within the United States and which has one or more United States persons (as described

in Section 7701(a)(30) of the Code) with the authority to control all substantial decisions of the trust, or a trust that has a valid election in effect under applicable Treasury Regulations to be treated as a United States person (as described in Section 7701(a)(30) of the Code). For purposes of this discussion, a “Non-U.S. Owner” is a person that is not a United States person (as described in Section 7701(a)(30) of the Code). Non-U.S. Owners should consult with their own tax advisors as this discussion and analysis does not address the tax consequences of foreign partnerships, shareholders of controlled foreign corporations under Section 957 of the Code, shareholders of passive foreign investment companies under Section 1297 of the Code, and/or foreign trusts and/or estates and their respective beneficiaries. U.S. Owner and Non-U.S. Owner are hereinafter referred to individually as an “Owner” and collectively as “Owners”.

Tax Consequences to U.S. Owners of Owning Series 2020 Bonds

General. Interest received or accrued on the Series 2020 Bonds, unless excludable from gross income for federal income tax purposes, shall be taxable to a U.S. Owner at ordinary income tax rates. Subject to certain exceptions, principal payments on the Series 2020 Bonds generally will constitute a tax-free return of capital that will reduce a U.S. Owner’s adjusted tax basis in the Series 2020 Bond to which the principal payment relates and any gain on the sale, exchange, redemption or other disposition of a Series 2020 Bond will generally be taxable to a U.S. Owner at the tax rates applicable to capital gains. If a partnership, or an entity taxable as a partnership, holds the Series 2020A Bonds, then the U.S. federal income tax treatment of a partner generally will depend upon the status of the partner and the tax status of the partnership. Owners, including, but not limited to, partners of partnerships holding the Series 2020 Bonds should consult their own tax advisors with respect to the U.S. federal income tax treatment of the purchase, ownership, and disposition of the Series 2020 Bonds.

Bond Counsel’s opinions, as discussed herein, 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 2020 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.

Interest on Series 2020A Bonds for U.S. Federal Income Tax Purposes. The opinion of Thompson Coburn LLP, Bond Counsel, to be delivered upon the issuance of the Series 2020A Bonds, a form of which is attached hereto as a part of **Appendix E - FORMS OF OPINION OF BOND COUNSEL**, will state that, under existing law, interest on the Series 2020A Bonds is not excluded from gross income for federal income tax purposes.

Interest on Series 2020B Bonds for U.S. Federal Income Tax Purposes. 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 a part of **Appendix E - FORMS OF OPINION OF BOND COUNSEL**, will state that, under existing law, interest on the Series 2020B Bonds is 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 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 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 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).

Interest on Series 2020 Bonds for State of Missouri Income Tax Purposes. The opinion of Bond Counsel will state that, under existing law, interest on the Series 2020 Bonds is exempt from income taxation by the State of Missouri.

No Additional Opinions. 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.

Premium. If a U.S. Owner purchases a Series 2020 Bond for an amount in excess of the amount payable at maturity (*i.e.*, at a premium), then the U.S. Owner generally will be considered to have purchased the Series 2020 Bond with “amortizable bond premium” equal to the amount of such excess. Such premium is included in the U.S. Owner’s tax basis in the Series 2020 Bonds, decreasing the gain or increasing the loss otherwise recognized on the disposition of the Series 2020 Bonds. A U.S. Owner who purchases a Series 2020A Bond with amortizable bond premium may elect to amortize the bond premium as an offset to interest income, and not as a separate deduction, with the amount of the amortizable bond premium calculated under a constant yield method. If the U.S. Owner elects to amortize the bond premium, then any amortizable amounts will reduce the U.S. Owner’s tax basis in the Series 2020A Bonds. Moreover, if the U.S. Owner elects to amortize bond premium, then such election will apply to all Series 2020A Bonds (i) held by such U.S. Owner on the first day of the taxable year to which the election applies, and (ii) thereafter acquired by the U.S. Owner.

U.S. Owners of Series 2020 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 2020 Bonds.

Collateral Tax Consequences. Prospective purchasers of the Series 2020 Bonds should be aware that the ownership of the Series 2020 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 2020 Bonds, individuals who may be eligible for the earned income credit, U.S. Owners who dispose of any Series 2020 Bond prior to its stated maturity (whether by sale or otherwise) and U.S. 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 under state or local laws.

Effect of Changes in U.S. Tax Laws. Under the 2017 Tax Reform Act, a U.S. Owner that uses an accrual method of accounting for U.S. federal income tax purposes and prepares an “applicable financial statement” (within the meaning of Section 451 of the Code) generally would be required to include certain amounts in income no later than the time such amounts are reflected on such financial statements. The application of this rule may require the accrual of income earlier than would be the case under the general tax rules previously discussed for certain U.S. Owners. Prospective purchasers should consult their own tax advisors regarding the potential applicability of these rules to their U.S. Ownership and disposition of the Series 2020 Bonds.

Backup Withholding and Information Reporting

There will be reported annually to the IRS, and to each Owner, the amount of interest (including OID) paid on, or the proceeds from the sale, exchange, redemption, or other taxable disposition of, the Series 2020A Bonds and the amount withheld for U.S. federal income tax purposes, if any, for each calendar year, except as to certain exempt recipients, such as corporations, tax-exempt organizations, qualified pension and profit sharing trusts, individual retirement accounts, or nonresident aliens who provide an appropriate certification as to their tax status. Each Owner, other than a Owner who is not subject to the foregoing reporting requirements, will be required to provide, under penalties of perjury, a certificate containing its name, its address, its correct U.S. federal taxpayer identification number, and a statement that the Owner is not subject to back-up withholding. If any Owner fails to provide the required certification, or if there are other related compliance failures, then there will be withheld amounts at a prescribed rate from the interest otherwise payable to the Owner or the proceeds from the sale, exchange, redemption, or other taxable disposition of the Series 2020A Bonds, and the withheld amounts will be remitted to the U.S. Department of the Treasury and credited against the Owner's U.S. federal income tax liability. In addition, Non-U.S. Owners will be required to provide to the University or designated agents all information, documentation, or certifications acceptable to the University or its agents to permit compliance with tax reporting obligations under applicable law, including any applicable cost basis reporting obligations.

Under the Code, all taxpayers are required to report on their federal income tax returns the amount of interest received or accrued 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 in a manner similar to that for interest 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.

Certain Other Matters Affecting Non-U.S. Owners of Series 2020 Bonds

In General. The United States currently taxes nonresident aliens and foreign corporations in the same manner as U.S. citizens, resident aliens, and domestic corporations on income that is effectively connected with a trade or business in the United States.

Different rules apply when the income is not effectively connected with a trade or business in the United States. For example, taxable income not effectively connected with a trade or business in the United States, but which is fixed, determinable, annual or periodical, generally is taxed at a rate equal to thirty percent (30%), unless a lower rate applies pursuant to U.S. law or an applicable income tax treaty. Pursuant to Sections 1441 and 1442 of the Code, tax due on fixed, determinable, annual or periodical income is generally required to be withheld from each payment made to the foreign person and remitted by the withholding agent to the U.S. Department of the Treasury. In general, taxable interest (including OID) is fixed, determinable, annual or periodical income, and as such, taxable interest (including OID) is typically subject to U.S. withholding tax, unless an exception applies. Pursuant to Sections 871(h) and 881(c) of the Code, so-called "portfolio interest," to the extent includable in gross income for federal income tax purposes, is exempt from U.S. withholding tax. Prospective purchasers should consult their own tax advisors regarding the potential applicability of the "portfolio interest" exemption from U.S. withholding tax.

Payments of Interest. Subject to the discussion below under the headings "FATCA" and "Backup Withholding and Information Reporting," payments of interest (including OID) with respect to a Series 2020 Bond held by a Non-U.S. Owner, even if not excludable from gross income for federal income tax purposes, will not be subject to U.S. withholding tax, provided that the statement requirement set forth in Section 871(h) or Section 881(c) of the Code (each described below) has been fulfilled with respect to such Non-U.S. Owner. Moreover, payments of interest under the Series 2020B Bonds should be excludable from income by a Non-U.S. Owner, see "TAX MATTERS- Tax Consequences of Owning Series 2020 Bonds"

above with respect to the extent to which interest on the Series 2020B Bonds (including OID) is excludable from gross income for federal income tax purposes.

Payments of Principal. Subject to the discussion below under the headings “**FATCA**” and “**Backup Withholding and Information Reporting**,” payments of principal with respect to a Series 2020 Bond held by a Non-U.S. Owner should not be subject to U.S. withholding tax.

Proceeds from a Sale, Exchange, Redemption, or Other Disposition. Subject to the discussion below under the headings “**FATCA**” and “**Backup Withholding and Information Reporting**,” a Non-U.S. Owner generally will not be subject to U.S. withholding tax on gain realized from the sale, exchange, redemption, or other disposition of a Series 2020 Bond, unless: (i) such Non-U.S. Owner is an individual who is present in the United States for 183 or more days in the taxable year of such sale, exchange, redemption, or other disposition and certain other conditions are met; or (ii) such gain is effectively connected with the conduct by the Non-U.S. Owner of a trade or business in the United States (and, under certain income tax treaties, is attributable to a U.S. permanent establishment maintained by such Non-U.S. Owner). Further, if the University establishes a legal defeasance of any Series 2020 Bond, that Series 2020 Bond may be deemed to be retired and “reissued” for U.S. federal income tax purposes as a result of the defeasance.

Required Certifications to Obtain Exemption From Withholding. Sections 871(h) and 881(c) of the Code require that, in order for a Non-U.S. Owner to obtain the above-described exemptions from U.S. withholding tax, either the Non-U.S. Owner or a securities clearing organization, bank, or other financial institution that holds customers’ securities in the ordinary course of its trade or business (“Financial Institution”) and that is holding the Series 2020 Bond on behalf of such Non-U.S. Owner, must file a statement with the University, its paying agent, or other applicable withholding agent to the effect that the Non-U.S. Owner is not a United States person (as defined in Section 7701(a)(30) of the Code). Such requirement will be met if the Non-U.S. Owner: (i) provides his, her, or its name and address; (ii) certifies under penalties of perjury that he, she, or it is not a United States person (as defined in Section 7701(a)(30) of the Code); and (iii) so certifies on the appropriate IRS Form, which is IRS Form W-8BEN for an individual, Form W-8BEN-E for an entity, Form W-8EXP for a foreign government, international organization, foreign central bank of issue, foreign tax-exempt organization, foreign private foundation, or government of a U.S. possession, or any successor form. Such requirement will also be met if any Financial Institution holding the Series 2020 Bond on behalf of the Non-U.S. Owner files a statement with the University, its paying agent, or other applicable withholding agent to the effect that it has received such a statement from the Non-U.S. Owner (and furnishes the University, its paying agent, or other applicable withholding agent with a copy thereof). In addition, in the case of Series 2020 Bonds held by a foreign intermediary (other than a “qualified intermediary”) or a foreign partnership (other than a “withholding foreign partnership”), the foreign intermediary or partnership, as the case may be, generally must provide a properly executed IRS Form W-8IMY (or successor form) and attach thereto an appropriate certification by each foreign beneficial owner or payee. A certificate is generally effective only with respect to payments of interest (including OID) made to the certifying Non-U.S. Owner after issuance of the certificate in the calendar year of its issuance and the two immediately succeeding calendar years. Thus, Non-U.S. Owners will be required to provide these certifications more than once.

Non-U.S. Owners Engaged in a Trade or Business in the United States. If a Non-U.S. Owner is engaged in a trade or business in the United States, and if interest (including OID) or gain realized on the sale, exchange, redemption, or other disposition of a Series 2020A Bond is effectively connected with the conduct of such trade or business, then the Non-U.S. Owner, although exempt from U.S. withholding tax, generally will be subject to regular U.S. federal income tax on such effectively connected income or gain in the manner as if it were a U.S. Owner. In addition, if such Non-U.S. Owner is a foreign corporation, it may be subject to a branch profits tax equal to thirty percent (30%) (or such lower rate provided by an applicable treaty) of its effectively connected earnings and profits for the taxable year, subject to certain adjustments. Interest income (including OID) or gain that is effectively connected with a trade or business in the United States will not be subject to withholding tax if the Non-U.S. Owner provides a properly executed IRS Form W-8ECI (or successor form) to the University, its paying agent, or other applicable withholding agent in order to claim an exemption from withholding tax.

Effect of Not Providing the Required Exemption Certificate. A Non-U.S. Owner who does not satisfy the exemption requirements is generally subject to United States withholding tax on payments of

interest (including OID), except to the extent such interest (including OID) is excludable from gross income as described above.

FATCA. The Foreign Account Tax Compliance Act (“**FATCA**”) generally imposes U.S. withholding tax on interest payments (to the extent not excludable from gross income for federal income tax purposes) and gross proceeds of the sale, exchange, redemption, or other disposition of the Series 2020 Bonds paid to certain foreign financial institutions (which is broadly defined for this purpose to generally include most non-U.S. banks and investment funds) and certain other non-U.S. entities, unless certain disclosure and due diligence requirements related to financial accounts held by U.S. taxpayers or by foreign entities in which U.S. taxpayers hold substantial ownership interests are satisfied. A foreign financial institution or other entity that is subject to FATCA, but which fails to meet the requirements imposed by FATCA, generally will be subject to a U.S. withholding tax with respect to any “withholdable payments.” For this purpose, withholdable payments generally include U.S.-source payments otherwise subject to nonresident withholding tax (e.g., U.S.-source interest, including OID, to the extent not excludable from gross income for federal income tax purposes) and the entire gross proceeds from the sale, exchange, redemption, or other disposition of any debt instruments of U.S. issuers, even if the payment would otherwise not be subject to U.S. nonresident withholding tax (e.g., because the proceeds are a capital gain). Thus, if a Non-U.S. Owner is a foreign financial institution or other entity that is subject to FATCA, but that institution or entity does not comply with FATCA, then such Non-U.S. Owner would be subject to a thirty percent (30%) U.S. withholding tax. An intergovernmental agreement between the United States and an applicable non-U.S. country may modify these requirements.

The University will not pay any additional amounts in respect of any amounts withheld, including pursuant to FATCA, and Non-U.S. Owner or beneficial owners of the Series 2020 Bonds will have no recourse against the University.

State, Local and Foreign Taxes

Owners may be subject to state, local, or foreign taxes with respect to an investment in the Series 2020 Bonds. Purchasers of the Series 2020 Bonds should consult their tax advisors as to the applicability of these tax consequences and other income tax consequences of the purchase, ownership and disposition of the Series 2020 Bonds, including the possible application of state, local, foreign and other tax laws (including the limitations on deductibility of state, and local taxes imposed by the 2017 Tax Reform Act).

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 income taxation, may cause interest on the Series 2020 Bonds to be subject, directly or indirectly, to 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 2020 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:

Tables in Official Statement:

- (1) PLEDGED REVENUES OF THE SYSTEM – Historical Pledged System Revenues;

Tables in Appendix A:

- (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. Immediately after the issuance of the Series 2020 Bonds and the application of the proceeds thereof, no CP Notes will remain outstanding. The University does, however, intend to continue voluntarily to file quarterly liquidity information for the University. The commercial paper program will remain in effect after the issuance of the Series 2020 Bonds, and the University may issue CP Notes in the future at its discretion.

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 be 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

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. In certain prior undertakings, the University agreed to provide historical and projected student enrollment. The University no longer prepares the five-year projected student enrollment data previously included in Official Statements and annual reports posted on EMMA, and thus no longer includes any projected student enrollment in its annual reports.

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 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 report, 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+” (with a negative outlook) and “Aa1” (with a stable outlook), 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. LLC 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 \$399,052,510.10 (which gives effect to an underwriting discount in the amount of \$947,489.90) and the Series 2020B Bonds at a price of \$246,419,558.57 (which gives effect to original issue premium of \$56,670,090.00, and reflecting an underwriting discount in the amount of \$450,531.43) 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.

J.P. Morgan Securities LLC (“*JPMS*”), one of the Underwriters of the Series 2020 Bonds, has entered into negotiated dealer agreements (each, a “*Dealer Agreement*”) with each of Charles Schwab & Co., Inc. (“*CS&Co.*”) and LPL Financial LLC (“*LPL*”) for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, if applicable to this transaction, each of CS&Co. and LPL will purchase Series 2020 Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Series 2020 Bonds that such firm sells.

Morgan Stanley & Co. LLC, one of the Underwriters of the Series 2020 Bonds, has entered into a retail distribution arrangement with its affiliate Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Series 2020 Bonds.

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: /s/ Ryan D. Rapp
Vice President for Finance, Chief Financial Officer and
Treasurer

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 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. Dr. Choi was appointed Interim Chancellor of the University of Missouri-Columbia upon the departure of former Chancellor Alexander Cartwright, who accepted the position of President of the University of Central Florida in March 2020. The Board has not initiated a search for the next Chancellor of the University of Missouri-Columbia.

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, Chancellor of the University of Missouri-St. Louis. Dr. Sobolik currently serves as Chancellor, Provost and Executive Vice Chancellor for Academic Affairs at UMSL. Dr. Sobolik was appointed Chancellor in April 2020 after serving as Interim Chancellor since July 2019. Prior to coming to UMSL in May 2017, 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.

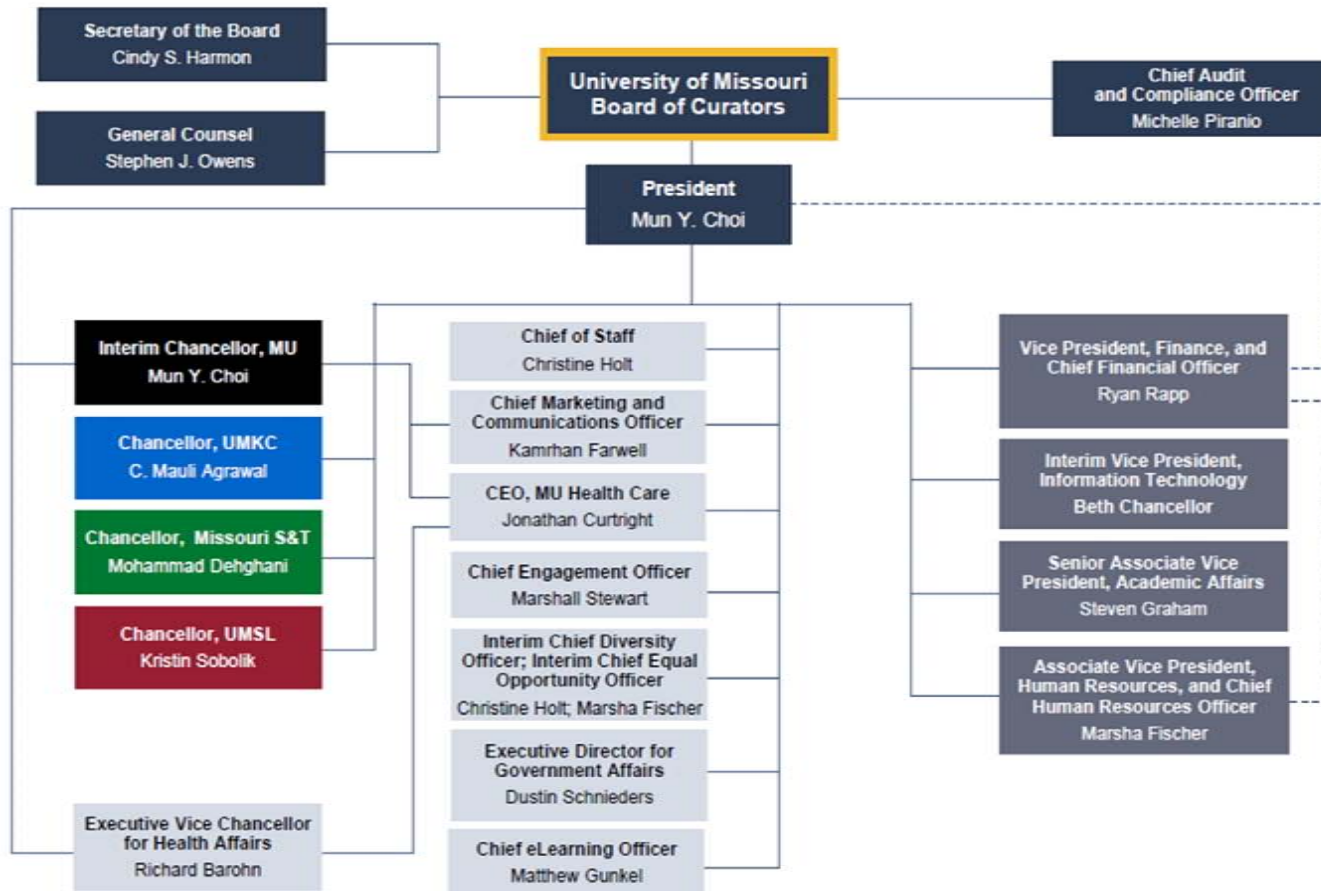
Ryan Rapp, 39, Vice President for Finance, Chief Financial Officer and Treasurer of the University of Missouri System. Mr. Rapp assumed the responsibilities of the Vice President for Finance and Chief Financial Officer in July 2017, and the responsibility of Treasurer in September 2019. Prior to assuming 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
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

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, which have been incorporated into each campus' strategic plan as described above. 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 the 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 has been ranked third nationally among engineering colleges by College Factual and sixth nationally by Payscale.com 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 Historical Enrollment

The following table sets forth the historical head count enrollment for the University.

Enrollment (Full- and Part-Time)

Historical Enrollment					
<u>Fall</u>	<u>MU</u>	<u>UMKC</u>	<u>Missouri S&T</u>	<u>UMSL</u>	<u>Total</u>
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.

<u>Campus</u>	<u>Fall</u>	<u>Category</u>	<u>Applications</u>	<u>Acceptances</u>	<u>Matriculations</u>
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)

<u>Campus</u>	<u>Fall</u>	<u>Category</u>	<u>Applications</u>	<u>Acceptances</u>	<u>Matriculations</u>
Missouri S&T					
	2015	Freshmen	3,592	3,164	1,489
		Transfers	826	579	430
	2016	Freshmen	4,349	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

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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

<u>School/College</u>	<u>MU</u>				<u>UG/Grad Certificate</u>	<u>Education Specialist</u>	<u>Total</u>
	<u>Bachelor</u>	<u>Professional</u>	<u>Master</u>	<u>Doctorate</u>			
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	-	-	-	-	<u>1,761</u>	-	<u>1,761</u>
MU Campus Total	<u>6,314</u>	<u>357</u>	<u>1,473</u>	<u>426</u>	<u>2,147</u>	<u>59</u>	<u>10,776</u>

<u>School/College</u>	<u>UMKC</u>				<u>UG/Grad Certificate</u>	<u>Education Specialist</u>	<u>Total</u>
	<u>Bachelor</u>	<u>Professional</u>	<u>Master</u>	<u>Doctorate</u>			
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	-	-	-	<u>41</u>	<u>13</u>	-	<u>54</u>
UMKC Campus Total	<u>1,778</u>	<u>486</u>	<u>859</u>	<u>135</u>	<u>93</u>	<u>24</u>	<u>3,375</u>

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Degrees Granted (continued)

<u>School/College</u>	<u>Missouri S&T</u>				<u>UG/Grad Certificate</u>	<u>Education Specialist</u>	<u>Total</u>
	<u>Bachelor</u>	<u>Professional</u>	<u>Master</u>	<u>Doctorate</u>			
Arts and Sciences	225	-	61	10	57	-	353
Engineering and Computing	<u>1,163</u>	<u>-</u>	<u>456</u>	<u>91</u>	<u>408</u>	<u>-</u>	<u>2,118</u>
Missouri S&T Campus Total	1,388	-	517	101	465	-	2,471

<u>School/College</u>	<u>UMSL</u>				<u>UG/Grad Certificate</u>	<u>Education Specialist</u>	<u>Total</u>
	<u>Bachelor</u>	<u>Professional</u>	<u>Master</u>	<u>Doctorate</u>			
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	<u>54</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>54</u>
UMSL Campus Total	<u>1,921</u>	<u>39</u>	<u>728</u>	<u>92</u>	<u>190</u>	<u>23</u>	<u>2,993</u>
University Total	<u>11,401</u>	<u>882</u>	<u>3,577</u>	<u>754</u>	<u>2,895</u>	<u>106</u>	<u>19,615</u>

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

<u>High School Class Rank</u>	<u>MU</u>	<u>UMKC</u>	<u>Missouri S&T</u>	<u>UMSL</u>
Top 10%	33%	31%	41%	32%
Top 20%	55	50	63	54
Top 40%	82	78	90	83

Average First Time Freshman ACT

<u>Fall</u>	<u>MU</u>	<u>UMKC</u>	<u>Missouri S&T</u>	<u>UMSL</u>	<u>State of Missouri⁽¹⁾</u>	<u>National⁽¹⁾</u>
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

⁽¹⁾ Source: ACT, Inc.

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

<u>Campus</u>	<u>Fall</u>	<u>Missouri</u>	<u>Illinois, Iowa and Kansas</u>	<u>Other States</u>	<u>International</u>
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
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

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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				
<u>Campus</u>	<u>Academic Year</u>	<u>Full-Time Ranked Faculty</u>	<u>Percentage of Faculty Tenured</u>	<u>Percentage of Faculty With Terminal Degrees</u>
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

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 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 in the State. 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 excellence.

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 University of Kansas Medical Center 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,				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
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,				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
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⁾	<u>30,408</u>	<u>43,419</u>	<u>61,277</u>	<u>72,147</u>	<u>88,565</u>
Total operating revenues	789,220	839,951	944,690	1,014,613	1,085,972
Operating expenses	<u>730,897</u>	<u>766,483</u>	<u>846,175</u>	<u>910,654</u>	<u>983,865</u>
Operating income (loss)	58,324	73,468	98,516	103,959	102,106
Net non-operating revenues	<u>(19,264)</u>	<u>(9,781)</u>	<u>449</u>	<u>(1,497)</u>	<u>(9,570)</u>
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,				
<u>Source of Payment</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
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	<u>11.0</u>	<u>9.3</u>	<u>9.1</u>	<u>9.1</u>	<u>9.8</u>
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, CRMC, and other facilities (including BHC and SSMH-JC) within the 25-county service area of MU Health Care for fiscal years 2015 through 2019. Historically, approximately 85% of MU Health Care’s discharges originate from the MU Health Care Service Area.

Market Share – Combined Service Area

Combined Service Area	Fiscal Years Ended June 30,									
	2015		2016		2017		2018		2019	
	<u>Discharges</u>	<u>% Share</u>	<u>Discharges</u>	<u>% Share</u>	<u>Discharges</u>	<u>% Share</u>	<u>Discharges</u>	<u>% Share</u>	<u>Discharges</u>	<u>% Share</u>
MU Health Care ⁽¹⁾	22,238	26.0%	23,071	27.2%	23,868	27.8%	23,939	28.3%	24,676	29.5%
Capital Region Medical Center	5,137	6.0	4,923	5.8	5,243	6.1	5,572	6.6	5,741	6.9
Other Facilities	<u>58,120</u>	<u>68.0</u>	<u>56,788</u>	<u>67.0</u>	<u>56,610</u>	<u>66.0</u>	<u>55,221</u>	<u>65.2</u>	<u>53,274</u>	<u>63.7</u>
Total CSA	85,495	100.0%	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.

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,				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Operating Revenues:					
Tuition and Fees (net of provision for doubtful accounts)*	\$ 870,637	\$ 898,906	\$ 868,784	\$ 861,913	\$ 857,456
Less: Scholarship Allowances	<u>217,648</u>	<u>226,632</u>	<u>219,567</u>	<u>226,434</u>	<u>232,764</u>
Net Tuition and Fees	<u>652,989</u>	<u>672,274</u>	<u>649,217</u>	<u>635,479</u>	<u>624,692</u>
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	<u>66,849</u>	<u>74,663</u>	<u>63,680</u>	<u>59,119</u>	<u>76,731</u>
Total Operating Revenues	<u>2,402,529</u>	<u>2,702,357</u>	<u>2,799,743</u>	<u>2,851,178</u>	<u>2,986,898</u>
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	<u>194,075</u>	<u>201,691</u>	<u>210,226</u>	<u>213,477</u>	<u>215,539</u>
Total Operating Expenses	<u>2,924,188</u>	<u>3,226,696</u>	<u>3,294,338</u>	<u>3,355,255</u>	<u>3,614,971</u>
Operating Loss before State Appropriations	<u>(521,659)</u>	<u>(524,339)</u>	<u>(494,595)</u>	<u>(504,077)</u>	<u>(628,073)</u>
State Appropriations	<u>435,511</u>	<u>438,813</u>	<u>417,912</u>	<u>401,705</u>	<u>408,797</u>
Operating Loss after State Appropriations, before Nonoperating Revenues (Expenses)	<u>(86,148)</u>	<u>(85,526)</u>	<u>(76,683)</u>	<u>(102,372)</u>	<u>(219,276)</u>
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	<u>(67,651)</u>	<u>(65,061)</u>	<u>(70,037)</u>	<u>(71,043)</u>	<u>(66,585)</u>
Other Nonoperating Revenues (Expenses)	<u>13,972</u>	<u>(3,514)</u>	<u>959</u>	<u>(307)</u>	<u>139</u>
Net Nonoperating Revenues (Expenses)	<u>140,594</u>	<u>119,447</u>	<u>365,437</u>	<u>287,638</u>	<u>300,638</u>
Income before Capital Contributions, Additions to Permanent Endowments, Special Item and Extraordinary Item	<u>54,446</u>	<u>33,921</u>	<u>288,754</u>	<u>185,266</u>	<u>81,362</u>
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	<u>-</u>	<u>-</u>	<u>-</u>	<u>(17,908)</u>	<u>-</u>
Increase in Net Position	<u>109,427</u>	<u>108,554</u>	<u>404,002</u>	<u>265,057</u>	<u>178,992</u>
Net Position, Beginning of Period	<u>4,134,970</u>	<u>4,244,397</u>	<u>4,485,060</u>	<u>4,603,337</u>	<u>4,868,394</u>
Cumulative Effect of Change in Accounting Principles	<u>-</u>	<u>132,109</u>	<u>(285,725)</u>	<u>-</u>	<u>-</u>
Net Position, Beginning of Period, as Adjusted	<u>4,134,970</u>	<u>4,376,506</u>	<u>4,199,335</u>	<u>4,603,337</u>	<u>4,868,394</u>
Net Position, End of Period	<u>\$4,244,397</u>	<u>\$4,485,060</u>	<u>\$4,603,337</u>	<u>\$4,868,394</u>	<u>\$5,047,386</u>

* 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 arrangements. 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

<u>Fiscal Year</u>	<u>Recurring State Appropriations</u>	<u>Recurring State Appropriations Withheld (Governor's reserve)</u>	<u>% Withholding</u>	<u>Recurring State Appropriations Received</u>	<u>Recurring Percent Increase/ Decrease</u>
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 managed in a way that both recognizes and balances the underlying needs of the pool, including accommodation of University cash flow cyclicalities, 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 \$2.5 billion as of February 29, 2020. As of March 31, 2020, the General Pool had decreased 3.3% since June 30, 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

<u>Investment Sectors</u>	<u>Target Asset Mix</u>	<u>Actual Asset Mix June 30, 2019</u>
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

<u>As of June 30,</u>	<u>Market Value</u>	<u>Annual Return</u>
2015	\$1,405,453,000	1.9%
2016	1,364,410,000	(0.2)
2017	1,543,307,000	13.7
2018	1,698,303,000	9.4
2019	1,778,230,000	5.7

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. As of December 31, 2019, the Endowment Pool had returned 9.3%, 7.4%, 8.0%, and 8.0% over the preceding 3, 5, 7, and 10 years, respectively. As of March 31, 2020, the Endowment Pool had decreased 5.6% since June 30, 2019.

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 *Mizzou: Our Time to Lead* 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 had secured \$50.75 million 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. Total tuition and required fees for academic year 2020-2021 will be set by the Board in May.

<u>Academic Year</u>	<u>MU</u>	<u>UMKC</u>	<u>Missouri S&T</u>	<u>UMSL</u>
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	10,543	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				
	<u>MU</u>	<u>UMKC</u>	<u>Missouri S&T</u>	<u>UMSL</u>	<u>Total</u>
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 following is supplemental management's discussion and analysis of impacts of the COVID-19 public health crisis on the University. The impacts are dynamic and not easily quantified, and any estimates or forward looking statements in this Official Statement relating to the public health crisis and its impacts on the University are inherently subject to continuing change as the crisis develops at the national and State level.

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 or likely negative financial impacts 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 Parson.
- Approximately \$27 million of refunds and credits being paid by the University for room and board refunds for Spring semester 2020.
- Lost revenue from elective or optional procedures at MU Health Care is estimated to be \$13.5 million per month to the extent elective or optional procedures continue to be deferred.

In addition, the public health crisis is 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.
- Decrease in elective or optional procedures at MU Health Care facilities.
- Additional reductions to State appropriations.

As discussed elsewhere in this Official Statement, the University is implementing numerous steps to contain costs. See “**INTRODUCTION – Recent Developments – The COVID-19 Public Health Crisis**” in this Official Statement for a brief summary of the University’s actions to date in response to the current and evolving public health crisis. In addition to those actions, the University is also assessing staffing at all levels and strategically evaluating targeted headcount reductions. The University also expects savings due to reduced travel expenses, reduced expenses on supplies, and anticipated CARES Act payments from the federal government to the University in the amount of \$48 million.

The University cannot predict the impact of the public health crisis on fiscal year 2020 results of operations or any future fiscal years or the impact of the cost containment efforts of the University, beyond the few known impacts listed above. The University has publicly estimated that the impact of the health crisis could approach \$180 million in fiscal year 2021, which includes projected potential investment losses. However, such estimate is preliminary in nature, and due to the evolving circumstances, cannot reflect the full impact of actions being undertaken by the federal government, the State, and the University to mitigate the impacts of COVID-19, or the responses of current or prospective University students, those who utilize the services of MU Health Care or the capital markets to the COVID-19 public health crisis.

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.

	<u>MREC</u>	<u>Medical Alliance</u>	<u>CSS</u>	<u>CFMS</u>
Net Position, Beginning of Year	\$9,929	\$144,529	\$ 26	\$368
Change in Net Position	<u>(958)</u>	<u>11,908</u>	<u>329</u>	<u>(10)</u>
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)

Net Assets Held for Plan	Fiscal Years Ended June 30,		
	2017	2018	2019
Assets:			
Cash and Cash Equivalents and Collateral for Securities Lending	\$ 500,767	\$ 590,482	\$ 576,376
Investments and Related Receivables	<u>3,253,829</u>	<u>3,421,311</u>	<u>3,496,043</u>
Total Assets	<u>3,754,596</u>	<u>4,011,793</u>	<u>4,072,419</u>
Liabilities:			
Payables and Accrued Liabilities	71,263	133,375	170,398
Collateral for Securities Lending	<u>161,264</u>	<u>158,979</u>	<u>106,182</u>
Total Liabilities	<u>232,527</u>	<u>292,354</u>	<u>276,580</u>
Net Assets Held in Trust for Retirement and OPEB	<u>\$3,522,069</u>	<u>\$3,719,439</u>	<u>\$3,795,839</u>
Changes in Plan Net Assets			
Net Revenues and Other Additions:			
Net Investment Income	\$ 368,419	\$ 325,278	\$ 187,823
Contributions and other Revenues	<u>147,993</u>	<u>142,569</u>	<u>172,710</u>
Total Net Revenues and Other Additions	<u>516,412</u>	<u>467,847</u>	<u>360,533</u>
Expenses and Other Deductions:			
Administrative Expenses	3,207	2,363	2,529
Payments to Retirees and Beneficiaries	<u>246,907</u>	<u>268,114</u>	<u>281,604</u>
Total Expenses and Other Deductions	<u>250,114</u>	<u>270,477</u>	<u>284,133</u>
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	<u>3,255,771</u>	<u>3,522,069</u>	<u>3,719,439</u>
Net Position Held in Trust for Retirement and OPEB, End of Year	<u>\$3,522,069</u>	<u>\$3,719,439</u>	<u>\$3,795,839</u>

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%. As of March 31, 2020, the Plan had decreased 5.5% since June 30, 2019. 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

	<u>Asset Distribution</u>	<u>Total Return</u>	<u>Benchmark Index Return ⁽¹⁾</u>
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	<u>1.3</u>	<u>3.2</u>	<u>2.8</u>
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

	<u>Defined Contribution Plan</u>	<u>Hybrid Plan</u>	<u>Defined Benefit Plan</u>
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
	<i>Defined Benefit Portion</i>	<i>Defined Benefit Portion</i>	<i>Defined Benefit Portion</i>
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
	<i>Defined Contribution Portion</i>	<i>Defined Contribution Portion</i>	<i>Defined Contribution Portion</i>
University Automatic Contribution	N/A	2% of salary	N/A
University Match	100% up to 8% of salary ⁽¹⁾	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

⁽¹⁾ Subject to future adjustment by the University

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	Actuarial Valuation of Assets	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)]
Oct 1	(a)	(b)	(b-a)	(a/b)	Payroll (c)	[(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 will 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 will 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;
- System Facilities Revenue Bonds, Series 2014A, in the outstanding principal amount of \$240,750,000, \$60,400,000 principal amount of which will be current or advance refunded with proceeds of the Series 2020A Bonds; and
- 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 will be outstanding in the principal amount of \$1,077,400,000 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 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 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 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 \$362 million principal amount of CP Notes outstanding. All outstanding CP Notes will 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 principal amount of \$362 million, will 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.

