NEW ISSUE - FULL BOOK ENTRY **RATINGS: See "RATINGS" herein**

$220,900,000
RUTGERS, THE STATE UNIVERSITY
(The State University of New Jersey)
General Obligation Refunding Bonds
2020 Series S
(Federally Taxable)

Dated: Date of Delivery **Due: May 1, as set forth on inside cover page**

The General Obligation Refunding Bonds, 2020 Series S (Federally Taxable) (the "2020 Series S Bonds") will be general obligations of Rutgers, The State University (the "University"), payable from revenues and legally available funds of the University as described in this Offering Memorandum. The 2020 Series S Bonds shall be secured under the provisions of an Indenture of Trust, dated as of February 1, 2002 (the "Master Indenture"), as supplemented, by and between the University and U.S. Bank National Association (successor to Wachovia Bank, National Association and First Union National Bank), as trustee (the "Trustee"), and a Fifteenth Supplemental Indenture of Trust, dated as of August 1, 2020 by and between the University and the Trustee (the "Fifteenth Supplemental Indenture," and together with the Master Indenture, the "Indenture").

The 2020 Series S Bonds will be issued pursuant to the provisions of the Rutgers, The State University Law constituting Chapter 65 of Title 18 A of the New Jersey Statutes (the "Act").

Interest on the 2020 Series S Bonds is generally subject to inclusion in federal gross income of the Holders thereof. For a discussion of tax considerations, see "TAX MATTERS" herein.

The 2020 Series S Bonds are being issued to provide funds for, among other things, (a) finance the refunding of the NJEDA Series 2013 Bonds to be Refunded (as defined herein) and (b) the financing of certain administrative, legal, financial and incidental expenses relating to the issuance of the 2020 Series S Bonds ("2020 Series S Refunding Project"). See "PLAN OF FINANCE" herein. The 2020 Series S Bonds shall not be deemed to constitute a debt or liability of the State of New Jersey nor a pledge of the faith and credit or taxing power of the State of New Jersey or of any political subdivision thereof. The University has no taxing power.

The 2020 Series S Bonds are issuable as fully registered bonds in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). Individual purchases of interests in the 2020 Series S Bonds will be made in book-entry form only. Purchasers of such interests (the "Beneficial Owners") will not receive certificates representing their interests in the 2020 Series S Bonds. So long as Cede & Co., as nominee of DTC, is the owner of the 2020 Series S Bonds, references herein to the owners or registered owners will mean Cede & Co., and will not mean the Beneficial Owners of the 2020 Series S Bonds. See "BOOK-ENTRY-ONLY SYSTEM."

The 2020 Series S Bonds will be delivered in fully registered form in denominations of $5,000 or any integral multiple thereof. Interest on the 2020 Series S Bonds is payable semi-annually on May 1 and November 1, commencing on November 1, 2020. The 2020 Series S Bonds will bear interest from their dated date to their maturity (or prior redemption) at the applicable rate set forth above on this cover page.

The 2020 Series S Bonds are subject to redemption prior to maturity, as described herein under "The 2020 Series S Bonds-Redemption Provisions."

All legal matters incident to the authorization and issuance of the 2020 Series S Bonds by the University are subject to the approval of legality by McCarter & English, LLP, Newark, New Jersey, Bond Counsel to the University. Certain legal matters will be passed upon for the University by the Office of the Senior Vice President and General Counsel and for the Underwriters by their counsel, Connell Foley LLP, Jersey City, New Jersey. It is expected that the 2020 Series S Bonds in definitive form will be available for delivery through the facilities of DTC in New York, New York on or about August 18, 2020.

Barclays **BofA Securities**

August 4, 2020

MATURITY SCHEDULE

$220,900,000 GENERAL OBLIGATION REFUNDING BONDS, 2020 SERIES S (Federally Taxable)

Maturity May 1	Principal Amount	Interest Rate	Price	CUSIP No.*
2027	$9,025,000	1.464%	100%	783186UK3
2028	9,130,000	1.663	100	783186UL1
2029	9,305,000	1.763	100	783186UM9
2030	9,455,000	1.813	100	783186UN7
2031	9,635,000	1.913	100	783186UP2
2032	9,815,000	2.013	100	783186UQ0
2033	10,010,000	2.093	100	783186UR8
2034	10,225,000	2.163	100	783186US6
2035	10,440,000	2.183	100	783186UT4

$56,165,000 2.556% Term Bond due May 1, 2040 Price 100% CUSIP No.* 783186UU1

$77,695,000 2.681% Term Bond due May 1, 2046 Price 100% CUSIP No.* 783186UV9

* Registered trademark of American Bankers Association. CUSIP numbers are provided by CUSIP Global Services, which is managed on behalf of the American Bankers Association by Standard & Poor's, Capital IQ. The CUSIP numbers listed above are being provided solely for the convenience of Bondholders only at the time of issuance of the 2020 Series S Bonds and the Authority does not make any representation with respect to such numbers or undertake any responsibility for their accuracy now or at any time in the future. The CUSIP number for a specific maturity is subject to being changed after the issuance of the 2020 Series S Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the 2020 Series S Bonds.

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No dealer, broker, salesperson or other person has been authorized by Rutgers, The State University (the "University") to give any information or to make any representations with respect to the 2020 Series S Bonds other than those contained in this Offering Memorandum, and, if given or made, such other information or representations must not be relied upon as having been authorized by the University. This Offering Memorandum does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2020 Series S Bonds, by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. Certain information contained herein has been obtained from sources that are believed to be reliable, but it is not guaranteed as to accuracy or completeness and is not to be construed as a representation of the University. THE UNIVERSITY HAS RELIED ENTIRELY ON DTC FOR INFORMATION PERTAINING TO DTC AND THE INFORMATION INCLUDED IN "BOOK-ENTRY-ONLY SYSTEM."

Estimates and opinions included in this Offering Memorandum should not be interpreted as statements of fact. Summaries of documents do not purport to be complete statements of their provisions. The University does not make any representation as to the accuracy or completeness of such information. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Offering Memorandum nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the parties referred to above since the date hereof. The Trustee and its counsel have not participated in the preparation of this Offering Memorandum and disclaim any responsibility for the accuracy or completeness of the information set forth herein.

THE UNDERWRITERS HAVE PROVIDED THE FOLLOWING SENTENCE FOR INCLUSION IN THIS OFFERING MEMORANDUM. THE UNDERWRITERS HAVE REVIEWED THE INFORMATION IN THIS OFFERING MEMORANDUM IN ACCORDANCE WITH, AND AS PART OF, THEIR RESPONSIBILITIES TO INVESTORS UNDER 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.

IN CONNECTION WITH THE OFFERING OF THE 2020 SERIES S BONDS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICES OF SUCH THE 2020 SERIES S BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

Certain statements included or incorporated by reference in this Offering Memorandum constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995, Section 21E of the United States Securities Exchange Act of 1934, as amended, and Section 27A of the United States Securities Act of 1933, as amended. Such statements are generally identifiable by the terminology used such as "plan," "expect," "estimate," "project," "budget" or other similar words. Such forward-looking statements include, but are not limited to, certain statements contained in the information in APPENDIX A – INFORMATION CONCERNING RUTGERS, THE STATE UNIVERSITY.

THE ACHIEVEMENT OF CERTAIN RESULTS OR OTHER EXPECTATIONS CONTAINED IN SUCH FORWARD-LOOKING STATEMENTS INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE ACTUAL RESULTS, PERFORMANCE OR ACHIEVEMENTS DESCRIBED TO BE MATERIALLY DIFFERENT FROM ANY FUTURE RESULTS, PERFORMANCE OR ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. ALTHOUGH SUCH EXPECTATIONS REFLECTED IN SUCH FORWARD-LOOKING STATEMENTS ARE REASONABLE, THERE CAN BE NO ASSURANCE THAT SUCH EXPECTATIONS WILL PROVE TO BE CORRECT. THE UNIVERSITY IS NOT OBLIGATED TO ISSUE ANY UPDATES OR REVISIONS TO THE FORWARD-LOOKING STATEMENTS IF OR WHEN ITS EXPECTATIONS, OR EVENTS, CONDITIONS OR CIRCUMSTANCES ON WHICH SUCH STATEMENTS ARE BASED, DO OR DO NOT OCCUR.

THE 2020 SERIES S BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND THE INDENTURE HAS NOT BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. IN ADDITION, THE 2020 SERIES S BONDS HAVE NOT BEEN REGISTERED UNDER ANY STATE SECURITIES LAW.

THE 2020 SERIES S BONDS HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SEC OR WITH THE SECURITIES COMMISSION OR ANY REGULATORY AUTHORITY OF ANY STATE, NOR HAS THE SEC OR ANY STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY PASSED UPON OR ENDORSED THE MERITS OF THIS OFFERING OR THE ACCURACY OR THE ADEQUACY OF THIS OFFERING MEMORANDUM. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Statements in this Offering Memorandum are made as of the date hereof unless stated otherwise and neither the delivery of this Offering Memorandum at any time, nor any sales thereunder, shall under any circumstances create an implication that the information contained herein is correct as of any time subsequent to the date hereof.

Any references to internet websites in this Offering Memorandum are shown for reference and convenience only; unless explicitly stated to the contrary, the information contained within the websites and any links contained within those websites are not incorporated herein by reference and do not constitute part of this Offering Memorandum.

IN MAKING AN INVESTMENT DECISION INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE UNIVERSITY AND THE TERMS OF THE OFFERING, INCLUDING THE MERITS AND RISKS INVOLVED. PROSPECTIVE INVESTORS SHOULD NOT CONSTRUE THE CONTENTS OF THIS OFFERING MEMORANDUM AS LEGAL, TAX OR INVESTMENT ADVICE.

NOTICE TO INVESTORS

REFERENCES IN THIS SECTION TO THE "ISSUER" MEAN THE UNIVERSITY AND REFERENCES TO "BONDS" OR "SECURITIES" MEAN THE 2020 SERIES S BONDS OFFERED HEREBY.

Minimum Unit Sales

THE 2020 SERIES S 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 ("EEA")

THE 2020 SERIES S 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 ("EEA"). 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"); OR (II) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE (EU) 2016/97 (THE "INSURANCE DISTRIBUTION DIRECTIVE'), 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 (EU) 2017/1129 (THE "PROSPECTUS REGULATION'). CONSEQUENTLY, NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) 1286/2014 (AS AMENDED, THE "PRIIPS REGULATION') FOR OFFERING OR SELLING THE 2020 SERIES S BONDS OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA HAS BEEN PREPARED AND THEREFORE OFFERING OR SELLING THE 2020 SERIES S BONDS OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION.