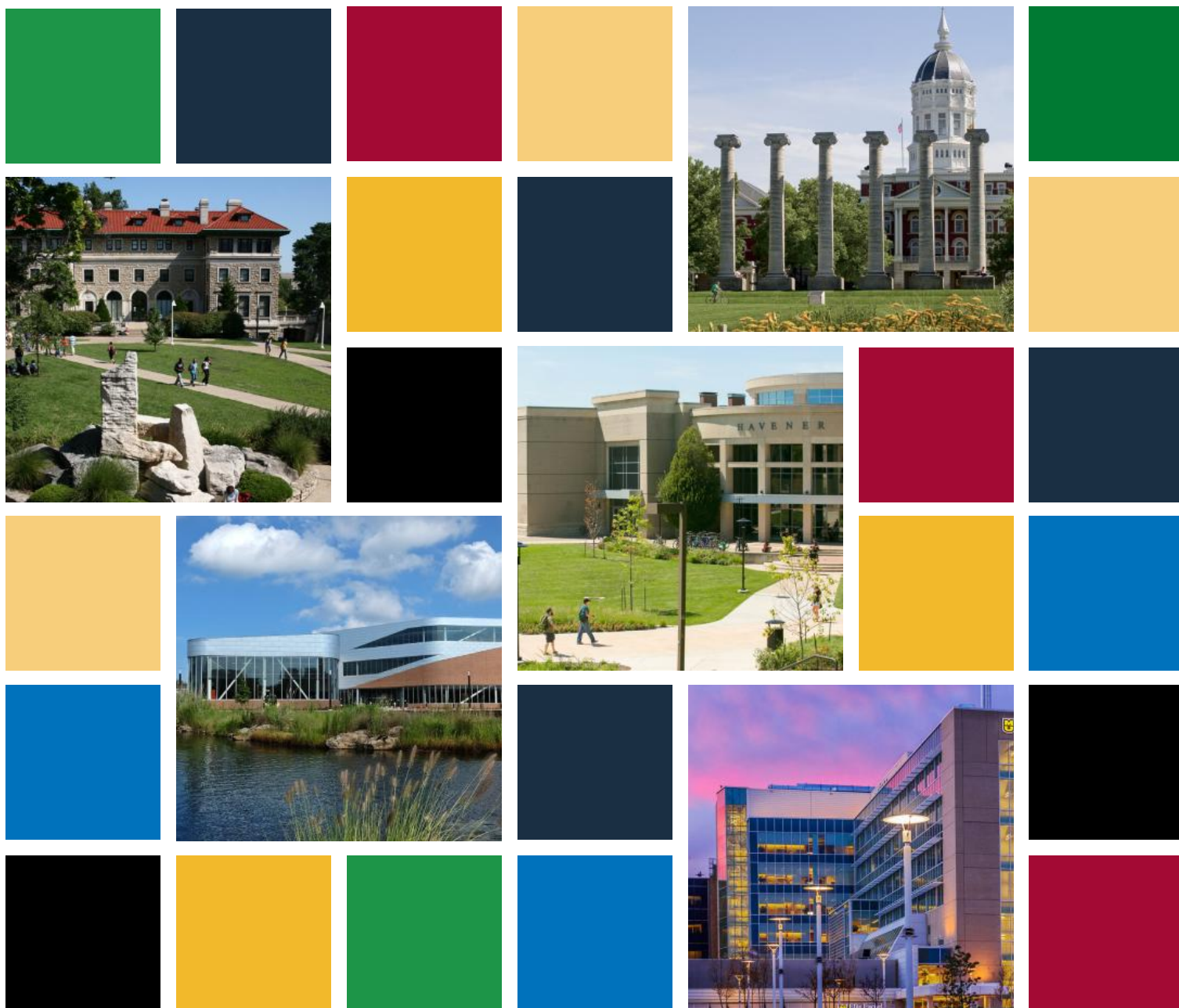
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APPENDIX B

**AUDITED FINANCIAL STATEMENTS OF THE UNIVERSITY OF MISSOURI
SYSTEM FOR THE FISCAL YEARS ENDED
JUNE 30, 2019 AND 2018**

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2019 Financial Report



University of Missouri System
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

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Message from the President

The University of Missouri System was formed in 1963 and consists of system administration and four universities: the University of Missouri-Columbia, the University of Missouri-Kansas City, the Missouri University of Science and Technology, the University of Missouri-St. Louis, and all of their component parts, including MU Health, MU Extension and UM Engagement. Together, we embrace the basic concept that we are one university system and that our value and importance are enhanced by unified strategic efforts.

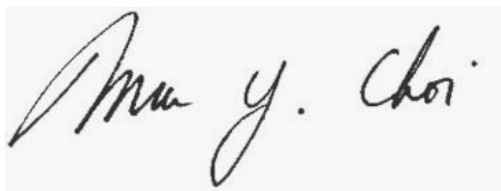
Our collective vision is to advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion.

In late 2018, university leaders announced five-year strategic plans. These plans reflect the five Missouri Compacts for Achieving Excellence, which are unifying principles that guide the strategic investment of \$260 million from the UM System and matching funds from the universities. Our bold actions will enact innovative measures to advance areas of excellence, including student success, research and creative works, engagement and outreach, inclusivity, and planning, operations and stewardship. In all we do, we will remain good fiscal stewards who are focused on providing a great place to learn and work, as well as improving the quality of life in Missouri.

Despite challenges, we have maintained a strong and stable fiscal position with backing from our investment services. You will see in the following pages that we will continue to make the decisions to best serve our stakeholders, including the citizens of Missouri, to help ensure our financial stability well into the future.

As always, we invite you to learn more about the entire UM System and the meaningful impact we have statewide. You can find this information by visiting www.umsystem.edu.

Sincerely,

A handwritten signature in black ink that reads "Mun Y. Choi". The signature is written in a cursive, flowing style.

Mun Y. Choi
President, University of Missouri System



Curators of the University of Missouri

The University of Missouri Board of Curators is a nine-member board appointed by the governor of Missouri and confirmed by the Missouri Senate. Curators serve six-year terms. No more than two curators are appointed from each congressional district. Members must be citizens of the United States and residents of Missouri for a minimum of two years prior to appointment. No more than five curators may belong to any one political party. A student representative serves a two-year term, and is also appointed by the governor and confirmed by the senate.



Julia G. Brncic
District 1, Vice-chair
St. Louis
Term expires Jan. 1, 2021



Maurice B. Graham
District 2
Clayton
Term expires Jan. 1, 2021



Vacant
District 3
TBD
Term expires TBD



Jon T. Sundvold
District 4, Chair
Columbia
Term expires Jan. 1, 2017



Michael Williams
District 5
Kansas City
Term expires Jan. 1, 2025



Phillip H. Snowden
District 6
Kansas City
Term expires Jan. 1, 2021



Jeffrey L. Layman
District 7
Springfield
Term expires Jan. 1, 2023



David L. Steelman
District 8
Rolla
Term expires Jan. 1, 2019



Darryl M. Chatman
At-Large member
St. Louis
Term expires Jan. 1, 2023



Avery Welker
Student Representative
Missouri S&T
Term expires Jan. 1, 2020

University of Missouri System General Officers



Mun Y. Choi
President



Stephen J. Owens
General Counsel



Beth Chancellor
Interim Vice President for
Information Technology



Marsha B. Fischer
Associate Vice President
for Human Resources



Steven W. Graham
Senior Associate
Vice President
for Academic Affairs



Ryan D. Rapp
Vice President for Finance
and Chief Financial Officer



Alexander N. Cartwright
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

Finance Staff

Ryan D. Rapp, Vice President for Finance and Chief Financial Officer
Thomas Richards, Treasurer and Chief Investment Officer
Eric Vogelweid, Controller



University of Missouri-Columbia

Founded:
1839

Enrollment:
29,843*

Alumni:
317,000+

The University of Missouri-Columbia (MU) was the first public university west of the Mississippi River. Today, with enrollment of more than 30,000 students, 12,000 full-time employees, and 304,000 alumni worldwide, MU is a \$2.2 billion enterprise. MU is one of only 60 public and private U.S. universities in the Association of American Universities. As the state's largest university, MU offers more than 275 degree programs and has more than 100 online education options.

Missouri's largest and most comprehensive university, MU has more than 275 degree programs through 19 colleges and schools, and is one of only six public institutions nationwide that can claim a medical school, college of veterinary medicine, college of engineering and a law school on the same campus. In its capacity as a land-grant institution, MU provides information to more than 5 million Missouri citizens each year through extension programs that promote health and success for youth, families, communities and businesses.

*Enrollment numbers are reflective of 2018-2019 enrollment.



University of Missouri-Kansas City

Founded:
1929

Enrollment:
16,375*

Alumni:
123,000+

The University of Missouri-Kansas City (UMKC) serves more than 16,000 students on its Volker and Hospital Hill campuses. This comprehensive, public research university offers more than 125 academic programs across a spectrum of acclaimed academic units. Notable programs include the UMKC Conservatory of Music and Dance, the Henry W. Bloch School of Management and the School of Dentistry. Additionally, the School of Medicine's Master of Science in Anesthesiology program is one of only five offered in the nation.

The university also supports underserved Missourians through medical, nursing and dental care; legal services; counseling; and music therapy. The Institute for Urban Education answers the unique needs and concerns of the urban classroom. In addition, UMKC has four health science schools on one campus that provide outreach for community health needs and hands-on experience for its students.

*Enrollment numbers are reflective of 2018-2019 enrollment.



Missouri University of Science and Technology

Founded:
1870

Enrollment:
8,601*

Alumni:
61,000+

Missouri University of Science and Technology (Missouri S&T) is a leading technological research institution. Known for its 18 engineering and computing programs, Missouri S&T also offers an abundance of programs in business, humanities and social sciences, and liberal arts. Graduates are highly sought by the business community with the eighth highest average starting salary among all public universities in the nation.

Research is at the forefront of an S&T education. Missouri S&T's four signature research areas of advanced manufacturing, advanced materials for sustainable infrastructure, enabling materials for extreme environments, and smart living all address high-priority state and national needs. Missouri S&T is also home to the state's first nuclear reactor, a "solar village" of student-designed-and-built solar houses, and an experimental mine, which was cited by Popular Science magazine as a top "awesome college lab."

*Enrollment numbers are reflective of 2018-2019 enrollment.



University of Missouri-St. Louis

Founded:
1963

Enrollment:
16,441*

Alumni:
99,000+

The University of Missouri-St. Louis (UMSL) serves nearly 17,000 students and employs more than 2,150 faculty and staff. UMSL is a public research university in the state's most populated metropolitan area. The largest university in St. Louis, UMSL provides excellent learning experiences and leadership opportunities for a diverse student body through its outstanding faculty, nationally ranked programs, innovative research, and regional, national and international partnerships.

Some of UMSL's top-ranked programs include education, public policy administration, clinical psychology, nursing, social work, biology, chemistry and biochemistry, and criminology and criminal justice. While UMSL graduates can be found in all 50 states and 63 countries, their greatest impact is felt locally. More than 65,000 UMSL alumni call the St. Louis area home. They drive the region's economy and contribute mightily to its social well-being.

*Enrollment numbers are reflective of 2018-2019 enrollment.



University of Missouri Health

Founded:
1956

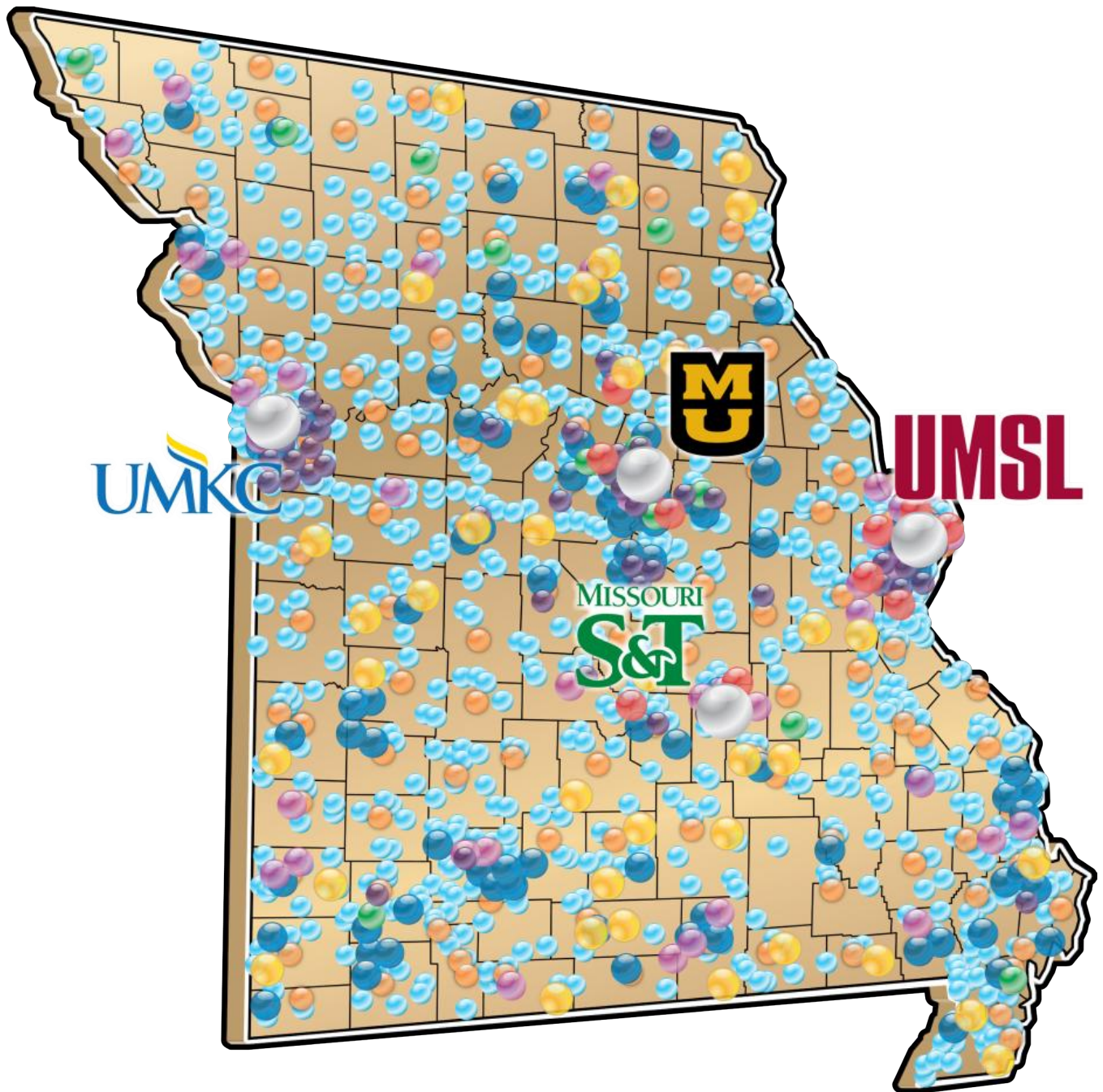
Based:
Columbia, MO

**ER visits
yearly:**
79,000+

As part of the state's premier academic medical center, University of Missouri Health offers a full spectrum of care, ranging from primary care to highly specialized care for patients with the most severe illnesses and injuries. Patients from each of Missouri's 114 counties are served by approximately 6,000 physicians, nurses and health care professionals. MU Health's main component, MU Health Care, is composed of University Hospital and Clinics, Ellis Fischel Cancer Center, Rusk Rehabilitation Center, University Physicians, Missouri Orthopaedic Institute, Missouri Psychiatric Institute, and Women's and Children's Hospital.

The MU School of Health Professions educates students in rehabilitation and diagnostic sciences. The MU Sinclair School of Nursing provides bachelor's, master's, and doctoral degrees. And, the MU School of Medicine offers undergraduate and graduate medical education, plus doctoral and master's degree programs in the basic sciences, health management and informatics.

University of Missouri System Statewide Reach



4

UM System Campuses

10

Research Parks /
Business Incubators

19

Agricultural Research Stations

38

School Districts Served by
eMINTS Investing in
Innovation (i3) Project

39

Small Business & Technology
Development Centers

56

Health Centers & Affiliates

787

MOREnet Sites

200

Missouri Telehealth
Network Sites

114

Counties Served by
Extension Centers

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October 15, 2019

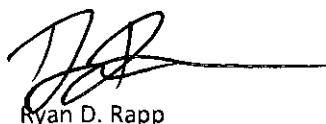
The management of the University of Missouri System (the “University”) is responsible for the preparation, integrity, and fair presentation of the financial statements. The financial statements, presented on pages 32 to 85, have been prepared in conformity with accounting principles generally accepted in the United States of America and, as such, include amounts based on judgments and estimates by management.

The financial statements have been audited by the independent accounting firm BKD LLP, which was given unrestricted access to all financial records and related data, including minutes of all meetings of the Board of Curators. The University believes that all representations made to the independent auditors during their audit were valid and appropriate. BKD’s audit opinion is presented on pages 30-31.

The University maintains a system of internal controls over financial reporting, which is designed to provide reasonable assurance to the University’s management and Board of Curators regarding the preparation of reliable published financial statements. Such controls are maintained by the establishment and communication of accounting and financial policies and procedures, by the selection and training of qualified personnel, and by an internal audit program designed to identify internal control weaknesses in order to permit management to take appropriate corrective action on a timely basis. There are, however, inherent limitations in the effectiveness of any system of internal control, including the possibility of human error and the circumvention of controls.

The Board of Curators, through its Audit Committee, is responsible for engaging the independent auditors and meeting regularly with management, internal auditors, and the independent auditors to ensure that each is carrying out their responsibilities and to discuss auditing, internal control, and financial reporting matters. Both internal auditors and the independent auditors have full and free access to the Audit Committee.

Based on the above, I certify that the information contained in the accompanying financial statements fairly presents, in all material respects, the financial condition, changes in net position and cash flows of the University.



Ryan D. Rapp

Vice President for Finance and Chief Financial Officer

University of Missouri System COLUMBIA | KANSAS CITY | MISSOURI S&T | ST. LOUIS

118 University Hall • Columbia, MO 65211 • 573-882-3611 www.umsystem.edu



MISSOURI

Financial Information



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
MANAGEMENT'S DISCUSSION AND ANALYSIS
June 30, 2019 and 2018 (unaudited)

Management's Discussion and Analysis provides an overview of the financial position and activities of the University of Missouri System (the "University") for the fiscal years ended June 30, 2019 and 2018, and should be read in conjunction with the financial statements and notes. The University is a component unit of the State of Missouri and an integral part of the State's Comprehensive Annual Financial Report.

This report includes five financial statements.

- The three financial statements for the University of Missouri and its Blended Component Units include the Statement of Net Position, the Statement of Revenues, Expenses, and Changes in Net Position, and the Statement of Cash Flows.
- The two financial statements for the University's fiduciary fund, which includes the Retirement and the Other Postemployment Benefits Trust Funds, are the Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position.

The University's financial statements are prepared in accordance with U.S. generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB), which establishes financial reporting standards for public colleges and universities. The University's significant accounting policies are summarized in Note 1 of the financial statements of this report, including further information on the financial reporting entity. In addition, a more detailed unaudited financial report that includes campus-level financial statements is available at

the University of Missouri, 118 University Hall Columbia, Mo 65211, and at www.umsystem.edu.

FINANCIAL HIGHLIGHTS

At June 30, 2019, the University's financial position remained solid, with Total Assets and Deferred Outflows of Resources of \$9.3 billion. Net Position, which represents the residual value of the University's assets and deferred outflows of resources after deducting liabilities and deferred inflows of resources, totaled \$5.0 billion. When operating and non-operating changes are included, Net Position increased by approximately \$179.0 million as compared to fiscal year (FY) 2018, driven primarily by stable investment and endowment income as well as increased patient medical services revenues and capital gifts. Net Position increased \$265.1 million between FY 2017 and FY 2018 and was primarily driven by investment and endowment income and increased patient medical services revenues.

As discussed in Note 1 to the financial statements, the University adopted GASB Statement No. 83, *Certain Asset Retirement Obligations*. The implementation of this statement increased liabilities by \$62.4 million and deferred outflows of resources by \$59.9 million, after amortization of \$2.5 million, as of fiscal year 2018. There was no effect on the beginning net position as of July 1, 2017. The FY 2017 information in this Management's Discussion and Analysis has not been restated for the adoption of this GASB statement.

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The following charts compare Total Assets and Deferred Outflows of Resources, Liabilities and Deferred Inflows of Resources, and Net Position at June 30, 2019, 2018 and 2017, and the major components of changes in Net Position for the years ended June 30, 2019, 2018, and 2017:



* Includes State Appropriations

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CONDENSED STATEMENT OF NET POSITION

The Statement of Net Position presents the University's financial position at the end of the fiscal year, including all assets and deferred outflows of resources and liabilities and deferred inflows of resources of the University, segregating them into current and noncurrent components. Total Net Position is an indicator of financial condition and changes in Total Net Position indicate if the overall financial condition

has improved or worsened. Assets and deferred outflows of resources and liabilities and deferred inflows of resources are generally measured using current values with certain exceptions, such as capital assets which are stated at cost less accumulated depreciation, and long-term debt which is stated at cost.

The following table summarizes the University's assets and deferred outflows of resources, liabilities and deferred inflows of resources and net position at June 30, 2019, 2018, and 2017:

CONDENSED STATEMENTS OF NET POSITION (in thousands of dollars)			
As of June 30,	2019	2018 (Restated)	2017
Assets			
Current Assets	\$ 1,392,504	\$ 1,327,095	\$ 1,086,513
Noncurrent Assets			
Endowment and Other Long-Term Investments	3,982,891	3,478,003	3,436,352
Capital Assets, Net	3,466,439	3,383,075	3,412,410
Other	128,334	130,132	134,309
Deferred Outflows of Resources	335,808	339,146	137,888
Total Assets and Deferred Outflows of Resources	\$ 9,305,976	\$ 8,657,451	\$ 8,207,472
Liabilities			
Current Liabilities			
Commercial Paper and Current Portion of Long-Term Debt	\$ 399,074	\$ 228,078	\$ 232,821
Long-Term Debt Subject to Remarketing Agreements	82,540	86,185	89,695
Other	1,026,813	687,078	692,189
Noncurrent Liabilities			
Long-Term Debt	1,199,968	1,344,815	1,386,017
Other	1,466,715	1,359,612	1,123,907
Deferred Inflows of Resources	83,480	83,289	79,506
Total Liabilities & Deferred Inflows of Resources	4,258,590	3,789,057	3,604,135
Net Position			
Net Investment in Capital Assets	1,801,977	1,746,995	1,728,982
Restricted -			
Nonexpendable	1,248,860	1,200,514	1,109,498
Expendable	561,899	542,525	509,877
Unrestricted	1,434,650	1,378,360	1,254,980
Total Net Position	5,047,386	4,868,394	4,603,337
Total Liabilities and Net Position	\$ 9,305,976	\$ 8,657,451	\$ 8,207,472

UNIVERSITY OF MISSOURI SYSTEM
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ASSETS AND DEFERRED OUTFLOWS OF RESOURCES

Total Assets and Deferred Outflows of Resources increased by \$648.5 million, or 7.5%, to \$9.3 billion as of June 30, 2019 compared to the prior year. The increase during FY 2019 was driven by an increase in **Investment Settlements Receivable** of \$211.7 million and an increase in endowment and **Long-Term Investments** of \$504.9 million. The increase during FY 2018 was driven by an increase in cash and **Short-Term Investments** of \$260.1 million and an increase in the **Deferred Outflows of Resources** of \$201.3 million.

At June 30, 2019, the University's working capital, which is current assets less current liabilities, was a negative \$115.9 million, a decrease of \$441.8 million from the previous year.

The decrease was primarily driven by a \$202.7 million decrease in **Short-Term Investments** as well as a \$171.0 million increase in the current portion of long-term debt, which is largely driven by a \$105.2 million bullet refunding due in fiscal year 2020. At June 30, 2018, the University's working capital was \$325.8 million, an increase of \$253.9 million over FY 2017 largely due to an increase in cash and **Short-Term Investments**.

As a measurement of actual liquidity, working capital is adversely impacted by the inclusion, per accounting guidelines, of Long-Term Debt Subject to Remarketing. If Long-Term Debt Subject to Remarketing were excluded from Current Liabilities, working capital would be negative \$33.4 million and a positive \$411.9 million at June 30, 2019 and 2018, respectively, also expressed as Current Assets of 0.98 and 1.45 times Current Liabilities.

The following table illustrates actual working capital, as well as working capital adjusted for Long-Term Debt Subject to Remarketing:

SUMMARY OF WORKING CAPITAL (in thousands of dollars)			
As of June 30,	2019	2018	2017
Current Assets	\$ 1,392,504	\$ 1,327,095	\$ 1,086,513
Current Liabilities	1,508,427	1,001,341	1,014,705
Working Capital	\$ (115,923)	\$ 325,754	\$ 71,808
Ratio of Current Assets to Current Liabilities	0.92	1.33	1.07
Current Assets	1,392,504	1,327,095	1,086,513
Current Liabilities	1,508,427	1,001,341	1,014,705
Less: Long-Term Debt Subject to Remarketing	(82,540)	(86,185)	(89,695)
Current Liabilities, As Adjusted	1,425,887	915,156	925,010
Working Capital, As Adjusted	\$ (33,383)	\$ 411,939	\$ 161,503
Ratio of Current Assets to Current Liabilities (As Adjusted)	0.98	1.45	1.17

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At June 30, 2019, the University held \$568.3 million in **Cash and Cash Equivalents**, an increase of \$13.7 million. At June 30, 2018, the University held \$554.6 million in cash and cash equivalents, an increase of \$154.8 million from June 30, 2017. The increase in cash at June 30, 2019 is largely due to timing differences as more working capital was invested at June 30, 2019 as compared to June 30, 2018. **Short-Term and Long-Term Investments** totaled \$4.0 billion and \$3.7 billion as of June 30, 2019 and 2018, respectively as compared to \$3.6 billion as of June 30, 2017. Investment

performance remained steady during FY 2019. Net realized and unrealized gains and losses decreased by \$1.9 million, going from a net gain of \$199.0 million in FY 2018 to a net gain of \$197.1 million in FY 2019. The Endowment Pool and General Pool experienced a net gain of 5.7% and 3.3% in FY 2019. For comparison, the Endowment Pool and General Pool experienced a net gain of 9.4% and 2.2% in FY 2018, respectively.

Composition and returns of the University's various investment pools for the years ended June 30, 2019 and 2018 were as follows:

CASH, CASH EQUIVALENTS AND INVESTMENTS								
(in thousands of dollars)								
	June 30, 2019						June 30, 2018	
	Short-Term and			Benchmark			Total	Total Return
	Cash and Cash	Long-Term		Total	Index			
	Equivalents	Investments	Total	Return	Return (A)			
General Pool	\$ 330,048	\$ 2,228,045	\$ 2,558,093	3.3%	1.8%	\$ 2,169,064	2.2%	
Endowment Funds								
Endowment Pool	201,639	1,576,591	1,778,230	5.7%	8.7%	1,698,303	9.4%	
Other	36,619	233,765	270,384	N/A	N/A	423,480	N/A	
Total	\$ 568,306	\$ 4,038,401	\$ 4,606,707			\$ 4,290,847		

(A) Benchmark index returns are calculated by independent investment consultants based on returns of market indices.

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At June 30, 2019, the University's investment in **Capital Assets** totaled \$3.5 billion compared to \$3.4 billion at June 30, 2018. The University increased capital assets by \$265.0 million, net of retirements, during FY 2019 offset by a net increase in accumulated depreciation of \$181.7 million for

a net increase in Capital Asset, Net of \$83.4 million. FY 2018 capital asset additions of \$119.1 million, net of retirements, were offset by a net increase of accumulated depreciation of \$148.5 million for a net increase in Capital Assets, Net of \$29.3 million.

Note 7 presents additional information by asset classification. Major capital projects either substantially completed in FY 2019 or ongoing are show in the following table.

SELECTED CAPITAL PROJECTS (Fiscal Year Ended June 30, 2019)			
Campus	Project Budget	Expenditures Through June 30, 2019	Source of Funding
Columbia:			
Memorial Stadium South Expansion	\$ 99,304,000	\$ 80,913,000	Gifts, Revenue Bonds
District Cooling Capcity	21,725,000	3,462,000	Reserves
NextGen Precision Health	221,000,000	9,794,000	Reserves, Gifts, Revenue Bonds
School of Nursing	20,062,000	308,000	Reserves and Gifts
Southwest Research Center	20,300,000	1,275,000	Reserves
School of Music	24,214,000	15,605,000	Gifts, Reserves
Hospital:			
WCH Exterior Replacement	27,192,000	929,000	Reserves
Kansas City:			
School of Computing & Engineering	30,089,000	9,254,000	Gifts

LIABILITIES AND DEFERRED INFLOWS OF RESOURCES

Total Liabilities and Deferred Inflows of Resources increased by \$469.5 million during FY 2019 as compared to June 30, 2018, which was primarily driven by a \$268.5 million increase in **Investment Settlements Payable** and a \$171.0 million increase in the current portion of long-term debt.

Current Liabilities include long-term variable rate demand bonds subject to remarketing agreements totaling \$82.5 million, \$86.2 million and \$89.7 million at June 30, 2019, 2018 and 2017, respectively. The variable rate demand

bond has a final contractual maturity in fiscal year 2032. Despite contractual maturities beyond one year, this variable rate demand bond is classified as a current liability because the University is ultimately the sole source of liquidity should the option to tender be exercised by the bondholder.

The University's Commercial Paper Program can issue up to an aggregate outstanding principal amount of \$375 million. The University issued \$65.0 million and \$19.0 million of commercial paper for new building projects during fiscal years 2019 and 2017, respectively. There were no issues of commercial paper during FY 2018.

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MANAGEMENT'S DISCUSSION AND ANALYSIS
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Noncurrent Liabilities represent those commitments beyond one year. During FY 2017, \$20.0 million in Health

Facilities Revenue Bonds were issued on behalf of Medical Alliance.

The following is a summary of long-term debt by type of instrument:

LONG-TERM DEBT (in thousands of dollars)			
As of June 30,	2019	2018	2017
System Facilities Revenue Bonds	\$ 1,318,610	\$ 1,349,890	\$ 1,381,455
Health Facilities Revenue Bonds (Medical Alliance)	37,485	40,582	43,591
Unamortized Premium	37,136	43,191	49,101
Total Bonds Payable	1,393,231	1,433,663	1,474,147
Notes Payable	31,476	32,401	33,080
Capital Lease Obligations	300	1,439	2,488
Commercial Paper	256,575	191,575	196,203
Guaranteed Debt Outstanding	-	-	2,615
Total Long-Term Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533
Contractual Maturities Within One Year			
Bonds Payable - Fixed Rate	\$ 137,282	\$ 30,868	\$ 31,199
Bonds Payable - Variable Rate Demand	3,645	3,510	3,375
Notes Payable	1,272	986	964
Capital Lease Obligations	300	1,139	1,049
Commercial Paper	256,575	191,575	196,203
Guaranteed Debt Outstanding	-	-	31
Total Contractual Maturities Within One Year	\$ 399,074	\$ 228,078	\$ 232,821

UNIVERSITY OF MISSOURI SYSTEM
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MANAGEMENT'S DISCUSSION AND ANALYSIS
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The following is a summary of outstanding revenue bonds and commercial paper by campus and project type:

Revenue Bonds and Commercial Paper (in thousands of dollars)								
	June 30, 2019							
	MU	UMKC	UMLS	Missouri S&T	University Health Care	Medical Alliance	Unallocated Bond Cost	Total
Athletics	\$ 154,462	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 154,462
Campus Utilities	132,000	5,659	-	27,682	-	-	-	165,341
Classroom & Research	63,859	23,506	41,792	13,899	-	-	-	143,056
Critical Repairs/Maintenance	15,497	6,616	4,084	4,582	-	-	-	30,779
Housing	303,421	94,619	17,141	76,502	-	-	-	491,683
Health Care	-	-	-	-	284,138	37,485	-	321,623
Parking	37,060	40,019	15,717	-	-	-	-	92,796
Recreational Facilities	33,402	6,460	33,290	608	-	-	-	73,760
Student Centers	24,405	36,248	12,893	8,356	-	-	-	81,902
Other	379	-	-	-	-	-	56,889	57,268
Unamortized Premium	-	-	-	-	-	-	37,136	37,136
Total	\$ 764,485	\$ 213,127	\$ 124,917	\$ 131,629	\$ 284,138	\$ 37,485	\$ 94,025	\$ 1,649,806

Deferred Inflows of Resources represent an acquisition of net position by the University that is applicable to a future period. During FY 2019, the University recognized \$83.5 million of deferred inflows of resources representing the University's remainder interest of charitable annuities and trusts, changes in assumptions and net difference between projected and actual earnings for the other postemployment benefit plan, and differences between actual and expected experience for the pension and other

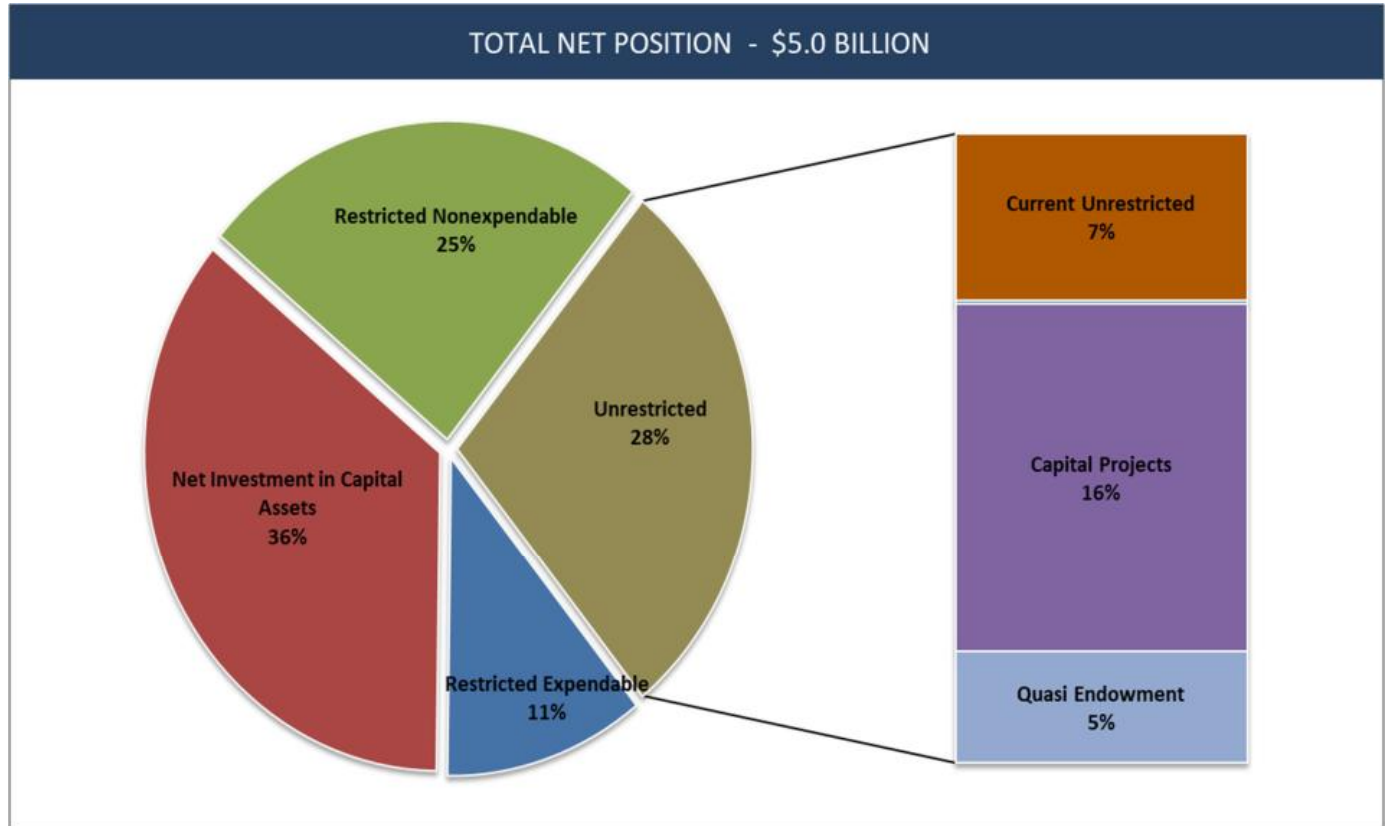
postemployment benefit plans. Deferred inflows of resources recognized during FY 2018 was \$83.3 million.

NET POSITION

Net Position represents the value of the University's assets after liabilities are deducted. The University's total **Net Position** increased by \$265.1 million during the year ended June 30, 2018 to \$4.9 billion and increased by \$179.0 million to \$5.0 billion for the year ended June 30, 2019.

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The distribution of the Net Position balances, including additional details on unrestricted net position by fund type, as of June 30, 2019, are as follows:



Total **Net Position** is reflected in the four component categories as follows.

Net Investment in Capital Assets, represents the University's investment in capital assets, net of accumulated depreciation and outstanding debt related to acquisition, construction or improvement of those assets. This category increased by \$55.0 million in FY 2019 and increased by \$18.0 million in FY 2018. The increase in FY 2019 was largely driven by an increase in capital assets acquired. FY 2018 increased from the repayment of debt.

Restricted Nonexpendable Net Position includes endowment assets that are subject to externally imposed stipulations for the principal to be maintained in perpetuity by the University. An increase in unrealized endowment investment income led to an increase in Restricted Nonexpendable Net Position, resulting in an increase of

\$48.3 million or 4.0% during FY 2019 and an increase of \$91.0 million or 8.2% during FY 2018.

Restricted Expendable Net Position represents resources that are subject to externally imposed stipulations regarding their use, but are not required to be maintained in perpetuity. This category increased during FY 2018 by \$32.6 million, or 6.4%, and increased \$19.4 million, or 3.6%, during FY 2019. As of June 30, 2019, this category includes:

- \$410.5 million of net position restricted for operations and giving purposes compared to \$394.6 million at June 30, 2018;
- \$85.0 million for student loan programs compared to \$83.6 million at June 30, 2018; and
- \$66.4 million for facilities compared to \$64.4 million at June 30, 2018.

UNIVERSITY OF MISSOURI SYSTEM
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Unrestricted Net Position is not subject to externally imposed stipulations, although these resources may be designated for specific purposes by the University's management or Board of Curators. This category increased by \$56.3 million or 4.1% to \$1.4 billion in FY 2019 and increased \$123.4 million or 5.8% in FY 2018. Maintaining adequate levels of unrestricted net position is one of several key factors that have enabled the University to maintain its Aa1 credit rating. As of June 30, 2019, and 2018, University Health Care designated funds totaled

\$693.3 million and \$501.8 million, respectively; capital project-designated funds totaled \$388.3 million and \$470.2 million, respectively; student loan program-designated funds totaled \$6.7 million and \$6.7 million, respectively; and unrestricted funds functioning as endowments totaled \$255.0 million and \$245.7 million, respectively. The remaining Unrestricted Net Position is available for the University's instructional and public service missions and its general operations totaled \$91.4 million and \$154.0 million at June 30, 2019 and 2018, respectively.

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STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

The Statement of Revenues, Expenses, and Changes in Net Position presents the University's results of operations. The Statement distinguishes revenues and expenses between operating and non-operating categories and provides a view of the University's operating margin.

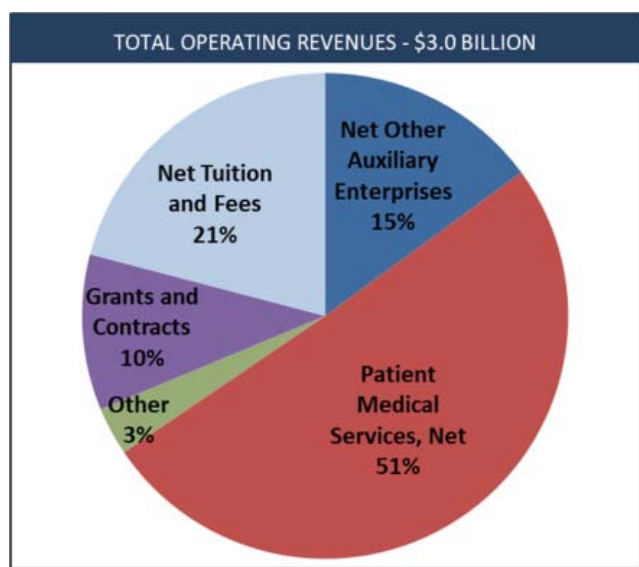
CONDENSED STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION (in thousands of dollars)			
Fiscal Year Ended June 30,	2019	2018 (Restated)	2017
Operating Revenues			
Net Tuition and Fees	\$ 624,692	\$ 635,479	\$ 649,217
Grants and Contracts	309,500	292,335	289,875
Patient Medical Services, Net	1,510,024	1,400,335	1,323,006
Other Auxiliary Enterprises	446,687	437,717	447,473
Other Operating Revenues	95,995	85,312	90,172
Total Operating Revenues	2,986,898	2,851,178	2,799,743
Operating Expenses			
Salaries, Wages and Benefits	2,220,339	2,067,145	2,039,591
Supplies, Services and Other Operating Expenses	1,111,726	1,006,586	975,232
Other Operating Expenses	282,906	281,524	279,515
Total Operating Expenses	3,614,971	3,355,255	3,294,338
Operating Loss Before State Appropriations	(628,073)	(504,077)	(494,595)
State Appropriations	408,797	401,705	417,912
Income (Loss) after State Appropriations, before Nonoperating Revenues (Expenses)	(219,276)	(102,372)	(76,683)
Nonoperating Revenues (Expenses)			
Investment and Endowment Income , Net of Fees	197,059	199,040	283,263
Private Gifts	86,405	77,883	71,249
Interest Expense	(66,585)	(71,043)	(70,037)
Other Nonoperating Revenues, Net	83,759	81,758	80,962
Net Nonoperating Revenues (Expenses)	300,638	287,638	365,437
Income before Capital Contributions, Additions to Permanent Endowments, and Extraordinary Item	81,362	185,266	288,754
State Capital Appropriations	-	29,765	49,519
Capital Gifts and Grants	67,106	21,083	34,371
Private Gifts for Endowment Purposes	30,524	46,851	31,358
Extraordinary Item	-	(17,908)	-
Increase in Net Position	178,992	265,057	404,002
Net Position, Beginning of Year	4,868,394	4,603,337	4,485,060
Cumulative Effect of a Change in Accounting Principle	-	-	(285,725)
Net Position, Beginning of Year, Restated	4,868,394	4,603,337	4,199,335
Net Position, End of Year	\$ 5,047,386	\$ 4,868,394	\$ 4,603,337

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
MANAGEMENT'S DISCUSSION AND ANALYSIS
June 30, 2019 and 2018 (unaudited)

OPERATING REVENUES

Operating Revenues represent resources generated by the University in fulfilling its instruction, research, and public service missions. Total **Operating Revenues** increased \$135.7 million, or 4.8% in FY 2019 and \$51.4 million, or 1.8%, in FY 2018 primarily due to increased **Patient Medical Services**.