THIS OFFERING MEMORANDUM HAS BEEN PREPARED ON THE BASIS THAT ALL OFFERS OF THE 2020 SERIES S BONDS TO ANY PERSON THAT IS LOCATED WITHIN A MEMBER STATE OF THE EEA WILL BE MADE PURSUANT TO AN EXEMPTION UNDER ARTICLE 1(4) OF THE PROSPECTUS REGULATION, AS IMPLEMENTED IN MEMBER STATES OF THE EEA, FROM THE REQUIREMENT TO PRODUCE A PROSPECTUS FOR OFFERS OF THE 2020 SERIES S BONDS. ACCORDINGLY, ANY PERSON MAKING OR INTENDING TO MAKE ANY OFFER IN THE EEA OF THE 2020 SERIES S BONDS SHOULD ONLY DO SO IN CIRCUMSTANCES IN WHICH NO OBLIGATION ARISES FOR THE UNIVERSITY OR ANY OF THE UNDERWRITERS TO PROVIDE A PROSPECTUS FOR SUCH OFFER. NEITHER THE UNIVERSITY NOR THE UNDERWRITERS HAVE AUTHORIZED, NOR DO THEY AUTHORIZE, THE MAKING OF ANY OFFER OF 2020 SERIES S BONDS THROUGH ANY FINANCIAL INTERMEDIARY, OTHER THAN OFFERS MADE BY THE UNDERWRITERS, WHICH CONSTITUTE THE FINAL PLACEMENT OF THE 2020 SERIES S BONDS CONTEMPLATED IN THIS OFFERING MEMORANDUM.

THE OFFER OF ANY 2020 SERIES S BONDS WHICH IS THE SUBJECT OF THE OFFERING CONTEMPLATED BY THIS OFFERING MEMORANDUM IS NOT BEING MADE AND WILL NOT BE MADE TO THE PUBLIC IN THAT MEMBER STATE, OTHER THAN: (A) TO ANY LEGAL ENTITY WHICH IS A "QUALIFIED INVESTOR" AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION; (B) TO FEWER THAN 150 NATURAL OR LEGAL PERSONS (OTHER THAN "QUALIFIED INVESTORS" AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION), SUBJECT TO OBTAINING THE PRIOR CONSENT OF THE RELEVANT UNDERWRITER OR THE UNIVERSITY FOR ANY SUCH OFFER OR (C) IN ANY OTHER CIRCUMSTANCES FALLING WITHIN ARTICLE 1(4) OF THE PROSPECTUS REGULATION; PROVIDED THAT NO SUCH OFFER OF THE 2020 SERIES S BONDS SHALL REQUIRE THE UNIVERSITY OR ANY UNDERWRITER TO PUBLISH A PROSPECTUS PURSUANT TO ARTICLE 3 OF THE PROSPECTUS REGULATION OR A SUPPLEMENT TO A PROSPECTUS PURSUANT TO ARTICLE 23 OF THE PROSPECTUS REGULATION.

FOR THE PURPOSES OF THIS PROVISION, THE EXPRESSION AN "OFFER OF SECURITIES TO THE PUBLIC" IN RELATION TO THE 2020 SERIES S BONDS IN ANY MEMBER STATE MEANS THE COMMUNICATION IN ANY FORM AND BY ANY MEANS OF SUFFICIENT INFORMATION ON THE TERMS OF THE OFFER AND THE 2020 SERIES S BONDS TO BE OFFERED SO AS TO ENABLE AN INVESTOR TO DECIDE TO PURCHASE OR SUBSCRIBE FOR THE 2020 SERIES S BONDS.

EACH SUBSCRIBER FOR OR PURCHASER OF THE 2020 SERIES S BONDS IN THE OFFERING LOCATED WITHIN A MEMBER STATE WILL BE DEEMED TO HAVE REPRESENTED, ACKNOWLEDGED AND AGREED THAT IT IS A "QUALIFIED INVESTOR" AS DEFINED IN THE PROSPECTUS REGULATION. THE UNIVERSITY AND EACH UNDERWRITER AND OTHERS WILL RELY ON THE TRUTH AND ACCURACY OF THE FOREGOING REPRESENTATION, ACKNOWLEDGEMENT AND AGREEMENT.

Notice to Prospective Investors in the United Kingdom

THIS OFFERING MEMORANDUM 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. THIS OFFERING MEMORANDUM IS FOR DISTRIBUTION ONLY TO, AND IS DIRECTED SOLELY AT, PERSONS WHO (I) ARE OUTSIDE OF THE UNITED KINGDOM, (II) 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"), (III) ARE PERSONS FALLING WITHIN ARTICLE 49(2)(A) TO (D) OF THE FINANCIAL PROMOTION ORDER OR (IV) 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 2020 SERIES S BONDS MAY OTHERWISE BE LAWFULLY COMMUNICATED OR CAUSED TO BE COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS "RELEVANT PERSONS"). THIS OFFERING MEMORANDUM IS DIRECTED ONLY AT RELEVANT PERSONS AND MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT

PERSONS. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS OFFERING MEMORANDUM 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 OFFERING MEMORANDUM OR ANY OF ITS CONTENTS.

Notice to Prospective Investors in Hong Kong

THE 2020 SERIES S BONDS (EXCEPT FOR 2020 SERIES S BONDS WHICH ARE A "STRUCTURED PRODUCT' AS DEFINED IN THE SECURITIES AND FUTURES ORDINANCE (CAP. 571 OF THE LAWS OF HONG KONG) ("SECURITIES AND FUTURES ORDINANCE')) 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 (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 2020 SERIES S 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 OF HONG KONG (EXCEPT IF PERMITTED TO DO SO UNDER THE SECURITIES LAWS OF HONG KONG) OTHER THAN WITH RESPECT TO 2020 SERIES S BONDS WHICH ARE OR ARE INTENDED TO BE DISPOSED OF ONLY TO PERSONS OUTSIDE HONG KONG OR ONLY TO "PROFESSIONAL INVESTORS" AS DEFINED IN THE SECURITIES AND FUTURES ORDINANCE AND ANY RULES MADE THEREUNDER.

Notice to Investors in the Republic of Korea

THIS OFFERING MEMORANDUM IS NOT, AND UNDER NO CIRCUMSTANCES IS TO BE CONSIDERED AS, A PUBLIC OFFERING OF SECURITIES IN KOREA FOR THE PURPOSES OF THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKET ACT OF KOREA. THE 2020 SERIES S BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED WITH THE FINANCIAL SERVICES COMMISSION OF SOUTH KOREA FOR PUBLIC OFFERING IN SOUTH KOREA UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT AND ITS SUBORDINATE DECREES AND REGULATIONS (COLLECTIVELY THE “FSCMA"). THE 2020 SERIES S 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 SOUTH KOREA OR TO ANY RESIDENT OF SOUTH KOREA EXCEPT AS OTHERWISE PERMITTED UNDER THE APPLICABLE LAWS AND REGULATIONS OF SOUTH 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 INVESTORS OFFERED IN SOUTH KOREA OR THE NUMBER OF INVESTORS WHO ARE RESIDENTS IN SOUTH KOREA SHALL BE LESS THAN FIFTY AND FOR A PERIOD OF ONE YEAR FROM THE ISSUE DATE OF THE 2020 SERIES S BONDS, NONE OF THE 2020 SERIES S BONDS MAY BE DIVIDED RESULTING IN AN INCREASED NUMBER OF THE 2020 SERIES S BONDS. FURTHERMORE, THE 2020 SERIES S BONDS MAY NOT BE RESOLD TO SOUTH KOREAN RESIDENTS UNLESS THE PURCHASER OF THE 2020 SERIES S 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 2020 SERIES S BONDS.

Notice to Investors in Switzerland

THE 2020 SERIES S BONDS MAY NOT BE PUBLICLY OFFERED IN SWITZERLAND AND WILL NOT BE LISTED ON THE SIX SWISS EXCHANGE ("SIX") OR ON ANY OTHER STOCK EXCHANGE OR REGULATED TRADING FACILITY IN SWITZERLAND. THIS OFFERING MEMORANDUM HAS BEEN PREPARED WITHOUT REGARD TO THE DISCLOSURE STANDARDS FOR ISSUANCE PROSPECTUSES UNDER ART. 652A OR ART. 1156 OF THE SWISS CODE OF OBLIGATIONS OR THE DISCLOSURE STANDARDS FOR LISTING PROSPECTUSES UNDER ART. 27 OF THE SIX LISTING RULES OR THE LISTING RULES OF ANY OTHER STOCK EXCHANGE OR REGULATED TRADING FACILITY IN SWITZERLAND. NEITHER THIS OFFERING MEMORANDUM NOR ANY OTHER OFFERING OR MARKETING MATERIAL RELATING TO THE 2020 SERIES S BONDS OR THE OFFERING MAY BE PUBLICLY DISTRIBUTED OR OTHERWISE MADE PUBLICLY AVAILABLE IN SWITZERLAND.

NONE OF THIS OFFERING MEMORANDUM OR ANY OTHER OFFERING OR MARKETING MATERIAL RELATING TO THE OFFERING, THE ISSUER OR THE 2020 SERIES S BONDS HAVE BEEN OR WILL BE FILED WITH OR APPROVED BY ANY SWISS REGULATORY AUTHORITY. IN PARTICULAR, THIS OFFERING MEMORANDUM WILL NOT BE FILED WITH, AND THE OFFER OF THE 2020 SERIES S BONDS WILL NOT BE SUPERVISED BY, THE SWISS FINANCIAL MARKET SUPERVISORY AUTHORITY ("FINMA"), AND THE OFFER OF 2020 SERIES S BONDS HAS NOT BEEN AND WILL NOT BE AUTHORIZED UNDER THE SWISS FEDERAL ACT ON COLLECTIVE INVESTMENT SCHEMES ("CISA"). ACCORDINGLY, INVESTORS DO NOT HAVE THE BENEFIT OF THE SPECIFIC INVESTOR PROTECTION PROVIDED UNDER THE CISA.

Notice to Investors in Japan

THE 2020 SERIES S BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INSTRUMENTS AND EXCHANGE ACT OF JAPAN (NO. 25 OF 1948, AS AMENDED, THE "FIEA"). NEITHER THE 2020 SERIES S BONDS NOR ANY INTEREST THEREIN MAY BE OFFERED OR SOLD, DIRECTLY OR INDIRECTLY, IN JAPAN OR TO, OR FOR THE BENEFIT OF, ANY "RESIDENT' OF JAPAN (AS DEFINED UNDER ITEM 5, PARAGRAPH 1, ARTICLE G OF THE FOREIGN EXCHANGE AND FOREIGN TRADE ACT (ACT NO. 228 OF 1949, AS AMENDED)), OR TO OTHERS FOR RE-

OFFERING 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, AND OTHERWISE IN COMPLIANCE WITH, THE FIEA AND ANY OTHER APPLICABLE LAWS, REGULATIONS AND MINISTERIAL GUIDELINES OF JAPAN.

THE PRIMARY OFFERING OF THE 2020 SERIES S BONDS AND THE SOLICITATION OF AN OFFER FOR ACQUISITION THEREOF HA VE NOT BEEN AND WILL NOT BE REGISTERED UNDER PARAGRAPH I, ARTICLE 4 OF THE FIEA. AS IT IS A PRIMARY OFFERING, IN JAPAN, THE 2020 SERIES S BONDS MAY ONLY BE OFFERED, SOLD, RESOLD OR OTHERWISE TRANSFERRED, DIRECTLY OR INDIRECTLY TO, OR FOR THE BENEFIT OF CERTAIN QUALIFIED INSTITUTIONAL INVESTORS AS DEFINED IN THE FIEA ("QIIs"). A QII WHO PURCHASED OR OTHERWISE OBTAINED THE 2020 SERIES S BONDS CANNOT RESELL OR OTHERWISE TRANSFER THE 2020 SERIES S BONDS IN JAPAN TO ANY PERSON EXCEPT ANOTHER QII.

<u>Notice to Investors in Singapore</u>

THIS OFFERING MEMORANDUM HAS NOT BEEN AND WILL NOT BE REGISTERED AS A PROSPECTUS WITH THE MONETARY AUTHORITY OF SINGAPORE. ACCORDINGLY, THIS OFFERING MEMORANDUM AND ANY OTHER DOCUMENT OR MATERIAL IN CONNECTION WITH THE OFFER OR SALE, OR INVITATION FOR SUBSCRIPTION OR PURCHASE, OF THE 2020 SERIES S BONDS MAY NOT BE CIRCULATED OR DISTRIBUTED, NOR MAY THE 2020 SERIES S 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), OR ANY PERSON PURSUANT TO SECTION 275(1A), AND IN ACCORDANCE WITH THE CONDITIONS SPECIFIED IN SECTION 275, OF THE SFA AND (WHERE APPLICABLE) REGULATION 3 OF THE SECURITIES AND FUTURES (CLASSES OF INVESTORS) REGULATIONS 2018, WHERE EACH SUCH PERSON IS (1) AN EXPERT INVESTOR (AS DEFINED IN SECTION 4A OF THE SFA) OR (2) NOT AN INDIVIDUAL.

WHERE THE 2020 SERIES S BONDS ARE SUBSCRIBED OR PURCHASED UNDER SECTION 275 OF THE SFA BY A RELEVANT PERSON WHICH IS:

(A) 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;

OR

(B) A TRUST (WHERE THE TRUSTEE IS NOT AN ACCREDITED INVESTOR) WHOSE SOLE PURPOSE IS TO HOLD INVESTMENTS AND EACH BENEFICIARY OF THE TRUST IS AN INDIVIDUAL WHO IS AN ACCREDITED INVESTOR,

SECURITIES OR SECURITIES-BASED DERIVATIVES CONTRACTS (EACH TERM AS DEFINED IN THE SFA) OF THAT CORPORATION OR THE BENEFICIARIES' RIGHTS AND INTEREST (HOWSOEVER DESCRIBED) IN THAT TRUST SHALL NOT BE TRANSFERRED WITHIN SIX MONTHS AFTER THAT CORPORATION OR THAT TRUST HAS ACQUIRED SUCH BONDS PURSUANT TO AN OFFER MADE UNDER SECTION 275 OF THE SFA, EXCEPT:

(1) TO AN INSTITUTIONAL INVESTOR OR TO A RELEVANT PERSON, OR TO ANY PERSON ARISING FROM AN OFFER REFERRED TO IN SECTION 275(1A) OR SECTION 276(4)(I)(B) OF THE SFA;

(2) WHERE NO CONSIDERATION IS OR WILL BE GIVEN FOR THE TRANSFER;

(3) WHERE THE TRANSFER IS BY OPERATION OF LAW;

(4) AS SPECIFIED IN SECTION 276(7) OF THE SFA; OR

(5) AS SPECIFIED IN REGULATION 37A OF THE SECURITIES AND FUTURES (OFFERS OF INVESTMENTS) (SECURITIES-BASED DERIVATIVES CONTRACTS) REGULATIONS 2018 OF SINGAPORE.

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OFFERING MEMORANDUM
Relating to

$220,900,000
RUTGERS, THE STATE UNIVERSITY
(The State University of New Jersey)
General Obligation Refunding Bonds
2020 Series S
(Federally Taxable)

INTRODUCTION

The purpose of this Offering Memorandum is to furnish information concerning Rutgers, The State University (the "University" or "Rutgers") and its $220,900,000* aggregate principal amount of General Obligation Refunding Bonds, 2020 Series S (Federally Taxable) (the "2020 Series S Bonds"), to be dated the date of delivery. The 2020 Series S Bonds shall be secured under the provisions of an Indenture of Trust, dated as of February 1, 2002 (the "Master Indenture"), by and between the University and U.S. Bank National Association, successor to Wachovia Bank, National Association and First Union National Bank, as trustee (the "Trustee"), as supplemented and amended, including as amended and supplemented by an Fifteenth Supplemental Indenture of Trust, dated as of August 1, 2020, by and between the University and the Trustee (the "Fifteenth Supplemental Indenture," and together with the Master Indenture, the "Indenture"). The 2020 Series S Bonds are authorized under the provisions of Rutgers, The State University Law, constituting Chapter 65 of Title 18A of the New Jersey Statutes Annotated (the "Act"), and the Indenture. The Fifteenth Supplemental Indenture was authorized pursuant to resolution adopted by the Board of Governors of the University (the "Board of Governors"), on October 2, 2019 with the consent and advice of the Board of Trustees of the University (the "Board of Trustees") by resolution adopted on September 25, 2019 (collectively, the "Resolutions").

The 2020 Series S Bonds will be issued pursuant to the Act. The 2020 Series S Bonds will be used to provide funds for, among other things, (a) the refunding of New Jersey Economic Development Authority Rutgers University General Obligation Lease Review Bonds NJEDA Series 2013 (College Avenue Redevelopment Project), as described herein (the "NJEDA 2013 Bonds to be Refunded") and (b) the financing of certain administrative, legal, financial and incidental expenses relating to the issuance of the 2020 Series S Bonds. See "PLAN OF FINANCE" herein. The information contained in this Offering Memorandum is furnished in connection with the initial sale of the 2020 Series S Bonds. Capitalized terms not defined herein shall have the meanings ascribed to such terms in the Indenture.

The 2020 Series S Bonds will be general obligations of the University, payable from the revenues and other legally available funds of the University.

As of June 1, 2020, the University had $2.3 billion of unaudited outstanding indebtedness under various indentures, including the Indenture, which included $70.2 million principal amount of Commercial Paper. See "PLAN OF FINANCE" and "APPENDIX A - INFORMATION

CONCERNING RUTGERS, THE STATE UNIVERSITY — Outstanding Indebtedness of the University."

THE 2020 SERIES S BONDS

General

The 2020 Series S Bonds will be issued as fully registered bonds without coupons in denominations of $5,000 or any integral multiple thereof. The 2020 Series S Bonds will be dated the date of delivery, will bear interest from the date of delivery, payable on each May 1 and November 1, commencing November 1, 2020, at the rate, and will mature on May 1, all as set forth on the cover page of this Offering Memorandum.

The 2020 Series S Bonds are subject to redemption under certain circumstances as summarized under "THE 2020 SERIES S BONDS — Redemption Provisions."

Redemption Provisions

Redemption Procedures

When 2020 Series S Bonds (or portions thereof) are to be redeemed, the University must give or cause to be given notice of the redemption of any 2020 Series S Bonds to the Trustee no later than thirty-five (35) days prior to the redemption date. Thereafter, the Trustee must give or cause to be given notice of the redemption of the 2020 Series S Bonds (or portions thereof) in the name of the University, which notice must specify: (i) the 2020 Series S Bonds to be redeemed in whole or in part; (ii) the redemption date; (iii) the numbers and other distinguishing marks of the 2020 Series S Bonds to be redeemed (except in the event that all of the Outstanding Bonds are to be redeemed); and (iv) that such 2020 Series S Bonds will be redeemed at the designated corporate trust office of the Trustee. Such notice must further state that on such date there is due and payable upon each 2019 Series Bond (or a portion thereof) to be redeemed the Redemption Price thereof, together with interest accrued to the redemption date, and that, from and after such date, interest thereon ceases to accrue. Such notice must be given not more than sixty (60) nor less than thirty (30) days (or such shorter period as may be established by the Indenture) prior to the redemption date, by the Trustee by mail, postage prepaid, to the Bondowners of any 2020 Series S Bonds that are to be redeemed, at their addresses appearing on the registration books maintained by the Trustee. Notice having been given in accordance with the foregoing, failure to receive any such notice by any of such Bondowners or any defect therein, will not affect the redemption or the validity of the proceedings for the redemption of the 2020 Series S Bonds.

With respect to any notice of optional redemption, unless, upon the giving of such notice, such 2020 Series S Bonds shall be deemed to have been paid, such notice shall state that such redemption shall be conditional upon the receipt by the Trustee on or prior to the date fixed for such redemption of moneys sufficient to pay the Redemption Price thereof, together with accrued interest on such 2020 Series S Bonds to be redeemed, and that if such moneys shall not have been so received said notice shall be of no force and effect and the University shall not be required to redeem such 2020 Series S Bonds. In the event that such notice of redemption contains such a condition and such moneys are not so received, the redemption shall not be made and the Trustee shall within a reasonable time thereafter give notice, in the manner in which the notice of redemption was given, that such moneys were not so received.

If less than all of the 2020 Series S Bonds of any Series and maturity are to be so redeemed, the 2020 Series S Bonds (or portions thereof) to be so redeemed will be selected by the Trustee as set forth below under the section "THE 2020 SERIES S BONDS – Redemption Provisions - Selection of 2020 Series S Bonds of Redemption." In addition to the provisions set forth above, the redemption of the 2020 Series S Bonds will be effected in accordance with Article III of the Master Indenture.

Optional Redemption

The 2020 Series S Bonds are subject to optional redemption prior to maturity at the option of the University upon the direction of the University, in whole or in part, on any Business Day, in the order of maturity (and pro rata within a maturity) designated by the University in writing, at the "Make-Whole Redemption Price" (as defined herein).

"Make-Whole Redemption Price" means the greater of:

(i) 100% of the principal amount of the 2020 Series S Bonds to be redeemed; or

(ii) the sum of the present values of the remaining scheduled payments of principal and interest to the maturity date of the 2020 Series S Bonds to be redeemed (not including any portion of those payments of interest accrued and unpaid as of the date on which such 2020 Series S Bonds are to be redeemed), discounted to the date on which such 2020 Series S Bonds are to be redeemed on a semi-annual basis, assuming a 360-day year consisting of twelve 30-day months, at the Treasury Rate plus (i) 20 basis points for the 2020 Series S Bonds maturing May 1, 2027 through May 1, 2030, (ii) 25 basis points for the 2020 Series S Bonds maturing on May 1, 2031 through May 1, 2034, (iii) 30 basis points for the 2020 Series S Bonds maturing on May 1, 2035 and (iv) 25 basis points for the 2020 Series S Bonds maturing on May 1, 2040 and May 1, 2046, plus, in each case, accrued and unpaid interest on such 2020 Series S Bonds to, but excluding, the redemption date.

"Treasury Rate" means, with respect to any redemption date, the rate per annum equal to (i) the semiannual equivalent yield to maturity or (ii) if no such semiannual equivalent yield to maturity is available, the interpolated yield to maturity (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. The "Treasury Rate" is, as of any redemption date, the yield to maturity as of such redemption date of United States Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15 (519) that has become publicly available at least two (2) Business Days prior to the redemption date (excluding inflation indexed securities) (or, if Federal Reserve Statistical Release H.15 (519) is no longer published, any publicly available source of similar market data)) most nearly equal to the period from the redemption date to the maturity date of the 2020 Series S Bonds to be redeemed; provided, however, that if the period from the redemption date to such maturity date is less than one year, "Treasury Rate" shall mean the weekly average yield on actually traded United States Treasury securities adjusted to a constant maturity of one year.

"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 2020 Series S Bonds to be redeemed that would be used, 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 2020 Series S 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 or their respective 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 ask 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 any day other than (A) a Saturday or Sunday or legal holiday or a day on which banking institutions in the city or cities in which the designated corporate trust office of the Trustee is located are authorized by law or executive order to close or (B) a day on which the New York Stock Exchange is closed.]