Patient Medical Services had the greatest growth over FY 2019, continuing the trend from previous years. **Net Tuition and Fees** decreased in FY 2019 and FY 2018 compared to the previous year. The following is a graphic illustration of operating revenues by source for FY 2019:



Tuition and Fees, net of **Scholarship Allowances**, decreased by \$10.8 million, or 1.7%, and \$13.7 million, or 2.1% in FY 2019 and FY 2018, over a total of \$649.2 million in FY 2017. The decreases in FY 2019 and FY 2018 were driven by a decrease in student enrollment.

As a research institution, the University receives a substantial amount of funding through **Federal, State and Private Grants and Contracts**. Overall, sponsored funding increased by \$17.2 million, or 5.9%, in FY 2019 compared to an increase of \$2.5 million, or 0.8%, in FY 2018 over a total of \$290.0 million in FY 2017.

The University's auxiliary enterprises include University Health Care, Housing and Dining Services, campus

Bookstores, and other such supplemental activities. Total operating revenues generated by these auxiliary enterprises increased by \$118.7 million, or 6.5% in FY 2019 and \$67.6 million, or 3.8% in FY 2018 over a total of \$1.8 billion in FY 2017. **Patient Medical Services**, which includes fees for services provided by University Health Care and the Medical Alliance, had the largest increase among auxiliaries at \$110.0 million in FY 2019 and \$77.3 million in FY 2018. This was largely driven by growth in both inpatient and outpatient areas with increases in emergency room visits, discharges, surgeries, and clinic visits.

NONOPERATING REVENUES (EXPENSES)

Nonoperating Revenues are those not generated by the University's core missions and include such funding sources as State and Federal Appropriations, Pell Grants, Private Gifts and Investment and Endowment Income.

Total **State Appropriations** received for University operations, University Health Care operations, and other special programs increased by \$7.1 million, or 1.8% in FY 2019 and decreased \$16.2 million, or 3.9%, in FY 2018 over a total of \$417.9 million in FY 2017. After a few years of decreasing **State Appropriations**, state support has begun to level out as compared to FY 2018.

As one of the more volatile sources of non-operating revenues, **Investment and Endowment Income** includes interest and dividend income as well as realized and unrealized gains and losses. Realized and unrealized market value gains, losses and other activity affecting **Investment and Endowment Income** resulted in a net gain of \$197.1 million in FY 2019 as compared to a net gain of \$199.0 million in FY 2018. As of June 30, 2017, Investment and Endowment Income was \$283.3 million.

Gift income is reflected in three categories: **Private Gifts, Capital Gifts and Grants** (which are restricted for adding or improving capital assets) and **Private Gifts for Endowments** (which are restricted for establishing endowments). Private Gifts and Grants can fluctuate significantly from year to year due to the voluntary nature of donors' gifts. In FY 2019, the University received gifts totaling \$184.0 million, as compared to \$145.8 million and \$137.0 million for FY 2018 and FY 2017, respectively.

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Total interest incurred for the years ended June 30, 2019, 2018 and 2017 was \$70.4 million, \$71.8 million, and \$72.5 million, respectively. Interest expense associated with financing projects during construction, net of any investment income earned on bond proceeds during construction, is capitalized. For the years ended June 30,

2019, 2018, and 2017, capitalization of interest earned on unspent bond proceeds totaled \$3.8 million, \$779,000, and \$2.5 million, respectively, resulting in net interest expense of \$66.6 million, \$71.0 million, and \$70.0 million, respectively.

The following is a summary of interest expense associated with Long-Term Debt:

INTEREST EXPENSE (in thousands of dollars)			
Fiscal Year Ended June 30,	2019	2018	2017
System Facilities Revenue Bonds	\$ 60,672	\$ 61,959	\$ 62,778
Health Facilities Revenue Bonds	1,527	1,632	1,264
Net Payment on Interest Rate Swaps	4,106	5,154	6,112
Total Revenue Bonds	66,305	68,745	70,154
Capitalized Lease Obligations	584	673	756
Notes Payable	471	483	494
Commercial Paper	3,004	1,921	1,098
Total Interest Expense Before Capitalization of Interest	70,364	71,822	72,502
Capitalization of Interest, Net of Interest Earned on Unspent Bond Proceeds	(3,779)	(779)	(2,465)
Total Interest Expense	\$ 66,585	\$ 71,043	\$ 70,037

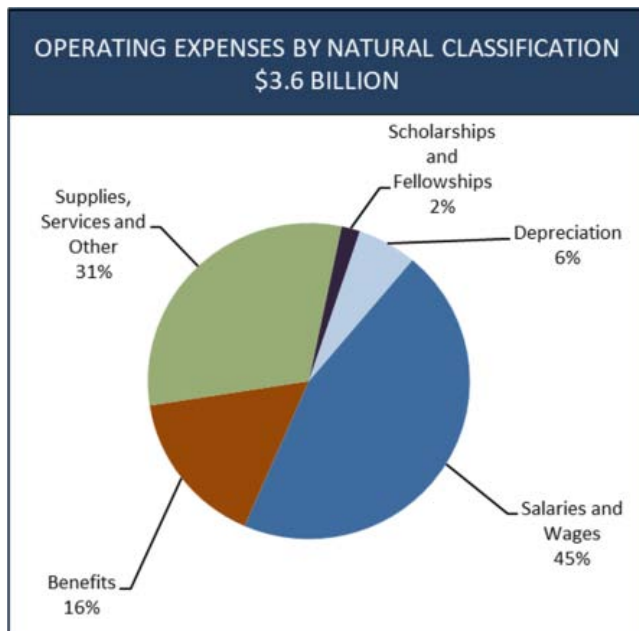
In FY 2019, **Other Nonoperating Revenues, Net** of \$83.8 million increased \$2.0 million over FY 2018. During FY 2018, Other Nonoperating Revenues, Net increased by \$796,000.

In FY 2019 and FY 2018, Federal Appropriations include cash subsidy payments from the United States Treasury totaling \$9.8 million in each year for designated Build America Bonds outstanding. Pell Grants increased by \$1.2 million in FY 2019 due to more students qualifying for the program.

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
MANAGEMENT'S DISCUSSION AND ANALYSIS
June 30, 2019 and 2018 (unaudited)

OPERATING EXPENSES

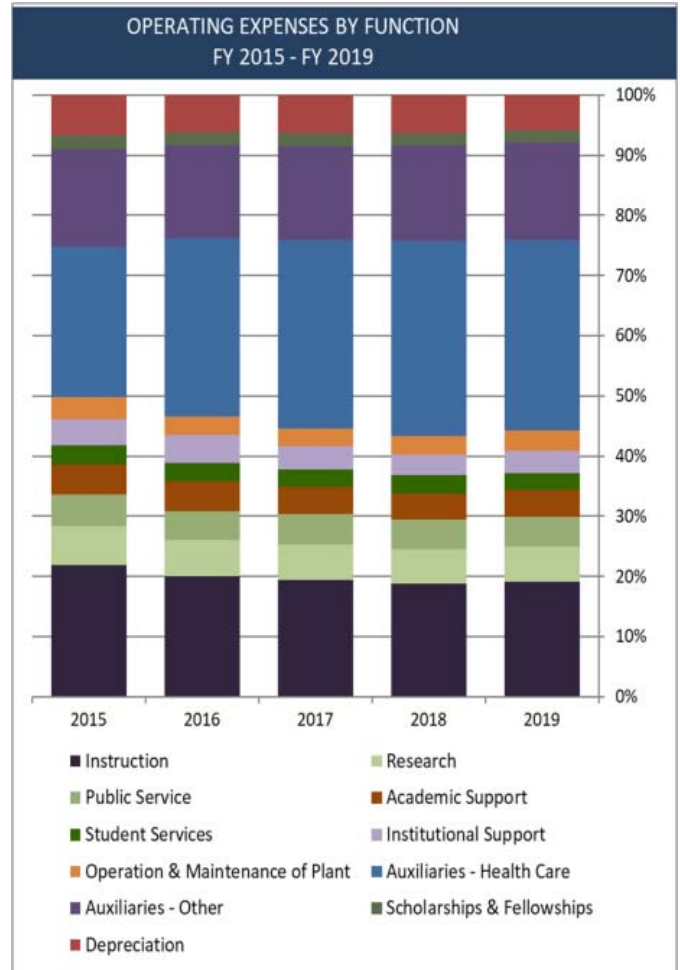
Total Operating Expenses increased by \$259.7 million, or 7.7%, in FY 2019 compared to an increase of \$60.9 million, or 1.8%, in FY 2018. The increase in total operating expenses in FY 2019 was primarily due increases in **Supplies, Services and Other Operating Expenses** as well as fluctuations in benefits relating to pension. The following graph illustrates the University's operating expenses by natural classification for FY 2019:



During FY 2019, **Salaries, Wages and Benefits** increased by approximately 7.4% as compared to a 1.4% increase in the prior fiscal year. Salaries and Wages increased by \$51.3 million, or 3.2%. Staff Benefits increased by \$101.9 million in FY 2019 primarily due differences in projected and actual investment income in the pension plan.

In FY 2019 and FY 2018, the University's **Supplies, Services, and Other Operating** expenses of \$1.1 billion and \$1.0 billion increased by \$105.1 million, or 10.4%, and \$31.4 million, or 3.2%, respectively, over the prior fiscal year.

The following illustrates the University's operating expenses by function for FY 2015 through FY 2019:



University Health Care, included in auxiliary, constitutes the highest proportion of Operating Expenses at 31.6% for FY 2019 and 32.5% for FY 2018. The core missions of instruction, research, and public service account for the next largest proportion of Operating Expenses at 37.2% and 36.8% for FY 2019 and FY 2018, respectively. Excluding University Health Care, instruction, research, scholarships, and public service account for 43.7% of Operating Expenses for FY 2019. Institutional support, which represents the core administrative operations of the University, was less than 5 cents of each dollar spent during this 5-year period.

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
MANAGEMENT'S DISCUSSION AND ANALYSIS
June 30, 2019 and 2018 (unaudited)

STATEMENT OF CASH FLOWS

The Statement of Cash Flows provides information about the University's sources and uses of cash and cash equivalents during the fiscal year. The following summarizes sources and uses of cash and cash equivalents for the three years ended June 30, 2019, 2018 and 2017:

CONDENSED STATEMENTS OF CASH FLOWS (in thousands of dollars)			
Fiscal Year Ended June 30,	2019	2018	2017
Net Cash Used in Operating Activities	\$ (302,923)	\$ (256,148)	\$ (256,753)
Net Cash Provided from Noncapital Financing Activities	609,768	614,896	587,729
Net Cash Used in Capital and Related Financing Activities	(251,539)	(274,308)	(254,801)
Net Cash Provided by (Used) in Investing Activities	(41,638)	70,407	(24,236)
Net Increase (Decrease) in Cash and Cash Equivalents	13,668	154,847	51,939
Cash and Cash Equivalents, Beginning of Year	554,638	399,791	347,852
Cash and Cash Equivalents, End of Year	\$ 568,306	\$ 554,638	\$ 399,791

Net Cash Used in Operating Activities reflects the continued need for funding from the state of Missouri, as funding received from tuition and fees and related sales and services of auxiliary and educational activities are not sufficient to cover operational needs. In FY 2019, cash used in operating activities increased by \$46.8 million primarily due to increased payments to suppliers, employees and benefits of which the increased payments were partially offset by increased patient care revenues. In FY 2018, cash used in operating activities remained relatively flat compared to FY 2017 with an increased patient care revenue offset by a decrease in tuition and fees and an increase in payments to suppliers and employees.

The University's most significant source of cash, **Net Cash Provided from Noncapital Financing Activities**, includes funding from State and Federal appropriations, Pell grants and noncapital private gifts. Cash from these sources totaling \$609.8 million, \$614.9 million, and \$587.7 million in FY 2019, FY 2018, and FY 2017, respectively, directly offset the additional cash needs resulting from operations.

Net Cash Used In Capital and Related Financing Activities decreased by \$22.8 million due to the issuance of capital debt. In FY 2018, Net Cash Used in Capital and Related Financing Activities increased by \$19.5 million compared to FY 2017 due to a decrease in the receipt of proceeds from the issuance of capital debt.

Net Cash Used in Investing Activities reflects a net outflow of \$41.6 million in FY 2019 as compared to a net inflow of \$70.4 million in FY 2018 and a net outflow of \$24.2 million in FY 2017. Differences are largely driven by the net of proceeds and purchases of investments.

ECONOMIC OUTLOOK

The University of Missouri is the State's premier public research university contributing to the economic development and vitality of the state through ground-breaking research, educating more than 72,000 students, delivering quality healthcare to the citizens of Missouri, and providing extension services throughout the state.

The University remains a long-standing and stable enterprise. Enrollment has declined by 3% in FY 2019 and 4% FY 2018 across the four campuses. However, the University's freshman enrollment has rebounded over the last two fiscal years with growth of 7.0% and 5.4% among the four campuses for fiscal years 2019 and 2018, respectively. University leaders have made cuts and reallocations of resources in response to the enrollment challenges. Leadership has made plans to develop strategic plans that will invest in student success, research and creative works, engagement and outreach, inclusivity, and stewardship of the Universities financial resources.

UNIVERSITY OF MISSOURI SYSTEM
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State appropriations for operations increased by 1.8% in FY 2019. There were no capital appropriations received in FY 2019 as compared to \$29.8 million in FY 2018 as reimbursement for previously approved building projects came to an end. Funding from the State operating budget will remain uncertain with both federal and state tax reform.

The University is aware of its fiduciary responsibility to control costs in order to provide an affordable education for Missourians. Despite the challenges generated by uncertain state funding, the University has been able to maintain its strong financial position due to diversified revenue sources and system-wide cost containment measures. Leadership is committed to investing in strategic initiatives that align with the mission of the University as well as creating an environment that streamlines operations across the four campuses.

University of Missouri Health Care (MU Health Care) remains dedicated to its mission of saving and improving lives. MU Health Care's focus for the future is to achieve the scale needed, clinically and financially, to support the academic and research missions to become Missouri's premier academic health system.

Health care reimbursement is a continually changing landscape. Considering such, MU Health Care regularly monitors state and federal health care programs and analyzes the impact of ongoing legislation on reimbursement and the delivery of health care. As a part of its strategy to prepare for and respond to value-based payment models, MU Health Care continues to develop collaborative arrangements throughout Missouri to improve patient outcomes and access to care, share best practices, create efficiencies and lower health care costs.

The University's financial position remains strong with diversified revenue streams that include higher education, research, gifts and health care, which provide flexibility in responding to financial challenges. The state economy, limited increases in tuition revenue, and uncertain state support will continue to pose budgetary challenges for the University in the future. The University is actively managing these budgetary challenges by prioritizing strategic goals that will advance the University in its operations and build a strong foundation in the face of uncertainties in the future of the higher education industry.

Independent Auditor's Report

The Board of Curators
University of Missouri System

Report on the Financial Statements

We have audited the accompanying financial statements of the business-type activities and the fiduciary activities of the University of Missouri System, collectively a component unit of the State of Missouri, as of and for the years ended June 30, 2019 and 2018, and the related notes to the financial statements, which collectively comprise the University of Missouri System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the fiduciary activities of the University of Missouri System as of June 30, 2019 and 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Emphasis of Matter

As discussed in Note 1 to the financial statements, in 2019 the University of Missouri System adopted Governmental Accounting Standards Board (GASB) Statement No. 83, *Certain Asset Retirement Obligations*. Our opinions are not modified with respect to this matter.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the pension and other postemployment benefit information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming opinions on the financial statements that collectively comprise the University of Missouri System's basic financial statements. The accompanying information in the introductory and statistical sections as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on it.

BKD, LLP

Kansas City, Missouri
October 15, 2019

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF NET POSITION
As of June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Assets		
Current Assets		
Cash and Cash Equivalents	\$ 365,815	\$ 360,053
Restricted Cash and Cash Equivalents	197,824	189,988
Short-Term Investments	39,172	226,215
Restricted Short-Term Investments	16,338	31,991
Investment of Cash Collateral	3,616	5,012
Accounts Receivable, Net	376,431	335,551
Pledges Receivable, Net	21,846	17,039
Investment Settlements Receivable	279,696	68,024
Notes Receivable, Net	8,489	9,060
Inventories	41,155	40,433
Prepaid Expenses and Other Current Assets	42,122	43,729
Total Current Assets	1,392,504	1,327,095
Noncurrent Assets		
Restricted Cash and Cash Equivalents	4,667	4,597
Pledges Receivable, Net	40,677	38,106
Notes Receivable, Net	64,638	69,842
Other Assets	14,388	13,565
Restricted Other Assets	3,964	4,022
Long-Term Investments	2,457,590	2,021,932
Restricted Long-Term Investments	1,525,301	1,456,071
Capital Assets, Net	3,466,439	3,383,075
Total Noncurrent Assets	7,577,664	6,991,210
Deferred Outflows of Resources		
Deferred Outflows Related to Debt	30,683	29,837
Deferred Outflows Related to Asset Retirement Obligations	57,438	59,936
Deferred Outflows Related to Other Post Employment Benefits	27,214	-
Deferred Outflows Related to Pensions	220,473	249,373
Total Deferred Outflows of Resources	335,808	339,146
Total Assets and Deferred Outflows of Resources	\$ 9,305,976	\$ 8,657,451
Liabilities		
Current Liabilities		
Accounts Payable	\$ 195,342	\$ 130,776
Accrued Liabilities	180,548	177,169
Unearned Revenue	94,957	95,144
Funds Held for Others	96,375	91,539
Investment Settlements Payable	455,975	187,438
Collateral Held for Securities Lending	3,616	5,012
Commercial Paper and Current Portion of Long-Term Debt	399,074	228,078
Long-Term Debt Subject to Remarketing Agreements	82,540	86,185
Total Current Liabilities	1,508,427	1,001,341

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF NET POSITION
As of June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Liabilities, Continued		
Noncurrent Liabilities		
Unearned Revenue	15,119	15,792
Asset Retirement Obligation	62,433	62,433
Long-Term Debt	1,199,968	1,344,815
Derivative Instrument Liability	35,542	27,570
Net Other Postemployment Benefits Liability	453,640	442,205
Net Pension Liability	814,210	731,193
Other Noncurrent Liabilities	85,771	80,419
Total Noncurrent Liabilities	2,666,683	2,704,427
Deferred Inflows of Resources		
Deferred Inflows for Charitable Annuities	13,628	13,393
Deferred Inflows Related to Other Postemployment Benefits	44,867	34,975
Deferred Inflows Related to Pensions	24,985	34,921
Total Deferred Inflows of Resources	83,480	83,289
Total Liabilities and Deferred Inflows of Resources	4,258,590	3,789,057
Net Position		
Net Investment in Capital Assets	1,801,977	1,746,995
Restricted		
Nonexpendable -		
Endowment	1,248,860	1,200,514
Expendable -		
Scholarship, Research, Instruction and Other	410,497	394,577
Loans	85,038	83,567
Capital Projects	66,364	64,381
Unrestricted	1,434,650	1,378,360
Total Net Position	5,047,386	4,868,394
Total Liabilities, Deferred Inflows of Resources and Net Position	\$ 9,305,976	\$ 8,657,451

See notes to the financial statements

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the Years Ended June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Operating Revenues		
Tuition and Fees (Net of Provision for Doubtful Accounts of \$16,872 in 2019 and \$16,041 in 2018)	\$ 857,456	\$ 861,913
Less Scholarship Allowances	232,764	226,434
Net Tuition and Fees	624,692	635,479
Federal Grants and Contracts	165,427	157,587
State and Local Grants and Contracts	60,584	59,966
Private Grants and Contracts	83,489	74,782
Sales and Services of Educational Activities	19,264	26,193
Auxiliary Enterprises -		
Patient Medical Services, Net	1,510,024	1,400,335
Housing and Dining Services (Net of Scholarship Allowance of \$3,348 in 2019 and \$1,458 in 2018)	102,603	100,837
Bookstores	38,348	41,429
Other Auxiliary Enterprises (Net of Scholarship Allowance of \$11,699 in 2019 and \$11,403 in 2018)	305,736	295,451
Other Operating Revenues	76,731	59,119
Total Operating Revenues	2,986,898	2,851,178
Operating Expenses		
Salaries and Wages	1,642,679	1,591,397
Benefits	577,660	475,748
Supplies, Services and Other Operating Expenses	1,111,726	1,006,586
Scholarships and Fellowships	67,367	68,047
Depreciation	215,539	213,477
Total Operating Expenses	3,614,971	3,355,255
Operating Income (Loss) before State Appropriations	(628,073)	(504,077)
State Appropriations	408,797	401,705
Operating Income (Loss) after State Appropriations, before Nonoperating Revenues (Expenses)	(219,276)	(102,372)
Nonoperating Revenues (Expenses)		
Federal Appropriations	27,026	26,665
Federal Pell Grants	56,594	55,400
Investment and Endowment Income, Net of Fees	197,059	199,040
Private Gifts	86,405	77,883
Interest Expense	(66,585)	(71,043)
Other Nonoperating Revenues (Expenses)	139	(307)
Net Nonoperating Revenues (Expenses)	300,638	287,638

UNIVERSITY OF MISSOURI SYSTEM
 A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
 For the Years Ended June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Income before Capital Contributions, Additions to Permanent		
Endowments, and Extraordinary Items	81,362	185,266
State Capital Appropriations	-	29,765
Capital Gifts and Grants	67,106	21,083
Private Gifts for Endowment Purposes	30,524	46,851
Extraordinary Item - loss on asset impairment	-	(17,908)
Increase in Net Position	178,992	265,057
Net Position, Beginning of Year	4,868,394	4,603,337
Net Position, End of Year	\$ 5,047,386	\$ 4,868,394

See notes to the financial statements

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF CASH FLOWS
For the Years Ended June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Cash Flows from Operating Activities		
Tuition and Fees	\$ 616,820	\$ 634,626
Federal, State and Private Grants and Contracts	294,322	295,272
Sales and Services of Educational Activities and Other Auxiliaries	323,490	313,151
Patient Care Revenues	1,487,490	1,398,121
Student Housing Fees	102,210	100,843
Bookstore Collections	40,215	42,646
Payments to Suppliers	(1,065,916)	(1,011,614)
Payments to Employees	(1,634,521)	(1,589,140)
Payments for Benefits	(481,566)	(432,513)
Payments for Scholarships and Fellowships	(67,367)	(68,047)
Student Loans Issued	(5,339)	(10,032)
Student Loans Collected	10,076	8,795
Student Loan Interest and Fees	1,038	845
Other Receipts, Net	76,125	60,899
Net Cash Used in Operating Activities	(302,923)	(256,148)
Cash Flows from Noncapital Financing Activities		
State Educational Appropriations	408,797	401,705
Federal Appropriations and Pell Grants	85,808	82,740
Private Gifts	79,027	83,738
Endowment and Similar Funds Gifts	30,524	46,851
Direct Lending Receipts	266,938	277,173
Direct Lending Disbursements	(266,938)	(277,173)
PLUS Loan Receipts	92,793	92,714
PLUS Loan Disbursements	(92,793)	(92,714)
Other Receipts, Net	776	378
Deposits (Receipts) of Affiliates	4,836	(516)
Net Cash Provided by Noncapital Financing Activities	609,768	614,896
Cash Flows from Capital and Related Financing Activities		
Capital Gifts and Grants	67,106	21,083
Proceeds from Sales of Capital Assets	1,186	1,390
Purchase of Capital Assets	(273,874)	(223,780)
Proceeds from Issuance of Capital Debt, Net	65,000	285
Principal Payments on Capital Debt	(35,302)	(40,166)
Payments on Capital Lease	(1,139)	(1,049)
Interest Payments on Capital Debt	(74,516)	(75,494)
State Capital Appropriations	-	43,423
Net Cash Used in Capital and Related Financing Activities	(251,539)	(274,308)

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF CASH FLOWS
For the Years Ended June 30, 2019 and 2018 (in thousands)

	2019	2018 - Restated
Cash Flows from Investing Activities		
Interest and Dividends on Investments, Net	78,478	73,272
Proceeds from Investments	10,681,677	10,343,298
Purchases of Investments	(10,801,793)	(10,346,163)
Net Cash Provided by (Used in) Investing Activities	(41,638)	70,407
Net Increase (Decrease) in Cash and Cash Equivalents	13,668	154,847
Cash and Cash Equivalents, Beginning of Year	554,638	399,791
Cash and Cash Equivalents, End of Year	\$ 568,306	\$ 554,638
 Reconciliation of Operating Loss to Net Cash Used in Operating Activities		
Operating Loss	\$ (628,073)	\$ (504,077)
Adjustments to Net Cash Used in Operating Activities		
Depreciation Expense	215,539	213,477
Changes in Assets and Liabilities:		
Accounts Receivable, Net	(43,067)	(223)
Inventory, Prepaid Expenses and Other Assets	120	(7,119)
Notes Receivable	5,775	(392)
Deferred Outflows of Resources	1,686	(149,009)
Accounts Payable	43,991	(3,406)
Accrued Liabilities	7,559	(1,620)
Unearned Revenue	(861)	3,977
Pension Liability	83,017	208,929
OPEB Liability	11,435	(20,058)
Deferred Inflows of Resources	(44)	3,373
Net Cash Used in Operating Activities	\$ (302,923)	\$ (256,148)
 Supplemental Disclosure of Noncash Activities		
Net Increase (Decrease) in Fair Value of Investments	\$ 60,444	\$ 32,429
Noncash Gifts	22,712	30,488

See notes to the financial statements

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF FIDUCIARY NET POSITION
As of June 30, 2019 and 2018 (in thousands)

	2019	2018
Assets		
Cash and Cash Equivalents	\$ 470,194	\$ 431,503
Investment of Cash Collateral	106,182	158,979
Investment Settlements Receivable	71,124	83,956
Other Assets	443	609
Investments:		
Debt Securities	395,616	423,984
Equity Securities	223,235	213,239
Commingled Funds	1,989,092	1,997,441
Nonmarketable Alternative Investments	816,533	702,082
Total Assets	4,072,419	4,011,793
Liabilities		
Accounts Payable and Accrued Liabilities	2,355	1,900
Collateral Held for Securities Lending	106,182	158,979
Investment Settlements Payable	168,043	131,475
Total Liabilities	276,580	292,354
Net Position Restricted for Retirement and OPEB	\$ 3,795,839	\$ 3,719,439

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
For the Years Ended June 30, 2019 and 2018 (in thousands)

	2019	2018
Additions		
Investment Income:		
Interest & Dividend Income	\$ 26,014	\$ 65,706
Net Appreciation (Depreciation) in Fair Value of Investments	166,693	278,180
Less investment expense	(4,884)	(18,608)
Net Investment Income (Loss)	187,823	325,278
Contributions:		
University	139,343	110,790
Members	33,367	31,779
Total Contributions	172,710	142,569
Total Additions	360,533	467,847
Deductions		
Administrative Expenses	2,529	2,363
Payments to Retirees and Beneficiaries	281,604	268,114
Total Deductions	284,133	270,477
Increase in Net Position Restricted for Retirement and OPEB	76,400	197,370
Net Position Restricted for Retirement and OPEB, Beginning of Year	3,719,439	3,522,069
Net Position Restricted for Retirement and OPEB, End of Year	\$ 3,795,839	\$ 3,719,439

See notes to the financial statements.

UNIVERSITY OF MISSOURI SYSTEM
A COMPONENT UNIT OF THE STATE OF MISSOURI
NOTES TO FINANCIAL STATEMENTS
For the Years Ended June 30, 2019 and 2018

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

UNIVERSITY OF MISSOURI SYSTEM

Organization – The University of Missouri System (the “University”), a Federal land grant institution, conducts education, research, public service, and related activities, which includes University of Missouri Health System (“MU Health Care”) and related facilities, principally at its four campuses in Columbia, Kansas City, Rolla and St. Louis. The University also administers a statewide cooperative extension service with centers located in each county in the State of Missouri (the “State”). The University is a component unit of the State and is governed by a nine-member Board of Curators appointed by the State’s Governor.

The income generated by the University, as an instrumentality unit of the State, is generally excluded from federal income taxes under Section 115 of the Internal Revenue Code. However, the University remains subject to income taxes on any net income that is derived from a trade or business, regularly carried on and not in furtherance of the purpose for which it is exempt. No income tax provision has been recorded as the net income, if any, from unrelated trade or business income, is not material to the financial statements.

Reporting Entity – As defined by generally accepted accounting principles established by the Governmental Accounting Standards Board (“GASB”), the financial reporting entity consists of the primary government and its component units. Component units are legally separate organizations for which the primary government is financially accountable or the nature and significance of their relationships with the primary government are such that exclusion would cause the primary government’s financial statements to be misleading or incomplete.

The University of Missouri-Columbia Medical Alliance (the “Medical Alliance”) is considered a component unit of the University according to the criteria in GASB Statement No. 61, *The Financial Reporting Entity: Omnibus (an amendment of GASB Statements No. 14 and No. 34)*, and is

presented as a blended component unit in the University’s financial statements in accordance to GASB Statement No. 80, *Blending Requirements for Certain Component Units*.

The Medical Alliance is a not-for-profit corporation in which the University is the sole member. The Medical Alliance, provides an integrated health care delivery system for mid-Missouri by establishing affiliations with various medical facilities. The purpose of the Medical Alliance is to develop a network of health care providers to support the missions of MU Health Care and provide medical services to the community. The Capital Region Medical Center (“CRMC”) in Jefferson City, Missouri, operates as an affiliate of the Medical Alliance and provides inpatient, outpatient, and emergency care services to the surrounding community. CRMC, a not-for-profit corporation that follows generally accepted accounting principles under the Financial Accounting Standards Board (“FASB”), is a subsidiary of the Medical Alliance. The University is not liable for the debts of CRMC. The University appoints the Board of Directors of the Medical Alliance and can impose its will on the organization. Separately audited financial statements for the Medical Alliance are not available. Combining financial statements for these funds are presented in Note 15.

Columbia Surgical Services (CSS), is considered a component unit of the University according to the criteria in GASB No. 61, *The Financial Reporting Entity: Omnibus (an amendment of GASB Statements No. 14 and No. 34)*, and is presented as a blended component unit in the University’s financial statements in accordance to GASB Statement No. 80, *Blending Requirements for Certain Component Units*. CSS is a not-for-profit corporation in which the University is the sole member. CSS provides general surgery and surgical sub-specialties with the purpose to promote clinical integration of medical services with MU Health Care and the community. CSS follows generally accepted accounting principles under the Financial Accounting Standards Board (“FASB”). The University appoints the Board of Directors of CSS and can impose its will on the organization. Separately audited financial statements for CSS are not available. Combining financial statements for these funds are presented in Note 15.

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Columbia Family Medical Services (CFMS) began operations in fiscal year 2017 and is considered a component unit of the University according to the criteria in GASB No. 61, *The Financial Reporting Entity: Omnibus (an amendment of GASB Statements No. 14 and No. 34)*, and is presented as a blended component unit in the University's financial statements in accordance to GASB Statement No. 80, *Blending Requirements for Certain Component Units*. CFMS is a not-for-profit corporation in which the University is the sole member. CFMS provides family and community medical services with the purpose to improve patient access and quality. CFMS is a public benefit corporation formed with the Curators of the University of Missouri as the sole member. CFMS follows generally accepted accounting principles under the Financial Accounting Standards Board ("FASB"). The University appoints the Board of Directors of CFMS and can impose its will on the organization. Separately audited financial statements for CFMS are not available. Combining financial statements are presented in Note 15.

The Missouri Renewable Energy Corporation (MREC) is considered a component unit of the University, for financial reporting purposes, according to the criteria in GASB Statement No. 61, *The Financial Reporting Entity: Omnibus (an amendment of GASB Statements No. 14 and No. 34)*, and is included in the University's financial statements using the blended method. MREC is a for-profit corporation, and the University holds the majority equity interest. MREC provides green energy facilities exclusively to the University. At June 30, 2019, the University was the majority owner of MREC. Financial statements for MREC are available at the University of Missouri System Controller's Office. Combining financial statements are presented in Note 15.

The University operates the University of Missouri Retirement, Disability, and Death Benefit Plan (the "Retirement Plan") and the University of Missouri Other Postemployment Benefits Plan (the "OPEB Plan"), which collectively with the Retirement Plan represent the "Pension (and Other Employee Benefit) Trust Funds", which are single employer, defined benefit plans. The assets of the Retirement Plan and OPEB Plan are held in the Retirement Trust and OPEB Trust, respectively.

Financial Statement Presentation – University follows all applicable GASB pronouncements. Pursuant to GASB Statement No. 35, *Basic Financial Statement-and*

Management's Discussion and Analysis-for Public Colleges and Universities, the University's activities are considered to be a single business-type activity and accordingly, are reported in a single column in the financial statements. Business-type activities are those that are financed in whole or part by funds received by external parties for goods or services.

Basis of Accounting – The University's financial statements have been prepared using the economic resource measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recorded when an obligation has been incurred, regardless of the timing of cash flows.

On the Statement of Revenues, Expenses and Changes in Net Position, the University defines operating activities as those generally resulting from an exchange transaction. Nearly all of the University's expenses are from exchange transactions, which involve the exchange of equivalent values such as payments for goods or services. Non-operating revenues or expenses are those in which the University receives or gives value without directly giving or receiving equal value, such as State and Federal appropriations, Federal Pell grants, private gifts, and investment income.

The financial statements for the Pension Trust Funds have been prepared using the accrual basis of accounting. Benefits and refunds are recognized when due and payable. Investments are reported at fair value. Combining financial statements for these funds are presented in Note 17.

Cash, Cash Equivalents and Investments – Cash and cash equivalents consist of the University's bank deposits, repurchase agreements, money market funds, and other investments with original maturities of three months or less. Investment assets are carried at fair value based primarily on market quotations. Purchases and sales of investments are accounted for on the trade date basis. Investment settlements receivable and investment settlements payable represent investment transactions occurring on or before June 30, which settle after that date. Investment income is recorded on the accrual basis. Net unrealized gains (losses) are included in investment and endowment income in the Statement of Revenues, Expenses and Changes in Net Position.

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For the Years Ended June 30, 2019 and 2018

Nonmarketable alternative investments and certain commingled funds are recorded based on valuations provided by the general partners of the respective partnerships. The University believes that the carrying value of these investments is a reasonable estimate of fair value. Because alternative investments are not readily marketable, the estimated value is subject to uncertainty and therefore may differ materially from the value that would have been used had a ready market for investments existed.

Derivative instruments such as forward foreign currency contracts are recorded at fair value. The University enters into forward foreign currency contracts to reduce the foreign exchange rate exposure of its international investments. These contracts are marked to market, with the changes in market value being reported in investment and endowment income on the Statement of Revenues, Expenses, and Changes in Net Position.

Pledges Receivable – The University receives unconditional promises to give through private donations (pledges) from corporations, alumni and various other supporters of the University. Revenue is recognized when a pledge is received and all eligibility requirements, including time requirements, are met. These pledges have been recorded as pledges receivable on the Statement of Net Position and as private or capital gift revenues on the Statement of Revenues, Expenses, and Changes in Net Position, at the present value of the estimated future cash flows. The rate used to discount the present value is based on the seven year treasury bill rate as of June 30 of each fiscal year. For the fiscal years ended June 30, 2019 and 2018, the University used a discount rate of 1.87% and 2.81%, respectively. An allowance of \$20,474,000 and \$12,037,000 as of June 30, 2019 and 2018, respectively, has been made for uncollectible pledges based upon management's expectations regarding the collection of the pledges and the University's historical collection experience.

Inventories – These assets are stated at the lower of cost or market. Cost is determined on an average cost basis except for MU Health Care's inventories, for which cost is determined using the first-in, first-out method.

Capital Assets – If purchased, these assets are carried at cost or, if donated, at fair value at the date of gift. The University capitalizes assets with useful lives greater than one year and acquisition cost greater than or equal to \$5,000. Depreciation expense is computed using the straight-line method over the assets' estimated useful lives – generally ten to forty years for buildings and improvements, eight to twenty-five years for infrastructure, three to fifteen years for equipment and twenty years for library materials. American Hospital Association useful life guidelines are followed for capital assets that are medical in nature. Equipment under capital lease obligations is amortized on the straight-line basis over the shorter period of the lease term or the estimated useful life of the equipment. Net interest expense incurred during the construction of debt-financed facilities is included when capitalizing resulting assets. The University capitalizes works of art, as these collections generally consist of historical artifacts and artworks, they are considered inexhaustible and not subject to depreciation. The University does not capitalize collections of historical treasures held for public exhibition, education, research, and public service. These collections are not disposed of for financial gain and, accordingly, are not capitalized for financial statement purposes. Proceeds from the sale, exchange, or other disposal of such items must be used to acquire additional items for the same collection. Land is considered inexhaustible and is not subject to depreciation.

Deferred Outflows of Resources – The University reports the consumption of net position that relates to future reporting periods as deferred outflows of resources in a separate section of the Statements of Net Position.

Unearned Revenue – Unearned revenues are recognized for amounts received prior to the end of the fiscal year but related to the subsequent period, including certain tuition, fees, and auxiliary revenues. Unearned revenues also include grant and contract amounts that have been received but not yet earned. Noncurrent unearned revenue relates to amounts received for capital projects or for the portion of multi-year grant funding related to future years.

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Compensated Absences – Compensated absences include accumulated unpaid vacation and compensatory time accrued as well as related employer payroll taxes. An expense and related liability are recognized as vacation and compensatory benefits are earned. Sick leave benefits expected to be realized as paid time off are recognized as expense when the time off occurs and no liability is accrued for such benefits employees have earned but not yet realized.

Deferred Inflows of Resources – The University reports the acquisition of net position that relates to future reporting periods as deferred inflows of resources in a separate section of the Statements of Net Position.

Pension and Other Postemployment Benefits – Pension and Other Postemployment Benefits (OPEB) related items, including: net pension liability and net OPEB liability, deferred outflows of resources, deferred inflows of resources, net pension expense and net OPEB expense, fiduciary net assets, additions to and deductions from fiduciary net assets have been determined on the same basis as they are reported by the respective pension and OPEB plans. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

Net Position – The University's net position is classified as follows:

Net Investment in Capital Assets represents capital assets, net of accumulated depreciation and outstanding principal debt balances related to the acquisition, construction or improvement of those assets.

Restricted Nonexpendable net position is subject to externally imposed stipulations that the principal be maintained in perpetuity, such as the University's permanent endowment funds. The University's policy permits any realized and unrealized appreciation to remain with these endowments after the spending distribution discussed in Note 3.

Restricted Expendable net position is subject to externally imposed stipulations on the University's use of the resources.

Unrestricted net position is not subject to externally imposed stipulations, but may be designated for specific

purposes by the University's management or the Board of Curators. Unrestricted net position is derived from tuition and fees, sales and services, unrestricted gifts, investment income, and other such sources, and are used for academics and the general operation of the University. When both restricted and unrestricted resources are available for expenditure, the University's policy is to first apply restricted resources, and then the unrestricted resources.

Medical Alliance, CSS, and CFMS, as not-for-profit organizations, record net position in accordance with Financial Accounting Standards Board Accounting Standards Codification 958-205, *Not-for-Profit Entities Presentation of Financial Statements*. For presentation within the University's accompanying basic financial statements, the net position is redistributed amongst the net position components defined by GASB Statement No. 63.

Tuition and Fees, Net of Scholarship Allowances – Student tuition and fees, housing, dining, and other similar auxiliary revenues are reported net of any related scholarships and fellowships applied to student accounts. However, scholarships and fellowships paid directly to students are separately reported as scholarship and fellowship expenses.

Patient Medical Services, Net – Patient medical services are primarily provided through University of Missouri Hospitals and Clinics, Ellis Fischel Cancer Research Center, Women's and Children's Hospital, University Physicians, and the Medical Alliance. The University has agreements with third-party payors that provide for payments at amounts different from established rates. Payment arrangements include prospectively determined rates per discharge, reimbursed costs, discount charges, and per diem payments. Net patient service revenue is reported at the estimated net realizable amounts from patients, third-party payors, and others for services rendered, including estimated retroactive adjustments under reimbursement agreements with third-party payors. Retroactive adjustments are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as estimates are refined and final settlements are determined. Net patient service revenue is also shown net of estimated uncollectible accounts. Amounts receivable under Medicare and Tricare/Champus reimbursement agreements are subject to examination and certain retroactive adjustments by the related programs. These adjustments increased net patient services revenues

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by \$908,000 for the year ended June 30, 2019 and decreased net patient services by \$3,038,000 for the year ended June 30, 2018.

The Medicaid program reimburses inpatient services on a prospective established per diem rate. The Medicaid program reimburses outpatient services under a combination of prospective and fee schedule amounts. For the years ended June 30, 2019 and 2018, the MU Health Care's percentage of gross patient accounts receivable classified by major payor is as follows:

Table 1.1 - Percentage of Gross Patient Accounts Receivable (by Major Payor)

	2019	2018
Medicare	32%	30%
Commercial Insurance	11%	15%
Medicaid	19%	19%
Self Pay & Other	16%	14%
Managed Care Agreements	22%	22%
	100%	100%

Patient services revenue includes the State of Missouri Federal Reimbursement Allowance Program (FRA Program) for uncompensated care. MU Health Care recognizes FRA Program revenue in the period earned.

The Statements of Revenues, Expenses and Changes in Net Position reflect the gross to net patient medical services revenue as follows:

Table 1.2 - Gross to Net Patient Medical Services Revenue (in thousands)

	2019	2018
Patient Medical Services		
Revenue, Gross	\$ 3,672,043	\$ 3,249,787
Deductions for Contractuals	(2,094,664)	(1,796,865)
Deductions for Bad Debt	(67,355)	(52,587)
Patient Medical Services		
Revenue, Net	\$ 1,510,024	\$ 1,400,335

Uncompensated Care - The University provides some services to patients without regard to their ability to pay for those services. For some of its patient services, the University receives no payment or payment that is less than the full cost of providing the services.

The estimated costs of providing these services are as follows:

Table 1.3 - Uncompensated Care

Revenue (in thousands)	2019	2018
Cost of Charity Care	\$ 38,171	\$ 38,615
Unreimbursed cost under state and local government assistance programs, net of Medicaid disproportionate share funding, less Medicaid provider taxes	(1,288)	(14,246)
Cost of uncollectible accounts	35,598	27,666
Total Uncompensated Care	\$ 72,481	\$ 52,035

New Accounting Pronouncements – Effective for fiscal year 2019, the University adopted GASB Statement No. 83, *Certain Asset Retirement Obligations*, which establishes criteria for determining recognition of a liability and corresponding deferred outflows of resources for legally enforceable liabilities associated with the retirement of certain tangible capital assets. The adoption of this statement increased liabilities by \$62.4 million and deferred outflows of resources by \$59.9 million, after amortization of \$2.5 million, as of fiscal year 2018. There was no effect on beginning net position as of July 1, 2017 and the fiscal year 2018 increase in net position was reduced by \$2.5 million as a result of adopting GASB 83.

Effective for fiscal year 2019, the University adopted GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which requires additional disclosures regarding certain types of debt. The adoption of this statement had no effect on the University's financial statements.

In January 2017, GASB issued GASB Statement No. 84, *Fiduciary Activities*, which intends to enhance consistency and comparability on how fiduciary activities are reported. The University will adopt this statement in fiscal year 2020 and has not fully determined the effect of implementing GASB Statement No. 84 will have on its financial statements.

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In June 2017, GASB issued GASB Statement No. 87, *Leases*, which requires recognition of certain lease assets and liabilities that were previously classified as operating leases. The University will adopt this statement in fiscal year 2021 and has not fully determined the effect of implementing GASB Statement No. 87 will have on its financial statements.

In June 2018, GASB issued GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which requires interest cost incurred before the end of a construction period to be recognized as an expense in the period in which the cost is incurred and thereby not capitalized as part of the historical cost of a capital asset. The University will adopt this statement in fiscal year 2021 and has not fully determined the effect of implementing GASB Statement No. 89 will have on its financial statements.

In August 2018, GASB issued GASB Statement No. 90, *Majority Equity Interests*, which modifies guidance for reporting a legally separate organization in which the government has a majority equity interest to be reported as either an investment or component unit. The University will adopt this statement in fiscal year 2020 and has not fully determined the effect of implementing GASB Statement No. 90 will have on its financial statements.

In May 2019, GASB issued GASB Statement No. 91, *Conduit Debt Obligations*, which provides a single method of reporting conduit debt obligations by issuers. The University will adopt this statement in fiscal year 2022 and has not fully determined the impact of implementing GASB Statement No. 91 will have on its financial statements.

Effective for fiscal year 2018, the University adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which intends to improve financial reporting by requiring recognition of the entire Other Postemployment Benefits (OPEB) liability and a more comprehensive measure of

OPEB expense. The adoption of Statement No. 75 required the University to record a Net Postemployment Benefits Liability as well as Deferred Outflows/Inflows of Resources on its Statements of Net Position.

Effective for fiscal year 2018, the University adopted GASB Statement No. 81, *Irrevocable Split-Interest Agreements*, which intends to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for beneficiaries of these type of agreements. The adoption of this statement required the University to record a Deferred Inflows of Resources for changes in the University's remainder interest.

Effective for fiscal year 2018, the University adopted GASB Statement No. 85, *Omnibus 2017*, which intends to enhance consistency in the application of certain accounting and financial reporting requirements. Adoption of this statement had no effect on the University's financial statements.

Effective for fiscal year 2018, the University adopted GASB Statement No. 86, *Certain Debt Extinguishment Issues*, which intends to improve the consistency in accounting and reporting for in-substance defeasance of debt. Adoption of this statement had no effect on the University's financial statements.

Use of Estimates – The preparation of financial statements, in conformity with U.S. generally accepted accounting principles, requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, and deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

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2. CASH AND CASH EQUIVALENTS

Custodial Credit Risk – The custodial credit risk for deposits is the risk that in the event of bank failure, the University's deposits may not be recovered. State law requires collateralization of all deposits with federal depository insurance, bonds and other obligations of the U.S. Treasury, U.S. Agencies and instrumentalities of the State of Missouri; bonds of any city, county, school district or special road district of the State of Missouri; bonds of any state; or a surety bond having an aggregate value at least equal to the amount of the deposits. As of June 30, 2019, approximately \$726,000 of the University's cash deposits were uninsured or collateralized. All cash deposits were fully insured or collateralized as of June 30, 2018.

3. INVESTMENTS

Investment policies are established by the Board of Curators ("the Board"). The policies ensure that funds are managed in accordance with Section 105.688 of the Revised Statutes of Missouri and prudent investment practices. Additionally, investment policies established by the Board with respect to the Retirement Trust and Other Postemployment Benefit ("OPEB") Trust (collectively referred to as "Pension Trust Funds") and the Endowment Funds specifically recognize the fiduciary duties set forth in Section 105.688 of the Revised Statutes of Missouri. The use of external investment managers has been authorized by the Board.

Substantially all University cash and investments are managed centrally, generally in the following investment pools:

General Pool – General Pool contains short-term University funds, including but not limited to cash and reserves, operating funds, bond funds, and plant funds. Subject to various limitations contained within the corresponding investment policy, the University's internally managed component of the General Pool may be invested in the following instruments: U.S. Government securities; U.S. Government Agency securities; U.S. Government guaranteed securities; money market funds; certificates of deposit; repurchase agreements; commercial paper; and other similar short-term investment instruments of like or better quality. The externally managed component of the General Pool is allowed to invest in the following asset sectors: fixed income, absolute return and risk balanced strategies. The General Pool's total return, including unrealized gains and losses, was 3.3% and 2.2% for the years ended June 30, 2019 and 2018, respectively.

Endowment Funds – 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.

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The Endowment Pool, which is externally managed, is the primary investment vehicle for endowment funds. Subject to various limitations contained within the corresponding investment policy, the Endowment Pool is allowed to invest in the following asset sectors: global equity, absolute return strategies, private equity, real estate, global fixed income, high-yield fixed income, floating rate bank loans, global inflation-linked bonds, emerging markets debt, and risk balanced strategies. The Endowment Pool's total return, including unrealized gains and losses, was 5.7% and 9.4% for the years ended June 30, 2019 and 2018, respectively.

If a donor has not provided specific restrictions, state law permits the Board to appropriate an amount of the Endowment Funds' net appreciation, realized and unrealized, as the Board considers to be prudent. In establishing this amount, the Board is required to consider the University's long- and short-term needs, present and anticipated financial requirements, expected total return on investments, price level trends, and general economic conditions. Further, any expenditure of net appreciation is required to be for the purposes for which the endowment was established. Inclusive of both realized and unrealized gains and losses on investments, donor-restricted endowments experienced net appreciation of approximately \$68,675,000 and \$96,277,000 in fiscal years 2019 and 2018, respectively.

The Board has adopted the total return concept (yield plus change in market value) in determining the spendable return for endowments and similar funds. The spending formula was revised in fiscal year 2018 to distribute 4.0% of a trailing 28-quarter average of the endowment's total market value as of December 31st of the prior fiscal year, with the understanding that this spending rate over the

long term should not exceed the total real return (net of inflation).

The transition from 4.5% to 4.0% is being phased in over a period of no longer than seven years ending June 30, 2024 to avoid a year over year decrease in distributions. In addition, the University distributes 1.25% of the trailing 28-quarter average of the endowment's total market value to support internal endowment and development administration.

PENSION AND OTHER EMPLOYEE BENEFIT TRUST FUNDS

The Retirement Trust and the OPEB Trust hold the assets of the Retirement Plan and OPEB Plan, respectively. Subject to various limitations contained within the corresponding investment policy, the externally-managed Retirement Trust is allowed to invest in the following asset sectors: global equity, absolute return strategies, private equity, real estate, global fixed income, high-yield fixed income, floating rate bank loans, global inflation-like bonds, emerging markets debt and risk balanced strategies. The Retirement Trust's total return, including unrealized gains and losses, was 5.2% and 10.2% for the years ended June 30, 2019 and 2018, respectively. The Retirement Trust held \$3,757,413,000 and \$3,682,638,000 of net position at June 30, 2019 and 2018, respectively.

The OPEB Trust held \$38,426,000 and \$36,801,000 of net position at June 30, 2019 and 2018, respectively. Subject to various limitations contained within the corresponding investment policy, the externally-managed OPEB Trust is allowed to invest in the following asset sectors: global fixed income, global equity, and absolute return strategies.

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Table 3.1 - Investments by Type (in thousands)

As of June 30,	University of Missouri		University of Missouri Pension and OPEB Trust Funds	
	2019	2018	2019	2018
Debt Securities:				
U.S. Treasury Obligations	\$ 771,356	\$ 809,309	\$ 273,661	\$ 320,005
U.S. Agency Obligations	3,176	2,339	-	-
Asset-Backed Securities	637,214	534,743	72,582	65,954
Government - Foreign	34,885	30,786	8,364	5,234
Corporate - Domestic	140,315	134,492	16,977	13,735
Corporate - Foreign	128,614	90,887	24,032	19,056
Equity Securities:				
Domestic	160,826	53,737	87,281	99,670
Foreign	105,899	55,717	135,954	113,569
Commingled Funds:				
Absolute Return	329,429	329,396	701,288	774,952
Risk Balanced	651,657	684,752	473,728	398,073
Debt Securities - Global	-	1,848	-	86,623
Debt Securities - Domestic	149,330	192,978	105,096	123,589
Debt Securities - Foreign	-	18,943	6,304	105,458
Equity Securities - Domestic	16,430	51,887	109,251	1,222
Equity Securities - Foreign	32,154	32,607	7,405	56,436
Equity Securities - Global	297,028	248,040	542,734	409,166
Real Estate	23,942	26,644	43,286	41,922
Nonmarketable Alternative Investments:				
Real Estate	120,859	114,069	225,355	214,295
Private Equity/Debt	404,519	290,659	591,178	487,787
Other	30,768	32,376	-	-
Total Investments	4,038,401	3,736,209	3,424,476	3,336,746
Money Market Funds	528,810	451,988	435,840	395,841
Other	39,496	102,650	34,354	35,662
Total Cash and Cash Equivalents	568,306	554,638	470,194	431,503
Total Investments and Cash and Cash Equivalents	\$ 4,606,707	\$ 4,290,847	\$ 3,894,670	\$ 3,768,249

Custodial Credit Risk - For investments, custodial credit risk is the risk that in the event of failure of the counterparty to a transaction, the University will not be able to recover the value of the investments held by an outside party. In accordance with its policy, the University minimizes custodial credit risk by establishing limitations on the types of instruments held with qualifying institutions. Repurchase agreements must be collateralized by U.S. Government issues and/or U.S. Government Agency issues. All University and Pension Trust Fund investments are insured or registered and are held by the University, the Pension Trust Funds or an agent in its name.

Concentration of Credit Risk - Concentration of credit risk is the risk associated with a lack of diversification, such as having substantial investments in a few individual issuers, thereby exposing the organization to greater risks resulting from adverse economic, political, regulatory, geographic or credit developments. The investment policies for the General Pool, Endowment Funds, and Retirement Trust all specify diversification requirements across asset sectors. As of June 30, 2019 and 2018, of the University's total investments and cash and cash equivalents were 16.7% and 19.0%, respectively, in issues of U.S. Treasury Notes. As of June 30, 2019 and 2018, the Pension Trust Fund's total

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investments and cash and cash equivalents were 7.0% and 8.6%, respectively, in issues U.S. Treasury Notes.

Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

Credit Risk – Debt securities are subject to credit risk, which is the chance that an issuer will fail to pay interest or principal in a timely manner, or that negative perceptions of the issuer's ability to make these payments will cause security prices to decline. These circumstances may arise due to a variety of factors such as financial weakness, bankruptcy, litigation and/or adverse political developments. Certain debt securities, primarily obligations of the U.S. government or those explicitly guaranteed by the U.S. government, are not considered to have credit risk.

Nationally recognized statistical rating organizations, such as Moody's and Standard & Poor's (S&P) assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors. Debt securities considered investment grade are those rated at least Baa by Moody's and BBB by S&P. For General Pool investments, the following minimum credit ratings have been established to manage credit risk with minimum rating of A-1/P-1 for commercial paper and other short-term securities. For Endowment Funds and Retirement Trust investments, guidelines for respective investment managers allow for a blend of different credit ratings, subject to certain restrictions by asset sector. In all cases, disposition of securities whose ratings have been downgraded after purchase is generally left to the discretion of the respective investment manager after consideration of individual facts and circumstances.

All holdings of money market funds were rated AAA at June 30, 2019 and 2018.

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Based on investment ratings provided by Moody's or S&P, the University's and Pension Trust Funds' credit risk exposure as of June 30, 2019 and 2018, is as follows:

Table 3.2 - Debt Securities by Type and Credit Rating *(in thousands)*

As of June 30,	University of Missouri		University of Missouri Pension and OPEB Trust Funds	
	2019	2018	2019	2018
U.S. Treasury Obligations	\$ 771,356	\$ 809,309	\$ 273,661	\$ 320,005
U.S. Agency Obligations	3,176	2,339	-	-
Asset-Backed Securities				
Mortgage Backed Securities				
Guaranteed by U.S. Agencies	287,099	190,275	41,284	30,694
Aaa/AAA	41,129	36,606	3,411	3,302
Aa/AA	25,514	27,213	1,534	1,045
A/A	35,275	33,255	1,284	1,530
Baa/BBB	20,830	25,428	266	1,227
Ba/BB and lower	147,528	170,009	22,221	26,511
Unrated	79,839	51,957	2,582	1,645
Government - Foreign				
Aaa/AAA	(81)	518	(1,336)	-
Aa/AA	4,443	4,934	1,062	993
A/A	12,643	10,200	5,941	2,176
Baa/BBB	414	131	-	-
Ba/BB and lower	10,255	12,485	1,830	1,273
Unrated	7,211	2,518	867	792
Corporate - Domestic				
Aaa/AAA	439	667	-	-
Aa/AA	5,183	5,676	89	89
A/A	17,310	14,673	5,572	3,765
Baa/BBB	48,361	42,237	8,197	7,437
Ba/BB and lower	47,793	41,531	2,700	1,711
Unrated	21,229	29,708	419	733
Corporate - Foreign				
Aaa/AAA	936	-	-	-
Aa/AA	2,048	4,035	811	797
A/A	18,827	9,254	4,477	4,147
Baa/BBB	54,504	29,146	12,371	6,715
Ba/BB and lower	43,846	40,245	5,182	5,408
Unrated	8,453	8,207	1,191	1,989
Total	\$ 1,715,560	\$ 1,602,556	\$ 395,616	\$ 423,984

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Interest Rate Risk – Interest rate risk is the risk that changes in interest rates over time will adversely affect the fair value of an investment. Debt securities with longer maturities are likely to be subject to more variability in their fair values as a result of future changes in interest rates. Neither the University nor the Pension Trust Funds have a formal policy that addresses interest rate risk; rather, such risk is managed by each individual investment manager, as applicable. The University and Pension Trust Funds have

investments in asset-backed securities, which consist primarily of mortgage-backed securities guaranteed by U.S. agencies and corporate collateralized mortgage obligations. These securities are based on cash flows from principal and interest payments on the underlying securities. An asset-backed security may have repayments that vary significantly with changes in market interest rates.

Table 3.3 presents the modified durations of the University's and Pension Trust Funds' debt securities as of June 30, 2019 and 2018, respectively:

Table 3.3 - Debt Securities by Type and Modified Duration *(in thousands)*

University of Missouri					
Duration (in years)					
As of June 30,	2019			2018	
U.S. Treasury Obligations	\$	771,356	6.5	\$	809,309
U.S. Agency Obligations		3,176	4.6		2,339
Asset-Backed Securities		637,214	2.9		534,743
Government - Foreign		34,885	5.3		30,786
Corporate - Domestic		140,315	3.3		134,492
Corporate - Foreign		128,614	3.4		90,887
Total Debt Securities	\$	1,715,560	4.6	\$	1,602,556

University of Missouri Pension and OPEB Trust					
Duration (in years)					
As of June 30,	2019			2018	
U.S. Treasury Obligations	\$	273,661	13.9	\$	320,005
Asset-Backed Securities		72,582	2.9		65,954
Government - Foreign		8,364	5.8		5,234
Corporate - Domestic		16,977	3.5		13,735
Corporate - Foreign		24,032	3.1		19,056
Total Debt Securities	\$	395,616	10.6	\$	423,984

Foreign Exchange Risk – Foreign exchange risk is the risk that investments denominated in foreign currencies may lose value due to adverse fluctuations in the value of the U.S. dollar relative to foreign currencies.

University and Retirement Trust investment policies allow for exposure to non-U.S. dollar denominated equities and fixed income securities, which may be fully or partially hedged using forward foreign currency exchange contracts.

At June 30, 2019 and 2018, 10.9% and 10.2%, respectively, of the University's total investments and cash and cash equivalents were denominated in foreign currencies. Forward foreign currency contracts with notional amounts totaling \$181,123,000 and \$138,246,000 were in place at June 30, 2019 and 2018, respectively. At June 30, 2019 and 2018, 17.3% and 20.5%, respectively, of the Pension Trust Funds' total investments and cash equivalents were denominated in foreign currencies. Forward foreign currency contracts with notional amounts totaling \$352,839,000 and \$279,350,000 were in place at June 30, 2019 and 2018, respectively.

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The University's and Pension Trust Funds' exposure to foreign exchange risk as of June 30, 2019 and 2018:

Table 3.4 - Foreign Exchange Risk (in thousands)

As of June 30,	University of Missouri		University of Missouri Pension and OPEB Trust Funds	
	2019	2018	2019	2018
Debt Securities				
Argentine Peso	\$ 5,847	\$ 2,300	\$ 635	\$ 792
Australian Dollar	-	-	-	148
Brazil Real	566	3,795	689	496
British Pound Sterling	42,243	40,237	3,875	2,626
Canadian Dollar	-	-	(1,174)	191
Euro	31,672	23,876	4,042	3,515
Japanese Yen	1,565	-	3,716	-
Mexican Peso	27	925	-	-
Peruvian Nuevo Sol	6,042	-	880	-
Other	368	1,400	-	-
	88,330	72,533	12,663	7,768
Equity Securities				
Australian Dollar	1,211	886	2,449	1,795
Brazil Real	2,176	1,110	4,367	2,223
British Pound Sterling	8,334	7,268	16,354	14,778
Canadian Dollar	1,604	1,985	3,259	4,025
Danish Krone	877	1,189	1,803	2,425
Euro	8,942	10,256	18,288	20,932
Hong Kong Dollar	5,717	4,056	11,683	8,262
Japanese Yen	7,928	9,583	16,261	19,581
Norwegian Krone	1,252	994	2,469	1,963
South African Rand	3,509	3,258	7,209	6,656
South Korean Won	141	502	284	1,008
Swedish Krona	1,967	1,697	4,031	3,521
Swiss Franc	2,062	2,520	4,258	5,147
Other	280	151	562	304
	46,000	45,455	93,277	92,620
Commingled Funds				
Various currency denominations:				
Debt Securities - Global	-	1,848	-	86,623
Debt Securities - Foreign	-	18,943	6,304	105,458
Equity Securities - Global	297,028	248,040	542,734	409,166
Equity Securities - Foreign	32,154	32,607	7,405	56,436
	329,182	301,438	556,443	657,683
Cash and Cash Equivalents				
Australian Dollar	(406)	984	(263)	506
Argentine Peso	498	2,879	43	347
Brazil Real	40	1,028	(166)	2
British Pound Sterling	1,073	1,926	54	1,256
Canadian Dollar	(112)	5,884	(191)	343
Euro	405	1,634	(454)	2,132
Japanese Yen	648	1,603	11	2,253
Mexican Peso	381	509	57	57
Other	(731)	2,646	(1,666)	1,639
	1,796	19,093	(2,575)	8,535
Total Exposure to Foreign Exchange Risk	\$ 465,308	\$ 438,519	\$ 659,808	\$ 766,606

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Commingled Funds - Includes Securities and Exchange Commission regulated mutual funds and externally managed funds, limited partnerships, and corporate structures which are generally unrated and unregulated. Certain commingled funds may use derivatives, short positions and leverage as part of their investment strategy. These investments are structured to limit risk exposure to the amount of invested capital. Commingled funds have liquidity (redemption) provisions, which enable the University and Pension Trust Funds to make full or partial withdrawals with notice, subject to restrictions on the timing and amount.

Nonmarketable Alternative Investments - Consists of limited partnerships involving an advance commitment of capital called by the general partner as needed and distributions of capital and return on invested capital as underlying strategies are concluded during the life of the partnership. The committed but unpaid obligation to these limited partnerships is disclosed in Note 4.

Portable Alpha Program - Included in the University's investment policy is a Portable Alpha Program in which synthetic market exposures across asset classes including equities, sovereign bonds, inflation-linked bonds and commodities may be obtained through derivative instruments commonly accepted by other institutional investors, such as futures, swaps, options, forward contracts and reverse repurchase agreements. These derivative instruments shall be managed by external investment firms with appropriate expertise, experience and depth of resources.

When synthetic market exposures are obtained through derivative instruments, a portion of the resulting cash and cash equivalent balances may be invested by active alpha managers seeking to add returns over the benchmark. These alpha managers will possess broadly diverse strategies/styles and, in the aggregate, are expected to produce returns that show little or no relationship to the economic environment being experienced at any given time. Furthermore, this portfolio of managers will be constructed with a goal of low/no correlation to the synthetic market exposures obtained through the derivative instruments.

The allowable range of the portable alpha portfolio for both the Endowment Pool and Pension Trust Funds shall be 0-25% of the total investment of the respective pools. As of June 30, 2019 the portable alpha portfolio was 18.5% and 20.0% for the Endowment Pool and Pension Trust Funds, respectively.

Management of liquidity risk is a critical component of the portable alpha program. If not managed appropriately, there is a risk that synthetic market exposures may need to be unwound at undesirable points in time in order to meet margin calls during volatile markets. To help mitigate this risk, prudent balances of cash and cash equivalents shall be maintained as part of the program and monitored daily. The cash margin target set by the Endowment Pool and Pension Trust Funds are 30%. In the case the margin drops below 30%, management has implemented guidelines to replenish the cash margin back to the target. As of June 30, 2019, the cash margin for the Endowment Pool and Pension Trust Funds were above the targeted margin of 30%.

Securities Lending Transactions - The University and Pension Trust Funds each participate in an external investment pool securities lending program to augment income. The program is administered by the custodial agent bank, which lends equity, government and corporate securities for a predetermined period of time to an independent broker/dealer (borrower) in exchange for collateral. Collateral may be cash, U.S. Government securities, defined letters of credit or other collateral approved by the University or Pension Trust Funds. Loaned domestic securities are initially collateralized at 102% of their fair value, while loaned international securities are collateralized at 105% of fair value. Exposure to credit risk from borrower default has been minimized by having the custodial agent bank determine daily that required collateral meets a minimum of 102% of the fair value of loaned domestic securities and 105% for loaned international securities.

For the University, at June 30, 2019 and 2018, there were a total of \$20,580,000 and \$27,889,000, respectively, of securities out on loan to borrowers. The value of collateral received from the borrower for these securities consisted of \$3,616,000 and \$5,012,000 in cash and \$17,627,000 and \$24,076,000 noncash collateral at June 30, 2019 and 2018, respectively.

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For the Pension Trust Funds, at June 30, 2019 and 2018, there was a total of \$158,266,000 and \$193,761,000 of securities out on loan to borrowers. The value of collateral received from the borrower for these securities consisted of \$106,182,000 and \$158,979,000 in cash and \$56,397,000 and \$39,780,000 noncash collateral at June 30, 2019 and 2018, respectively.

Cash collateral received from the borrower is invested by the custodial agent bank in commingled collateral investment pools in the name of the University and Pension Trust Funds, with guidelines approved by each. The cash collateral received is shown as Investment of Cash Collateral in the Statement of Net Position and Statement of Fiduciary Net Position and reported at fair value, with changes in market value recorded in Investment and Endowment Income on the Statement of Revenues, Expenses, and Changes in Net Position and Statement of

Changes in Fiduciary Net Position. Noncash collateral received for securities lending activities is not recorded as an asset because the University and Pension Trust Funds do not have the ability to pledge or sell such collateral unless the borrower defaults.

The University and Pension Trust Funds continue to receive interest and dividends during the loan period. The maturities of the investments made with the cash collateral generally match the maturities of the securities lent. At June 30, 2019 and 2018, neither the University nor the Pension Trust Funds have any credit risk exposure arising from the actual securities lending transactions since the collateral received from the borrower exceeds the value of the securities lent. Further, the University and Pension Trust Funds are fully indemnified by the custodial bank against any losses incurred as a result of borrower default.

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4. FAIR VALUE OF ASSETS AND LIABILITIES

The University categorizes its fair value measurements within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurements and Application*. The three-tiered hierarchy for fair value is as follows:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that are available at the measurement date.

Level 2 – Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Unobservable inputs reflect the University's own assumptions about the inputs market participants would use in pricing the asset or liability (including assumption about risk). Unobservable inputs are developed based on the best information available in the circumstances and may include the University's own data.

When available, quoted prices are used to determine fair value. When quoted prices in active markets are available, investments are classified within Level 1 of the fair value hierarchy. The University's Level 1 investments primarily consist of investments in U.S. Treasury obligations, equity securities, and mutual funds. When quoted prices in active markets are not available, fair values are based on evaluated prices received from the University's custodian of investments in conjunction with a third party service provider and are reported within Level 2 of the fair value hierarchy. The inputs for Level 2 include, but are not limited to, pricing models such as benchmarking yields, reported trades, broker-dealer quotes, issuer spreads and benchmarking securities, among others. The University's Level 2 investments primarily consist of investments in U.S. government and agency obligations, asset-backed securities, and corporate debt securities that did not trade on the University's fiscal year end date.

The University's Level 3 investments primarily consist of land held as investments. Certain investments are valued using the net asset value (NAV) per share (or its equivalent) and are considered "alternative investments" and, unlike more traditional investments, generally do not have readily obtainable market values and take the form of limited partnerships. The University values these investments based on the partnerships' audited financial statements. If June 30 statements are available, those values are used preferentially. However, some partnerships have fiscal years ending at other than June 30. If June 30 valuations are not available, the value is progressed from the most recently available valuation taking into account subsequent calls and distributions.

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At June 30, 2019, the University had the following recurring fair value measurements.

Table 4.1 - Investments and Derivative Instruments Measured at Fair Value (in thousands)

As of June 30,	University of Missouri							
	Fair Value Measurements Using				Fair Value Measurements Using			
	Quoted Prices in Active Markets for Identical Assets		Significant Other Observable Inputs		Significant Unobservable Inputs		Quoted Prices in Active Markets for Identical Assets	
	(Level 1)	(Level 2)	(Level 3)	(Level 3)	(Level 1)	(Level 2)	(Level 3)	(Level 3)
2019					2018			
Investments by fair value level								
Debt Securities:								
U.S. Treasury Obligations	\$ 771,356	\$ 771,356	\$ -	\$ -	\$ 809,309	\$ 809,309	\$ -	\$ -
U.S. Agency Obligations	3,176	-	3,176	-	2,339	-	2,339	-
Asset-Backed Securities	637,214	-	637,214	-	534,743	-	534,743	-
Government	34,885	-	34,885	-	30,786	-	30,786	-
Corporate	268,929	-	268,929	-	225,379	-	225,379	-
Equity Securities:								
Domestic	160,826	160,826	-	-	53,737	53,737	-	-
Foreign	105,899	105,899	-	-	55,717	55,717	-	-
Commingled Funds:								
Debt Securities	-	-	-	-	19,601	19,601	-	-
Equity Securities	-	-	-	-	32,428	32,428	-	-
Real Estate	-	-	-	-	3,519	3,519	-	-
Other	24,376	-	8,250	16,126	24,882	-	9,521	15,361
Investments measured at the net asset value (NAV)								
Commingled Funds:								
Absolute Return	329,429	-	-	-	329,396	-	-	-
Risk Balanced	651,657	-	-	-	684,752	-	-	-
Debt Securities	149,330	-	-	-	194,168	-	-	-
Equity Securities	345,612	-	-	-	300,106	-	-	-
Real Estate	23,942	-	-	-	23,125	-	-	-
Nonmarketable Alternative Investments:								
Real Estate	120,859	-	-	-	114,069	-	-	-
Private Equity/Debt	404,519	-	-	-	290,659	-	-	-
Other	6,392	-	-	-	7,494	-	-	-
Total investments by fair value level	4,038,401	1,038,081	952,454	16,126	3,736,209	974,311	802,768	15,361
Interest Rate Swaps	(35,542)	-	(35,542)	-	(27,570)	-	(27,570)	-
Total Investments and Financing								
Derivative Instruments	\$ 4,002,859	\$ 1,038,081	\$ 916,912	\$ 16,126	\$ 3,708,639	\$ 974,311	\$ 775,198	\$ 15,361

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University of Missouri Pension Trust Funds										
As of June 30,	Fair Value Measurements Using					Fair Value Measurements Using				
	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)
2019						2018				
Investments by fair value level										
Debt Securities:										
U.S. Treasury Obligations	\$ 273,661	\$ 273,661	\$ -	\$ -	\$ -	\$ 320,005	\$ 320,005	\$ -	\$ -	\$ -
Asset-Backed Securities	72,582	-	72,582	-	-	65,954	-	65,954	-	-
Government	8,364	-	8,364	-	-	5,234	-	5,234	-	-
Corporate	41,009	-	41,009	-	-	32,791	-	32,791	-	-
Equity Securities:										
Domestic	87,281	87,281	-	-	-	99,670	99,670	-	-	-
Foreign	135,954	135,954	-	-	-	113,569	113,569	-	-	-
Investments measured at the net asset value (NAV)										
Commingled Funds:										
Absolute Return	701,288	-	-	-	-	774,952	-	-	-	-
Risk Balanced	473,728	-	-	-	-	398,073	-	-	-	-
Debt Securities	111,400	-	-	-	-	315,670	-	-	-	-
Equity Securities	659,390	-	-	-	-	466,824	-	-	-	-
Real Estate	43,286	-	-	-	-	41,922	-	-	-	-
Nonmarketable Alternative Investments:										
Real Estate	225,355	-	-	-	-	214,295	-	-	-	-
Private Equity	591,178	-	-	-	-	487,787	-	-	-	-
Total investments by fair value level	\$ 3,424,476	\$ 496,896	\$ 121,955	\$ -	\$ -	\$ 3,336,746	\$ 533,244	\$ 103,979	\$ -	\$ -

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The following table presents investments as of June 30, 2019 that have been valued using the NAV as a practical expedient, classified by major investment category:

Table 4.2- Investments Measured at the NAV (in thousands)

University of Missouri					
	Fair Value	Investment Strategy and Structure (1)	Unfunded Commitments	Fund Term (1)	Redemption Terms (1)
Commingled Funds (2):					
Absolute Return	\$ 329,429	Broadly diversified, traditional hedge fund and risk premia exposures obtained through long/short positions across global liquid markets, structured to achieve minimal equity beta with a lower level of volatility relative to the rest of the portfolio.	\$ -	Open Ended	Semi-Monthly, Monthly, and Quarterly redemption with 1 -45 days notice
Risk Balanced	651,657	An asset allocation strategy which seeks to provide higher risk-adjusted returns by allocating risk, not capital, equally across a broadly diversified portfolio of global equities, global nominal bonds and inflation-sensitive assets.	-	Open Ended	Weekly, Monthly, and Quarterly redemption with 1 - 90 days notice
Debt Securities	149,330	Global fixed income exposures focused primarily on high yield, emerging markets debt and other unconstrained / opportunistic strategies.	-	Open Ended	Daily and Monthly redemption with 1 -2 days notice
Equity Securities	345,612	Global equity exposures achieved through a combination of traditional active, passive, systematic and factor-based strategies.	-	Open Ended	Daily, Semi-Monthly, and Monthly redemption with 1 -15 days notice
Real Estate	23,942	Core real estate holdings in open-ended fund.	-	Open Ended	Quarterly redemption with 1 -30 days notice
Nonmarketable Alternative Funds (3):					
Real Estate	120,859	Diversified portfolio of longer-term private market funds focused on value-added and opportunistic real estate and/or real estate debt.	74,253	10 -12 years	Not applicable - no redemption ability
Private Equity	404,519	Investments in hedge funds, global equity, credit, real assets, natural resources, and other investments through private partnerships and holding companies	158,266	10 -12 years	Not applicable - no redemption ability
Other	6,392	Diversified portfolio of longer-term private market funds focused on leveraged buyouts, special situations and venture capital investments.	-	Open Ended	Not applicable - no redemption ability

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**University of Missouri
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	Fair Value	Investment Strategy and Structure (1)	Unfunded Commitments	Fund Term (1)	Redemption Terms (1)
Commingled Funds (2):					
Absolute Return	\$ 701,288	Broadly diversified, traditional hedge fund and risk premia exposures obtained through long/short positions across global liquid markets, structured to achieve minimal equity beta with a lower level of volatility relative to the rest of the portfolio.	\$ -	Open Ended	Semi-Monthly, Monthly, and Quarterly redemption with 1 -45 days notice
Risk Balanced	473,728	An asset allocation strategy which seeks to provide higher risk-adjusted returns by allocating risk, not capital, equally across a broadly diversified portfolio of global equities, global nominal bonds and inflation-sensitive assets.	-	Open Ended	Weekly, Monthly, and Quarterly redemption with 1 - 90 days notice
Debt Securities	111,400	Global fixed income exposures focused primarily on high yield, emerging markets debt and other unconstrained / opportunistic strategies.	-	Open Ended	Daily, Weekly, and Monthly redemption
Equity Securities	659,390	Global equity exposures achieved through a combination of traditional active, passive, systematic and factor-based strategies.	-	Open Ended	Daily, Semi-Monthly, and Monthly redemption with 1 -15 days notice
Real Estate	43,286	Core real estate holdings in open-ended fund.	-	Open Ended	Quarterly redemption with 45 days notice
Nonmarketable Alternative Funds (3):					
Real Estate	225,355	Investments in hedge funds, global equity, credit, real assets, natural resources, and other investments through private partnerships and holding companies	187,506	10 -12 years	Not applicable - no redemption ability
Private Equity/Debt	591,178	Diversified portfolio of longer-term private market funds focused on leveraged buyouts, special situations and venture capital investments.	253,438	10 -12 years	Not applicable - no redemption ability

(1) Information reflects a range of various terms from multiple investments.

(2) Commingled funds include investments that aggregate assets from multiple investors and are managed collectively following a prescribed strategy.

(3) Nonmarketable Alternative Funds. This generally refers to investments in private partnerships or investment funds focusing on equity or credit investments in private companies. The partnerships or funds generally have no redemption rights; the general partners of the respective funds issue capital calls and distributions. These funds generally provide the NAV or capital balances and changes quarterly or less frequently. Performance fees are generally collected by the general partner or investment manager only upon distributions of profits to investors.

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The unfunded commitments as of June 30, 2019 totaled \$232,519,000 and \$440,944,000 for the University and the Pension Trust Funds, respectively. The unfunded commitments as of June 30, 2018 totaled \$273,170,000 and \$428,952,000 for the University and the Pension Trust Funds, respectively. There were no significant changes in the investment strategy, structure, and liquidity terms for the investments that were measured at NAV from June 30, 2018 to June 30, 2019.