Sinking Fund Installment Redemption. The 2020 Series S Bonds issued as term bonds maturing on May 1, 2040 will be subject to mandatory sinking fund installment redemption on each May 1, commencing on May 1, 2036, from moneys in the Sinking Fund Installment Account of the Debt Service fund, at a Redemption Price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date, on May 1 of the years and in the amounts set forth below:

Year	Principal Amount
2036	$10,680,000
2037	10,945,000
2038	11,220,000
2039	11,515,000
2040*	11,805,000

The 2020 Series S Bonds issued as term bonds maturing on May 1, 2046 will be subject to mandatory sinking fund installment redemption on each May 1, commencing on May 1, 2041, from moneys in the Sinking Fund Installment Account of the Debt Service fund, at a Redemption Price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date, on May 1 of the years and in the amounts set forth below:

Year	Principal Amount
2041	$12,105,000
2042	12,430,000
2043	12,770,000
2044	13,100,000
2045	13,460,000
2046*	13,830,000

* Maturity

Selection of 2020 Series S Bonds for Redemption. If less than all of the 2020 Series S Bonds are called for redemption, the Trustee shall select the 2020 Series S Bonds or any given portion thereof to be redeemed from the 2020 Series S Bonds Outstanding or such given portion thereof not previously called for redemption, pro rata.

If the 2020 Series S Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole Holder of the 2020 Series S Bonds, if less than all of the 2020 Series S Bonds are called for prior redemption, the particular 2020 Series S Bonds or portions thereof to be redeemed are expected to be selected by DTC on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the 2020 Series S Bonds are held in book-entry form, the selection for redemption of such 2020 Series S 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, the University can provide no assurance that DTC, DTC's direct and indirect participants or any other intermediary will allocate the redemption of 2020 Series S Bonds on such basis. If the DTC operational arrangements do not allow for the redemption of the 2020 Series S Bonds on a pro rata pass-through distribution of principal basis as discussed above, then the 2020 Series S Bonds will be selected for redemption, in accordance with DTC procedures, by lot.

Partial Redemption of 2020 Series S Bonds. Upon surrender of any 2020 Series S Bond redeemed in part only, the Trustee shall provide a replacement 2020 Series S Bond in a principal amount equal to the portion of such 2020 Series S Bond not redeemed, and deliver it to the Holder thereof. The 2020 Series S Bond so surrendered shall be cancelled by the Trustee as provided in the Indenture. The University and the Trustee shall be fully released and discharged from all liability to the extent of payment of the redemption price for such partial redemption.

Effect of Redemption. Notice of redemption having been duly given as aforesaid, and moneys for payment of the redemption price being held by the Trustee, the 2020 Series S Bonds, or portions thereof, so called for redemption shall, on the redemption date designated in such notice, become due and payable at the redemption price specified in such notice, interest on the 2020 Series S Bonds or portions thereof so called for redemption shall cease to accrue, said 2020 Series S Bonds shall cease to be entitled to any lien, benefit or security under the Indenture, and the Holders of said 2020 Series S Bonds shall have no rights in respect thereof except to receive payment of the redemption price thereof. All 2020 Series S Bonds fully redeemed pursuant to the provisions described in the Indenture shall be cancelled upon surrender thereof and may be destroyed by the Trustee, which shall, upon request of the University, deliver to the University a certificate evidencing such destruction.

Acceleration

If any Event of Default occurs under the Indenture, including an Event of Default resulting from a payment default on the part of the University, the principal of the 2020 S Bonds may be accelerated and become immediately due and payable, at par, with interest payable thereon to the accelerated payment date. For a description of the Events of Default under the Indenture, see "APPENDIX C — SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE."

DEBT SERVICE REQUIREMENTS

The following table sets forth, for each respective bond year ending June 30, the amounts required in such year for payment of debt service on the University's outstanding General Obligation Refunding Bonds, 2009 Series G (the "2009 Series G Bonds"), General Obligation Bonds, 2010 Series H (the "2010 Series H Bonds"), General Obligation Refunding Bonds, 2013 Series J (the "2013 Series J Bonds"), General Obligation Refunding Bonds, 2013 Series K (the "2013 Series K Bonds), General Obligation Bonds, 2013 Series L (the "2013 Series L Bonds), New Jersey Economic Development Authority General Obligation Lease Revenue Bonds (the "2013 Series Bonds"), New Jersey Economic Development Authority Revenue Note (the "2014 Series Note"), General Obligation Refunding Bonds, 2016 Series M (the "2016 Series M Bonds"), General Obligation Bonds 2018 Series N (the "2018 Series N Bonds"), General Obligation Bonds 2018 Series O (the "2018 Series O Bonds"), General Obligation Bonds 2019 Series P (the "2019 Series P Bonds"), General Obligation Refunding Bonds, 2020 Series Q (the "2020 Series Q Bonds"), and the General Obligation Refunding Bonds, 2019 Series R (the "2019 Series R Bonds") (collectively, the "Prior General Obligation Bonds"), the payment of principal, Sinking Fund Installments of and interest on the 2020 Series S Bonds, and the total debt service for the Prior General Obligation Bonds and the 2020 Series S Bonds.

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2020 Series S Bonds

Fiscal Year Ending June 30	Debt Service on Prior General Obligation Bonds (1) (2)	Principal	Interest	Total Debt Service
2021	$108,001,871	-	$3,639,320	$111,641,191
2022	134,494,813	-	5,178,479	139,673,292
2023	154,495,273	-	5,178,479	159,673,752
2024	133,812,727	-	5,178,479	138,991,206
2025	133,351,401	-	5,178,479	138,529,880
2026	134,494,277	-	5,178,479	139,672,756
2027	127,938,169	$9,025,000	5,178,479	142,141,648
2028	150,001,801	9,130,000	5,046,353	164,178,154
2029	126,079,360	9,305,000	4,894,521	140,278,881
2030	126,387,627	9,455,000	4,730,474	140,573,101
2031	125,990,269	9,635,000	4,559,055	140,184,324
2032	130,450,392	9,815,000	4,374,738	144,640,129
2033	126,717,380	10,010,000	4,177,162	140,904,541
2034	94,735,614	10,225,000	3,967,652	108,928,266
2035	94,342,046	10,440,000	3,746,486	108,528,532
2036	96,899,846	10,680,000	3,518,580	111,098,426
2037	93,263,904	10,945,000	3,245,600	107,454,504
2038	92,687,858	11,220,000	2,965,845	106,873,703
2039	92,098,746	11,515,000	2,679,062	106,292,808
2040	92,236,116	11,805,000	2,384,739	106,425,854
2041	91,222,165	12,105,000	2,083,003	105,410,167
2042	91,223,461	12,430,000	1,758,468	105,411,928
2043	91,222,939	12,770,000	1,425,220	105,418,159
2044	30,193,357	13,100,000	1,082,856	44,376,213
2045	30,182,732	13,460,000	731,645	44,374,377
2046	30,175,327	13,830,000	370,782	44,376,109
2047	45,604,912	-	-	45,604,912
2048	45,600,515	-	-	45,600,515
2049-2119	1,247,284,500	-	-	1,247,284,500
TOTAL	**$4,071,189,392**	**$220,900,000**	**$92,452,437**	**$4,384,541,829**

(1) Excludes the portion of the debt service payable on the NJEFA Capital Improvement Fund, NJEFA Equipment Leasing Fund, and certain mortgage and note obligations. See "APPENDIX A – INFORMATION CONCERNING RUTGERS, THE STATE UNIVERSITY – Outstanding Indebtedness of the University" for further information. The 2010 Series H Bonds included herein do not take into account any Build America Bond direct subsidy payments anticipated to be received. Excludes the debt service on the NJEDA 2013 Series Bonds to be refunded with the proceeds of the 2020 Series S Bonds. Excludes the University's Commercial Paper Program.

(2) Interest on the variable rate 2009 Series G Bonds is calculated based on associated swaps.

SECURITY FOR THE 2020 SERIES S BONDS

General

The Indenture provides that the 2020 Series S Bonds shall be direct and general obligations of the University, and that the full faith and credit of the University shall be pledged for the payment of the principal and Redemption Price thereof and interest thereon; provided, however, there shall be excluded from the pledge of the Indenture any revenues, moneys, securities or funds heretofore or hereafter specially pledged by the University for the payment of other bonds, notes or other indebtedness. Payment of the principal and Redemption Price of the 2020 Series S Bonds and the interest thereon shall be additionally secured equally and ratably under the Indenture by a pledge of the revenues set aside by the University and received by the Trustee and all the moneys or securities held or set aside by the Trustee under the Indenture (other than amounts held in the Rebate Fund). In addition, the University has reserved the right pursuant to the Indenture to issue Additional Bonds for Additional Projects permitted thereunder upon the terms and conditions set forth therein. See "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE—Additional Bonds for Additional Projects and Other Purposes" herein.

Further, the University has covenanted in the Indenture that it will at all times charge and collect tuition, fees, rents, charges and other revenues which, together with other legally available funds, shall be sufficient to make all payments as the same become due of principal, interest and Sinking Fund Installments with respect to any and all Indebtedness of the University and to meet all other obligations of the University.

The 2020 Series S Bonds shall not be deemed to constitute a debt or liability of the State of New Jersey (the "State") nor a pledge of the faith and credit of or taxing power of the State or any political subdivision thereof. The University has no taxing power.

Additional Bonds

One or more Series of Additional Bonds may be issued under and secured by the Indenture for the purpose of providing funds for each Additional Project (including for the purpose of completing any Project or the funding of any deficiency in the Debt Service Reserve Fund if required pursuant to the respective Supplemental Indenture). The Bonds of each such Series shall be authenticated and delivered by the Trustee only upon receipt by it of, among other things, a certificate of an Authorized Officer of the University stating that the University is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Indenture.

DISCLOSURES REGARDING COVID-19

The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, has been declared a pandemic by the World Health Organization. University administrators are closely monitoring the situation and are in regular contact with state and federal health agencies including the Centers for Disease Control and Prevention (the "CDC") and the New Jersey Department of Health. The continued spread of COVID-19 has had and will likely continue to have a material impact on state and national economies. While the full impact on the University is unknown at this time, the continued spread of the outbreak could have a material adverse effect on the University. See “Appendix A- COVID-19 Pandemic” for more information.

INFORMATION REGARDING BOOK-ENTRY-ONLY SYSTEM AND GLOBAL CLEARANCE PROCEDURES

The information set out below is subject to any change in or reinterpretation of the rules, regulations and procedures of The Depository Trust Company ("DTC ") New York, New York, Euroclear Bank S.A/N.V. as operator of the Euroclear System (" Euroclear") or Clearstream Banking, SA. ("Clearstream ") (DTC, Euroclear and Clearstream 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 none of the University, the Trustee or 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 2020 Series S Bonds held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

The University cannot and does not give any assurance that (1) DTC will distribute payments of debt service on the 2020 Series S Bonds, or redemption or other notices, to DTC Participants, (2) DTC Participants or others will distribute debt service payments paid to DTC or its nominee (as the registered owner of the 2020 Series S Bonds), or redemption or other notices, to the Beneficial Owners, or that they will do so on a timely basis, or (3) DTC will serve and act in the manner described in this Offering Memorandum. The current rules applicable to DTC are on file with the Securities and Exchange Commission, and the current procedures of DTC to be followed in dealing with DTC Participants are on file with DTC.