5. ACCOUNTS RECEIVABLE

Accounts receivable at June 30, 2019 and 2018, are summarized as follows:

Table 5.1 - Accounts Receivable (in thousands)

	2019	2018
Grants and Contracts	\$ 72,701	\$ 53,732
Federal Appropriations	6,773	8,961
Student Fees and Other Academic Charges	129,942	132,312
Patient Services, Net of Contractual Allowances	213,597	179,055
Subtotal	423,013	374,060
Less Provisions for Loss:		
Grants & Contracts	600	401
Student Fees and Other Academic Charges	16,872	16,041
University Health Care Patient Services	29,110	22,067
Subtotal	46,582	38,509
Total Accounts Receivable, Net	\$ 376,431	\$ 335,551

6. NOTES RECEIVABLE

Notes receivable generally consist of resources available for financial loans to students. These resources are provided through Federal loan programs and University loan programs generally funded by external sources. Notes receivable at June 30, 2019 and 2018, are summarized as follows:

Table 6.1 - Notes Receivable (in thousands)

	2019	2018
Federal Health Profession Loans	\$ 16,891	\$ 17,635
Carl D. Perkins National Loans	25,388	31,198
University Loan Programs	14,293	14,278
Other	20,982	20,982
Subtotal	77,554	84,093
Less Provisions for Loss	4,427	5,191
Total Notes Receivable, Net	\$ 73,127	\$ 78,902

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7. CAPITAL ASSETS

Capital assets activity for the years ended June 30, 2019 and 2018, is summarized as follows:

Table 7.1 - Capital Assets (in thousands)

Fiscal Year 2019	Beginning Balance	Additions/ Transfers	Retirements	Ending Balance
Capital Assets, Nondepreciable:				
Land	\$ 95,745	\$ 2,664	\$ (38)	\$ 98,371
Artwork and Historical Artifacts	15,489	331	(5)	15,815
Construction in Progress	105,497	74,186	-	179,683
Total Capital Assets, Nondepreciable	216,731	77,181	(43)	293,869
Capital Assets, Depreciable:				
Buildings and Improvements	4,307,279	150,056	(1,049)	4,456,286
Infrastructure	590,327	8,921	(162)	599,086
Equipment	940,182	58,602	(32,066)	966,718
Library Materials	277,180	3,595	-	280,775
Total Capital Assets, Depreciable	6,114,968	221,174	(33,277)	6,302,865
Less Accumulated Depreciation:				
Buildings and Improvements	1,774,858	127,050	(1,264)	1,900,644
Infrastructure	257,910	21,754	(131)	279,533
Equipment	714,060	57,839	(29,976)	741,923
Library Materials	201,796	6,399	-	208,195
Total Accumulated Depreciation	2,948,624	213,042	(31,371)	3,130,295
Total Capital Assets, Depreciable, Net	3,166,344	8,132	(1,906)	3,172,570
Total Capital Assets, Net	\$ 3,383,075	\$ 85,313	\$ (1,949)	\$ 3,466,439

Fiscal Year 2018	Beginning Balance	Additions/ Transfers	Retirements	Ending Balance
Capital Assets, Nondepreciable:				
Land	\$ 94,363	\$ 1,386	\$ (4)	\$ 95,745
Artwork and Historical Artifacts	15,436	53	-	15,489
Construction in Progress	181,076	(75,579)	-	105,497
Total Capital Assets, Nondepreciable	290,875	(74,140)	(4)	216,731
Capital Assets, Depreciable:				
Buildings and Improvements	4,123,386	223,971	(40,078)	4,307,279
Infrastructure	581,818	8,668	(159)	590,327
Equipment	943,670	55,070	(58,558)	940,182
Library Materials	272,829	4,351	-	277,180
Total Capital Assets, Depreciable	5,921,703	292,060	(98,795)	6,114,968
Less Accumulated Depreciation:				
Buildings and Improvements	1,660,380	120,553	(6,075)	1,774,858
Infrastructure	236,316	21,753	(159)	257,910
Equipment	709,113	61,237	(56,290)	714,060
Library Materials	194,359	7,437	-	201,796
Total Accumulated Depreciation	2,800,168	210,980	(62,524)	2,948,624
Total Capital Assets, Depreciable, Net	3,121,535	81,080	(36,271)	3,166,344
Total Capital Assets, Net	\$ 3,412,410	\$ 6,940	\$ (36,275)	\$ 3,383,075

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Construction in Progress - The estimated cost to complete construction in progress at June 30, 2019, is \$551,455,000 of which \$456,585,000 is available from unrestricted net position. The remaining costs are expected to be funded from \$77,805,000 of gifts and \$17,065,000 of debt proceeds and state appropriations.

Capital assets include a building facility under a capital lease of \$10,364,000 and related accumulated depreciation of \$10,195,000 and \$9,519,000 at June 30, 2019 and 2018, respectively.

Asset Retirement Obligation - The University has an asset retirement obligation based on its ownership of two nuclear research reactors, which are regulated by the U.S. Nuclear Regulatory Commission (NRC). The NRC requires the University to submit decommissioning funding plans every three years to retain the right to operate the reactors. The decommissioning funding plans update and adjust changes in costs to remediate and the extent of the estimated future contamination. The cost to decommission the reactors is based on a formula as set forth by the NRC as part of the licensing of the facilities. The asset retirement obligation as of the end of fiscal year 2019 and 2018 was \$62,433,000. A deferred outflow of resources was recognized for the same amount in fiscal year 2018 and is being amortized over 25 years, which approximates the estimated remaining useful lives of the reactors. An asset retirement expense was recognized in fiscal years 2019 and 2018 for \$2,497,000 each year and is reflected in depreciation expense on the Statement of Revenues, Expenses, and Changes in Net Position. The deferred outflows of resources at June 30, 2019 will be amortized over a remaining 23 years.

Extraordinary Item - During fiscal year 2018, the University recognized an asset impairment loss on the Oak Place Apartment buildings located in Kansas City, Missouri. The buildings suffered significant damage as the result of the

poor structural design and construction of the buildings. As a result, the capital assets were considered impaired and the value was written down to reflect that there is no value in the buildings in their current condition.

Due to the age of the buildings and that the buildings were at the beginning of their expected useful life, the University considered the impairment to be unexpected and unusual to its operations. Therefore, the University has recognized an impairment loss in fiscal year 2018, net of realizable insurance proceeds, of \$17,908,000 as an extraordinary item on its Statements of Revenues, Expenses, and Changes in Net Position.

The University has begun the litigation process with the parties involved in the design and construction of the buildings. Insurance proceeds of \$11,757,000 were received in fiscal year 2019. Additional proceeds through insurance or recoveries through litigation could be recognized in future periods as they are received or realizable.

8. ACCRUED SHORT-TERM LIABILITIES

Accrued liabilities at June 30, 2019 and 2018 are summarized as follows:

Table 8.1 - Accrued Liabilities (in thousands)

	2019	2018
Accrued Salaries, Wages & Benefits	\$ 72,780	\$ 68,466
Accrued Vacation	53,997	52,576
Accrued Self Insurance Claims	41,496	43,621
Accrued Interest Payable	12,275	12,506
Total Accrued Liabilities	\$ 180,548	\$ 177,169

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9. OTHER NONCURRENT LIABILITIES

Table 9.1 - Other Noncurrent Liabilities *(in thousands)*

Fiscal Year 2019	Beginning of Year	Additions	Payments	Total End of Year	Less Current Portion	Noncurrent End of Year
Accrued Vacation	\$ 75,612	\$ 49,059	\$ (45,327)	\$ 79,344	\$ (53,997)	\$ 25,347
Accrued Self-Insurance Claims	85,846	222,659	(223,235)	85,270	(41,496)	43,774
Accrued Other Insurance Claims	4,470	358	(269)	4,559	-	4,559
Charitable Annuity Obligations	10,688	4,794	(3,391)	12,091	-	12,091
	\$ 176,616	\$ 276,870	\$ (272,222)	\$ 181,264	\$ (95,493)	\$ 85,771

Fiscal Year 2018	Beginning of Year	Additions	Payments	Total End of Year	Less Current Portion	Noncurrent End of Year
Accrued Vacation	\$ 76,582	\$ 46,059	\$ (47,029)	\$ 75,612	\$ (52,576)	\$ 23,036
Accrued Self-Insurance Claims	89,082	220,389	(223,625)	85,846	(43,621)	42,225
Accrued Other Insurance Claims	4,999	409	(938)	4,470	-	4,470
Charitable Annuity Obligations	11,499	364	(1,175)	10,688	-	10,688
	\$ 182,162	\$ 267,221	\$ (272,767)	\$ 176,616	\$ (96,197)	\$ 80,419

Charitable Gift Annuities and Trusts - A charitable gift annuity is a contractual agreement between one or two donors (typically husband and wife) and a charity. The donor(s) transfers assets as a gift to the charity, and in return the charity is obligated to pay a fixed annuity to one or two annuitants, of the donor(s)' choosing, for the life of the donor(s). As part of the University's "Planned Giving" program, the University enters into Charitable Gift Annuity contracts with donors. The University is a remainder interest beneficiary and records a liability for the lead

interest that is assigned to other beneficiaries. The University' liability related to the lead interest were \$12,091,000 and \$10,688,000 at June 30, 2019 and 2018, respectively. The University's remainder interest is represented as Deferred Inflows of Resources on the Statement of Net Position and were \$13,628,000 and \$13,393,000 at June 30, 2019 and 2018, respectively.

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10. LONG-TERM DEBT

The University's outstanding debt at June 30, 2019 and 2018, with corresponding activity, is as follows:

Table 10.1 - Long-Term Debt (in thousands)

	Beginning			Ending	Current
As of June 30, 2019	Balance	Additions	Reductions	Balance	Portion
System Facilities Revenue Bonds - Fixed	\$ 1,260,195	\$ -	\$ (27,770)	\$ 1,232,425	\$ 134,090
System Facilities Revenue Bonds - Variable	89,695	-	(3,510)	86,185	86,185
Unamortized Premium	43,191	-	(6,055)	37,136	-
Net System Facilities Revenue Bonds	1,393,081	-	(37,335)	1,355,746	220,275
Notes Payable	32,401	-	(925)	31,476	1,272
Capital Lease Obligations	1,439	-	(1,139)	300	300
Commercial Paper	191,575	65,000	-	256,575	256,575
Subtotal	1,618,496	65,000	(39,399)	1,644,097	478,422
Health Facilities Revenue Bonds	40,582	-	(3,097)	37,485	3,192
Total Long-Term Debt	\$ 1,659,078	\$ 65,000	\$ (42,496)	\$ 1,681,582	\$ 481,614

	Beginning			Ending	Current
As of June 30, 2018	Balance	Additions	Reductions	Balance	Portion
System Facilities Revenue Bonds - Fixed	\$ 1,288,385	\$ -	\$ (28,190)	\$ 1,260,195	\$ 27,770
System Facilities Revenue Bonds - Variable	93,070	-	(3,375)	89,695	89,695
Unamortized Premium	49,101	-	(5,910)	43,191	-
Net System Facilities Revenue Bonds	1,430,556	-	(37,475)	1,393,081	117,465
Notes Payable	33,080	285	(964)	32,401	986
Capital Lease Obligations	2,488	-	(1,049)	1,439	1,139
Commercial Paper	196,203	-	(4,628)	191,575	191,575
Subtotal	1,662,327	285	(44,116)	1,618,496	311,165
Health Facilities Revenue Bonds	43,591	-	(3,009)	40,582	3,098
Guaranteed Debt Outstanding	2,615	-	(2,615)	-	-
Total Long-Term Debt	\$ 1,708,533	\$ 285	\$ (49,740)	\$ 1,659,078	\$ 314,263

Interest expense associated with financing projects during construction, net of any investment income earned on bond proceeds during construction, is capitalized. Total interest expense during the years ended June 30, 2019 and 2018 was \$70,364,000 and \$71,822,000, respectively. Interest expense associated with financing projects during construction, net of any investment income earned on bond proceeds during construction, is capitalized. For the years ended June 30, 2019 and 2018, capitalization of interest earned on unspent bond proceeds totaled \$3,779,000 and \$779,000, respectively, resulting in net interest expense of \$66,585,000 and \$71,043,000, respectively. For the year ended June 30, 2019 and 2018, the University earned cash subsidy payments from the United States Treasury totaling \$9,828,000 and \$9,755,000, respectively, for designated Build America Bonds

outstanding, which was recorded as Federal Appropriations on the Statements of Revenues, Expenses, and Changes in Net Position.

System Facilities Revenue Bonds - System Facilities Revenue Bonds have provided financing for capital expansion or renovation of various University facilities. The principal and interest of the bonds are payable from, and secured by a first lien on and pledge of, designated revenues which include the following: a portion of tuition and fees, sales and services from the financed facilities, such as bookstore collections, housing and dining charges, patient services, and parking collections, as well as certain assessed fees, such as the recreational facility fees, stadium surcharges, and student center fees.

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Table 10.2 - Revenue Bonds (in thousands)

Series	Type	Weighted Avg. Cost of Capital at		Original Issue	Balance June 30,	
		June 30, 2019	Final Maturity		2019	2018
2009A (1)	Fixed	4.02%	11/1/2039	256,300	\$ 256,300	\$ 256,300
2009B	Fixed	3.53%	11/1/2021	75,760	22,350	29,195
2010A (1)	Fixed	3.90%	11/1/2041	252,285	252,285	252,285
2011	Fixed	3.41%	11/1/2027	54,125	31,290	34,455
2012A	Fixed	1.58%	11/1/2019	105,155	105,155	105,155
2013A	Fixed	2.29%	11/1/2023	11,325	7,230	8,475
2013B	Fixed	4.87%	11/1/2043	150,000	150,000	150,000
2014A	Fixed	3.06%	11/1/2037	294,510	257,815	274,330
2014B	Fixed	4.24%	11/1/2054	150,000	150,000	150,000
Total Fixed Rate Bonds				1,349,460	1,232,425	1,260,195
2007B (2)	Variable	1.88%	11/1/2031	102,250	86,185	89,695
Total Variable Rate Demand Bonds				102,250	86,185	89,695
Total System Facilities Revenue Bonds				\$ 1,451,710	\$ 1,318,610	\$ 1,349,890
2011 (3)	Fixed	4.20%	11/1/2027	32,835	19,935	21,930
2017 (3)	Fixed	3.10%	3/1/2032	20,000	17,550	18,652
Total Revenue Bonds				\$ 1,504,545	\$ 1,356,095	\$ 1,390,472

(1) Taxable issue designated as Build America Bonds under the Internal Revenue Code of 1986, as amended.

(2) As of June 30, 2019; rates are determined daily or weekly by the remarketing agents. The rate is usually within a range at or near the Securities Industry and Financial Markets Association Municipal Swap Index (SIFMA Index) rate, which resets weekly.

(3) Tax-exempt revenue bonds issued by Health and Educational Facilities Authority on behalf of the Medical Alliance, which is rated separately from the University.

System Facilities Revenue Bond Series 2007B is a variable rate demand bond with remarketing features which allow bondholders to put debt back to the University. Because the University is the sole source of liquidity should the option to tender be exercised by the bondholder, these variable rate demand bonds are classified in their entirety as current liabilities on the Statements of Net Position, with the balance in excess of actual current principal maturities reported as Long-Term Debt Subject to Remarketing of \$82,540,000 and \$86,185,000 at June 30, 2019 and 2018, respectively. The amount of current liabilities that represents the current principal maturities are \$3,645,000 and \$3,510,000 at June 30, 2019 and 2018, respectively.

In-substance defeased bonds aggregating \$272,355,000 and \$275,645,000 are outstanding at June 30, 2019 and 2018, respectively.

Health Facilities Revenue Bonds - Tax-exempt revenue bonds have provided financing of capital facilities and

refinancing of previously issued debt. The bonds were issued by the Health and Education Facilities Authority of the State of Missouri (the Authority) on behalf of the Medical Alliance. Premium and the deferred financing costs are amortized on the effective interest method over the life of the respective bonds. The bonds are secured by the unrestricted receivables of the Medical Alliance. Under the terms of the Master Indenture, the Medical Alliance is required to make payments of principal, premium, if any, and interest on the bonds. In addition, the Master Indenture contains certain restrictions on the operations and activities of the Medical Alliance, including, among other things, covenants restricting the incurrence of additional indebtedness and the creation of liens on property, except as permitted by the Master Indenture. The Master Indenture has mandatory sinking fund redemption requirements in which funds are required to be set aside beginning in 2021 for the Series 2011 bonds and monthly for the Series 2017 bonds.

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Interest Rate Swap Agreements - With an objective of lowering the University's borrowing costs, when compared against fixed-rate debt, the University entered into interest rate swap agreements in connection with certain variable-rate System Facilities Revenue Bonds and commercial paper. Under each of the swap agreements, the University

pays the swap counterparty a fixed interest rate payment and receives a variable rate interest rate payment that effectively changes a component of the University's variable interest rate debt to fixed rate debt. Table 10.3 presents the terms of the outstanding swaps and their fair values at June 30, 2019.

Table 10.3 - Interest Rate Swaps (in thousands)

Type	Notional Amount	Effective Date	Maturity Date	Terms	Fair Value	Counterparty Credit Rating
Pay fixed; receive variable	\$ 40,000	7/18/2002	11/1/2032	Pay 3.950%; receive SIFMA Index	\$ (11,906)	Aa3 / A+
Pay fixed; receive variable	46,550	12/14/2006	8/1/2026	Pay 3.902%; receive SIFMA Index	(7,703)	Aa3 / A+
Pay fixed; receive variable	86,185	7/26/2007	11/1/2031	Pay 3.798%; receive 68% of 1-Month LIBOR	(15,933)	Aa3 / A+
Total	\$ 172,735				\$ (35,542)	

The 2002 and 2006 swaps do not specifically hedge any currently outstanding debt; rather, they serve to reduce the overall exposure to interest rate risk on the University's variable rate debt not otherwise specifically hedged. The notional amount of the 2002 swap is fixed over the life of the agreement. The notional amount of the 2006 swap decreases annually over the life of the swap. The 2007 swap specifically hedges System Facilities Revenue Bond Series 2007B, the effectiveness of which has been determined

using the synthetic instrument method. The notional amount of the 2007 swap is equal to the outstanding balance of the Series 2007B bonds.

The University recognizes the fair value and corresponding changes in fair value of the outstanding swaps in the University's financial statements. Changes in fair value of the outstanding swaps, with respective financial statement presentation, are presented in Table 10.4:

Table 10.4 - Interest Rate Swaps - Change in Fair Value (in thousands)

Type	Fair Value at June 30,		Fair Value on	Change in	Presentation of Change in Fair Value
	2019	2018	Acquisition	Fair Value	
2002 Swap - Investment Derivative	\$ (11,906)	\$ (8,736)	N/A	\$ (3,170)	Investment and Endowment Income, Net
2006 Swap - Investment Derivative	(7,703)	(5,881)	N/A	(1,822)	Investment and Endowment Income, Net
2007 Swap - Cash Flow Hedge	(15,933)	(12,953)	N/A	(2,980)	Deferred Outflows of Resources
Total	\$ (35,542)	\$ (27,570)		\$ (7,972)	

Fair Value. There is a risk that the fair value of a swap could be adversely affected by changing market conditions. The fair values, developed using the zero coupon method with proprietary models, were prepared by the counterparties, JPMorgan Chase Bank, N.A., and Bank of America, N.A., major U.S. financial institutions. The zero coupon method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied

by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each net settlement of the swap. The fair value of the interest rate swaps is the estimated amount the University would have either (paid) or received if the swap agreements were terminated on June 30, 2019.

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Credit Risk. Although the University has entered into the interest rate swaps with creditworthy financial institutions, there is credit risk for losses in the event of non-performance by the counterparties. Subject to applicable netting arrangements, swap contracts with positive fair values are exposed to credit risk. The University faces a maximum possible loss equivalent to the amount of the derivative's fair value. Subject to applicable netting arrangements, swaps with negative fair values are not exposed to credit risk. Collateral requirements apply to both parties for the 2002 and 2007 swaps and for the 2006 swap collateral requirements only apply to the counterparty. The collateral requirements are determined by a combination of credit ratings and the aggregate fair value of swaps outstanding with each counterparty as presented in Table 10.5:

Table 10.5 - Swap Collateral Requirements

Credit Rating (S&P / Moody's)	Fair Value Threshold (in thousands)
AAA/Aaa	\$ 50,000
AA+/Aa1	30,000
AA/Aa2	30,000
AA-/Aa3	20,000
A+/A1	20,000
A/A2	10,000
A-/A3	10,000
BBB+/Baa1	5,000

If the aggregate fair value of swaps outstanding with each counterparty is positive and exceeds the fair value threshold for the applicable credit rating, the counterparties are required to post collateral. If the

aggregate fair value of the 2002 and 2007 swaps is negative and exceeds the fair value threshold for the applicable credit rating, the University is required to post collateral. Permitted collateral for either party includes U.S. Treasuries, U.S. government agencies, cash, and commercial paper rated A1/P1 by S&P or Moody's, respectively. The negative aggregate fair value of the 2002 and 2007 swaps did not exceed \$30,000,000 on June 30, 2019, which is the current fair value threshold for the University given its Moody's rating of Aa1. As a result, the University was not required to post collateral with the counterparty at June 30, 2019.

Basis Risk. The variable-rate payments received by the University on the 2007 swap are determined by 68% of one month LIBOR, whereas the interest rates paid by the University on its variable-rate bonds correspond to the SIFMA Index. The University is exposed to basis risk only to the extent that the historical relationship between these variable market rates changes going forward, resulting in a variable-rate payment received on the 2007 swap that is significantly less than the variable-rate interest payment on the bonds.

Termination Risk. The University is exposed to termination risk for the 2002 and 2007 interest rate swaps as the counterparty has the right to terminate the agreements in certain circumstances. For the 2002 swap, the counterparty has a contractual right to terminate the agreement if the daily weighted average of the SIFMA Index for the preceding 30 calendar day period is greater than 7.00%. With regard to the 2007 swap, the counterparty has a contractual right to terminate the agreement if the daily weighted average of the SIFMA Index for the preceding 180 days is greater than 6.00%. The 2006 interest rate swap is not exposed to termination risk. The SIFMA Index was 1.90% at June 30, 2019.

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Debt-Related Items Presented as Deferred Outflows of Resources - As required by GASB, the University recognizes certain debt-related items as deferred outflows of resources. The detail of the debt related items recognized as deferred outflows resources is presented in Table 10.6.

Table 10.6 - Debt-Related Deferred Outflows of Resources *(in thousands)*

	2019	2018
Swaps - Cash Flow Hedge	\$ 15,933	\$ 12,953
Loss on Bond Defeasance	14,750	16,884
Deferred Outflows of Resources	\$ 30,683	\$ 29,837

For the years ended June 30, 2019 and 2018 the amortization of the Loss on Bond Defeasance totaled \$2,134,000 and \$2,484,000, respectively, which increases interest expense.

Pledged Revenues and Debt Service Requirements - For fiscal years 2019 and 2018, annual debt service, including net payments on associated interest rate swaps, totaled \$108,143,000 and \$104,303,000, respectively. For fiscal years 2019 and 2018, System Facilities Pledged Revenue was fourteen and thirteen times greater than the annual debt service, respectively. Net System Facilities Revenue was 201% and 212% of annual debt service for fiscal years 2019 and 2018, respectively. Table 10.7 provides the System Facilities pledged net revenues.

Table 10.7 - System Facilities Pledged Net Revenues *(in thousands)*

	2019	2018
Pledged Revenues:		
Net Patient Revenue	\$ 1,288,005	\$ 1,194,432
Housing and Food Service	105,953	102,287
Bookstores	38,380	41,470
Net Tuition and Fees	27,867	28,551
Other Operating Revenue	35,561	39,425
Pledged Revenues	1,495,766	1,406,165
Operating Expenses	1,278,543	1,185,283
Net Revenues	\$ 217,223	\$ 220,882

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Table 10.8 provides future debt service requirements for Revenue Bonds, including the impact of interest rate swap agreements. With respect to the inclusion of variable rate bond interest payments and net payments on swaps, the following data was based upon variable rates in effect at June 30, 2019. As market rates vary, variable rate bond interest payments and net swap payments will vary.

Table 10.8 - Future Debt Service - Revenue Bonds (in thousands)

Fiscal Year	Principal	Interest	Hedging Derivatives, Net	Total Before Investment Derivatives	Investment Derivatives, Net	Total Future Debt Service
2020	140,927	62,725	1,765	205,417	1,742	207,159
2021	28,944	59,036	1,686	89,666	1,718	91,384
2022	30,272	57,784	1,605	89,661	1,691	91,352
2023	33,665	56,341	1,520	91,526	1,661	93,187
2024	35,169	54,714	1,431	91,314	1,628	92,942
2025-2029	209,067	245,200	4,870	459,137	7,752	466,889
2030-2034	162,631	204,206	819	367,656	6,305	373,961
2035-2039	143,780	166,167	-	309,947	3,571	313,518
2040-2044	421,640	87,172	-	508,812	952	509,764
2045-2049	-	31,778	-	31,778	-	31,778
2050-2054	-	31,778	-	31,778	-	31,778
2055	150,000	3,178	-	153,178	-	153,178
	\$ 1,356,095	\$ 1,060,079	\$ 13,696	\$ 2,429,870	\$ 27,020	\$ 2,456,890

Commercial Paper – During fiscal year 2019, the University issued \$65,000,000 of commercial paper for new building projects.

On October 21, 2011, the Board adopted a flexible financing program for the University referred to as the University's Commercial Paper Program ("CP Program"). The CP Program authorizes the periodic issuance of up to an aggregate outstanding principal amount of \$375 million in Commercial Paper Notes. The initial term of the authorization is approximately fifteen years.

The Commercial Paper Notes are limited obligations of the University secured by a pledge of the University's unrestricted revenues. "Unrestricted revenues" includes state appropriations for general operations, student fee revenues, and all other operating revenues of the University other than System Facilities Revenues. The primary objective of the CP Program is to provide flexibility in managing the University's overall debt program to meet its

various financial needs including: (a) financing capital projects, (b) allowing for the refunding/refinancing of outstanding debt, and (c) providing a readily accessible source of funds for various working capital purposes.

Notes Payable - Notes payable consist of unsecured loans from the State Department of Natural Resources Energy Efficiency Leveraged Loan Program. Interest is payable semiannually and ranges from 2.0% to 3.2%.

Rolla Renewable Energy Company, LLC, a wholly owned subsidiary of MREC, holds Qualified Low-Income Community Investment loan agreements with CCM Community Development LV, LLC (CCM) and Midwest Renewable Capital XIII, LLC (MRC). The proceeds of these notes are to develop, construct, own and lease the geothermal construction project. Interest is payable quarterly at 1.3% on the CCM note and 1.6% on the MRC note. MREC has pledged collateral consisting of cash and real and personal property.

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The future payments on all notes payable at June 30, 2019, are as follows:

Table 10.9 - Future Notes Payable Payments

Year Ending June 30	Amount (in thousands)
2020	1,731
2021	2,525
2022	1,747
2023	1,739
2024	1,739
2025-2029	7,379
2030-2034	7,202
2035-2039	7,202
2040-2044	5,586
Total Future Notes Payable Payments	36,850
Less: Amount Representing Interest	(5,374)
Future Notes Payable	
Principal Payments	\$ 31,476

Capital Lease Obligations - The University leases various facilities and equipment through capital leases. Facilities and equipment under capitalized leases are recorded at the present value of future minimum lease payments.

The future minimum payments on all capital leases at June 30, 2019, are as follows:

Table 10.10 - Future Capital Lease Payments

Year Ending June 30	Amount (in thousands)
2020	390
Total Future Minimum Payments	390
Less: Amount Representing Interest	(90)
Present Value of Future Minimum	
Lease Payments	\$ 300

11. RISK MANAGEMENT

The University is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; injuries to employees; natural disasters; medical malpractice; and various medically related benefit programs for employees. The University funds these losses through a combination of self-insured retentions and commercially purchased insurance. The amount of self-insurance funds and

commercial insurance maintained are based upon analysis of historical information and actuarial estimates. Settled claims have not exceeded commercial coverage in any of the past three fiscal years.

The liability for self-insurance claims at June 30, 2019 and 2018 of \$85,270,000 and \$85,846,000, respectively, represents the present value of amounts estimated to have been incurred by those dates, using discount rates ranging from 0.75% to 3.50%, based on expected future investment yield assumptions.

Changes in the self-insurance liability during fiscal years 2019 and 2018 were as follows and are included in accrued liabilities (current) and other noncurrent liabilities (see note 9):

Table 11.1 - Self-Insurance Claims

Fiscal Year		Liability (in thousands)			
		New Claims and			
	Beginning of Year	Changes in Estimates	Claim Payments	End of Year	
2019	\$ 85,846	\$ 222,659	\$ (223,235)	\$ 85,270	
2018	\$ 89,082	\$ 220,389	\$ (223,625)	\$ 85,846	

12. COMMITMENTS AND CONTINGENCIES

University Operating Leases - The University leases various facilities and equipment under agreements recorded as operating leases. Operating lease expense for the years ended June 30, 2019 and 2018 were \$11,731,000 and \$8,136,000, respectively. Future minimum payments on all significant operating leases with initial or remaining terms of one year or more at June 30, 2019, are as follows:

Table 12.1 - Future Operating Lease Payments

Fiscal Year	Amount (in thousands)
2020	15,617
2021	7,188
2022	5,076
2023	4,212
2024	2,620
2025-2029	1,973
Total Future Lease Payments	\$ 36,686

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Commitments - The University has outstanding commitments for the usage and ongoing support of MU Health Care's information technology environment. As of January 2010, MU Health Care began contracting for software usage and maintenance fees, as well as, labor costs for approximately 100 full-time equivalent employees, with the Cerner Corporation. This agreement, called IT Works, represents the labor and software component of a cooperative relationship between MU Health Care and Cerner Corporation referred to as the Tiger Institute for Health Innovation (the Tiger Institute). The Tiger Institute is not a legally separate entity and is included within the financial statements of the University. The Tiger Institute provides continued development of information technology within the clinical areas, as well as developing new technology initiatives in health information systems.

As of June 30, 2019, this contracted commitment totaled \$170,895,000 and will be paid in the following amounts: \$26,252,000 in 2020, \$27,146,000 in 2021, \$28,008,000 in 2022, \$28,855,000 in 2023, \$29,819,000 in 2024, and \$30,815,000 in 2025.

In addition to the above commitment with Cerner Corporation, the Capital Region Medical Center (CRMC), as reported in the Medical Alliance, has entered into a strategic information technology agreement with Cerner Corporation. Cerner has assumed operational and administrative responsibilities for CRMC's technology environment and services. The agreement is effective through June 30, 2025 and will renew in five year increments at the end of the initial term.

As of June 30, 2019, this contracted commitment totaled \$40,035,000 and will be paid in the following amounts: \$6,617,000 in 2020, \$7,063,000 in 2021, \$7,280,000 in 2022, \$6,970,000 in 2023, and \$5,982,000 in 2024, and \$6,123,000 in 2025.

During fiscal year 2019, the University entered into a Healthcare Delivery Agreement and Master Strategic Alliance Agreement with Siemens Healthineers to commit to acquiring a comprehensive portfolio of equipment and applications as well as specialized consulting services, training and maintenance of equipment over a ten-year period. The purpose of the agreements is to develop and embrace innovative new technologies and to build new

medical centers that are equipped with state-of-the-art equipment. The University's total future outlays for the equipment, applications, and services will be \$133,735,000.

In addition, Siemens Healthineers and the University have each committed to provide a contribution with a fair market value up to \$20 million towards joint research projects of the strategic alliance.

On July 27, 2018, MU Health Care signed a non-binding letter of intent to purchase two hospitals, SSM Health St. Mary's – Audrain and SSM Health St. Mary's – Jefferson City, from SSM Health. The original letter of intent was effective through September 30, 2018. The parties have subsequently extended the term of the letter of intent and is currently in effect through October 31, 2019.

Claims and Litigation - The University is currently involved in various claims and pending legal actions related to matters arising from ordinary conduct of business. The University Administration believes that the ultimate disposition of the actions will not have a material effect on the financial statements of the University.

Pollution Remediation - The University has been working with the Voluntary Cleanup Program of the Missouri Department of Natural Resources (MDNR) to characterize subsurface contamination on a University owned property. The University has received the results of the two-year sampling process in fiscal year 2016. The University is awaiting a determination from MDNR. The site is now on the National Regulatory Commission (NRC) license and must be decommissioned. Upon further review of the documents, the University determined that it does not believe that the documents support the decision to add the site to the NRC license due to an overestimated quantity of isotopes managed at the site. The University made a formal request to remove the site from the NRC license. NRC responded with a request for more information including a dose assessment, which is estimated to cost \$15,000. If the NRC finds the dose assessment to be unacceptable, then the University will be required to fully decommission the site, including a sampling plan. The cost of a sampling plan to characterize the chemical contamination is estimated at \$1,000,000. The University has not commenced any actions requiring the recognition of a liability for this property.

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13. RETIREMENT, DISABILITY, AND DEATH BENEFIT PLAN

DEFINED BENEFIT PLAN

Plan Description – the Retirement Plan is a single-employer, defined benefit plan for all qualified employees. As authorized by Section 172.300, Revised Statutes of Missouri, the University’s Board of Curators administers the Retirement Plan and establishes its terms.

Benefits provided - Full-time employees vest in the Retirement Plan after five years of credited service and become eligible for benefits based on age and years of service. A vested employee who retires at age 65 or older is eligible for a lifetime annuity calculated at a certain rate times the credited service years times the compensation base (average compensation for the five highest consecutive salary years). The rate is 2.2% if the employee was hired before October 1, 2012, or 1.0% if the employee was hired after September 30, 2012. Academic members who provide summer teaching and research service receive additional summer service credit. The Board of Curators may periodically approve increases to the benefits paid to existing pensioners. However, vested members who leave the University prior to eligibility for retirement are not eligible for these pension increases.

Table 13.1 - Retirement Plan Membership

	2019	2018
Active Members	18,102	18,135
Inactive Vested Members	4,817	4,659
Pensioners and Beneficiaries	10,316	9,763
Total Members	33,235	32,557

Vested employees who are at least age 55 and have ten years or more of credited service or age 60 with at least five years of service may choose early retirement with a reduced benefit. However, if the employee retires at age 62 and has at least 25 years of credited service, the benefit is not reduced. Up to 30% of the retirement annuity can be taken in a lump sum payment. In addition, the standard annuity can be exchanged for an actuarially-equivalent annuity selected from an array of options with joint and survivor, period certain, and guaranteed annual increase features.

Vested employees who terminate prior to retirement eligibility may elect to transfer the actuarial equivalent of their benefit to an Individual Retirement Account or into

another employer’s qualified plan that accepts such rollovers. The actuarial equivalent may also be taken in the form of a lump sum payment.

In addition, the Retirement Plan allows vested employees who become disabled to continue accruing service credit until they retire. It also provides a pre-retirement death benefit for vested employees.

The Retirement Plan provides a minimum value feature for vested employees who terminate or retire. The minimum value is calculated as the actuarial equivalent of 5% of the employee’s eligible compensation invested at 7.5% per credited service year or the regularly calculated benefit.

Plan Change in Fiscal Year 2020 – In April 2019, the University’s Board of Curators approved a new retirement plan for newly hired or rehired employees starting October 1, 2019. Employees starting on or after that date, will be enrolled in a defined contribution plan and the defined benefit plan of the University will be closed to new entrants. Rehires on or after October 1, 2019 will also be enrolled into the new defined contribution plan regardless of their vested status in the defined benefit plan. Vested defined benefit employees that are rehired on or after October 1, 2019 will no longer receive creditable service credit within the defined benefit plan.

Basis of Accounting – The Retirement Plan’s accounting records are prepared using the accrual basis of accounting. Employer contributions to the Retirement Plan are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with terms of the Retirement Plan. The Retirement Plan does not issue a separate financial report.

Investment Valuation – Investments are reported at fair value.

Contributions – The University’s contributions to the Retirement Plan are equal to the actuarially determined employer contribution requirement (ADC). The ADC for those employees hired before October 1, 2012 averaged 11.2% and 9.4% of covered payroll for the years ending June 30, 2019 and 2018, respectively. The ADC for those employees hired after September 30, 2012 averaged 7.5% and 5.5% of covered payroll for the years ended June 30, 2019 and 2018, respectively. Employees are required to contribute 1% of their salary up to \$50,000 in a calendar year and 2% of their salary in excess of \$50,000. An actuarial

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valuation of the Plan is performed annually and the University's contribution rate is updated at the beginning of the University's fiscal year on July 1, to reflect the actuarially determined funding requirement from the most recent valuation, as of the preceding October 1. This actuarial valuation reflects the adoption of any Retirement Plan amendments during the previous fiscal year. The University contributed \$115,980,000 and \$92,200,000 during the fiscal years ended June 30, 2019 and 2018, respectively.

Net Pension Liability – The University's net pension liability was measured as of June 30, 2019 and 2018 and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of October 1, 2018 and 2017, respectively. Roll-forward procedures were used to measure the Retirement Plan's total pension liability as of June 30, 2019 and 2018.

Table 13.2 Changes in the Net Pension Liability *(in thousands)*

	Total Pension Liability (TPL) (a)	Fiduciary Net Position (FNP) (b)	Net Pension Liability (NPL) (a) - (b)
Balances at July 1, 2018	\$4,413,831	\$3,682,638	\$731,193
Changes for the year:			
Service cost	62,845	-	62,845
Interest	312,921	-	312,921
Differences between expected and actual experience	23,046	-	23,046
Contributions – employer	-	115,980	(115,980)
Contributions – employee	-	15,989	(15,989)
Net investment income	-	183,826	(183,826)
Benefit payments, including refunds of employee contributions	(241,020)	(241,020)	-
Net changes	157,792	74,775	83,017
Balances at June 30, 2019	\$4,571,623	\$3,757,413	\$814,210
	Total Pension Liability (TPL) (a)	Fiduciary Net Position (FNP) (b)	Net Pension Liability (NPL) (a) - (b)
Balances at July 1, 2017	\$4,008,189	\$3,485,925	\$522,264
Changes for the year:			
Service cost	63,624	-	63,624
Interest	305,781	-	305,781
Differences between expected and actual experience	11,704	-	11,704
Changes in assumptions	257,616	-	257,616
Contributions – employer	-	92,200	(92,200)
Contributions – employee	-	15,299	(15,299)
Net investment income	-	322,297	(322,297)
Benefit payments, including refunds of employee contributions	(233,083)	(233,083)	-
Net changes	405,642	196,713	208,929
Balances at June 30, 2018	\$4,413,831	\$3,682,638	\$731,193

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Actuarial Methods and Assumptions – The October 1, 2018 and 2017 actuarial valuations utilized the entry age actuarial cost method.

During fiscal year 2018, the Board of Curators approved a change in the discount rate from 7.75% to 7.20%. The change resulted in an increase in the Net Pension Liability of \$257,616,000 and will be recognized in pension expense over the average expected remaining service lives of employees or 5.5 years. The total deferred outflow of resources resulting from the change in the discount rate will be fully recognized through pension expense by fiscal year 2023.

Actuarial assumptions for October 1, 2018 and 2017 included:

Inflation	2.20%
Rate of Investment Return net of administrative expenses (including inflation)	7.20%
Projected salary increases (Including inflation)	3.6 - 4.5%
Cost-of-living adjustments	0%

For purposes of determining actuarially required contributions, the actuarial value of assets was determined using techniques that spread effects of short-term volatility in the market value of investments over a 5-year period. The underfunded actuarial accrued liability is being amortized as a level dollar amount on a closed basis over 25 and 26 years from the October 1, 2018 and 2017 valuation dates, respectively. Mortality rates were based on the RP-2014 Combined Health Mortality Table projected using Scale MP-2017 and RP-2000 Combined Health Mortality Table projected to 2023 using Scale BB for October 1, 2018 and 2017 valuation dates, respectively.

The actuarial assumptions used in the October 1, 2018 valuation were based on the results of the most recent quinquennial study of the University's own experience covering 2012 to 2016.

Discount Rate - The discount rate used to measure the total pension liability was 7.20%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current

contribution rate and that University contributions will be made at rates equal to the difference between actuarially determined contribution rates and the employee rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Table 13.3 Sensitivity of the Net Pension Liability to Changes in the Discount
(in thousands)

		2019 Net Pension Liability	2018 Net Pension Liability
	Rate		
1% Decrease	6.20%	\$1,387,128	\$1,287,184
Current Rate	7.20%	814,210	731,193
1% Increase	8.20%	330,738	262,755

Annual Rate of Return - The annual money-weighted rate of return is calculated as the internal rate of return on pension investments, net of pension plan investment expense. The money-weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. The annual money-weighted rate of return on pension plan investments for the years ended June 30, 2019 and 2018 was 5.2% and 10.2%, respectively.

Table 13.4 - Asset Class Allocation

Asset Class	Long Term Expected	
	Target Allocation	Real Rate of Return
Public equity	32.0%	5.2%
Private equity	10.0%	5.7%
Sovereign bonds	15.0%	1.0%
Inflation linked bonds	17.0%	0.8%
Private debt	3.0%	4.4%
Risk balanced	10.0%	7.6%
Commodities	5.0%	2.2%
Real estate	8.0%	4.5%
	100%	

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Pension Expense- For the years ended June 30, 2019 and 2018, the Retirement Plan recognized pension expense of \$217,961,000 and \$142,185,000, respectively. Annual pension expense consists of service cost and interest on the pension liability less employee contributions and projected

earnings on pension plan investments. The difference between actual and expected earnings is recorded as deferred outflows/inflows of resources and recognized in pension expense over a five year period.

The pension expense for the years ended June 30, 2019 and 2018 is summarized as follows:

Table 13.5 Pension Expense (in thousands)

	2019	2018
Service cost	\$62,845	\$63,624
Interest	312,921	305,781
Recognized portion of current-period difference between expected and actual experience	4,266	2,133
Recognized portion of current-period difference for changes to assumptions	-	46,959
Contributions – employee	(15,989)	(15,299)
Projected earnings on pension plan investments	(260,501)	(264,540)
Recognized portion of current-period difference between projected and actual earnings on pension plan investments	15,335	(11,551)
Recognition of deferred outflows of resources	109,020	25,014
Recognition of deferred inflows of resources	(9,936)	(9,936)
Pension expense for fiscal year ended June 30,	\$217,961	\$142,185

Deferred Outflows/Inflows of Resources- In accordance with GASB Statement No. 68, the University recognizes differences between actual and expected experience with regard to economic or demographic factors, changes of assumptions about future economic or demographic factors, and the difference between actual and expected

investment returns as Deferred Outflows/Inflows of Resources. At June 30, 2019 and 2018, the Retirement Plan reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Table 13.6 Deferred outflows/inflows of resources related to pensions (in thousands)

	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
As of June 30,	2019	2019	2018	2018
Differences between expected and actual experience	28,810	24,985	14,290	34,921
Changes in assumptions	163,698	-	210,657	-
Net difference between projected and actual earnings on pension plan investments	27,965	-	24,426	-
Total	220,473	24,985	249,373	34,921

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The University recognizes differences between actual and expected investment performance included in deferred outflows/inflows of resources on a straight-line basis over five years. Differences between expected and actual experience on actuarial assumptions are amortized over the average expected remaining service life of the University's employees. The following table summarizes the future recognition of these items:

Table 13.7 Future recognition of deferred outflows/(inflows) (in thousands)

Fiscal Year	Recognition
2020	74,495
2021	23,789
2022	52,202
2023	43,287
2024	1,715
Total	195,488

DEFINED CONTRIBUTION PLAN

Plan Description - Employees hired after September 30, 2012 participate in a single employer, defined contribution plan. Each year the University contributes 2% of each employee's eligible salary to a 401(a) plan. Employees are able to contribute to a 457(b) and 403 (b) plan. The University will match up to 3% of the employee's contribution to the 457(b) plan with the University's match funds going into the 401(a) plan. Employees are immediately 100% vested in their contributions. The University's base contribution and matching contributions vest following three years of consecutive or nonconsecutive service. The defined contribution plan recognized \$19,212,000 and \$17,579,000 of expense net of forfeitures of \$3,994,000 and \$3,211,000 for the years ended June 30, 2019 and 2018, respectively.

Employees hired or rehired beginning October 1, 2019, will participate in a single employer, defined contribution plan. Employees will be automatically enrolled in the plan to contribute 8% of eligible salary into a 457(b) plan. Each year the University will match up to 8% of each employee's eligible salary to a 401(a) plan. Employees are immediately 100% vested in their contributions. The University's matching contributions vest following three years of consecutive or nonconsecutive service.

14. OTHER POSTEMPLOYMENT BENEFITS

Plan Description - In addition to the pension benefits described in Note 13, the University operates a single-employer, defined benefit OPEB plan. The University's Other Postemployment Benefits (OPEB) Plan provides postemployment 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 5 years of service as of January 1, 2018 will not receive an insurance subsidy or be eligible to participate in the University's plans.

As of June 30, 2019 and 2018, 9,208 and 8,603 retirees, respectively, were receiving benefits, and an estimated 9,720 active University employees may become eligible to receive future benefits under the plan. Postemployment medical, dental and life insurance benefits are also provided to long-term disability claimants who were vested in the University's Retirement Plan at the date the disability began, provided the onset date of the disability was on or after September 1, 1990. As of June 30, 2019 and 2018, 123 and 210 long-term disability claimants, respectively, met those eligibility requirements.

The terms and conditions governing the postemployment benefits to which employees are entitled are at the sole authority and discretion of the University's Board of Curators.

Basis of Accounting - The OPEB Plan's financial statements are prepared using the accrual basis of accounting, in accordance with GASB Statement No. 74. Additionally, the requirements of GASB Statement No. 75 are followed by the University for reporting its OPEB obligations and related footnote and required supplementary information disclosures. The assets of the OPEB Trust Fund are irrevocable and legally protected from creditors and dedicated to providing postemployment benefits in accordance with terms of the plan. The OPEB Plan does not issue a separate financial report.

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Contributions and Reserves – Contribution requirements of employees and the University are established and may be amended by the University’s Board of Curators. For employees retiring prior to September 1, 1990, the University contributes 2/3 of the medical benefits premium and 1/2 of the dental plan premium. For employees who retired on or after September 1, 1990, the University contributes toward premiums based on the employee’s length of service and age at retirement.

The University makes available two group term life insurance options. Option A coverage is equal to the retiree’s salary at the date of retirement, while Option B is equal to two times that amount. For each Option, graded decreases in coverage are made when the retiree attains specific age levels. The University pays the full cost of Option A and approximately 91% of the cost of Option B coverage. Coverage for group term life insurance ends on January 1 following the retiree’s 70th birthday.

For the years ended June 30, 2019 and 2018, participants contributed \$17,378,000 and \$16,480,000, or approximately 50.8% and 49.9% respectively, of total premiums through their required contributions, which vary depending on the plan and coverage selection. In fiscal years 2019 and 2018, the University contributed \$23,363,000 and \$18,590,000 respectively.

The University makes available two long-term disability options to its employees. Option A coverage is equal to 60% of the employee’s salary on the date the disability began, when integrated with benefits from all other sources. Option B coverage is equal to 66-2/3% of the employee’s salary, integrated so that benefits from all sources will not exceed 85% of the employee’s salary. Both options have a 149-day waiting period and provide benefits until age 65. The University pays the full cost of the Option A premium, while employees enrolled in Option B pay the additional cost over the Optional A premium.

Net OPEB Liability – The total and net OPEB liabilities as of June 30, 2019 and 2018 were measured as of June 30, 2019 and 2018, respectively, using actuarial valuations as of those dates.

Table 14.1 Net OPEB Liability *(in thousands)*

	Fiscal Year 2019	Fiscal Year 2018
Net OPEB Liability Components:		
Total OPEB Liability	\$ 492,066	\$ 479,006
Plan Fiduciary Net Position	38,426	36,801
Net OPEB Liability	453,640	442,205
Plan Fiduciary Net Position as a Percentage of Total OPEB Liability	7.81%	7.68%

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Table 14.2 Changes in the Net OPEB Liability *(in thousands)*

	Total OPEB Liability (TOL) (a)	Fiduciary Net Position (FNP) (b)	Net OPEB Liability (NOL) (a) - (b)
Balances at July 1, 2018	\$479,006	\$36,801	\$442,205
Changes for the year:			
Service cost	4,124	-	4,124
Interest	18,248	-	18,248
Differences between expected and actual experience	31,459	-	31,459
Changes in assumptions	(17,565)	-	(17,565)
Contributions – employer	-	23,363	(23,363)
Contributions – employee	-	17,378	(17,378)
Net investment income	-	1,469	(1,469)
Expected/Actual benefit payments, including refunds of employee contributions	(23,206)	(40,584)	17,378
Administrative expenses	-	(1)	1
Net changes	13,060	1,625	11,435
Balances at June 30, 2019	\$492,066	\$38,426	\$453,640
	Total OPEB Liability (TOL) (a)	Fiduciary Net Position (FNP) (b)	Net OPEB Liability (NOL) (a) - (b)
Balances at July 1, 2017	\$498,407	\$36,144	\$462,263
Changes for the year:			
Service cost	4,991	-	4,991
Interest	17,434	-	17,434
Changes in assumptions	(18,998)	-	(18,998)
Contributions – employer	-	18,590	(18,590)
Contributions – employee	-	16,480	(16,480)
Net investment income	-	790	(790)
Expected/Actual benefit payments, including refunds of employee contributions	(22,828)	(35,031)	12,203
Administrative expenses	-	(172)	172
Net changes	(19,401)	657	(20,058)
Balances at June 30, 2018	\$479,006	\$36,801	\$442,205

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Actuarial Methods and Assumptions - Consistent with the long-term perspective of actuarial calculations, the actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. The entry age normal, as a level percent of pay, actuarial cost method was used in the June 30, 2019 and June 30, 2018 actuarial valuations.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Actuarially determined amounts are subject to continual revision of actual results, are compared to past expectations and new estimates are made about the future.

The Schedule of Funding Progress, presented as required supplementary information following the notes to the financial statements, will present multiyear trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Benefit projections for financial reporting purposes are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and the historical pattern of cost sharing between the employer and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the University and plan members in the future.

Total OPEB liability was determined using the following actuarial assumptions for all periods presented, unless otherwise specified:

14.3 Total OPEB Liability Assumptions

Inflation	2.20%
Total payroll growth	Varies based on age: 0.1% to 6.0% (including inflation) for academic and administrative; 0.1% to 3.0% (including inflation) for clerical and service
Discount Rate	3.50% for 2019 and 3.87% for 2018
Retiree Health PPO Plan, Healthy Savings, and Rx trend rate	8.50% decreasing by 0.25% per year until an ultimate trend of 4.5% is reached
Pre-65 Rx trend rate	9.50% decreasing by 0.25% per year until an ultimate trend of 4.5% is reached
Medicare Advantage Plans medical trend rate	Premium rates are guaranteed through 2022. Thereafter, trend rates are 7.00% decreasing by 0.25% per year until an ultimate trend of 4.50% is reached.
EGWP Rx trend rate	8.50% decreasing by 0.25% per year until an ultimate trend of 4.5% is reached
Dental trend rates	3.0% all years
Administration expenses rate	3.0% all years
Healthy retiree mortality rates	RP-2014 Healthy Employee/Annuitant Mortality Table projected generationally using Scale MP-2017
Disabled retiree mortality rates	RP-2014 Disabled Annuitant Mortality Table projected generationally using Scale MP-2017

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Development of Discount Rate – The discount rates used to measure the total OPEB liability were 3.50% and 3.87% as of fiscal year June 30, 2019 and June 30, 2018, respectively. The projection of cash flows used to determine the discount rate assumed that the University would not make additional contributions to the OPEB Trust and would continue to fund the plan on a pay-as-you-go basis. Based on those assumptions, the OPEB plan's fiduciary net position was not projected to cover a full year of projected future benefit payments. Therefore, all future benefit payments are discounted at the current index rate

for 20 year, tax exempt general obligation municipal bonds with an average rating of AA/Aa or higher.

Sensitivity to Changes in Discount Rate and Healthcare Cost Trend Rates – The following presents the net OPEB liability of the University as well as what the University's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage point higher than the current rate as well as the impact to the net OPEB liability if the healthcare cost trend rates were 1-percentage-point lower or 1-percentage-point higher.

Table 14.4 Sensitivity of the Net OPEB Liability to Changes in Discount Rate and Healthcare Cost Trend Rates *(in thousands)*

	1% Decrease in Discount Rate (2.50%)	Current Discount Rate (3.50%)	1% Increase in Discount Rate (4.50%)
Net OPEB Liability	\$523,380	\$453,640	\$396,499

	1% Decrease in Trend Rates	Current Healthcare Cost Trend Rates	1% Increase in Trend Rates
Net OPEB Liability	\$405,788	\$453,640	\$511,283

OPEB Expense- For the years ended June 30, 2019 and 2018, the University recognized an OPEB expense of \$17,476,000 and \$15,947,000, respectively. Annual OPEB

expense consists of service costs, interest on the total OPEB liability and the recognition of deferred outflows/inflows.

The OPEB expense for the years ended June 30, 2019 and 2018 is summarized as follows:

Table 14.5 OPEB Expense *(in thousands)*

	2019	2018
Service cost	\$4,124	\$4,991
Interest	18,248	17,434
Recognized portion of current-period difference between expected and actual experience	4,246	-
Recognized portion of current-period difference for changes to assumptions	(2,370)	(3,193)
Recognized portion of current-period difference between projected and actual earnings on pension plan investments	(294)	(158)
Recognition of deferred inflows of resources	(6,478)	(3,127)
OPEB expense for fiscal year ended June 30,	\$17,476	\$15,947

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Deferred Outflows/Inflows of Resources- In accordance with GASB Statement No. 75, the University recognizes differences between actual and expected experience with regard to economic or demographic factors, changes of assumptions about future economic or demographic factors, and the difference between actual and expected

investment returns as Deferred Outflows/Inflows of Resources. At June 30, 2019 and 2018, the OPEB Plan reported deferred outflows of resources and deferred inflows of resources related to other postemployment benefits from the following sources:

Table 14.6 Deferred outflows/inflows of resources related to OPEB *(in thousands)*

	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Inflows of Resources
As of June 30,	2019	2019	2018
Changes of assumptions	-	42,853	-
Differences between expected and actual experience	27,214	-	33,795
Net difference between projected and actual earnings on plan investments	-	2,014	1,180
Total	27,214	44,867	34,975

The University recognizes differences between actual and expected investment performance included in deferred outflows/inflows of resources on a straight-line basis over five years. Differences between expected and actual experience on actuarial assumptions are amortized over the average expected remaining service life of the University's employees. The following table summarizes the future recognition of these items:

Table 14.7 Future recognition of deferred (inflows) *(in thousands)*

Fiscal Year	Recognition
2020	(4,897)
2021	(4,897)
2022	(4,714)
2023	(4,396)
2024	(1,069)
2025-2026	2,320
Total	(17,653)

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15. BLENDED COMPONENT UNITS

Condensed combining information for the University's blended component units as of and for the years ended June 30, 2019 and 2018 are presented as follows:

Table 15.1 Blended Component Units Condensed Financial Statements (in thousands)

Condensed Statement of Net Position	2019						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Assets:							
Current Assets	\$ 1,303,184	\$ 1,953	\$ 65,076	\$ 907	\$ 620	\$ 20,764	\$ 1,392,504
Non Current Other Assets	4,026,420	6,744	78,061	-	-	-	4,111,225
Capital Assets, Net	3,289,589	105,577	82,323	50	5	(11,105)	3,466,439
Deferred Outflows of Resources	335,808	-	-	-	-	-	335,808
Total Assets and Deferred Outflows of Resources	\$ 8,955,001	\$ 114,274	\$ 225,460	\$ 957	\$ 625	\$ 9,659	\$ 9,305,976
Liabilities:							
Current Liabilities	\$ 1,477,479	\$ 2,067	\$ 29,387	\$ 575	\$ 243	\$ (1,324)	\$ 1,508,427
Noncurrent Liabilities	2,578,581	103,236	39,636	27	24	(54,821)	2,666,683
Deferred Inflows of Resources	83,480	-	-	-	-	-	83,480
Total Liabilities and Deferred Inflows of Resources	4,139,540	105,303	69,023	602	267	(56,145)	4,258,590
Net Position:							
Net Investment in Capital Assets	1,691,217	20,685	45,040	50	5	44,980	1,801,977
Restricted -							
Nonexpendable	1,248,860	-	-	-	-	-	1,248,860
Expendable	548,825	(11,714)	3,964	-	-	20,824	561,899
Unrestricted	1,326,559	-	107,433	305	353	-	1,434,650
Total Net Position	4,815,461	8,971	156,437	355	358	65,804	5,047,386
Total Liabilities and Net Position	\$ 8,955,001	\$ 114,274	\$ 225,460	\$ 957	\$ 625	\$ 9,659	\$ 9,305,976

Condensed Statement of Revenues, Expenses and Changes in Net Position

Condensed Statement of Revenues, Expenses and Changes in Net Position	2019						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Operating Revenues:							
Other Operating Revenue	\$ 2,757,239	\$ 7,445	\$ 220,356	\$ 4,191	\$ 4,439	\$ (6,772)	\$ 2,986,898
Total Operating Revenues	2,757,239	7,445	220,356	4,191	4,439	(6,772)	2,986,898
Operating Expenses:							
Depreciation	199,093	4,766	11,632	25	23	-	215,539
All Other Operating Expenses	3,187,229	1,454	198,446	8,060	5,701	(1,458)	3,399,432
Total Operating Expenses	3,386,322	6,220	210,078	8,085	5,724	(1,458)	3,614,971
Operating Income (Loss)	(629,083)	1,225	10,278	(3,894)	(1,285)	(5,314)	(628,073)
Non-Operating Revenue (Expense)	807,050	(2,661)	1,630	-	-	1,046	807,065
Capital Contribution (Distribution)	(5,471)	478	-	4,223	1,275	(505)	-
Increase (Decrease) in Net Position	172,496	(958)	11,908	329	(10)	(4,773)	178,992
Net Position, Beginning of Year	4,642,965	9,929	144,529	26	368	70,577	4,868,394
Net Position, End of Year	\$ 4,815,461	\$ 8,971	\$ 156,437	\$ 355	\$ 358	\$ 65,804	\$ 5,047,386

Condensed Statement of Cash Flows

Condensed Statement of Cash Flows	2019						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Net Cash Flows Provided by (Used in) Operating Activities	\$ (315,419)	\$ 2,850	\$ 19,956	\$ (4,254)	\$ (1,524)	\$ (4,532)	\$ (302,923)
Net Cash Flows Provided by (Used in) Noncapital Financing Activities	609,172	-	596	-	-	-	609,768
Net Cash Flows Provided by (Used in) Capital and Related Financing Activities	(243,775)	(4,510)	(13,284)	4,223	1,275	4,532	(251,539)
Net Cash Flows Provided by (Used in) Investing Activities	(30,897)	-	(10,741)	-	-	-	(41,638)
Net Increase in Cash and Cash Equivalents	19,081	(1,660)	(3,473)	(31)	(249)	-	13,668
Cash and Cash Equivalents, Beginning of Year	518,196	3,063	32,684	223	472	-	554,638
Cash and Cash Equivalents, End of Year	\$ 537,277	\$ 1,403	\$ 29,211	\$ 192	\$ 223	\$ -	\$ 568,306

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Table 15.2 Blended Component Units Condensed Financial Statements (in thousands)

Condensed Statement of Net Position	2018						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Assets:							
Current Assets	\$ 1,228,277	\$ 3,834	\$ 72,342	\$ 1,149	\$ 1,062	\$ 20,431	\$ 1,327,095
Non Current Other Assets	3,540,663	7,186	60,286	-	-	-	3,608,135
Capital Assets, Net	3,203,190	110,343	80,544	75	28	(11,105)	3,383,075
Deferred Outflows of Resources	339,146	-	-	-	-	-	339,146
Total Assets and Deferred Outflows of Resources	\$ 8,311,276	\$ 121,363	\$ 213,172	\$ 1,224	\$ 1,090	\$ 9,326	\$ 8,657,451
Liabilities:							
Current Liabilities	\$ 972,741	\$ 1,793	\$ 26,035	\$ 1,175	\$ 703	\$ (1,106)	\$ 1,001,341
Noncurrent Liabilities	2,612,281	109,641	42,608	23	19	(60,145)	2,704,427
Deferred Inflows of Resources	83,289	-	-	-	-	-	83,289
Total Liabilities and Deferred Inflows of Resources	3,668,311	111,434	68,643	1,198	722	(61,251)	3,789,057
Net Position:							
Net Investment in Capital Assets	1,636,168	20,464	40,233	75	28	50,027	1,746,995
Restricted -							
Nonexpendable	1,200,514	-	-	-	-	-	1,200,514
Expendable	528,488	(10,535)	4,022	-	-	20,550	542,525
Unrestricted	1,277,795	-	100,274	(49)	340	-	1,378,360
Total Net Position	4,642,965	9,929	144,529	26	368	70,577	4,868,394
Total Liabilities and Net Position	\$ 8,311,276	\$ 121,363	\$ 213,172	\$ 1,224	\$ 1,090	\$ 9,326	\$ 8,657,451

**Condensed Statement of Revenues, Expenses
and Changes in Net Position**

	2018						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Operating Revenues:							
Other Operating Revenue	\$ 2,638,980	\$ 7,445	\$ 202,663	\$ 4,707	\$ 4,155	\$ (6,772)	\$ 2,851,178
Total Operating Revenues	2,638,980	7,445	202,663	4,707	4,155	(6,772)	2,851,178
Operating Expenses:							
Depreciation	196,768	4,766	11,884	36	23	-	213,477
All Other Operating Expenses	2,946,656	1,509	186,099	7,831	5,147	(5,464)	3,141,778
Total Operating Expenses	3,143,424	6,275	197,983	7,867	5,170	(5,464)	3,355,255
Operating Income (Loss)	(504,444)	1,170	4,680	(3,160)	(1,015)	(1,308)	(504,077)
Non-Operating Revenue (Expense)	769,985	(2,845)	951	-	-	1,043	769,134
Capital Contribution (Distribution)	-	730	-	3,533	500	(4,763)	-
Increase (Decrease) in Net Position	265,541	(945)	5,631	373	(515)	(5,028)	265,057
Net Position, Beginning of Year	4,377,424	10,874	138,898	(347)	883	75,605	4,603,337
Net Position, End of Year	\$ 4,642,965	\$ 9,929	\$ 144,529	\$ 26	\$ 368	\$ 70,577	\$ 4,868,394

Condensed Statement of Cash Flows

	2018						
	University	MREC	Medical Alliance	CSS	CFMS	Eliminations	Total
Net Cash Flows Provided by (Used in) Operating Activities	\$ (269,397)	\$ 2,560	\$ 19,203	\$ (3,555)	\$ (351)	\$ (4,608)	\$ (256,148)
Net Cash Flows Provided by (Used in) Noncapital Financing Activities	614,864	-	32	-	-	-	614,896
Net Cash Flows Provided by (Used in) Capital and Related Financing Activities	(260,631)	(4,585)	(17,733)	3,533	500	4,608	(274,308)
Net Cash Flows Provided by (Used in) Investing Activities	82,079	-	(11,672)	-	-	-	70,407
Net Increase in Cash and Cash Equivalents	166,915	(2,025)	(10,170)	(22)	149	-	154,847
Cash and Cash Equivalents, Beginning of Year	351,281	5,088	42,854	245	323	-	399,791
Cash and Cash Equivalents, End of Year	\$ 518,196	\$ 3,063	\$ 32,684	\$ 223	\$ 472	\$ -	\$ 554,638

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16. OPERATING EXPENSES BY FUNCTION

The operating expenses of the University are presented based on natural expenditure classifications. The University's operating expenses by functional classification are as follows:

Table 16.1 - Operating Expenses by Functional and Natural Classifications *(in thousands)*

Fiscal Year Ended June 30, 2019	Salaries and Wages	Benefits	Supplies, Services and Other	Scholarships and Fellowships	Depreciation	Total
Instruction	\$ 404,196	\$ 163,907	\$ 122,755	\$ -	\$ -	\$ 690,858
Research	102,771	37,898	68,698	-	-	209,367
Public Service	83,686	36,341	60,033	-	-	180,060
Academic Support	84,593	36,569	39,881	-	-	161,043
Student Services	49,314	20,185	34,053	-	-	103,552
Institutional Support	118,862	55,919	(41,030)	-	-	133,751
Operation and Maintenance of Plant	34,781	15,639	71,275	-	-	121,695
Auxiliary Enterprises	764,476	211,202	756,061	-	-	1,731,739
Scholarships and Fellowships	-	-	-	67,367	-	67,367
Depreciation	-	-	-	-	215,539	215,539
Total Operating Expenses	\$ 1,642,679	\$ 577,660	\$ 1,111,726	\$ 67,367	\$ 215,539	\$ 3,614,971

Fiscal Year Ended June 30, 2018	Salaries and Wages	Benefits	Supplies, Services and Other	Scholarships and Fellowships	Depreciation	Total
Instruction	\$ 413,703	\$ 128,696	\$ 88,363	\$ -	\$ -	\$ 630,762
Research	99,764	27,193	66,611	-	-	193,568
Public Service	80,436	26,991	56,544	-	-	163,971
Academic Support	79,122	27,033	38,585	-	-	144,740
Student Services	50,700	16,717	33,734	-	-	101,151
Institutional Support	115,410	39,413	(39,079)	-	-	115,744
Operation and Maintenance of Plant	34,984	12,502	57,676	-	-	105,162
Auxiliary Enterprises	717,278	197,203	704,152	-	-	1,618,633
Scholarships and Fellowships	-	-	-	68,047	-	68,047
Depreciation	-	-	-	-	213,477	213,477
Total Operating Expenses	\$ 1,591,397	\$ 475,748	\$ 1,006,586	\$ 68,047	\$ 213,477	\$ 3,355,255

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17. FIDUCIARY FUNDS – PENSION AND OPEB TRUST FUNDS COMBINING STATEMENTS

Combining financial statements for the Fiduciary Funds – Pension and OPEB Trust Funds are as follows:

Table 17.1 - Statement of Fiduciary Net Position *(in thousands)*

	2019			2018		
	Retirement	OPEB	Total	Retirement	OPEB	Total
Assets						
Cash and Cash Equivalents	\$ 429,948	\$ 40,246	\$ 470,194	\$ 393,404	\$ 38,099	\$ 431,503
Investment of Cash Collateral	106,182	-	106,182	158,979	-	158,979
Investment Settlements Receivable	71,124	-	71,124	83,956	-	83,956
Other Assets	-	443	443	7	602	609
Investments:						
Debt Securities	395,616	-	395,616	423,984	-	423,984
Equity Securities	223,235	-	223,235	213,239	-	213,239
Commingled Funds	1,989,092	-	1,989,092	1,997,441	-	1,997,441
Nonmarketable Alternative Investments	816,533	-	816,533	702,082	-	702,082
Total Assets	4,031,730	40,689	4,072,419	3,973,092	38,701	4,011,793
Liabilities						
Accounts Payable and						
Accrued Liabilities	92	2,263	2,355	-	1,900	1,900
Collateral Held for						
Securities Lending	106,182	-	106,182	158,979	-	158,979
Investment Settlements Payable	168,043	-	168,043	131,475	-	131,475
Total Liabilities	274,317	2,263	276,580	290,454	1,900	292,354
Net Position Restricted for						
Retirement and OPEB	\$ 3,757,413	\$ 38,426	\$ 3,795,839	\$ 3,682,638	\$ 36,801	\$ 3,719,439

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Table 17.2 - Statement of Changes in Fiduciary Net Position *(in thousands)*

	2019			2018		
	Retirement	OPEB	Total	Retirement	OPEB	Total
Additions						
Investment Income:						
Interest and Dividend Income	\$ 24,545	\$ 1,469	\$ 26,014	\$ 64,914	\$ 792	\$ 65,706
Net Appreciation (Depreciation) in						
Fair Value of Investments	166,693	-	166,693	278,179	1	278,180
Less Investment Expense	(4,884)	-	(4,884)	(18,605)	(3)	(18,608)
Net Investment Income	186,354	1,469	187,823	324,488	790	325,278
Contributions:						
University	115,980	23,363	139,343	92,200	18,590	110,790
Members	15,989	17,378	33,367	15,299	16,480	31,779
Total Contributions	131,969	40,741	172,710	107,499	35,070	142,569
Total Additions	318,323	42,210	360,533	431,987	35,860	467,847
Deductions						
Administrative Expenses	2,528	1	2,529	2,191	172	2,363
Payments to Retirees and Beneficiaries	241,020	40,584	281,604	233,083	35,031	268,114
Total Deductions	243,548	40,585	284,133	235,274	35,203	270,477
Increase in Net Position Restricted						
for Retirement and OPEB	74,775	1,625	76,400	196,713	657	197,370
Net Position Restricted for						
Retirement & OPEB, Beginning of Year	3,682,638	36,801	3,719,439	3,485,925	36,144	3,522,069
Net Position Restricted for						
Retirement and OPEB, End of Year	\$ 3,757,413	\$ 38,426	\$ 3,795,839	\$ 3,682,638	\$ 36,801	\$ 3,719,439

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Schedule of Changes in the Net Pension Liability and Related Ratios – Last Ten Fiscal Years *(in thousands)*

	Fiscal Year End June 30,									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total pension liability										
Service cost	\$62,845	\$63,624	\$66,269	\$68,328	\$70,574	\$71,995				
Interest	312,921	305,781	296,885	288,438	275,762	263,566				
Differences between expected and actual experience	23,046	11,704	(22,741)	(38,227)	13,226	--	(Historical information prior to implementation of GASB 67/68 is not			
Changes of assumptions	--	257,616	--	--	--	--				
Benefit payments, including refunds of employee contributions	(241,020)	(233,083)	(211,036)	(203,300)	(182,488)	(169,992)				
Net change in total pension liability	157,792	405,642	129,377	115,239	177,074	165,569				
Total pension liability - beginning	4,413,831	4,008,189	3,878,812	3,763,573	3,586,499	3,420,930				
Total pension liability - ending (a)	\$4,571,623	\$4,413,831	\$4,008,189	\$3,878,812	\$3,763,573	\$3,586,499				
Plan fiduciary net position										
Contributions - employer	\$115,980	\$92,200	\$96,631	\$99,454	\$103,895	\$113,688				
Contributions - employee	15,989	15,299	15,218	14,976	14,486	14,113				
Net investment income	183,826	322,297	364,486	6,646	36,412	458,884				
Benefit payments, including refunds of employee contributions	(241,020)	(233,083)	(211,036)	(203,300)	(182,488)	(169,992)	(Historical information prior to implementation of GASB 67/68 is not			
Other	--	--	--	--	(2,150)	(2,554)				
Net change in fiduciary net position	74,775	196,713	265,299	(82,224)	(29,845)	414,139				
Plan fiduciary net position - beginning	3,682,638	3,485,925	3,220,626	3,302,850	3,332,695	2,918,556				
Plan fiduciary net position - ending (b)	\$3,757,413	\$3,682,638	\$3,485,925	\$3,220,626	\$3,302,850	\$3,332,695				

UNIVERSITY OF MISSOURI SYSTEM
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REQUIRED SUPPLEMENTARY INFORMATION
For the Years Ended June 30, 2019 and 2018
(unaudited)

Schedule of Changes in the Net Pension Liability and Related Ratios – Last Ten Fiscal Years *(in thousands)*

	Fiscal Year End June 30,									
	2019	2018**	2017	2016	2015	2014	2013	2012	2011	2010
Net pension liability – ending: (a)-(b)	\$814,210	\$731,193	\$522,264	\$658,186	\$460,723	\$ 253,804				
Plan's fiduciary net position as a percentage of the total pension liability	82.19%	83.43%	86.97%	83.03%	87.76%	92.92%	(Historical information prior to implementation of GASB 67/68 is not required)			
Covered-employee payroll*	\$1,187,435	\$1,146,836	\$1,144,412	\$1,129,784	\$1,109,431	\$ 1,078,347				
Net pension liability as a percentage of covered-employee payroll	68.57%	63.76%	45.64%	58.26%	41.53%	23.54%				

*Covered-employee payroll as reported in the October 1, 201X funding valuation report

**Discount rate changed from 7.75% to 7.20%

Schedule of Contributions – Last Ten Fiscal Years *(in thousands)*

Fiscal Year Ended June 30,	Covered Employee Payroll		Actuarially determined contribution**		Contributions made	Contributions as % of covered-employee payroll**		Actuarially determined contribution as a Percentage of Payroll**		Contributions in relation to the actuarially determined contribution**		Contribution deficiency (excess)
						Level 1	Level 2	Level 1	Level 2	Level 1	Level 2	
	Level 1	Level 2	Level 1	Level 2	Level 1 and Level 2	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2	Level 1 and Level 2
2019	\$ 687,612	\$ 499,823	\$ 76,737	\$ 37,287	\$ 115,980	11.16%	7.46%	11.16%	7.46%	11.16%	7.46%	-
2018	733,289	413,547	68,856	22,662	92,200	9.39%	5.48%	9.39%	5.48%	9.39%	5.48%	-
2017	794,108	350,304	75,678	19,652	96,631	9.53%	5.61%	9.53%	5.61%	9.53%	5.61%	-
2016	857,918	271,866	82,446	15,442	99,454	9.61%	5.68%	9.61%	5.68%	9.61%	5.68%	-
2015	928,088	181,343	92,716	10,971	103,895	9.99%	6.05%	9.99%	6.05%	9.99%	6.05%	-
2014	984,787	93,560	106,160	6,334	113,688	10.78%	6.77%	10.78%	6.77%	10.78%	6.77%	-
2013	1,046,075	-	92,891	-	94,176	8.88%	4.87%	8.88%	4.87%	8.88%	4.87%	-
2012	1,031,891	-	72,955	-	74,618	7.07%	-	7.07%	-	7.07%	-	-
2011	979,888	-	56,246	-	57,541	5.74%	-	5.74%	-	5.74%	-	-
2010	970,060	-	47,339	-	48,040	4.88%	-	4.88%	-	4.88%	-	-

* Covered-employee payroll as reported in the October 1 funding valuation report

** Net of employee contributions

UNIVERSITY OF MISSOURI SYSTEM
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REQUIRED SUPPLEMENTARY INFORMATION
For the Years Ended June 30, 2019 and 2018
(unaudited)

Schedule of Annual Money-Weighted Rate of Return on Pension Plan Investments - Last Ten Fiscal Years

	Fiscal Year End June 30,									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Money-Weighted Rate of Return	5.2%	10.2%	11.0%	0.3%	0.7%	16.2%	(Historical information prior to implementation of GASB 67/68 is not required)			

Notes to Required Supplementary Information for Contributions

Valuation Date	Actuarial determined contribution rates are calculated as of September 30, 21 months prior to the end of the fiscal year in which contributions are reported.
Methods and assumptions used to determine contribution rates:	
Actuarial Cost Method	Entry age normal
Amortization Method	Level dollar, Closed
Amortization Period	25 years for 2019, 26 years for 2018
Asset Valuation Method	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 Assumptions:	The actuarial assumptions used in the October 1, 2018 and October 1, 2017 actuarial valuations were based on the results of an experience study for the period September 20, 2012 to September 30, 2016.
Investment Rate of Return	7.20%, net of expenses
Inflation	2.20%
Projected Salary Increases	4.5% average (including inflation) for academic and administrative; 3.6% average (including inflation) for clerical and service
Cost-of-living Adjustments	No future retiree ad-hoc increases assumed
Retirement Age	Retirement rates vary between 4% at 55 to 100% at age 80.
Mortality:	
Healthy Non-annuitant lives	RP-2014 Employee Mortality Table projected on a generational basis using Scale MP-2017
Healthy Annuitant lives	RP-2014 Healthy Annuitant Mortality Table projected on a generational basis using Scale MP-2017
Disabled lives	RP-2014 Disabled Annuitant Mortality Table projected on a generational basis using Scale MP-2017

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Schedule of Changes in the Net OPEB Liability and Related Ratios – Last Ten Fiscal Years *(in thousands)*

	Fiscal Year End June 30,									
	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Total OPEB liability										
Service cost	\$4,124	\$4,991	\$9,414	--						
Interest	18,248	17,434	14,557	--						
Differences between expected and actual experience	31,459	--	--	--						
Changes of assumptions	(17,565)	(18,998)	(23,880)	--						
Benefit payments	(23,206)	(22,828)	(24,934)	--						
Net change in total OPEB liability	13,060	(19,401)	(24,843)	--						
Total OPEB liability - beginning	479,006	498,407	523,250	--						
Total OPEB liability - ending (a)	\$492,066	\$479,006	\$498,407	\$523,250						
Plan fiduciary net position										
Contributions - employer	23,363	18,590	21,394	--						
Contributions - employee	17,378	16,480	14,750	--						
Net investment income	1,469	790	914	--						
Benefit payments, including refunds of employee contributions	(40,584)	(35,031)	(35,871)	--						
Other	(1)	(172)	(188)	--						
Net change in fiduciary net position	1,625	657	999	--						
Plan fiduciary net position - beginning	36,801	36,144	35,145	--						
Plan fiduciary net position - ending (b)	\$38,426	\$36,801	\$36,144	\$35,145						
Net OPEB Liability - ending (a) - (b)	\$453,640	\$442,205	\$462,263	\$488,105						
Plan's fiduciary net position as a percentage of the total OPEB liability	7.81%	7.68%	7.25%	6.72%						
Covered-employee payroll	677,089	721,517	787,104	1,157,156						
Net OPEB liability as a percentage of covered-employee payroll	67.00%	61.29%	58.73%	42.18%						

UNIVERSITY OF MISSOURI SYSTEM
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Notes to Required Supplementary Information for Net OPEB Liability

Changes of assumptions: Based on past experience and future expectations, the following actuarial assumptions were changed as of the June 30, 2019 measurement date:

- Claims and trends from the Base and Buyup Medicare advantage plans were revised to reflect future expectations.
 - The discount rate changed to 3.50% from 3.87%
-