(i) Clearing Systems

DTC Book-Entry-Only System. DTC, New York, New York, will act as securities depository for the 2020 Series S Bonds. The 2020 Series S Bonds will be issued as fully registered securities registered in the name of Cede & Co., DTC’s partnership nominee. One fully registered 2020 Series S Bond certificate will be issued in the aggregate principal amount of the 2020 Series S Bonds, and will be deposited with 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, as amended. DTC holds and provides asset servicing for over 3.6 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 a 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 2020 Series S Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2020 Series S Bonds on DTC's records. The ownership interest of each actual owner of a 2020 Series S Bond (a "beneficial owner") is in tum to be 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 beneficial ownership interests in the 2020 Series S 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 2020 Series S Bonds, except in the event that use of the book entry only system for the 2020 Series S Bonds is discontinued.

To facilitate subsequent transfers, all 2020 Series S Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other nominee as requested by an authorized representative of DTC. The deposit of 2020 Series S Bonds with DTC and their registration in the name of Cede & Co. or such other nominee as requested by an authorized representative of DTC effect no change in beneficial ownership. DTC has no knowledge of the actual beneficial owners of the 2020 Series S Bonds. DTC's records reflect only the identity of the Direct Participants to whose accounts such 2020 Series S Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will 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 2020 Series S Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the 2020 Series S Bonds, such as redemptions, defaults and proposed amendments to the bond documents.

Redemption notices will be sent to DTC. If less than all of the 2020 Series S Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to 2020 Series S Bonds unless authorized by a Direct Participant in accordance with DTC's 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 2020 Series S Bonds are credited on the record date identified in a listing attached to the "Omnibus Proxy."

Payment of the principal and redemption price of, and interest on, the 2020 Series S Bonds will be made to Cede & Co. or such other nominee as 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 Trustee or the University on each payment date in accordance with their respective holdings shown on DTC's records. Payments by Direct and Indirect 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 Direct and Indirect Participant and not of DTC, the University or the Trustee, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of the principal and redemption price of, and interest on, the 2020 Series S Bonds to Cede & Co. (or such other nominee as requested by an authorized representative of DTC) is the responsibility of the Trustee. Disbursement of such payments to Direct Participants will be the responsibility of DTC and disbursement of such payments to the beneficial owners will be the responsibility of the Direct Participants and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2020 Series S Bonds at any time by giving reasonable notice to the Trustee and the University. Under such circumstances, in the event that a successor depository is not obtained, 2020 S Series S Bond certificates are required to be printed and delivered. The University may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, 2020 Series S Bond certificates will be printed and delivered to DTC.

Euroclear and Clearstream. Euroclear and Clearstream have advised the University as follows:

Euroclear and Clearstream 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 provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream also deal with domestic securities markets in several countries through established depositary and custodial relationships. Euroclear and Clearstream have established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

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

(ii) **Clearing and Settlement Procedures**

General. The 2020 Series S Bonds sold in offshore transactions will be initially issued to investors through the book-entry facilities of DTC, or Clearstream 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 2020 Series S Bonds, the record holder will be DTC's nominee. Clearstream and Euroclear will hold omnibus positions on behalf of their participants through customers' securities accounts in Clearstream'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 or Euroclear participant as a result of a transaction with a participant, other than a depository holding on behalf of Clearstream or Euroclear, will be credited during the securities settlement processing day, which must be a business day for Clearstream 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 participant on that business day. Cash received in Clearstream or Euroclear as a result of sales of securities by or through a Clearstream participant or Euroclear participant to a DTC Participant, other than the depository for Clearstream or Euroclear, will be received with value on the DTC settlement date but will be available in the relevant Clearstream 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 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 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 participants or Euroclear participants may not deliver instructions directly to the depositories.

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

Initial Settlement. Interests in the 2020 Series S Bonds will be in uncertified book-entry form. Purchasers electing to hold book-entry interests in the 2020 Series S Bonds through Euroclear and Clearstream accounts will follow the settlement procedures applicable to conventional Eurobonds. Book-entry interests in the 2020 Series S Bonds will be credited to Euroclear and Clearstream participants' securities clearance accounts on the business day following the date of delivery of the 2020 Series S Bonds against payment (value as on the date of delivery of the 2020 Series S Bonds). DTC participants acting on behalf of purchasers electing to hold book-entry interests in the 2020 Series S Bonds through DTC will follow the delivery practices applicable to securities eligible for DTC's Same Day Funds Settlement system. DTC participants' securities accounts will be credited with book-entry interests in the 2020 Series S Bonds following confirmation of receipt of payment to the University on the date of delivery of the 2020 Series S Bonds.

Secondary Market Trading. Secondary market trades in the 2020 Series S 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 or DTC, as the case may be, in accordance with their respective procedures. Book-entry interests in the 2020 Series S Bonds may be transferred within Euroclear and within Clearstream and between Euroclear and Clearstream in accordance with procedures established for these purposes by Euroclear and Clearstream. Book-entry interests in the 2020 Series S Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC. Transfer of book-entry interests in the 2020 Series S Bonds between Euroclear or Clearstream and DTC may be effected in accordance with procedures established for this purpose by Euroclear, Clearstream and DTC.

Special Timing Considerations. Investors should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the 2020 Series S Bonds through Euroclear or Clearstream on days when those systems are open for business. In addition, because of time-zone differences, there may be complications with completing transactions involving Clearstream and/or Euroclear on the same business day as in the United States. U.S. investors who wish to transfer their interests in the 2020 Series S Bonds, or to receive or make a payment or delivery of 2020 Series S Bonds, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg if Clearstream is used, or Brussels if Euroclear is used.

Clearing Information. The University expects that the 2020 Series S Bonds will be accepted for clearance through the facilities of Euroclear and Clearstream. The international securities identification number, common code and CUSIP number for the 2020 Series S Bond set out on the cover page of this Offering Memorandum.

None of Euroclear, Clearstream 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 its agents will have any responsibility for the performance by Euroclear, Clearstream 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 in this Offering Memorandum concerning the Clearing Systems has been obtained from sources that the Underwriters believe to be reliable, but the Underwriters take no responsibility for the accuracy thereof.

(iii) **Limitations**

For so long as the 2020 Series S Bonds are registered in the name of DTC or its nominee, Cede & Co., the University and the Trustee will recognize only DTC or its nominee, Cede & Co., as the registered owner of the 2020 Series S Bonds for all purposes, including payments, notices and voting. So long as Cede & Co. is the registered owner of the 2020 Series S Bonds, references in this Offering Memorandum to registered owners of the 2020 Series S Bonds shall mean Cede & Co. and shall not mean the beneficial owners of the 2020 Series S Bonds.

Because DTC is treated as the owner of the 2020 Series S Bonds for substantially all purposes under the Indenture, beneficial owners may have a restricted ability to influence in a timely fashion remedial action or the giving or withholding of requested consents or other directions. In addition, because the identity of beneficial owners is unknown to the University, the Trustee or DTC, it may be difficult to transmit information of potential interest to beneficial owners in an effective and timely manner. Beneficial owners should make appropriate arrangements with their broker or dealer regarding distribution of information regarding the 2020 Series S Bonds that may be transmitted by or through DTC.

Neither the University nor the Trustee have any responsibility or obligation with respect to:

- the accuracy of the records of DTC, its nominee or any Direct Participant or Indirect Participant with respect to any beneficial ownership interest in any 2020 Series S Bonds;
- the delivery to any Direct Participant or Indirect Participant or any other person, other than a registered owner as shown in the bond register kept by the Trustee, of any notice with respect to any 2020 Series S Bond including, without limitation, any notice of redemption with respect to any 2020 Series S Bond;
- the payment to any Direct Participant or Indirect Participant or any other person, other than a registered owner as shown in the bond register kept by the Trustee, of any amount with respect to the principal or redemption price of, or interest on, any 2020 Series S Bond; or
- any consent given by DTC or its nominee as registered owner.

Prior to any discontinuation of the book-entry-only system hereinabove described, the University and the Trustee may treat Cede & Co. (or such other nominee of DTC) as, and deem Cede & Co. (or such other nominee) to be, the absolute registered owner of the 2020 Series S Bonds for all purposes whatsoever, including, without limitation:

- the payment of the principal or redemption price of, and the interest on, the 2020 Series S Bonds;
- giving notices of redemption and other matters with respect to the 2020 Series S Bonds;
- registering transfers with respect to the 2020 Series S Bonds; and
- the selection of 2020 Series S Bonds for redemption.

PLAN OF FINANCE

The 2020 Series S Refunding Project

The 2020 Series S Bonds are being issued to provide funds for, among other things, (a) finance the advance refunding of the NJEDA Series 2013 Bonds to be Refunded (as defined herein) and (b) the financing of certain administrative, legal, financial and incidental expenses relating to the issuance of the 2020 Series S Bonds ("2020 Series S Refunding Project").

On the date of issuance and delivery of the 2020 Series S Bonds, a portion of the proceeds of the 2020 Series S Bonds to be used for the refunding of a portion of the outstanding New Jersey Economic Development Authority, Rutgers University General Obligation Lease Revenue Bonds (College Avenue Redevelopment Project) Series 2013 (the "NJEDA Series 2013 Bonds to be Refunded"), all as more particularly described in Appendix E hereto).

The Bank of New York Mellon, as Trustee relating to the NJEDA Series 2013 Bonds to be Refunded (the "Series 2013 Trustee"), the New Jersey Economic Development Authority and College Avenue Redevelopment Associates LLC will enter into an Escrow Deposit Agreement for the NJEDA Series 2013 Bonds to be Refunded (the "2013 Escrow Deposit Agreement"), pursuant to which the Series 2018 Trustee shall create a special and irrevocable fund for the NJEDA Series 2013 Bonds to be Refunded (the "2013 Escrow Fund"), to be held by the Series 2013 Trustee for the payment, upon redemption, of the NJEDA Series 2013 Bonds to be Refunded. See "VERIFICATION OF MATHEMATICAL COMPUTATIONS" and "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE - Defeasance" herein.

ESTIMATED SOURCES AND USES OF FUNDS

The proceeds to be received from the sale of the 2020 Series S Bonds are expected to be applied as set forth below (rounded to the nearest dollar):

Sources of Funds	**2020 Series S Bonds**
Principal Amount	$220,900,000
Total Sources of Funds	$220,900,000
Uses of Funds	
Deposit to Escrow Fund	$219,757,581
Costs of Issuance*	1,142,419
Total Uses of Funds	$220,900,000

* Costs of issuance include, among other things, legal fees, underwriters' discount, financial advisory fees, rating agency fees, accountant's fees, and printing.

TAX MATTERS

THE DISCUSSION UNDER THIS SECTION, "TAX MATTERS," WAS WRITTEN TO SUPPORT THE MARKETING OF THE 2020 SERIES S BONDS. EACH PURCHASER SHOULD CONSULT HIS, HER, OR ITS TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF AN INVESTMENT IN THE 2020 SERIES S BONDS, INCLUDING THE IMPACT OF U.S. FEDERAL, STATE, LOCAL, AND FOREIGN TAX LAWS, IN LIGHT OF SUCH HOLDER'S PARTICULAR CIRCUMSTANCES. THIS MATERIAL WAS NOT INTENDED OR WRITTEN TO BE USED, AND MAY NOT BE USED, BY ANYONE FOR THE PURPOSE OF AVOIDING PENALTIES THAT MAY BE IMPOSED. THE ISSUER DOES NOT ASSUME RESPONSIBILITY TO ANYONE FOR THE TAX CONSEQUENCES OF AN INVESTMENT IN THE 2020 SERIES S BONDS.

Introduction

The following discussion summarizes certain material U.S. federal income tax considerations generally applicable to the purchase, ownership, and disposition of the 2020 Series S Bonds by the beneficial owners thereof ("Holders"). The discussion is limited to the tax consequences to the initial Holders of the 2020 Series S Bonds who purchase the 2020 Series S 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 2020 Series S 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 income tax consequences relating to the purchase, ownership, and disposition of the 2020 Series S Bonds. For example, the discussion does not address any state, 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 2020 Series S 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, Holders who do not own the 2020 Series S Bonds as capital assets, and non-U.S. Holders (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 2020 Series S Bonds as part of a hedge, straddle, conversion, constructive ownership or constructive sale transaction, or other risk reduction transaction. The discussion assumes the 2020 Series S Bonds are held as capital assets within the meaning of Section 1221 of the Code.

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 Offering Memorandum 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 2020 Series S Bonds will vary depending upon each Holder's circumstances.

Moreover, the legislation commonly referred to as the "Tax Cuts and Jobs Act" ("2017 Tax Reform Act") significantly 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 Offering Memorandum summarizes certain key changes made by the 2017 Tax Reform Act and explains, where appropriate, how an expiration of those provisions may affect Holders, 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 Holders. For purposes of this discussion, a "U.S. Holder" is a Holder of a 2020 Series S 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. Holder" is a person that is not a United States person (as described in Section 7701(a)(30) of the Code).

Tax Consequences to U.S. Holders

In General. Interest received or accrued, as well as any gain or loss on the sale, exchange, redemption, or other disposition of the 2020 Series S Bonds, will not be exempt from U.S. federal income tax in the hands of a U.S. Holder. Instead, subject to the more detailed discussion herein, interest received or accrued on the 2020 Series S Bonds will be taxable to a U.S. Holder at ordinary income tax rates and any gain on the sale, exchange, redemption, or other disposition of a 2020 Series S Bond generally will be taxable to the U.S. Holder at the tax rates applicable to capital gains. The U.S. federal income tax consequences to a U.S. Holder may also be affected if a U.S. Holder acquires a 2020 Series S Bond at a discount or at a premium. If a partnership, or an entity taxable as a partnership, holds the 2020 Series S 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. Partners of partnerships holding the 2020 Series S 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 2020 Series S Bonds.

Stated Interest. Stated interest on the 2020 Series S Bonds will be taxable to a U.S. Holder as ordinary income and generally at the time the interest is received or accrued in accordance with the U.S. Holder's method of accounting for U.S. federal income tax purposes.

OID. A 2020 Series S Bond will be treated as issued with original issue discount ("OID") if the excess of the 2020 Series S Bond's "stated redemption price at maturity" over its "issue price" equals or exceeds a *de minimis* amount equal to one quarter of one percent of the 2020 Series S Bond's stated redemption price at maturity multiplied by the number of years to its maturity. The stated redemption price at maturity of a 2020 Series S Bond is generally equal to all payments on a 2020 Series S Bond other than "qualified stated interest". In general, qualified stated interest is interest that is unconditionally payable at least annually. The Issuer intends to treat stated interest payable under the 2020 Series S Bonds as qualified stated interest under Treasury Regulations relating to OID. The issue price of a 2020 Series S Bond generally will be the first price at which a substantial amount of the 2020 Series S Bonds is sold to persons other than bond houses, brokers or similar persons acting in the capacity of underwriters, placement agents or wholesalers. Assuming all interest payable under each of the 2020 Series S Bonds is qualified stated interest, the stated redemption price at maturity is generally expected to equal the principal amount of each respective 2020 Series S Bond.

If the 2020 Series S Bonds are treated as issued with OID, then a U.S. Holder will be required to accrue OID using a constant yield method, include such accrued OID in income, and pay any resulting tax, all before the U.S. Holder receives cash attributable to that income and regardless of such U.S. Holder's method of tax accounting. The amount of OID generally includible is the sum of the daily portions of OID with respect to a 2020 Series S Bond for each day during the taxable year or portion of the taxable year in which the U.S. Holder holds the 2020 Series S Bond. Any *de minimis* OID generally will be included in income as principal payments are received on the 2020 Series S Bonds in the proportion that each such payment bears to the original principal balance of the 2020 Series S Bonds, and such income will generally be treated as an amount received on retirement of the 2020 Series S Bonds. The treatment of the resulting gain or loss is subject to the general rules discussed below under "*Sale, Exchange, Redemption, or Other Disposition*." A U.S. Holder who includes OID in income is permitted to increase his, her, or its tax basis in the 2020 Series S Bonds by the amount of OID included in income.

Bond Premium. If a U.S. Holder purchases a 2020 Series S Bond for an amount in excess of the amount payable at maturity (*i.e.*, at a premium), then the U.S. Holder generally will be considered to have purchased the 2020 Series S Bond with "amortizable bond premium" equal to the amount of such excess. A U.S. Holder who purchases a 2020 Series S Bond with amortizable bond premium may either: (i) 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; or (ii) add the premium to the U.S. Holder's tax basis in the respective 2020 Series S Bond, with the amount of the premium decreasing the gain or increasing the loss otherwise recognized on the disposition of the 2020 Series S Bond. If the U.S. Holder elects to amortize the bond premium, then any amortizable amounts will reduce the U.S. Holder's tax basis in the 2020 Series S Bonds. Moreover, if the U.S. Holder elects to amortize bond premium, then such election will apply to all 2020 Series S Bonds (i) held by such U.S. Holder on the first day of the taxable year to which the election applies, and (ii) thereafter acquired by the U.S. Holder.

Election to Treat All Interest as OID. A U.S. Holder may elect to include in gross income all interest that accrues on the 2020 Series S Bonds, including but not limited to stated interest, OID, and *de minimis* OID, as adjusted by any amortizable bond premium and other items, using the constant yield method described above under "*OID*." This election will generally apply only to the specific 2020 Series S Bonds for which it was made, and may not be revoked without the consent of the Internal Revenue Service ("IRS"). U.S. Holders are strongly encouraged to consult with their tax advisors before making this election.

Principal Payments. Subject to certain exceptions (including the special rules for *de minimis* OID described above), principal payments on the 2020 Series S Bonds generally will constitute a tax-free return of capital that will reduce a U.S. Holder's adjusted tax basis in the 2020 Series S Bond to which the principal payment relates.

Sale, Exchange, Redemption, or Other Disposition. If a U.S. Holder of a 2020 Series S Bond sells, exchanges, redeems, or otherwise disposes of the 2020 Series S Bond, then the U.S. Holder will recognize capital gain or loss equal to the difference between the amount realized on the sale, exchange, redemption, or other disposition (other than amounts representing accrued but unpaid interest, which amounts will be treated as a payment of interest) and the U.S. Holder's adjusted tax basis in the 2020 Series S Bond. The U.S. Holder's adjusted tax basis of a 2020 Series S Bond generally will equal the U.S. Holder's cost of acquiring such bond, increased by any OID previously included by the U.S. Holder in income with respect to such bond, and decreased by the amount of any bond premium previously amortized with respect to such bond and by the amount of principal payments received by the U.S. Holder with respect to such bond.

Effect of Recent Changes in U.S. Tax Laws. Under the 2017 Tax Reform Act, a U.S. Holder 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. This rule generally is effective for tax years beginning on or after January 1, 2018, but for debt instruments issued with OID, this rule is effective for tax years beginning on or after January 1, 2019. 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. Holders. Prospective purchasers should consult their own tax advisors regarding the potential applicability of these rules to their ownership and disposition of the 2020 Series S Bonds.

Tax Rates. Tax rates may differ with respect to, on the one hand, the receipt or accrual of interest, and on the other hand, any gain on the sale, exchange, redemption, or other disposition of the 2020 Series S Bonds. With respect to interest income, which is subject to U.S. federal tax at the tax rates applicable to ordinary income:

- For taxable years beginning on or after January 1, 2018, and ending on or before December 31, 2025, ordinary income will be taxed at income tax rates of up to thirty-seven percent (37%) for individuals and twenty-one percent (21%) for corporations; and

- For taxable years ending on or after January 1, 2026, ordinary income will be taxed at income tax rates of up to thirty-nine and six-tenths percent (39.6%) for individuals and twenty-one percent (21%) for corporations. Purchasers should consult their own tax advisors concerning the effect of these U.S. federal income tax rates in light of their individual circumstances.

With respect to any gain on the sale, exchange, redemption, or other disposition of the 2020 Series S Bonds, which is subject to U.S. federal tax at the tax rates applicable to capital gains, the applicable capital gains tax rate depends on numerous factors, including but not limited to whether the capital asset was held for longer than one year (thereby triggering the long-term capital gains tax rate) or for one year or less (thereby triggering the short-term capital gains tax rate). Under current law, long-term capital gains tax rates for individuals range between zero percent (0%) and twenty percent (20%), depending upon the Holder's individual tax circumstances. At the present time, short-term capital gains are taxed at the same rates applicable to ordinary income. Applicable tax rates are mutable and each investor should consult his, her, or its own professional tax advisor concerning the U.S. federal, state, or local tax consequences in light of such investor's particular tax situation.

Net Investment Income Surtax. Certain Holders who are individuals, estates, or trusts may be required to pay a three and eight-tenths percent (3.8%) tax on "net investment income," including a Holder's receipt or accrual of interest income and any gain from the sale, exchange, redemption, or other disposition of a 2020 Series S Bond, in each case less deductions allocable to such income. Purchasers should consult their own tax advisors concerning the potential applicability of the net investment income surtax in light of their individual circumstances.

AMT. Presently, U.S. federal tax law imposes an alternative minimum tax ("AMT") on taxpayers other than corporations. The 2017 Tax Reform Act significantly alters the applicability of the AMT. U.S. Holders who are, or may be, subject to the AMT should consider the tax consequences of an investment in the 2020 Series S Bonds in view of their AMT position, taking into account the special rules that apply in computing the AMT under the 2017 Tax Reform Act.

Tax Consequences to Non-U.S. Holders

In General. The United States currently taxes the worldwide income of U.S. citizens, resident aliens, and domestic corporations without regard to whether the income arose from a transaction or activity that originated outside its geographic borders. Nonresident aliens and foreign corporations are generally taxed 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. Stated differently, foreign persons are subject to U.S. tax on any income that is effectively connected with the conduct of 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, 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, interest (including OID) is fixed, determinable, annual or periodical income, and as such, 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" is exempt from U.S. withholding tax. It is anticipated that interest paid to a Non-U.S. Holder with respect to a 2020 Series S Bond will qualify as portfolio interest under Sections 871(h) and 881(c) of the Code.

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 2020 Series S Bond held by a Non-U.S. Holder generally 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. Holder.

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 2020 Series S Bond held by a Non-U.S. Holder generally will 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. Holder generally will not be subject to U.S. withholding tax on gain realized from the sale, exchange, redemption, or other disposition of a 2020 Series S Bond, unless: (i) such Non-U.S. Holder 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. Holder 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. Holder).