Statistical Section



University of Missouri System

COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS

STATEMENTS OF NET POSITION

Statistical Section

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Assets					
Current Assets					
Cash and Cash Equivalents	\$ 365,815	\$ 360,053	\$ 241,516	\$ 216,149	\$ 268,211
Restricted Cash and Cash Equivalents	197,824	189,988	155,693	130,246	116,703
Short-Term Investments	39,172	226,215	118,958	128,932	105,587
Restricted Short-Term Investments	16,338	31,991	18,249	26,222	26,762
Investment of Cash Collateral	3,616	5,012	7,437	28,225	43,902
Accounts Receivable, Net	376,431	335,551	333,862	314,908	277,373
Pledges Receivable, Net	21,846	17,039	16,450	15,035	16,958
Investment Settlements Receivable	279,696	68,024	108,385	130,513	185,576
Notes Receivable, Net	8,489	9,060	9,016	8,659	8,781
Due To Component Units	-	-	-	-	(9,469)
Inventories	41,155	40,433	39,037	39,892	37,872
Prepaid Expenses and Other Current Assets	42,122	43,729	37,910	37,818	30,695
Total Current Assets	1,392,504	1,327,095	1,086,513	1,076,599	1,108,951
Noncurrent Assets					
Restricted Cash and Cash Equivalents	4,667	4,597	2,582	1,457	-
Pledges Receivable, Net	40,677	38,106	44,550	31,092	34,845
Notes Receivable, Net	64,638	69,842	69,494	76,380	79,418
Deferred Charges and Other Assets	18,352	17,587	17,683	16,666	2,379
Long-Term Investments	2,457,590	2,021,932	2,058,102	1,873,378	1,614,799
Restricted Long-Term Investments	1,525,301	1,456,071	1,378,250	1,262,504	1,321,810
Capital Assets, Net	3,466,439	3,383,075	3,412,410	3,364,972	3,198,011
Total Noncurrent Assets	7,577,664	6,991,210	6,983,071	6,626,449	6,251,262
Deferred Outflows of Resources	335,808	339,146	137,888	292,836	97,615
Total Assets and Deferred Outflows of Resources	\$ 9,305,976	\$ 8,657,451	\$ 8,207,472	\$ 7,995,884	\$ 7,457,828
Liabilities					
Current Liabilities					
Accounts Payable	\$ 195,342	\$ 130,776	\$ 141,313	\$ 144,640	\$ 110,231
Accrued Liabilities	180,548	177,169	175,466	168,100	187,149
Deferred Revenue	94,957	95,144	90,495	86,090	90,554
Funds Held for Others	96,375	91,539	89,440	78,895	77,021
Investment Settlements Payable	455,975	187,438	188,038	236,823	216,510
Collateral Held for Securities Lending	3,616	5,012	7,437	28,225	43,902
Commercial Paper and Current Portion of Long-Term Debt	399,074	228,078	232,821	224,254	71,022
Long-Term Debt Subject to Remarketing	82,540	86,185	89,695	93,070	96,320
Total Current Liabilities	1,508,427	1,001,341	1,014,705	1,060,097	892,709
Noncurrent Liabilities					
Unearned Revenue	15,119	15,792	16,465	17,137	13,119
Asset Retirement Obligation	62,433	62,433	-	-	-
Long-Term Debt	1,199,968	1,344,815	1,386,017	1,405,916	1,527,661
Derivative Instrument Liability	35,542	27,570	38,116	55,332	42,353
Net Other Postemployment Benefits Liability	453,640	442,205	462,263	212,572	209,793
Net Pension Liability	814,210	731,193	522,264	658,186	460,723
Other Noncurrent Liabilities	85,771	80,419	84,799	69,532	67,073
Total Noncurrent Liabilities	2,666,683	2,704,427	2,509,924	2,418,675	2,320,722
Deferred Inflows Resources	83,480	83,289	79,506	32,052	-
Total Liabilities and Deferred Inflows of Resources	\$ 4,258,590	\$ 3,789,057	\$ 3,604,135	\$ 3,510,824	\$ 3,213,431
Net Position					
Net Investment in Capital Assets	1,801,977	1,746,995	1,728,982	1,692,629	1,613,846
Restricted					
Nonexpendable -					
Endowment	1,248,860	1,200,514	1,109,498	993,760	1,010,357
Expendable -					
Scholarship, Research, Instruction & Other	410,497	394,577	367,009	356,156	367,832
Loans	85,038	83,567	85,145	84,509	83,546
Capital Projects	66,364	64,381	57,723	54,298	39,461
Unrestricted	1,434,650	1,378,360	1,254,980	1,303,708	1,129,355
Total Net Position	5,047,386	4,868,394	4,603,337	4,485,060	4,244,397
Total Liabilities & Net Position	\$ 9,305,976	\$ 8,657,451	\$ 8,207,472	\$ 7,995,884	\$ 7,457,828

CHANGES IN NET POSITION

Statistical Section

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Operating Revenues					
Tuition and Fees, Net	\$ 857,456	\$ 861,913	\$ 868,784	\$ 898,906	\$ 870,637
Less: Scholarship Allowances	232,764	226,434	219,567	226,632	217,648
Net Tuition and Fees	624,692	635,479	649,217	672,274	652,989
Federal Grants and Contracts	165,427	157,587	158,414	155,134	155,797
State and Local Grants and Contracts	60,584	59,966	60,934	57,690	53,926
Private Grants and Contracts	83,489	74,782	70,527	67,348	70,296
Sales and Services of Educational Activities	19,264	26,193	26,492	25,406	25,074
Auxiliary Enterprises -					
Patient Medical Services, Net	1,510,024	1,400,335	1,323,006	1,205,084	944,161
Housing and Dining Services, Net	102,603	100,837	106,468	115,351	114,361
Bookstores	38,348	41,429	47,598	54,590	55,941
Other Auxiliary Enterprises, Net	305,736	295,451	293,407	274,817	263,135
Other Operating Revenues	76,731	59,119	63,680	74,663	66,849
Total Operating Revenues	2,986,898	2,851,178	2,799,743	2,702,357	2,402,529
Operating Expenses					
Salaries and Wages	1,642,679	1,591,397	1,583,221	1,522,480	1,407,428
Benefits	577,660	475,748	456,370	461,209	396,886
Supplies, Services and Other Operating Expenses	1,111,726	1,006,586	975,232	970,963	858,939
Scholarships and Fellowships	67,367	68,047	69,289	70,353	66,860
Depreciation	215,539	213,477	210,226	201,691	194,075
Total Operating Expenses	3,614,971	3,355,255	3,294,338	3,226,696	2,924,188
Operating Loss before State Appropriations	(628,073)	(504,077)	(494,595)	(524,339)	(521,659)
State Appropriations	408,797	401,705	417,912	438,813	435,511
Operating Income (Loss) after State Appropriations, Before Nonoperating Revenues (Expenses)	(219,276)	(102,372)	(76,683)	(85,526)	(86,148)
Nonoperating Revenues (Expenses)					
Federal Appropriations	27,026	26,665	27,128	27,041	28,399
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Investment and Endowment Income (Losses), Net	197,059	199,040	283,263	22,696	38,187
Private Gifts	86,405	77,883	71,249	80,972	68,615
Interest Expense	(66,585)	(71,043)	(70,037)	(65,061)	(67,651)
Other Nonoperating Revenues (Expenses)	139	(307)	959	(3,514)	13,972
Net Nonoperating Revenues (Expenses)	300,638	287,638	365,437	119,447	140,594
Income (Loss) before Capital Contributions, Additions to Permanent Endowments, Extraordinary and Special Items	81,362	185,266	288,754	33,921	54,446
State Capital Appropriations	-	29,765	49,519	29,166	3,610
Capital Gifts and Grants	67,106	21,083	34,371	15,990	21,083
Private Gifts for Endowment Purposes	30,524	46,851	31,358	29,477	30,288
Extraordinary Item:					
Loss on asset impairment	-	(17,908)	-	-	-
Increase (Decrease) in Net Position	178,992	265,057	404,002	108,554	109,427
Net Position, Beginning of Year	4,868,394	4,603,337	4,485,060	4,244,397	4,134,970
Cumulative Effect of Change in Accounting Principles	-	-	(285,725)	132,109	-
Net Position, Beginning of Year, as Adjusted	4,868,394	4,603,337	4,199,335	4,376,506	4,134,970
Net Position, End of Year	5,047,386	4,868,394	4,603,337	4,485,060	\$ 4,244,397

CHANGES IN NET POSITION

(% increase / decrease from prior year)

Statistical Section

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Operating Revenues					
Tuition and Fees, Net	-0.5%	-0.8%	-3.4%	3.2%	4.9%
Less: Scholarship Allowances	2.8%	3.1%	-3.1%	4.1%	7.4%
Net Tuition and Fees	-1.7%	-2.1%	-3.4%	3.0%	4.1%
Federal Grants and Contracts	5.0%	-0.5%	2.1%	-0.4%	-3.0%
State and Local Grants and Contracts	1.0%	-1.6%	5.6%	7.0%	8.9%
Private Grants and Contracts	11.6%	6.0%	4.7%	-4.2%	-8.5%
Sales and Services of Educational Activities	-26.5%	-1.1%	4.3%	1.3%	3.9%
Auxiliary Enterprises -					
Patient Medical Services, Net	7.8%	5.8%	9.8%	27.6%	8.1%
Housing and Dining Services, Net	1.8%	-5.3%	-7.7%	0.9%	7.1%
Bookstores	-7.4%	-13.0%	-12.8%	-2.4%	2.7%
Other Auxiliary Enterprises, Net	3.5%	0.7%	6.8%	4.4%	6.1%
Other Operating Revenues	29.8%	-7.2%	-14.7%	11.7%	4.4%
Total Operating Revenues	4.8%	1.8%	3.6%	12.5%	5.1%
Operating Expenses					
Salaries and Wages	3.2%	0.5%	4.0%	8.2%	3.2%
Benefits	21.4%	4.2%	-1.0%	16.2%	14.6%
Supplies, Services and Other Operating Expenses	10.4%	3.2%	0.4%	13.0%	3.0%
Scholarships and Fellowships	-1.0%	-1.8%	-1.5%	5.2%	-0.1%
Depreciation	1.0%	1.5%	4.2%	3.9%	5.9%
Total Operating Expenses	7.7%	1.8%	2.1%	10.3%	4.7%
Operating Loss before State Appropriations	-24.6%	-1.9%	5.7%	-0.5%	-2.6%
State Appropriations	-1.8%	3.9%	4.8%	0.8%	5.5%
Operating Income (Loss) after State Appropriations, Before Nonoperating Revenues (Expenses)	-114.2%	-33.5%	10.3%	0.7%	10.0%
Nonoperating Revenues (Expenses)					
Federal Appropriations	1.4%	-1.7%	0.3%	-4.8%	2.6%
Federal Pell Grants	2.2%	4.8%	-7.7%	-3.0%	-1.2%
Investment and Endowment Income (Losses), Net	-1.0%	-29.7%	1148.1%	-40.6%	-86.5%
Private Gifts	10.9%	9.3%	-12.0%	18.0%	2.7%
Interest Expense	-6.3%	1.4%	7.6%	3.8%	-12.9%
Other Nonoperating Revenues (Expenses)	-145.3%	-132.0%	-127.3%	-125.2%	846.0%
Net Nonoperating Revenues (Expenses)	4.5%	-21.3%	205.9%	-15.0%	-62.8%
Income (Loss) before Capital Contributions, Additions to Permanent Endowments and Extraordinary Item	-56.1%	-35.8%	751.3%	-37.7%	-80.7%
State Capital Appropriations	-100.0%	-39.9%	69.8%	707.9%	100.0%
Capital Gifts and Grants	218.3%	-38.7%	115.0%	-24.2%	43.2%
Private Gifts for Endowment Purposes	-34.8%	49.4%	6.4%	-2.7%	-36.1%
Extraordinary Item:					
Loss on asset impairment	-100.0%	-100.0%	-	-	-
Increase (Decrease) in Net Position	-32.5%	-34.4%	272.2%	-0.8%	-68.2%
Net Position, Beginning of Year	5.8%	2.6%	5.7%	2.6%	-3.9%
Cumulative Effect of Change in Accounting Principles	-100.0%	100.0%	316.3%	100.0%	100.0%
Net Position, Beginning of Year, as Adjusted	5.8%	9.6%	-4.0%	5.8%	9.1%
Net Position, End of Year	3.7%	5.8%	2.6%	5.7%	2.6%

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
+ Primary Reserve Ratio	0.53	0.55	0.52	0.54	0.54
/ Conversion Factor	0.133	0.133	0.133	0.133	0.133
= Strength Factor	4.02	4.16	3.90	4.07	4.06
x Weighting Factor	35%	35%	35%	35%	35%
= Ratio Subtotal	1.41	1.45	1.36	1.42	1.42

Primary Reserve Ratio - measures the financial strength of the institution by indicating how long the institution could function using its expendable reserves to cover operations should additional net position not be available. A positive ratio and an increasing amount over time denotes strength.

+ Return on Net Position Ratio	3.6%	5.6%	9.2%	2.4%	2.6%
/ Conversion Factor	0.020	0.020	0.020	0.020	0.020
= Strength Factor	1.81	2.80	4.59	1.22	1.31
x Weighting Factor	20%	20%	20%	20%	20%
= Ratio Subtotal	0.36	0.56	0.92	0.24	0.26

Return on Net Position Ratio - measures total economic return. While an increasing trend reflects strength, a decline may be appropriate and even warranted if it represents a strategy on the part of the institution to fulfill its mission.

+ Net Operating Revenues Ratio	2.2%	4.9%	5.2%	5.3%	5.1%
/ Conversion Factor	0.013	0.013	0.013	0.013	0.013
= Strength Factor	1.73	3.75	3.98	4.06	3.95
x Weighting Factor	10%	10%	10%	10%	10%
= Ratio Subtotal	0.17	0.38	0.40	0.41	0.40

Net Operating Revenues Ratio - measures whether the institution is living within available resources. A positive ratio and an increasing amount over time generally reflects strength.

+ Viability Ratio	1.15	1.12	1.00	1.01	0.93
/ Conversion Factor	0.417	0.417	0.417	0.417	0.417
= Strength Factor	2.75	2.68	2.40	2.43	2.24
x Weighting Factor	35%	35%	35%	35%	35%
= Ratio Subtotal	0.96	0.94	0.84	0.85	0.78

Viability Ratio - measures the ability of the institution to cover its debt as of the balance sheet date, should the institution need to do so. A positive ratio greater than 1.00 generally denotes strength.

Composite Financial Index **2.90** **3.33** **3.52** **2.93** **2.86**

Composite Financial Index - Three Year Average **3.17** **3.16** **3.18** **3.22** **3.32**

Composite Financial Index (CFI) - provides a methodology for a single overall financial measurement of the institution's health based on the four core ratios. The CFI uses a reasonable weighting plan and allows for a weakness or strength in a specific ratio to be offset by another ratio result, which provides a more balanced measure. The CFI provides a more holistic approach to understanding the financial health of the institution. The CFI scores are not intended to be precise measures; they are indicators of ranges of financial health that can be indicators of overall institutional well-being when combined with non-financial indicators.

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Primary Reserve Ratio (Expendable Financial Resources to Operations)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Operating Expenses	\$ 3,614,971	\$ 3,355,255	\$ 3,294,338	\$ 3,226,696	\$ 2,924,188
Less: Scholarships & Fellowships Expense	(67,367)	(68,047)	(69,289)	(70,353)	(66,860)
Interest Expense	66,585	71,043	70,037	65,061	67,651
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979

Primary Reserve Ratio **0.53** **0.55** **0.52** **0.54** **0.54**

Return on Net Position Ratio

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Change in Net Position	\$ 178,992	\$ 265,057	\$ 404,002	\$ 108,554	\$ 109,427
Average Net Position	\$ 4,957,890	\$ 4,735,866	\$ 4,401,336	\$ 4,430,783	\$ 4,189,684

Return on Net Position Ratio **3.6%** **5.6%** **9.2%** **2.4%** **2.6%**

Net Operating Revenues Ratio (Annual Operating Margin)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Operating Inc (Loss) After State Appropriations	\$ (219,276)	\$ (102,372)	\$ (76,683)	\$ (85,526)	\$ (86,148)
Federal Appropriations	27,026	26,665	27,128	27,041	28,399
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Normalized Investment Income	198,919	185,694	175,081	164,675	156,107
Private Gifts	86,405	77,883	71,249	80,972	68,615
Interest Expense	(66,585)	(71,043)	(70,037)	(65,061)	(67,651)
Net Operating Surplus (Deficit)	\$ 83,083	\$ 172,227	\$ 179,613	\$ 179,414	\$ 158,394
Total Operating Revenues	\$ 2,986,898	\$ 2,851,178	\$ 2,799,743	\$ 2,702,357	\$ 2,402,529
Less: Scholarship & Fellowships Expense	(67,367)	(68,047)	(69,289)	(70,353)	(66,860)
State Appropriations	408,797	401,705	417,912	438,813	435,511
Federal Appropriations	27,026	26,665	27,128	27,041	28,399
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Normalized Investment Income (a)	198,919	185,694	175,081	164,675	156,107
Private Gifts	86,405	77,883	71,249	80,972	68,615
Total Operating Revenues	\$ 3,697,272	\$ 3,530,478	\$ 3,474,699	\$ 3,400,818	\$ 3,083,373

(a) Normalized investment income is equal to 5% of the rolling average balance of total cash and investments over the previous three fiscal years.

Net Operating Surplus (Deficit)	\$ 83,083	\$ 172,227	\$ 179,613	\$ 179,414	\$ 158,394
Total Operating Revenues	\$ 3,697,272	\$ 3,530,478	\$ 3,474,699	\$ 3,400,818	\$ 3,083,373

Net Operating Revenues Ratio **2.2%** **4.9%** **5.2%** **5.3%** **5.1%**

Viability Ratio (Expendable Financial Resources to Direct Debt)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003

Viability Ratio **1.15** **1.12** **1.00** **1.01** **0.93**

Net Tuition per Student

Net Tuition per Student	\$ 10,415	\$ 10,252	\$ 10,036	\$ 10,063	\$ 9,840
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State Appropriations per Student	\$ 7,640	\$ 7,257	\$ 7,232	\$ 7,336	\$ 7,312
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Educational Expenses per Student	\$ 28,044	\$ 29,532	\$ 28,231	\$ 27,721	\$ 23,942
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Total Tuition Discount (%)	35.0%	34.2%	33.2%	33.0%	32.7%
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Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Unrestricted Financial Resources to Direct Debt

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Current Portion of Long-Term Debt	\$ 399,074	\$ 228,078	\$ 232,821	\$ 224,254	\$ 71,022
Long-Term Debt Subject to Remarketing	82,540	86,185	89,695	93,070	96,320
Long-Term Debt	1,199,968	1,344,815	1,386,017	1,405,916	1,527,661
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003

**Unrestricted Financial Resources
to Direct Debt**

0.85 0.83 0.73 0.76 0.67

Viability Ratio (Expendable Financial Resources to Direct Debt)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003

Viability Ratio

1.15 1.12 1.00 1.01 0.93

Total Financial Resources to Direct Debt

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Net Position - Restricted Nonexpendable	1,248,860	1,200,514	1,109,498	993,760	1,010,357
Total Financial Resources	\$ 3,179,045	\$ 3,057,018	\$ 2,816,632	\$ 2,738,133	\$ 2,591,090
Total Financial Resources	\$ 3,179,045	\$ 3,057,018	\$ 2,816,632	\$ 2,738,133	\$ 2,591,090
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003

**Total Financial Resources
to Direct Debt**

1.89 1.84 1.65 1.59 1.53

Direct Debt per Student

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Total Direct Debt	\$ 1,681,582	\$ 1,659,078	\$ 1,708,533	\$ 1,723,240	\$ 1,695,003
Number of Students - End of Fiscal Year (FTEs)	52,827	54,106	55,398	57,785	59,816

Direct Debt per Student

\$ 31,832 \$ 30,663 \$ 30,841 \$ 29,822 \$ 28,337

Actual Debt Service to Operations

Capital Expense to Operations

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Unrestricted Financial Resources to Operations

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Operating Expenses	\$ 3,614,971	\$ 3,355,255	\$ 3,294,338	\$ 3,226,696	\$ 2,924,188
Less: Scholarships & Fellowships Expense	(67,367)	(68,047)	(69,289)	(70,353)	(66,860)
Interest Expense	66,585	71,043	70,037	65,061	67,651
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979

**Unrestricted Financial Resources
to Operations**

0.40 0.41 0.38 0.40 0.39

Primary Reserve Ratio (Expendable Financial Resources to Operations)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Operating Expenses	\$ 3,614,971	\$ 3,355,255	\$ 3,294,338	\$ 3,226,696	\$ 2,924,188
Less: Scholarships & Fellowships Expense	(67,367)	(68,047)	(69,289)	(70,353)	(66,860)
Interest Expense	66,585	71,043	70,037	65,061	67,651
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979
Expendable Net Position	\$ 1,930,185	\$ 1,856,504	\$ 1,707,134	\$ 1,744,373	\$ 1,580,733
Adjusted Total Operating Expense	\$ 3,614,189	\$ 3,358,251	\$ 3,295,086	\$ 3,221,404	\$ 2,924,979

Primary Reserve Ratio

0.53 0.55 0.52 0.54 0.54

Total Financial Resources per Student

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Net Position - Unrestricted	\$ 1,434,650	\$ 1,378,360	\$ 1,254,980	\$ 1,303,708	\$ 1,129,355
Net Position - Restricted Expendable - Scholarships, Research, Instruction and Other	410,497	394,577	367,009	356,156	367,832
Net Position - Restricted Expendable - Loans	85,038	83,567	85,145	84,509	83,546
Net Position - Restricted Nonexpendable	1,248,860	1,200,514	1,109,498	993,760	1,010,357
Total Financial Resources	\$ 3,179,045	\$ 3,057,018	\$ 2,816,632	\$ 2,738,133	\$ 2,591,090
Total Financial Resources	\$ 3,179,045	\$ 3,057,018	\$ 2,816,632	\$ 2,738,133	\$ 2,591,090
Number of Students - End of Fiscal Year (FTE)	52,827	54,106	55,398	57,785	59,816

Total Financial Resources per Student

\$ 60,178 \$ 56,501 \$ 50,844 \$ 47,385 \$ 43,318

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Net Operating Revenues Ratio (Annual Operating Margin)

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Operating Inc (Loss) After State Appropriations	\$ (219,276)	\$ (102,372)	\$ (76,683)	\$ (85,526)	\$ (86,148)
Federal Appropriations	27,026	26,665	27,128	27,041	28,399
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Normalized Investment Income	198,919	185,694	175,081	164,675	156,107
Private Gifts	86,405	77,883	71,249	80,972	68,615
Interest Expense	(66,585)	(71,043)	(70,037)	(65,061)	(67,651)
Net Operating Surplus (Deficit)	\$ 83,083	\$ 172,227	\$ 179,613	\$ 179,414	\$ 158,394
Total Operating Revenues	\$ 2,986,898	\$ 2,851,178	\$ 2,799,743	\$ 2,702,357	\$ 2,402,529
Less: Scholarship & Fellowships Expense	(67,367)	(68,047)	(69,289)	(70,353)	(66,860)
State Appropriations	408,797	401,705	417,912	438,813	435,511
Federal Appropriations	27,026	26,665	27,128	27,041	28,399
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Normalized Investment Income (a)	198,919	185,694	175,081	164,675	156,107
Private Gifts	86,405	77,883	71,249	80,972	68,615
Total Operating Revenues	\$ 3,697,272	\$ 3,530,478	\$ 3,474,699	\$ 3,400,818	\$ 3,083,373

(a) Normalized investment income is equal to 5% of the rolling average balance of total cash and investments over the previous three fiscal years.

Net Operating Surplus (Deficit)	\$ 83,083	\$ 172,227	\$ 179,613	\$ 179,414	\$ 158,394
Total Operating Revenues	\$ 3,697,272	\$ 3,530,478	\$ 3,474,699	\$ 3,400,818	\$ 3,083,373

Net Operating Revenues Ratio **2.2%** **4.9%** **5.2%** **5.3%** **5.1%**

Debt Service Coverage

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Total Debt Service	\$ 103,026	\$ 107,630	\$ 107,288	\$ 94,916	\$ 86,741
Net Operating Surplus (Deficit)	\$ 83,083	\$ 172,227	\$ 179,613	\$ 179,414	\$ 158,394
Add Back: Interest Expense	66,585	71,043	70,037	65,061	67,651
Add Back: Depreciation Expense	215,539	213,477	210,226	201,691	194,075
Adjusted Net Operating Surplus (Deficit)	\$ 365,207	\$ 456,747	\$ 459,876	\$ 446,166	\$ 420,120
Adjusted Net Operating Surplus (Deficit)	\$ 365,207	\$ 456,747	\$ 459,876	\$ 446,166	\$ 420,120
Total Debt Service	\$ 103,026	\$ 107,630	\$ 107,288	\$ 94,916	\$ 86,741

Debt Service Coverage **3.54** **4.24** **4.29** **4.70** **4.84**

Return on Net Position Ratio

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Change in Net Position	\$ 178,992	\$ 265,057	\$ 404,002	\$ 108,554	\$ 109,427
Average Net Position	\$ 4,957,890	\$ 4,735,866	\$ 4,401,336	\$ 4,430,783	\$ 4,189,684

Return on Net Position Ratio **3.6%** **5.6%** **9.2%** **2.4%** **2.6%**

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Contribution Ratios

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
State Appropriations	\$ 408,797	\$ 401,705	\$ 417,912	\$ 438,813	\$ 435,511
Tuition and Fees, Net of Scholarship Allow/Exp	557,325	567,432	579,928	601,921	586,129
Auxiliary Enterprises	446,687	437,717	447,473	444,758	433,437
Grants and Contracts	309,500	292,335	289,875	280,172	280,019
Federal Pell Grants	56,594	55,400	52,875	57,313	59,072
Gifts	86,405	77,883	71,249	80,972	68,615
Normalized Investment Income (a)	198,919	185,694	175,081	164,675	156,107
Patient Care	1,510,024	1,400,335	1,323,006	1,205,084	944,161
Other	123,021	111,977	117,300	127,110	120,322
Total	\$ 3,697,272	\$ 3,530,478	\$ 3,474,699	\$ 3,400,818	\$ 3,083,373
State Appropriations	11.1%	11.2%	12.0%	12.9%	14.1%
Tuition and Fees, Net of Scholarship Allow/Exp	15.1%	16.1%	16.7%	17.7%	19.0%
Auxiliary Enterprises	12.1%	12.4%	12.9%	13.1%	14.1%
Grants and Contracts	8.4%	8.3%	8.3%	8.2%	9.1%
Federal Pell Grants	1.5%	1.6%	1.5%	1.7%	1.9%
Gifts	2.3%	2.2%	2.1%	2.4%	2.2%
Normalized Investment Income (a)	5.4%	5.3%	5.0%	4.8%	5.1%
Patient Care	40.8%	39.7%	38.1%	35.4%	30.6%
Other	3.3%	3.2%	3.4%	3.8%	3.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

(a) Normalized investment income is equal to 5% of the rolling average balance of total cash and investments over the previous three fiscal years.

Operating Expenses by Functional Classifications

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Instruction	\$ 690,858	\$ 630,762	\$ 590,759	\$ 643,872	\$ 638,917
Research	209,367	193,568	181,649	194,245	189,339
Public Service	180,060	163,971	157,491	158,935	153,492
Academic Support	161,043	144,740	140,326	156,667	147,403
Student Services	103,552	101,151	90,698	99,132	92,629
Institutional Support	133,751	115,744	111,416	149,468	128,773
Operation and Maintenance of Plant	121,695	105,162	92,300	99,375	104,205
Auxiliary Enterprises	1,731,739	1,618,633	1,548,766	1,271,256	1,208,495
Scholarships and Fellowships	67,367	68,047	69,289	70,353	66,860
Depreciation	215,539	213,477	210,226	190,296	194,075
Total Operating Expenses	\$ 3,614,971	\$ 3,355,255	\$ 3,192,920	\$ 3,033,599	\$ 2,924,188
Instruction	19.1%	18.8%	18.5%	21.2%	21.8%
Research	5.8%	5.8%	5.7%	6.4%	6.5%
Public Service	5.0%	4.9%	4.9%	5.2%	5.2%
Academic Support	4.5%	4.3%	4.4%	5.2%	5.0%
Student Services	2.9%	3.0%	2.8%	3.3%	3.2%
Institutional Support	3.7%	3.4%	3.5%	4.9%	4.4%
Operation and Maintenance of Plant	3.4%	3.1%	2.9%	3.3%	3.6%
Auxiliary Enterprises	47.9%	48.2%	48.5%	41.9%	41.3%
Scholarships and Fellowships	1.9%	2.0%	2.2%	2.3%	2.3%
Depreciation	6.0%	6.4%	6.6%	6.3%	6.7%
Total Operating Expenses	100.0%	100.0%	100.0%	100.0%	100.0%

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Enrollment

Fall Semester	2018	2017	2016	2015	2014
Undergraduate Students (Head Count)	54,106	55,877	58,385	59,418	58,489
Graduate Students (Head Count)	13,803	13,815	14,498	15,184	15,614
Professional Students (Head Count)	3,351	3,122	3,116	3,131	3,180
Total Students (Head Count)	71,260	72,814	75,999	77,733	77,283
Undergraduate Students (FTE)	42,406	44,248	46,202	47,840	47,443
Graduate Students (FTE)	7,795	8,029	8,505	8,889	8,986
Professional Students (FTE)	3,309	3,074	3,077	3,087	3,137
Total Students (FTE)	53,510	55,351	57,784	59,816	59,566
Acceptance Rate - First-time Freshmen	72%	74%	71%	76%	75%
Acceptance Rate - Undergraduate Transfers	63%	66%	66%	69%	68%
Matriculation - First-time Freshmen	32%	35%	33%	38%	40%
Matriculation - Undergraduate Transfers	66%	66%	66%	64%	68%

Demographics

Fall Semester	2018	2017	2016	2015	2014
Male	48%	48%	48%	49%	48%
Female	52%	52%	52%	51%	52%
Undergraduate Residence - Missouri	83%	82%	81%	79%	78%
Undergraduate Residence - Out of State	17%	18%	19%	21%	22%
Undergraduate Full-Time	72%	73%	73%	75%	76%
Undergraduate Part-Time	28%	27%	27%	25%	24%
Graduate Full-Time	45%	48%	50%	49%	49%
Graduate Part-Time	55%	52%	50%	51%	51%
White	72.5%	72.3%	72.2%	72.5%	72.5%
Black or African American	8.8%	8.9%	9.2%	9.0%	9.4%
Non-Resident Alien	6.2%	6.8%	7.5%	8.0%	8.0%
Asian / Pacific Is.	4.4%	4.3%	4.0%	3.8%	3.8%
Hispanic	4.7%	4.6%	4.2%	3.9%	3.7%
Other	3.4%	3.1%	2.9%	2.8%	2.6%

Degrees Awarded

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Baccalaureate	11,401	11,669	11,546	11,654	11,360
Graduate Certificate	1,026	1,047	869	839	780
Master's	3,577	3,956	4,217	4,330	4,204
Educational Specialist	106	67	93	100	122
Doctoral	754	818	816	720	712
First Professional Degree	882	832	829	833	876
Total	17,746	18,389	18,370	18,476	18,054

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Enrollment

Fall Semester	2018	2017	2016	2015	2014
Undergraduate Students (Head Count)	22,484	23,799	25,877	27,791	27,642
Graduate Students (Head Count)	5,952	5,864	6,178	6,440	6,561
Professional Students (Head Count)	1,407	1,181	1,184	1,193	1,222
Total Students (Head Count)	29,843	30,844	33,239	35,424	35,425
Undergraduate Students (FTE)	20,566	21,974	23,864	25,600	25,371
Graduate Students (FTE)	3,403	3,498	3,694	3,894	3,959
Professional Students (FTE)	1,393	1,165	1,166	1,172	1,202
Total Students (FTE)	25,362	26,637	28,724	30,666	30,532
Acceptance Rate - First-time Freshmen	78%	78%	75%	78%	78%
Acceptance Rate - Undergraduate Transfers	65%	63%	62%	67%	65%
Matriculation - First-time Freshmen	32%	32%	30%	36%	40%
Matriculation - Undergraduate Transfers	60%	60%	57%	54%	60%

Demographics

Fall Semester	2018	2017	2016	2015	2014
Male	46%	47%	47%	47%	47%
Female	54%	53%	53%	53%	53%
Undergraduate Residence - Missouri	78%	76%	74%	72%	73%
Undergraduate Residence - Out of State	22%	24%	26%	28%	27%
Undergraduate Full-Time	92%	93%	93%	94%	94%
Undergraduate Part-Time	8%	7%	7%	6%	6%
Graduate Full-Time	53%	57%	58%	59%	59%
Graduate Part-Time	47%	43%	42%	41%	41%
White	76.5%	76.9%	76.9%	76.9%	77.4%
Black or African American	7.0%	6.8%	7.0%	7.3%	7.3%
Non-Resident Alien	6.2%	6.8%	7.2%	7.2%	6.9%
Asian / Pacific Is.	2.4%	2.4%	2.3%	2.2%	2.3%
Hispanic	4.3%	3.9%	3.6%	3.5%	3.3%
Other	3.6%	3.2%	3.0%	2.9%	2.8%

Degrees Awarded

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Baccalaureate	6,314	6,512	6,331	6,283	5,995
Graduate Certificate	386	362	266	225	239
Master's	1,473	1,562	1,684	1,619	1,571
Educational Specialist	59	40	56	51	82
Doctoral	426	501	500	416	435
First Professional Degree	357	302	313	308	346
Total	9,015	9,279	9,150	8,902	8,668

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Enrollment

Fall Semester	2018	2017	2016	2015	2014
Undergraduate Students (Head Count)	11,319	11,372	11,704	11,243	10,453
Graduate Students (Head Count)	3,287	3,231	3,468	3,676	3,911
Professional Students (Head Count)	1,769	1,769	1,764	1,766	1,782
Total Students (Head Count)	16,375	16,372	16,936	16,685	16,146
Undergraduate Students (FTE)	7,853	7,989	7,990	7,798	7,575
Graduate Students (FTE)	1,831	1,854	2,080	2,202	2,218
Professional Students (FTE)	1,740	1,737	1,744	1,743	1,759
Total Students (FTE)	11,424	11,580	11,814	11,743	11,552
Acceptance Rate - First-time Freshmen	56%	64%	62%	63%	64%
Acceptance Rate - Undergraduate Transfers	56%	65%	66%	69%	68%
Matriculation - First-time Freshmen	32%	37%	38%	37%	38%
Matriculation - Undergraduate Transfers	65%	64%	66%	65%	73%

Demographics

Fall Semester	2018	2017	2016	2015	2014
Male	43%	43%	44%	45%	45%
Female	57%	57%	56%	55%	55%
Undergraduate Residence - Missouri	77%	77%	78%	77%	74%
Undergraduate Residence - Out of State	23%	23%	22%	23%	26%
Undergraduate Full-Time	58%	59%	57%	59%	65%
Undergraduate Part-Time	42%	41%	43%	41%	35%
Graduate Full-Time	37%	38%	44%	45%	43%
Graduate Part-Time	63%	62%	56%	55%	57%
White	63.7%	62.8%	62.8%	62.6%	62.2%
Black or African American	10.4%	10.4%	11.0%	10.4%	11.2%
Non-Resident Alien	7.8%	7.8%	8.9%	10.1%	10.2%
Asian / Pacific Is.	7.6%	7.3%	6.7%	6.5%	6.7%
Hispanic	7.5%	8.0%	7.2%	6.7%	6.1%
Other	4.6%	3.7%	3.4%	3.7%	3.6%

Degrees Awarded

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Baccalaureate	1,778	1,753	1,824	1,741	1,812
Graduate Certificate	64	54	48	71	50
Master's	859	962	1,082	1,213	1,197
Educational Specialist	24	18	20	32	26
Doctoral	135	114	122	120	98
First Professional Degree	486	491	473	480	489
Total	3,346	3,392	3,569	3,657	3,672

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Enrollment

Fall Semester	2018	2017	2016	2015	2014
Undergraduate Students (Head Count)	6,843	6,919	6,906	6,839	6,520
Graduate Students (Head Count)	1,758	1,964	1,929	2,047	2,120
Professional Students (Head Count)	-	-	-	-	-
Total Students (Head Count)	8,601	8,883	8,835	8,886	8,640
Undergraduate Students (FTE)	6,123	6,193	6,234	6,216	5,947
Graduate Students (FTE)	1,113	1,257	1,224	1,273	1,332
Professional Students (FTE)	-	-	-	-	-
Total Students (FTE)	7,236	7,450	7,458	7,489	7,279
Acceptance Rate - First-time Freshmen	84%	83%	77%	88%	86%
Acceptance Rate - Undergraduate Transfers	74%	75%	70%	70%	70%
Matriculation - First-time Freshmen	36%	44%	44%	47%	42%
Matriculation - Undergraduate Transfers	65%	69%	72%	74%	75%

Note: Rolla's pre-application advising process encourages unqualified students to apply elsewhere, thereby producing misleading acceptance rate figures.

Demographics

Fall Semester	2018	2017	2016	2015	2014
Male	76%	77%	77%	77%	77%
Female	24%	23%	23%	23%	23%
Undergraduate Residence - Missouri	86%	85%	83%	80%	79%
Undergraduate Residence - Out of State	14%	15%	17%	20%	21%
Undergraduate Full-Time	89%	89%	90%	90%	89%
Undergraduate Part-Time	11%	11%	10%	10%	11%
Graduate Full-Time	60%	62%	63%	60%	61%
Graduate Part-Time	40%	38%	37%	40%	39%
White	75.5%	74.4%	73.6%	71.5%	70.0%
Black or African American	3.1%	3.2%	3.4%	3.4%	3.5%
Non-Resident Alien	10.5%	12.1%	13.4%	16.1%	18.2%
Asian / Pacific Is.	3.7%	3.6%	3.6%	3.2%	2.9%
Hispanic	3.8%	3.7%	3.3%	3.2%	3.1%
Other	3.4%	3.0%	2.7%	2.6%	2.3%

Degrees Awarded

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Baccalaureate	1,388	1,416	1,320	1,378	1,307
Graduate Certificate	454	510	432	427	404
Master's	517	613	625	688	675
Educational Specialist	-	-	-	-	-
Doctoral	101	116	88	109	95
First Professional Degree	-	-	-	-	-
Total	2,460	2,655	2,465	2,602	2,481

Supplementary Information - Unaudited - See Accompanying Independent Auditors' Report

Enrollment

Fall Semester	2018	2017	2016	2015	2014
Undergraduate Students (Head Count)	13,460	13,787	13,898	13,545	13,874
Graduate Students (Head Count)	2,806	2,756	2,923	3,021	3,022
Professional Students (Head Count)	175	172	168	172	176
Total Students (Head Count)	16,441	16,715	16,989	16,738	17,072
Undergraduate Students (FTE)	7,865	8,092	8,113	8,228	8,550
Graduate Students (FTE)	1,448	1,420	1,508	1,520	1,477
Professional Students (FTE)	175	172	168	172	176
Total Students (FTE)	9,488	9,684	9,789	9,920	10,203
Acceptance Rate - First-time Freshmen	52%	58%	54%	57%	56%
Acceptance Rate - Undergraduate Transfers	69%	68%	68%	71%	69%
Matriculation - First-time Freshmen	27%	32%	32%	38%	39%
Matriculation - Undergraduate Transfers	72%	70%	71%	70%	68%

Demographics

Fall Semester	2018	2017	2016	2015	2014
Male	41%	41%	41%	40%	40%
Female	59%	59%	59%	60%	60%
Undergraduate Residence - Missouri	94%	94%	94%	93%	93%
Undergraduate Residence - Out of State	6%	6%	6%	7%	7%
Undergraduate Full-Time	40%	40%	39%	42%	44%
Undergraduate Part-Time	60%	60%	61%	58%	56%
Graduate Full-Time	30%	31%	30%	27%	25%
Graduate Part-Time	70%	69%	70%	73%	75%
White	72.2%	72.0%	71.3%	73.1%	72.8%
Black or African American	14.2%	14.5%	15.0%	14.4%	15.2%
Non-Resident Alien	2.9%	3.1%	3.5%	3.3%	3.2%
Asian / Pacific Is.	5.0%	5.1%	5.1%	4.5%	4.5%
Hispanic	3.2%	3.2%	3.0%	2.6%	2.5%
Other	2.5%	2.2%	2.1%	2.1%	1.8%

Degrees Awarded

Fiscal Year Ended June 30,	2019	2018	2017	2016	2015
Baccalaureate	1,921	1,988	2,071	2,252	2,246
Graduate Certificate	122	121	123	116	87
Master's	728	819	826	810	761
Educational Specialist	23	9	17	17	14
Doctoral	92	87	106	75	84
First Professional Degree	39	39	43	45	41
Total	2,925	3,063	3,186	3,315	3,233

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APPENDIX C

BOOK-ENTRY ONLY SYSTEM AND GLOBAL CLEARANCE PROCEDURES

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BOOK-ENTRY ONLY SYSTEM

The information set out below is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream Banking (DTC, Euroclear and Clearstream Banking together, the “Clearing Systems”) currently in effect. The information in this section concerning the Clearing Systems has been obtained from sources that the University believes to be reliable, but neither the University nor the Underwriters take any responsibility for the accuracy, completeness or adequacy of the information in this section. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. The University will not have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Series 2020 Bonds held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Clearing Systems

DTC Book-Entry Only System

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.

Euroclear and Clearstream Banking

Euroclear and Clearstream Banking each hold securities for their customers and facilitate the clearance and settlement of securities transactions by electronic book-entry transfer between their respective account holders. Euroclear and Clearstream Banking provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream Banking also deal with domestic securities markets in several countries through established depository and custodial relationships. Euroclear and Clearstream Banking have

established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

Euroclear and Clearstream Banking customers are worldwide financial institutions, including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Indirect access to Euroclear and Clearstream Banking is available to other institutions that clear through or maintain a custodial relationship with an account holder of either system, either directly or indirectly.

Clearing and Settlement Procedures

The Series 2020 Bonds sold in offshore transactions will be initially issued to investors through the book-entry facilities of DTC, or Clearstream Banking and Euroclear in Europe if the investors are participants in those systems, or indirectly through organizations that are participants in the systems. For any of such Series 2020 Bonds, the record holder will be DTC's nominee. Clearstream Banking and Euroclear will hold omnibus positions on behalf of their participants through customers' securities accounts in Clearstream Banking's and Euroclear's names on the books of their respective depositories.

The depositories, in turn, will hold positions in customers' securities accounts in the depositories' names on the books of DTC. Because of time zone differences, the securities account of a Clearstream Banking or Euroclear participant as a result of a transaction with a participant, other than a depository holding on behalf of Clearstream Banking or Euroclear, will be credited during the securities settlement processing day, which must be a business day for Clearstream Banking or Euroclear, as the case may be, immediately following the DTC settlement date. These credits or any transactions in the securities settled during the processing will be reported to the relevant Euroclear participant or Clearstream Banking participant on that business day. Cash received in Clearstream Banking or Euroclear as a result of sales of securities by or through a Clearstream Banking participant or Euroclear participant to a Direct Participant, other than the depository for Clearstream Banking or Euroclear, will be received with value on the DTC settlement date but will be available in the relevant Clearstream Banking or Euroclear cash account only as of the business day following settlement in DTC.

Transfers between participants will occur in accordance with DTC rules. Transfers between Clearstream Banking participants or Euroclear participants will occur in accordance with their respective rules and operating procedures. Cross-market transfers between persons holding directly or indirectly through DTC, on the one hand, and directly or indirectly through Clearstream Banking participants or Euroclear participants, on the other, will be effected in DTC in accordance with DTC rules on behalf of the relevant European international clearing system by the relevant depositories; however, cross-market transactions will require delivery of instructions to the relevant European international clearing system by the counterparty in the system in accordance with its rules and procedures and within its established deadlines in European time. The relevant European international clearing system will, if the transaction meets its settlement requirements, deliver instructions to its depository to take action to effect final settlement on its behalf by delivering or receiving securities in DTC, and making or receiving payment in accordance with normal procedures for same day funds settlement applicable to DTC. Clearstream Banking participants or Euroclear participants may not deliver instructions directly to the depositories.

The University will not impose any fees in respect of holding the Series 2020 Bonds; however, holders of book-entry interests in the Series 2020 Bonds may incur fees normally payable in respect of the maintenance and operation of accounts in the Clearing Systems.

Initial Settlement

Interests in the Series 2020 Bonds will be in uncertified book-entry form. Purchasers electing to hold book-entry interests in the Series 2020 Bonds through Euroclear and Clearstream Banking accounts will follow the settlement procedures applicable to conventional Eurobonds. Book-entry interests in the Series 2020 Bonds will be credited to Euroclear and Clearstream Banking participants' securities clearance accounts on the

business day following the date of delivery of the Series 2020 Bonds against payment (value as on the date of delivery of the Series 2020 Bonds). Direct Participants acting on behalf of purchasers electing to hold book-entry interests in the Series 2020 Bonds through DTC will follow the delivery practices applicable to securities eligible for DTC's Same Day Funds Settlement system. Direct Participants' securities accounts will be credited with book-entry interests in the Series 2020 Bonds following confirmation of receipt of payment to the University on the date of delivery of the Series 2020 Bonds.

Secondary Market Trading

Secondary market trades in the Series 2020 Bonds will be settled by transfer of title to book-entry interests in the Clearing Systems. Title to such book-entry interests will pass by registration of the transfer within the records of Euroclear, Clearstream Banking or DTC, as the case may be, in accordance with their respective procedures. Book-entry interests in the Series 2020 Bonds may be transferred within Euroclear and within Clearstream Banking and between Euroclear and Clearstream Banking in accordance with procedures established for these purposes by Euroclear and Clearstream Banking. Book-entry interests in the Series 2020 Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC. Transfer of book-entry interests in the Series 2020 Bonds between Euroclear or Clearstream Banking and DTC may be effected in accordance with procedures established for this purpose by Euroclear, Clearstream Banking and DTC.

General

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.

None of Euroclear, Clearstream Banking or DTC is under any obligation to perform or continue to perform the procedures referred to above, and such procedures may be discontinued at any time.

Neither the University nor any of their agents will have any responsibility for the performance by Euroclear, Clearstream Banking or DTC or their respective direct or indirect participants or account holders of their respective obligations under the rules and procedures governing their operations or the arrangements referred to above.

The information herein concerning Euroclear, Clearstream Banking and DTC has been obtained from sources that the University and the Underwriters believe to be reliable, but the University and the Underwriters take no responsibility for the accuracy thereof.

APPENDIX D

DEFINITIONS AND SUMMARY OF THE RESOLUTION

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DEFINITIONS AND SUMMARY OF THE RESOLUTION

I. DEFINITIONS

The following words and terms as used in this Appendix 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 the 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.

“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 the 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.

“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 the Bond Purchase Agreement relating to the Series 2020 Bonds, between the University and the Original Purchaser.

“Bonds” means the Series 2020 Bonds, the Prior System Bonds and all Additional Bonds authenticated and delivered pursuant to the terms of the 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.

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

“Costs of Issuance Account” means the System Facilities Costs of Issuance Account ratified and confirmed pursuant to the Resolution, including subaccounts established thereunder.

“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, St. Louis, Missouri, and its successors and assigns.

“Escrow Agreement” means the Escrow Trust Agreement dated as of the closing date, by and between the University and the Escrow Agent pursuant to which any of the Refunded Obligations are being refunded, defeased and paid.

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

“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.

“Initial System Facilities Resolution” means, collectively, the resolution of the Board dated October 28, 1993 and the resolution of the Executive Committee of the Board dated November 11, 1993, as from time to time amended in accordance with the terms thereof.

“Interest Payment Date” means, with respect to the Series 2020 Bonds, May 1 and November 1 of each year, commencing November 1, 2020.

“Interest Rate” means, with respect to any Series 2020 Bond, the stated interest rate of such Series 2020 Bond.

“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.

“Minimum Authorized Denominations” means for the Series 2020 Bonds \$5,000, or any integral multiple thereof.

“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 the Official Statement with respect to the Series 2020 Bonds, as the same may be amended or supplemented.

“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 the 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 a respective Series of Series 2020 Bonds, 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 the 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 the 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 the 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, St. 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

“Principal and Interest Account” means the System Facilities Principal and Interest Account ratified and confirmed pursuant to the Resolution, including subaccounts established thereunder.

“Prior System Bonds” means, collectively, the Outstanding portions of the system facilities revenue bonds previously issued by the University, currently consisting of the Outstanding portions of the following series of system facilities revenue bonds (not taking into account the refunding and redemption of the Refunded Obligations pursuant to the Resolution):

- (a) The Series 2007B Bonds;
- (b) The Series 2009A Bonds;
- (c) The Series 2009B Bonds;
- (d) The Series 2010A Bonds;
- (e) The Series 2011 Bonds;
- (f) The Series 2013A Bonds;
- (g) The Series 2013B Bonds;
- (h) The Series 2014A Bonds; and
- (i) The Series 2014B Bonds.

“Prior System Facilities Resolutions” means, collectively, the resolutions of the Board and the Executive Committee of the Board 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, and the additions and improvements to the System Facilities financed or refinanced with the proceeds of the Refunded Obligations, if any, all as described in the Resolution.

“Projects Account” means the System Facilities Projects Account ratified and confirmed pursuant to the Resolution, including subaccounts established thereunder.

“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, with respect to any Series 2020 Bond, 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 previously issued by the University and described in the Resolution which are to be refunded with a portion of the proceeds of the Series 2020 Bonds.

“Refunding Account” means the System Facilities Refunding Account ratified and confirmed pursuant to the Resolution.

“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 the Resolution adopted by the Board on April 9, 2020, authorizing the Series 2020 Bonds, as from time to time amended in accordance with the terms thereof.

“Revenue Account” means the System Facilities Revenue Account ratified and confirmed pursuant to the Resolution.

“Series” means any series or subseries of Series 2020 Bonds.

“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 of the Board dated March 20, 1997 and the resolution adopted by the Executive Committee of the Board on April 22, 1997, 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 of the Board dated March 26, 1998 and the resolution adopted by the Executive Committee of the Board on April 9, 1998, 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 of the Board on March 15, 2000, 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 of the Board on August 8, 2001, 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 of the Board on May 31, 2002, 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 of the Board on October 30, 2003, 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 of the Board on January 19, 2006, 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 of the Board on July 12, 2007, 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 of the Board on July 16, 2009, authorizing 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 of the Board on July 16, 2009 authorizing 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 of the Board on December 8, 2010 authorizing 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 of the Board dated June 17, 2011 and the resolution adopted by the Executive Committee of the Board on June 29, 2011, 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 of the Board dated April 5, 2012 and the resolution adopted by the Executive Committee of the Board on April 18, 2012, 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 of the Board on November 12, 2013 authorizing 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 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 Series 2014B Bonds, as from time to time amended in accordance with the terms thereof.

“Series 2020 Bond” or “Series 2020 Bonds” means any Series 2020A Bond, Series 2020A Bonds, Series 2020B Bond or Series 2020B Bonds.

“Series 2020A Bond” or “Series 2020A Bonds” means any bond or bonds of the series of Taxable System Facilities Revenue Bonds, Series 2020A, of the University authorized and issued pursuant to the Resolution, the form of which is attached to the Resolution.

“Series 2020B Bond” or “Series 2020B Bonds” means any bond or bonds of the series of System Facilities Revenue Bonds, Series 2020B, of the University authorized and issued pursuant to the Resolution, the form of which is attached to the Resolution.

“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 the Initial System Facilities Resolution and ratified and confirmed in the Prior System Facilities Resolutions and in the Resolution 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 to the Resolution and described under the caption “SECURITY FOR THE SERIES 2020 BONDS” in this Official Statement, 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 in the Resolution, 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 to the Resolution and described under the caption “SECURITY FOR THE SERIES 2020 BONDS” in this Official Statement; (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 of the Resolution; 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 the Tax Compliance Agreement with regard to the Series 2020B Bonds, dated as of the date of issuance of the Series 2020B Bonds, of the University, as amended and supplemented in accordance with the terms thereof.

“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.

II. SUMMARY OF THE RESOLUTION

The following is a summary of certain provisions and covenants contained in the Resolution. Such summary does not purport to be a complete statement of the terms of the Resolution and accordingly is qualified in its entirety by reference thereto and is subject to the full text thereof.

Authorization of the Bonds

Authorization of the Series 2020 Bonds. The University has authorized and directed the Series 2020 Bonds to be issued, sold and delivered to finance and/or refinance the Projects and to refund, refinance or defease (collectively, “refund”) the Refunded Obligations and to pay costs of issuance of the Series 2020 Bonds. The Series 2020 Bonds authorized in the Resolution shall be issued pursuant to the provisions of the Constitution and laws of the State of Missouri.

Security for the Series 2020 Bonds. 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 financed or refinanced by the Series 2020 Bonds shall constitute “System Facilities Additions,” if not already “System Facilities,” 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.

The University has designated 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 the Resolution 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.

The covenants and agreements of the University contained in the Resolution 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 pledged in the Resolution 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 the 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 the Resolution. 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 the Resolution, 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.

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 hereafter.

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.

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.

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 the 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.

Redemption

The Series 2020 Bonds are subject to redemption as set forth in the forepart of this Official Statement under the heading **“THE SERIES 2020A BONDS AND SERIES 2020B BONDS – Redemption Provisions.”**

Ratification and Creation of Accounts

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 have been ratified and confirmed, or have been created and ordered to be established in the accounting records of the University, in connection with the issuance of the Series 2020 Bonds:

- (a) Revenue Account;
- (b) Principal and Interest Account;
- (c) Costs of Issuance Account;
- (d) Projects Account and
- (e) Refunding Account.

In addition to the accounts described above, the Escrow Agreement may establish an Escrow Fund to be held and administered in accordance with the provisions of the Escrow Agreement.

Administration of Accounts. The accounts confirmed pursuant to the Resolution 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 the Resolution so long as any of the Bonds remain Outstanding and unpaid.

Application of Bond Proceeds and Other Moneys

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 applicable subaccount of the Principal and Interest Account;

(a) The accrued interest, if any, received from the sale of the Series 2020 Bonds shall be deposited in the applicable subaccount of the Principal and Interest Account;

(b) The sum of \$747,292.99 received from the proceeds of the sale of the Series 2020A Bonds and the sum of \$357,911.41 received from the proceeds of the sale of the Series 2020B Bonds shall be deposited in the Costs of Issuance Account;

(c) The sum of \$175,000,000 received from the proceeds of the sale of the Series 2020A Bonds shall be deposited in the Projects Account;

(d) The sum of \$223,305,217.11 received from the proceeds of the sale of the Series 2020A Bonds shall be deposited with the Escrow Agent pursuant to the Escrow Trust Agreement relating to the Series 2020A Bonds and the sum of \$246,061,647.16 received from the proceeds of the sale of the Series 2020B Bonds shall be deposited with the Escrow agent pursuant to the Escrow Trust Agreement relating to the Series 2020B Bonds.

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 Series 2020 Bonds and otherwise as set forth in the Resolution.

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 provided in the Resolution, 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.

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 (collectively, the “Projects”).

Withdrawals from Projects Account. Withdrawals from the Projects Account shall be made only (except as otherwise provided herein) for such purposes as described in the Resolution upon the execution of approved documentation in accordance with University disbursement procedures.

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.

Application of Moneys in the Refunding Account and the Escrow Fund. Moneys in the Refunding Account and the Escrow Fund shall be applied to refund the Refunded Obligations. Upon payment of the Refunded Obligations, any surplus remaining in the Refunding Account shall be deposited in the Principal and Interest Account.

Defeasance of Refunded Obligations. The officers of the University and of the Board are authorized to cause the defeasance, redemption and/or payment of the Refunded Obligations pursuant to the terms of the Resolution and of the Escrow Agreement. The officers of the University and of the Board are authorized and directed to call such Refunded Obligations for redemption or payment on such dates as are reasonably practical and as set forth in the Escrow Agreement.

Application of Revenues

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 provided in the Resolution.

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 the 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 the Resolution, 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 of the Resolution on a parity with Series 2020 Bonds, as provided in the Resolution, 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.

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 specified in the Resolution, 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 specified in the 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.

Transfer of Funds to Paying Agent and Bond Registrars. The officers of the University or of the Board are 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 the Resolution, 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 the Resolution.

Deposit and Investment of Funds

Deposits of Moneys. Cash moneys in each of the accounts ratified and confirmed by and referred to in the 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.

Investment of Funds. Moneys held in any account referred to in the 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 the 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 the Resolution, the University shall direct that such excess be paid and credited to the Principal and Interest Account. Notwithstanding the foregoing, the terms of the Escrow Agreement shall control as to the proceeds of the Series 2020 Bonds deposited therein.

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 2020B Bond to be an “arbitrage bond” within the meaning of Section 148 of the Code or the interest on the Series 2020B Bonds to be included in gross income for federal income tax purposes or otherwise adversely affect the exemption of interest on the Series 2020B Bonds from federal taxation or the exemption of interest on the Series 2020 Bonds from State of Missouri taxation. This covenant shall survive the termination of the Resolution.

Particular Covenants of the University

The University covenants and agrees as follows with each of the purchasers and Owners of any of the Series 2020 Bonds that so long as any of the Series 2020 Bonds remain Outstanding and unpaid:

Performance of Duties. The University will faithfully perform at all times any and all covenants, undertakings, stipulations, and provisions contained in the Resolution and in each and every Series 2020 Bond executed and delivered under the Resolution; that it will promptly pay or cause to be paid from the System Revenues pledged in the Resolution the principal of and interest on every Series 2020 Bond issued under the Resolution, 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 in the Resolution, deposit or cause to be deposited, from the System Revenues pledged, the amounts of money specified in the Resolution. All Series 2020 Bonds, when paid, shall be cancelled and destroyed by the Paying Agent and Bond Registrar.

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 in the Resolution 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.

Rate Covenant.

(a) *System Facilities.* The University will continuously operate and maintain the System Facilities (except as otherwise provided in the Resolution) 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 contained in the Resolution 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 the 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 in the Resolution.

(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 of the Resolution and summarized herein under the caption "Potential Modification of: (1) Security for Bonds; (2) Bonds as to which System Revenues Provide Security; and (3) Parity Lien Bond Test."

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 the Resolution governing the issuance of Additional Bonds.

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 the Resolution, 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 the Resolution, under the direction and supervision of the Vice President for Finance (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 the Resolution, 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.

Use, Operation and Maintenance. Subject to the provisions of the Resolution, 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 cost of maintenance and operation, out of System Revenues prior to the date needed pursuant to the Resolution, and, together with other pledged revenues, provide for the payment of the principal of and interest on the Bonds outstanding against the System Facilities.

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.

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.

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 the 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.

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.

Additional Bonds

The provisions of the Resolution authorizing the issuance of Additional Bonds on a parity with the Series 2020 Bonds are set forth in the forepart of this Official Statement under the heading “**THE SERIES 2020A BONDS AND SERIES 2020B BONDS – Additional Bonds.**”

Default and Remedies

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 the 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 within 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 the 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 the 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 specified in the Resolution, 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.

Remedies. The provisions of the Resolution, including the covenants and agreements contained in the Resolution, 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 the 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.

Limitation on Rights of Bondowners. No one or more Owners of the Bonds secured under the Resolution 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 in the Resolution, or to enforce any right under the Resolution, except in the manner provided in the Resolution, 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.

Remedies Cumulative. No remedy conferred in the Resolution 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 in the Resolution. 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 the 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 under the Resolution, 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.

No Obligation to Levy Taxes. The University does not have taxing power and nothing contained in the 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 in the Resolution or to pay the principal of or interest on the Bonds.

Paying Agent and Bond Registrar

Designation of Paying Agent and Bond Registrar. U.S. Bank National Association, St. Louis, Missouri, is 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. 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 of the Series 2020 Bonds, which fees shall be paid as other current expenses of the System Facilities are paid.

Successor Paying Agent and Bond Registrar.

(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 under the Resolution, 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 in the Resolution 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.

Defeasance

Defeasance. When all of the Series 2020 Bonds shall have been paid and discharged, then the requirements contained in the Resolution, except as otherwise provided in the Resolution and subject to the Resolution, and the pledge of System Revenues made under the Resolution and all other rights granted under the Resolution shall terminate. Bonds shall be deemed to have been paid and discharged within the meaning of the 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 the 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 the Resolution has been provided for in the manner set forth in the 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 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 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 the Resolution or the Prior System Facilities Resolution under which such series of Bonds were issued, as the case may be.

Amendments

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 the Resolution as shall not be inconsistent with the terms and provisions of the Resolution, for any one or more of the following purposes:

- (a) to cure any ambiguity or formal defect or omission in the 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 the Resolution additional revenues, properties or collateral;
- (e) to issue Additional Bonds as provided in the Resolution;
- (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 in the Resolution or otherwise materially adversely affect the Bondowner; or
- (j) to provide for the changes described in the Resolution and summarized herein under the caption "Potential Modification of: (1) Security for Bonds; (2) Bonds as to which System Revenues Provide Security; and (3) Parity Lien Bond Test."

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 the 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 the Resolution.

Any provision of the Series 2020 Bonds or of the 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 provided in the Resolution shall not become effective until there has been filed with the Secretary of the Board a copy of the resolution of the Board provided in the Resolution 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.

Amendment of Prior System Facilities Resolutions.

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 of the Board providing for the issuance of Additional Bonds shall, to the extent that any amendments therein shall meet the requirements of the Resolution, be deemed an amendment of the Initial System Facilities Resolution, each Prior System Facilities Resolution which precedes it, and the Resolution. Specifically but without limitation, the Resolution shall be considered an amendment of each of the Prior System Facilities Resolutions.

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 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 in the Resolution to a Prior System Facilities Resolution shall be to such resolution as amended or supplemented by the subsequent Prior System Facilities Resolutions and the 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 the Resolution in accordance with Section 1301 of the Initial System Facilities Resolution.

Potential Modification of: (1) Security for Bonds; (2) Bonds as to which System Revenues Provide Security; and (3) Parity Lien Bond Test

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 has been 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.

Changes that May be Made if Retain Rating

Notwithstanding any provision in the Resolution 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 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 (a), (b) or (c) above without meeting the requirements of the Resolution.

Springing Amendment for University Financings

In addition to the rights reserved to the University described under “Changes that May be Made if Retain Rating” above, upon satisfaction of the conditions to effectiveness set forth in the final paragraph of this Section, the Resolution shall be deemed amended and, notwithstanding any provision in the Resolution 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 the Resolution as it currently exists;

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;

If so determined by the University in its sole discretion, the amendments to the Resolution set forth above 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.

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 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 the Resolution, has determined to add the revenues of such facilities of the University to the System Revenues, all as more fully provided in the Resolution, and 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 the Resolution and the Prior System Facilities Resolutions, on a parity basis.

Miscellaneous Provisions

Notices, Consents and Other Instruments by Bondowners. Any notice, consent, request, direction, approval, objection or other instrument required by the 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 the 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.

Governing Law. The Resolution shall be governed exclusively by and construed in accordance with the applicable laws of the State of Missouri.

* * *

APPENDIX E

FORMS OF OPINION OF BOND COUNSEL

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PROPOSED FORMS OF OPINIONS OF BOND COUNSEL

May 5, 2020

The Curators of the University of Missouri
Columbia, Missouri

U.S. Bank National Association, as Paying Agent and
Bond Registrar
St. Louis, Missouri

Re: **\$400,000,000 The Curators of the University of Missouri Taxable System Facilities Revenue Bonds, Series 2020A**

Ladies and Gentlemen:

The Curators of the University of Missouri (the “University”), a body politic and state educational institution organized and existing under the Constitution and laws of the State of Missouri, has on this date issued its Taxable System Facilities Revenue Bonds, Series 2020A (the “Series 2020A Bonds”) in the aggregate principal amount of \$400,000,000, dated as of their date of issuance.

The Series 2020A Bonds have been authorized and issued under and pursuant to the Constitution and laws of the State of Missouri, including in particular Article IX, Section 9 of the Constitution of the State of Missouri and Chapters 172 and 176 of the Revised Statutes of Missouri, each as amended (collectively, the “Act”). The Series 2020A Bonds are further issued pursuant to a Resolution adopted by the Board of Curators of the University of the State of Missouri (the “Board”) on April 9, 2020 (the “Resolution”), for the purpose of paying (a) a portion of the cost of financing or refinancing certain facilities of the University, (b) a portion of the costs of refunding, defeasing and/or paying certain outstanding bonds or other obligations issued by the University, all as more fully described in the Resolution (the bonds or other obligations of the University to be refunded being referred to as the “Refunded Obligations”) and (c) costs of issuance of the Series 2020A Bonds. Capitalized terms not otherwise defined herein shall have the meanings assigned to such terms in the Resolution.

The Series 2020A Bonds are not general obligations of the University or payable in any manner by taxation, but are limited obligations of the University payable solely from the sources specified in the Resolution; the Series 2020A Bonds and the interest thereon shall never constitute an indebtedness of the University or a loan of credit thereof within the meaning of any state constitutional or statutory provision and shall not constitute or give rise to a pecuniary liability of the University or a charge against its general credit.

The Series 2020A Bonds consist of fully registered bonds without coupons numbered from R-1 consecutively upward, in the denomination, maturing, being subject to earlier redemption or purchase and bearing interest all as set forth in the Resolution.

The principal of the Series 2020A Bonds shall be payable at the payment office of U.S. Bank National Association, St. Louis, Missouri (the “Paying Agent and Bond Registrar”). The interest on the Series 2020A Bonds shall be payable by the Paying Agent and Bond Registrar on each Interest Payment Date to the persons in whose names the Series 2020A Bonds are registered at their addresses as they appear on the Bond registration books maintained by the Paying Agent and Bond Registrar on the Record Date preceding such Interest Payment Date.

In connection with the issuance of the Series 2020A Bonds, we have examined the following:

A. The Constitution of the State of Missouri, the Act and such other laws as we deem relevant to this opinion.

B. A certified copy of the proceedings of the Board preliminary to and in connection with the issuance of the Series 2020A Bonds, authorizing, among other things, the following:

(i) the issuance, sale and delivery of the Series 2020A Bonds; and

(ii) the execution and delivery of the Escrow Trust Agreement (Series 2020A Bonds) dated as of even date herewith (the "Escrow Trust Agreement"), between the University and U.S. Bank National Association, as Escrow Agent; the Continuing Disclosure Agreement dated as of May 1, 2020 (the "Continuing Disclosure Agreement") between the University and the dissemination agent named therein; and the Bond Purchase Agreement (the "Bond Purchase Agreement" and, collectively with the Escrow Agreement and the Continuing Disclosure Agreement, the "University Documents") between the University and the original purchaser of the Series 2020A Bonds.

C. An original certified copy of the Resolution and executed counterparts of the University Documents.

D. A specimen of the Series 2020A Bonds.

E. Representations and certifications of the University, Goldman Sachs & Co. LLC, as representative of the underwriters of the Series 2020A Bonds, and the Paying Agent and Bond Registrar.

F. The opinion of even date herewith of the office of the General Counsel to the University.

G. The Escrow Verification Report of Robert Thomas CPA, LLC, Shawnee Mission, Kansas, regarding certain of the Refunded Obligations.

H. Such other matters, laws and documents as we deem necessary for purposes of this opinion.

In rendering the opinions set forth herein we have assumed, without undertaking to verify the same by independent investigation, (a) as to questions of fact, the accuracy and completeness of all representations of the University set forth in the Resolution and the University Documents and all other representations and certifications of officers, officials and representatives of the University and others examined by us, (b) the conformity to original documents of all documents submitted to us as copies and the authenticity of such original documents and all documents submitted to us as originals, (c) that the proceeds of the Series 2020A Bonds will be used in accordance with the Resolution and the University Documents and (d) that all covenants and requirements of the Resolution and the Escrow Trust Agreement will be duly complied with and fulfilled.

We have not been engaged or undertaken to review the accuracy, completeness or sufficiency of the Official Statement dated April 28, 2020 with respect to the Series 2020A Bonds (the "Official Statement") or other offering material relating to the Series 2020A Bonds and we express no opinion relating thereto.

Based upon the foregoing and subject to the exceptions and clarifications set forth herein, we are of the opinion, as of the date hereof and under existing law, that:

1. The Series 2020A Bonds are in proper form, have been authorized and issued in accordance with the Constitution and statutes of the State of Missouri, and constitute valid and legally binding special obligations of the University, payable solely from, and secured as to the payment of principal and interest by a pledge of the "System Revenues" as defined in the Resolution. The Series 2020A Bonds shall not be or constitute general obligations of the University, nor shall they constitute indebtedness of the University within the meaning of any constitutional, statutory or charter provision, limitation or restriction.

2. The Resolution and the Escrow Trust Agreement have been duly authorized, executed and delivered by the parties thereto and each such instrument is a legal and binding instrument upon the parties thereto according to its terms and is in full force and effect, assuming due authorization, execution and delivery by the other party thereto, except to the extent that the enforcement thereof may be limited by laws relating to bankruptcy, insolvency or other similar laws affecting creditors' rights generally or by general principles of equity, whether enforcement is considered in a proceeding at law or in equity. In rendering the opinion under this paragraph, we have relied on the representations and certifications of the University referred to above and the opinion of counsel for the University referred to above.

3. The proceedings of the University show lawful authority for the issuance and delivery of the Series 2020A Bonds under the laws of the State of Missouri now in force. The Series 2020A Bonds, to the amounts specified, are valid and legally binding upon the University according to the import thereof and as provided in the Resolution, and are secured thereunder, except to the extent that the enforcement thereof may be limited by laws relating to bankruptcy, insolvency or other similar laws affecting creditors' rights generally or by general principles of equity, whether enforcement is considered in a proceeding at law or in equity. The Series 2020A Bonds are and will continue to be payable by the University solely from the System Revenues (and as otherwise provided in the Resolution). The System Revenues have been duly assigned and pledged to the payment of the principal of, premium, if any, and interest on the Series 2020A Bonds as the same become due.

4. Interest on the Series 2020A Bonds (including any original issue discount properly allocable to an owner thereof) is **not** excluded from gross income for federal income tax purposes.

5. Interest on the Series 2020A Bonds (including any original issue discount properly allocable to an owner thereof) is exempt from income taxation by the State of Missouri.

We express no opinion regarding federal, state or local tax consequences arising with respect to the Series 2020A Bonds other than as expressly set forth herein.

This letter is furnished by us solely for your benefit and may not be relied upon by any other person or entity or in connection with any other transaction without our prior consent. The opinions set forth in this letter are given as of the date hereof, and we disclaim any obligation to advise the addressees or to revise or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur. Other than as expressly set forth herein, we express no opinion herein relative to compliance with federal or state securities laws.

This letter expresses our legal opinion as to the matters set forth herein and is based upon our professional knowledge and judgment at this time; however it is not to be construed as a guaranty, nor is it a warranty that a court considering such matters would not rule in a manner contrary to the opinions set forth herein.

Very truly yours,

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May 5, 2020

The Curators of the University of Missouri
Columbia, Missouri

U.S. Bank National Association, as Paying Agent and
Bond Registrar
St. Louis, Missouri

Re: **\$190,200,000 The Curators of the University of Missouri System Facilities Revenue Bonds,
Series 2020B**

Ladies and Gentlemen:

The Curators of the University of Missouri (the “University”), a body politic and state educational institution organized and existing under the Constitution and laws of the State of Missouri, has on this date issued its System Facilities Revenue Bonds, Series 2020B (the “Series 2020B Bonds”) in the aggregate principal amount of \$190,200,000, dated as of their date of issuance.

The Series 2020B Bonds have been authorized and issued under and pursuant to the Constitution and laws of the State of Missouri, including in particular Article IX, Section 9 of the Constitution of the State of Missouri and Chapters 172 and 176 of the Revised Statutes of Missouri, each as amended (collectively, the “Act”). The Series 2020B Bonds are further issued pursuant to a Resolution adopted by the Board of Curators of the University of the State of Missouri (the “Board”) on April 9, 2020 (the “Resolution”), for the purpose of paying (a) a portion of the costs of refunding, defeasing and/or paying certain outstanding obligations issued by the University, all as more fully described in the Resolution (the obligations of the University to be refunded being referred to as the “Refunded Obligations”) and (b) costs of issuance of the Series 2020B Bonds. Capitalized terms not otherwise defined herein shall have the meanings assigned to such terms in the Resolution.

The Series 2020B Bonds are not general obligations of the University or payable in any manner by taxation, but are limited obligations of the University payable solely from the sources specified in the Resolution; the Series 2020B Bonds and the interest thereon shall never constitute an indebtedness of the University or a loan of credit thereof within the meaning of any state constitutional or statutory provision and shall not constitute or give rise to a pecuniary liability of the University or a charge against its general credit.

The Series 2020B Bonds consist of fully registered bonds without coupons numbered from R-1 consecutively upward, in the denomination, maturing, being subject to earlier redemption or purchase and bearing interest all as set forth in the Resolution.

The principal of the Series 2020B Bonds shall be payable at the payment office of U.S. Bank National Association, St. Louis, Missouri (the “Paying Agent and Bond Registrar”). The interest on the Series 2020B Bonds shall be payable by the Paying Agent and Bond Registrar on each Interest Payment Date to the persons in whose names the Series 2020B Bonds are registered at their addresses as they appear on the Bond registration books maintained by the Paying Agent and Bond Registrar on the Record Date preceding such Interest Payment Date.

In connection with the issuance of the Series 2020B Bonds, we have examined the following:

A. The Constitution of the State of Missouri, the Act and such other laws as we deem relevant to this opinion.

B. A certified copy of the proceedings of the Board preliminary to and in connection with the issuance of the Series 2020B Bonds, authorizing, among other things, the following:

(i) the issuance, sale and delivery of the Series 2020B Bonds; and

(ii) the execution and delivery of the Escrow Trust Agreement (Series 2020B Bonds) dated as of even date herewith (the “Escrow Trust Agreement”), between the University and U.S. Bank National Association, as Escrow Agent; the Tax Compliance Agreement dated as of even date herewith (the “Tax Compliance Agreement”), of the University; the Continuing Disclosure Agreement dated as of May 1, 2020 (the “Continuing Disclosure Agreement”) between the University and the dissemination agent named therein; and the Bond Purchase Agreement (the “Bond Purchase Agreement” and, collectively with the Escrow Agreement, the Tax Compliance Agreement and the Continuing Disclosure Agreement, the “University Documents”) between the University and the original purchaser of the Series 2020B Bonds.

C. An original certified copy of the Resolution and executed counterparts of the University Documents.

D. A specimen of the Series 2020B Bonds.

E. Representations and certifications of the University, Goldman Sachs & Co. LLC, as representative of the underwriters of the Series 2020B Bonds, and the Paying Agent and Bond Registrar.

F. The opinion of even date herewith of the Office of General Counsel to the University.

G. The Escrow Verification Report of Robert Thomas CPA, LLC, Shawnee Mission, Kansas, regarding certain of the Refunded Obligations.

H. Such other matters, laws and documents as we deem necessary for purposes of this opinion.

In rendering the opinions set forth herein we have assumed, without undertaking to verify the same by independent investigation, (a) as to questions of fact, the accuracy and completeness of all representations of the University set forth in the Resolution and the University Documents and all other representations and certifications of officers, officials and representatives of the University and others examined by us, (b) the conformity to original documents of all documents submitted to us as copies and the authenticity of such original documents and all documents submitted to us as originals, (c) that the proceeds of the Series 2020B Bonds will be used in accordance with the Resolution and the University Documents and (d) that all covenants and requirements of the Resolution, the Escrow Trust Agreement and the Tax Compliance Agreement will be duly complied with and fulfilled.

We have not been engaged or undertaken to review the accuracy, completeness or sufficiency of the Official Statement dated April 28, 2020 with respect to the Series 2020B Bonds (the “Official Statement”) or other offering material relating to the Series 2020B Bonds and we express no opinion relating thereto.

Based upon the foregoing and subject to the exceptions and clarifications set forth herein, we are of the opinion, as of the date hereof and under existing law, that:

1. The Series 2020B Bonds are in proper form, have been authorized and issued in accordance with the Constitution and statutes of the State of Missouri, and constitute valid and legally binding special

obligations of the University, payable solely from, and secured as to the payment of principal and interest by a pledge of the “System Revenues” as defined in the Resolution. The Series 2020B Bonds shall not be or constitute general obligations of the University, nor shall they constitute indebtedness of the University within the meaning of any constitutional, statutory or charter provision, limitation or restriction.

2. The Resolution, the Escrow Trust Agreement and the Tax Compliance Agreement have been duly authorized, executed and delivered by the parties thereto and each such instrument is a legal and binding instrument upon the parties thereto according to its terms and is in full force and effect, assuming due authorization, execution and delivery by the other party thereto, except to the extent that the enforcement thereof may be limited by laws relating to bankruptcy, insolvency or other similar laws affecting creditors’ rights generally or by general principles of equity, whether enforcement is considered in a proceeding at law or in equity. In rendering the opinion under this paragraph, we have relied on the representations and certifications of the University referred to above and the opinion of counsel for the University referred to above.

3. The proceedings of the University show lawful authority for the issuance and delivery of the Series 2020B Bonds under the laws of the State of Missouri now in force. The Series 2020B Bonds, to the amounts specified, are valid and legally binding upon the University according to the import thereof and as provided in the Resolution, and are secured thereunder, except to the extent that the enforcement thereof may be limited by laws relating to bankruptcy, insolvency or other similar laws affecting creditors’ rights generally or by general principles of equity, whether enforcement is considered in a proceeding at law or in equity. The Series 2020B Bonds are and will continue to be payable by the University solely from the System Revenues (and as otherwise provided in the Resolution). The System Revenues have been duly assigned and pledged to the payment of the principal of, premium, if any, and interest on the Series 2020B Bonds as the same become due.

4. Interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) is excluded from gross income for federal income tax purposes. The opinion set forth in the preceding sentence is subject to the condition that the University comply with all requirements of the Internal Revenue Code of 1986, as amended (the “Code”), that must be satisfied in order that the 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 has covenanted to comply with all such requirements. Failure to comply with the requirements of the Code may cause interest on the Series 2020B Bonds (including any original issue discount properly allocable to an owner thereof) to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Series 2020B Bonds.

5. The Series 2020B Bonds are not “specified private activity bonds” within the meaning of the alternative minimum tax provisions of the Code and, accordingly, interest on the Series 2020B Bonds is not a specific item of tax preference for purposes of the federal alternative minimum tax.

6. 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).

7. 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.

We express no opinion regarding federal, state or local tax consequences arising with respect to the Series 2020B Bonds other than as expressly set forth herein.

May 5, 2020

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This letter is furnished by us solely for your benefit and may not be relied upon by any other person or entity or in connection with any other transaction without our prior consent. The opinions set forth in this letter are given as of the date hereof, and we disclaim any obligation to advise the addressees or to revise or supplement this letter to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur. Other than as expressly set forth herein, we express no opinion herein relative to compliance with federal or state securities laws.

This letter expresses our legal opinion as to the matters set forth herein and is based upon our professional knowledge and judgment at this time; however it is not to be construed as a guaranty, nor is it a warranty that a court considering such matters would not rule in a manner contrary to the opinions set forth herein.

Very truly yours,