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. Holder to obtain the above-described exemptions from U.S. withholding tax, either the Non-U.S. Holder <u>or</u> 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 2020 Series S Bond on behalf of such Non-U.S. Holder, must file a statement with the Issuer, its paying agent, or other applicable withholding agent to the effect that the Non-U.S. Holder 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. Holder: (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 2020 Series S Bond on behalf of the Non-U.S. Holder files a statement with the Issuer, its paying agent, or other applicable withholding agent to the effect that it has received such a statement from the Non-U.S. Holder (and furnishes the Issuer, its paying agent, or other applicable withholding agent with a copy thereof). In addition, in the case of 2020 Series S 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. Holder after issuance of the certificate in the calendar year of its issuance and the two immediately succeeding calendar years. Thus, Non-U.S. Holders will be required to provide these certifications more than once.

Non-U.S. Holders Engaged in a Trade or Business in the United States. If a Non-U.S. Holder 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 2020 Series S Bond is effectively connected with the conduct of such trade or business, then the Non-U.S. Holder, 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. Holder. In addition, if such Non-U.S. Holder 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. Holder provides a properly executed IRS Form W-8ECI (or successor form) to the Issuer, 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. Holder who does not satisfy the exemption requirements is generally subject to United States withholding tax on payments of interest (including OID).

FATCA

The Foreign Account Tax Compliance Act ("FATCA") generally imposes U.S. withholding tax on interest payments and gross proceeds of the sale, exchange, redemption, or other disposition of the 2020 Series S 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) 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 Holder 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 Holder 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 Issuer will not pay any additional amounts in respect of any amounts withheld, including pursuant to FATCA, and Holders or beneficial owners of the 2020 Series S Bonds will have no recourse against the Issuer.

Backup Withholding and Information Reporting

There will be reported annually to the IRS, and to each Holder, the amount of interest (including OID) paid on, or the proceeds from the sale, exchange, redemption, or other taxable disposition of, the 2020 Series S 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 Holder, other than a Holder 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 Holder is not subject to back-up withholding. If any Holder 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 Holder or the proceeds from the sale, exchange, redemption, or other taxable disposition of the 2020 Series S Bonds, and the withheld amounts will be remitted to the U.S. Department of the Treasury and credited against the Holder's U.S. federal income tax liability. In addition, Holders will be required to provide to the Issuer or designated agents all information, documentation, or certifications acceptable to the Issuer or its agents to permit compliance with tax reporting obligations under applicable law, including any applicable cost basis reporting obligations. Non-U.S. Holders should consult their own tax advisors with respect to the possible applicability of U.S. withholding and other taxes with respect to their holding the 2020 Series S Bonds.

State, Local, and Foreign Taxes

Holders may be subject to state, local, or foreign taxes with respect to an investment in the 2020 Series S Bonds. In light of the potential impact of state, local, and foreign taxes (including the limitations on deductibility of state, and local taxes imposed by the 2017 Tax Reform Act), prospective investors are urged to consult their tax advisors with respect to the state, local and foreign tax consequences of an investment in the 2020 Series S Bonds.

Bond Counsel is of the opinion that, based upon existing law, interest on the 2020 Series S Bonds and net gains from the sale thereof are exempt from the tax imposed by the New Jersey Gross Income Tax Act.

ERISA CONSIDERATIONS

The following is a summary of certain considerations associated with the acquisition and holding of the 2020 Series S Bonds by an "employee benefit plan" (as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974, as amended ("ERISA")) that is subject to Title I of ERISA, a "plan" covered by Section 4975 of the Code (including an individual retirement account or "IRA"), a benefit plan subject to provisions under applicable federal, state, local, non-U.S. or other laws or regulations that are similar to the provisions of Title I of ERISA or Section 4975 of the Code ("Similar Laws") and any entity whose underlying assets include "plan assets" by reason of such employee benefit or retirement plan's investment in such entity (each of which we refer to as a "Plan").

General Fiduciary Matters

ERISA imposes certain duties on persons who are fiduciaries of a Plan subject to Title I of ERISA, and ERISA and Section 4975 of the Code prohibit certain transactions involving the assets of a Plan subject to ERISA, as well as the assets of "plans" covered by Section 4975 of the Code (such Plans are referred to herein as "ERISA Plans"), with its fiduciaries or other interested parties. In general, under ERISA and the Code, any person who exercises any discretionary authority or control over the administration of such an ERISA Plan or the management or disposition of the assets of such an ERISA Plan, or who renders investment advice for a fee or other compensation (direct or indirect) to such an ERISA Plan, is generally considered to be a fiduciary of the ERISA Plan. Plans that are governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA or Section 4975(g)(3) of the Code) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) are not subject to the requirements of ERISA or Section 4975 of the Code but may be subject to similar prohibitions under Similar Laws. In considering the acquisition, holding and, to the extent relevant, disposition of 2020 Series S Bonds with a portion of the assets of a Plan, a fiduciary should determine whether the investment is in accordance with the documents and instruments governing the Plan and the applicable provisions of ERISA, the Code or any Similar Law relating to a fiduciary's duties to the Plan, including, without limitation, the prudence, diversification and prohibited transaction provisions of ERISA, the Code and/or any other applicable Similar Laws.

Prohibited Transactions – In General

Section 406 of ERISA prohibits ERISA Plans from engaging in specified transactions involving plan assets with persons or entities who are "Parties in Interest," within the meaning of Section 3(14) of ERISA, and Section 4975 of the Code imposes an excise tax on certain "Disqualified Persons," within the meaning of Section 4975 of the Code, who engage in similar prohibited transactions, in each case unless a statutory or administrative exemption is available. A Party in Interest or Disqualified Person who engages in a non-exempt prohibited transaction may be subject to other penalties and liabilities under ERISA and the Code. Further, a separate prohibited transaction could arise if, subsequent to the acquisition, the University or one of its affiliates becomes a Party in Interest or Disqualified Person with respect to a Plan or a subsequent transfer of a 2020 Series S Bond is between a Plan and a Party in Interest or Disqualified Person with respect to the Plan.

The definitions of "Party in Interest" and "Disqualified Person" are expansive. While other entities may be encompassed by these definitions, they include: (1) a fiduciary with respect to a plan; (2) a person providing services to a plan; and (3) an employer or employee organization any of whose employees or members are covered by the plan.

Plan Asset Issues

Certain transactions involving the purchase, holding or transfer of the 2020 Series S Bonds might be deemed to constitute a prohibited transaction under ERISA and the Code if assets of the University or the Indenture assets were deemed to be assets of a Plan. Under final regulations issued by the United States Department of Labor at 29 C.F.R. Section 2510.3-101, as modified by Section 3(42) of ERISA (the "Plan Asset Regulations"), the assets of the University or Indenture assets would be treated as plan assets of an ERISA Plan for the purposes of ERISA and the Code if the ERISA Plan acquires an "equity interest" in the University or Indenture assets and none of the exceptions contained in the Plan Asset Regulations is applicable. An equity interest is defined under the Plan Asset Regulations as an interest in an entity other than an instrument which is treated as indebtedness under applicable local law and which has no substantial equity features.

Although there is little statutory or regulatory guidance on this subject, it seems that the 2020 Series S Bonds should be treated as debt, without substantial equity features, for purposes of the Plan Asset Regulations. Accordingly, the assets of the University or the Indenture should not be treated as plan assets of ERISA Plans investing in the 2020 Series S Bonds. However, there can be no assurance that the 2020 Series S Bonds will be treated as debt obligations without substantial equity features for purposes of the Plan Asset Regulations. If the University's or the Indenture's assets were deemed to constitute "plan assets" pursuant to the Plan Asset Regulations, transactions that the University or Trustee might enter into, or may have entered into in the ordinary course of business, might constitute non-exempt prohibited transactions under ERISA or the Code. Therefore, a Plan fiduciary considering an investment in the 2020 Series S Bonds should consult with its counsel prior to making such purchase.

Prohibited Transaction Exemptions

Without regard to whether the 2020 Series S Bonds are treated as debt obligations without substantial equity features, the acquisition or holding of 2020 Series S Bonds by or on behalf of a Plan could be considered to give rise to a prohibited transaction if the University or Trustee, and other parties connected with the offering (such as the Underwriter), or any of their respective affiliates, is or becomes a Party in Interest or a Disqualified Person with respect to such Plan. In such case, certain status-based exemptions from the prohibited transaction rules could be applicable depending on the type and circumstances of the plan fiduciary making the decision to acquire the 2020 Series S Bonds. Included among these exemptions are: Prohibited Transaction Exemption ("PTCE") 75-1 (which exempts certain transactions between a plan and certain broker dealers, reporting dealers and banks); PTCE 96-23 (which exempts certain transactions effected at the sole discretion of an "in house asset manager" (an "INHAM")); PTCE 90-1 (which exempts certain investments by insurance company pooled separate accounts); PTCE 95-60 (which exempts certain transactions effected on behalf of an "insurance company general account"); PTCE 91-38 (which exempts certain investments by bank collective investment funds); and PTCE 84-14 (which exempts certain transactions effected at the sole discretion of a "qualified professional asset manager" (a "QPAM")).

There is also a statutory exemption in Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code which is commonly referred to as the "Service Provider Exemption". The Service Provider Exemption covers transactions involving "adequate consideration" with persons who are Parties in Interest or Disqualified Persons solely by reason of their (or their affiliate's) status as a service provider to the Plan involved and none of which is a fiduciary with respect to the Plan assets involved (or an affiliate of such a fiduciary).

The availability of each of these PTCEs and/or the Service Provider Exemption is subject to a number of important conditions which the Plan's fiduciary must consider in determining whether such exemptions apply. There can be no assurance that all the conditions of any such exemptions will be satisfied at the time that the 2020 Series S Bonds are acquired by a purchaser, or thereafter, if the facts relied upon for utilizing a prohibited transaction exemption change, or that the scope of relief provided by these exemptions will necessarily cover all acts that might be construed as prohibited transactions. Therefore, a Plan fiduciary considering an investment in the 2020 Series S Bonds should consult with its counsel prior to making such purchase.

Any ERISA Plan fiduciary considering whether to purchase the 2020 Series S Bonds on behalf of an ERISA Plan should consult with its counsel regarding the applicability of the fiduciary responsibility and prohibited transaction provisions of ERISA and the Code to such investment and the availability of any of the exemptions referred to above. Persons responsible for investing the assets of employee benefit plans that are not subject to the requirements of ERISA or Section 4975 of the Code should seek similar counsel with respect to the application of similar prohibitions under Similar Laws.

Representations

BY ITS ACQUISITION OF THE 2020 SERIES S BONDS (OR ANY INTEREST THEREIN), EACH PURCHASER AND SUBSEQUENT TRASFEREE THEREOF WILL BE DEEMED TO HAVE REPRESENTED, WARRANTED AND AGREED THAT, ON EACH DAY IT HOLDS A 2020 SERIES S BOND (OR ANY INTEREST THEREIN), EITHER (a) IT IS NOT A PLAN AND NO PORTION OF THE ASSETS USED TO ACQUIRE OR HOLD THE 2020 SERIES S BONDS CONSTITUTES ASSETS OF A PLAN OR (b) THE ACQUISITION, HOLDING AND DISPOSITION OF A 2020 SERIES S BOND (OR AN INTEREST THEREIN) WILL NOT CONSTITUTE OR RESULT IN A PROHIBITED TRANSACTION UNDER SECTION 406 OF ERISA OR SECTION 4975 OF THE CODE OR SIMILAR VIOLATION UNDER ANY APPLICABLE SIMILAR LAWS FOR WHICH THERE IS NO APPLICABLE STATUTORY, REGULATORY OR ADMINISTRATIVE EXEMPTION.

The foregoing discussion is general in nature and is not intended to be all inclusive. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions (or other breaches of fiduciary duty, it is particularly important that fiduciaries, or other persons considering purchasing 2020 Series S Bonds on behalf of, or with the assets of, any Plan, consult with their counsel regarding the potential applicability of ERISA, Section 4975 of the Code and any Similar Laws to such investment and whether an exemption would be applicable to the purchase and holding of the 2020 Series S Bonds. The acquisition, holding and, to the extent relevant, disposition of 2020 Series S Bonds by or to any Plan is in no respect a representation by the University or the Underwriters that such an investment meets all relevant legal requirements with respect to investments by such Plans generally or any particular Plan, or that such an investment is appropriate for Plans generally or any particular Plan.

RATINGS

Moody's Investors Service, Inc. ("Moody's") and Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business ("S&P) have assigned the ratings of "Aa3" (stable outlook) and "A+" (negative outlook), respectively, to the 2020 Series S Bonds. An explanation of the significance of such ratings may be obtained from the company furnishing the rating. The ratings reflect only the respective views of such organization, and the University makes no representation as to the appropriateness of the ratings. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by either or both of such rating companies, if in the judgment of either or any of such companies, circumstances so warrant. Any such downward revision or withdrawal of such ratings, or any of them, may have an adverse effect on the market price of the 2020 Series S Bonds.

STATE NOT LIABLE ON THE 2020 SERIES S BONDS

Nothing in the 2020 Series S Bonds or in the Indenture shall be construed as pledging the faith and credit of the State of New Jersey or any political subdivision thereof for their payment, or to create any debt against said State or any political subdivision thereof. The University has no taxing power.

LEGALITY OF THE 2020 SERIES S BONDS FOR INVESTMENT

The 2020 Series S Bonds are legal investments, in the opinion of Bond Counsel to the University, under present provisions of New Jersey law: (i) for banks and life insurance companies in the State of New Jersey; (ii) for savings banks and savings and loan associations in the State of New Jersey, subject to certain statutory limitations on the amount of such investments; (iii) for fiduciaries, subject to the provisions of the New Jersey Prudent Investment Law; and (iv) for certain institutions, subject to the provisions of the New Jersey Uniform Prudent Management of Institutional Funds Act.

LEGAL MATTERS

All legal matters incident to the authorization and issuance of the 2020 Series S Bonds are subject to the approval of McCarter & English, LLP, Newark, New Jersey, Bond Counsel to the University, whose approving opinion in substantially the form included herein as APPENDIX D will be attached to the 2020 Series S Bonds and delivered with such Bonds. Certain legal matters will be passed upon for the University by the Office of the Senior Vice President and General Counsel. Certain legal matters will be passed upon for the Underwriters by their counsel, Connell Foley LLP, Jersey City, New Jersey.

UNDERWRITING

The 2020 Series S Bonds are being purchased from the University by Barclays Capital Inc. as representative of the underwriters listed on the cover page hereof (the "Underwriters"). The Underwriters have agreed, subject to certain conditions, to purchase the 2020 Series S Bonds at an aggregate purchase price equal to $220,215,661.16 (reflecting the underwriters' discount of $684,338.84). The initial public offering prices of the 2020 Series S Bonds set forth on the cover page may be changed without notice by the Underwriters. The Underwriters may offer and sell the 2020 Series S Bonds to certain dealers (including dealers depositing 2020 Series S Bonds into investment trusts, certain of which may be sponsored or managed by the Underwriters) and others at prices higher or yields lower than the offering prices or yields set forth on the cover page hereof.

BofA Securities, Inc. has provided the following three sentences for inclusion in this Official Statement:

BofA Securities, Inc., an underwriter of the 2020 Series S Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"). As part of this arrangement, BofA Securities, Inc. may distribute securities to MLPF&S, which may in turn distribute such securities to investors through the financial advisor network of MLPF&S. As part of this arrangement, BofA Securities, Inc. may compensate MLPF&S as a dealer for their selling efforts with respect to the 2020 Series S Bonds.

The University has not been furnished with any documents relating to the MLPF&S distribution arrangement and makes no representation of any kind with respect thereto. The University is not a part of the MLPF&S distribution arrangement and has not entered into any agreement or arrangement with MLPF&S with respect to the offering and sale of the 2020 Series S Bonds.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the University and to persons and entities with relationships with 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, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the University (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with 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.

The Underwriters have provided the following sentence for inclusion in this Offering Memorandum. The Underwriters have reviewed the information in this Offering Memorandum 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.

Certain members of the Board of Governors and/or Board of Trustees are employed by BofA Securities, Inc., or its affiliates, which firm is a member of the underwriting team of the sale of the 2020 Series S Bonds. Such Board Members did not participate in the selection of the underwriters of the 2020 Series S Bonds.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

The arithmetical accuracy of certain computations included in the schedules relating to computation of amounts deposited in the respective Escrow Funds and the payments of principal, interest and premium, if any, to redeem the Refunded Bonds as described in "PLAN OF FINANCE" will be verified by Causey, Demgen, Moore PC (the "Verification Agent"). Such computation will be based upon information, assumptions and calculations supplied to the Verification Agent by the Underwriters.

FINANCIAL ADVISOR

Prager & Co., LLC ("Prager") has been retained to act as financial advisor for the University in connection with the issuance of the 2020 Series S Bonds. Although Prager has assisted in the preparation of this Offering Memorandum, Prager is not obligated to undertake, and has not undertaken to make, any independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Offering Memorandum.

INDEPENDENT AUDITORS

The financial statements of the business-type activities and the aggregate discretely presented component units of Rutgers, The State University of New Jersey (the University) as of June 30, 2019 and 2018, and for the years then ended, included in "APPENDIX B – INDEPENDENT AUDITORS' REPORT AND FINANCIAL STATEMENTS OF RUTGERS, THE STATE UNIVERSITY" to this Offering Memorandum, have been audited by KPMG LLP, independent auditors, as stated in their report appearing therein.

Their report dated December 18, 2019 included an unmodified opinion on the financial statements of the business-type activities of the University and a qualified opinion on the financial statements of the aggregate discretely presented component units of the University. Their qualified opinion is based on their audits and the report of the other auditors and contains an explanatory paragraph that states that the financial statements of University Physicians Associates of New Jersey, Inc. and Affiliate, presented as a discretely presented component unit, were prepared on a modified basis of cash receipts and disbursements, which is a comprehensive basis of accounting other than U.S. generally accepted accounting principles. The amount by which this departure would affect the assets, net position, and revenues of the aggregate discretely presented component units has not been determined.

KPMG LLP has not been engaged to perform and has not performed, since March 16, 2020, the date of the Preliminary Offering Memorandum related to these bonds, any procedures on the financial statements addressed in that report. KPMG LLP also has not performed any procedures relating to this Offering Memorandum.

LITIGATION

There is not now pending any litigation restraining or enjoining the issuance or delivery of the 2020 Series S Bonds or questioning or affecting the validity of the 2020 Series S Bonds or the proceedings and authority under which they are to be issued. Neither the creation, organization or existence of the University, nor the title of the present officers of the University to their respective offices, is being contested except as otherwise described in this Offering Memorandum.

The University, in its normal operations, is a defendant in various legal actions. The University's administration is of the opinion that the outcome of these matters will not have a material adverse effect on the financial position or operations of the University.

In April and May 2020, two lawsuits were filed against the University, one in the United States District Court, District of New Jersey and another in Superior Court of New Jersey, Law Division, Middlesex County. The lawsuits were brought by parents of students and purport to be class actions. The complaints allege, among other claims, breach of contract, unjust enrichment, and conversion following the outbreak of COVID-19 and the University's transition to distance learning for the remainder of the Spring 2020 semester and seek damages in the form of refunds of tuition and mandatory fees; pre-judgement interest; and attorney's fees. The University believes that the lawsuits are without merit and intends to defend the lawsuits vigorously. The impact of the lawsuits cannot be determined at this time. These complaints mirror complaints filed against institutions of higher education across the country.

On July 17, 2020, Worth Construction Company, Inc. and Liberty Mutual Insurance Company served Rutgers with a complaint related to a 2014 construction project on which Worth served as general contractor. The complaint alleges that Rutgers' termination for cause of Worth in September of 2015 was improper and seeks at least $24 million in damages. Rutgers believes it has meritorious defenses to the claims but cannot provide any assurance as to the outcome of the litigation.

CONTINUING DISCLOSURE UNDERTAKING

The Securities and Exchange Commission (the "SEC"), pursuant to the Securities Exchange Act of 1934, as amended and supplemented (the "Securities Exchange Act") has adopted amendments to its Rule 15c2-12 ("Rule 15c2-12") effective July 3, 1995 which generally prohibit a broker, dealer, or municipal securities dealer ("Participating Underwriter") from purchasing or selling municipal securities, such as the 2020 Series S Bonds, unless the Participating Underwriter has reasonably determined that an issuer of municipal securities or an obligated person has undertaken in a written agreement or contract for the benefit of holders of such securities to provide certain annual financial information and event notices to various information repositories.

The University has covenanted with the Trustee for the benefit of Bondholders to provide certain financial information and operating data relating to the University by not later than 180 days following the end of the University's Fiscal Year beginning with the Fiscal Year ending June 30, 2019 (the "Annual Report"), and to provide notices of the occurrence of certain enumerated material events. The specific nature of the information to be contained in the Annual Report or the notices of material events is summarized in "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE — Continuing Disclosure Undertaking."

The Annual Report will be filed, or caused to be filed, by the University with the Municipal Securities Rulemaking Board ("MSRB") through its Electronic Municipal Markets Access system at www.emma.msrb.org. The notices of listed events will be filed, or caused to be filed, by the University with the MSRB.

During the past five (5) years, certain audited financial statements and/or annual financial information were filed late or were incomplete. The University's (i) Fiscal Year 2018 annual financial information filed with EMMA on December 27, 2018 was partial in its initial filing, and (ii) Fiscal Year 2018 audited financial statements were delayed in filing until April 1, 2019. The University timely filed a notice with EMMA on December 27, 2018 regarding such partial and delayed filings. The University relies on information received from the State of New Jersey related to pension and postemployment benefits other than pension contributions, which information was not fully received from the State of New Jersey until March 22, 2019, resulting in such partial and delayed filings. These material amounts, pursuant to GASB 68 and 75, are reported in the University's financial statements. Upon receipt of the requisite information from the State of New Jersey, the University's complete Fiscal Year 2018 annual information was filed on April 1, 2019, together with its Fiscal Year 2018 audited financial statement filing, and the University is now in compliance with all previous undertakings to provide continuing disclosure in compliance with the requirements of Rule 15c2-12.

References to website addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such websites and the information or link contained herein are not incorporated into and are not part of this offering document.

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CLOSING CERTIFICATE

Concurrently with delivery of the 2020 Series S Bonds, the University will furnish a certificate executed by its Associate Treasurer to the effect that this Offering Memorandum, as of the date of this Offering Memorandum and as of the date of delivery of the 2020 Series S Bonds, does not contain any untrue statement of a material fact or omit to state any material fact necessary to make the statements herein, in light of the circumstances under which they were made, not misleading.

The references herein to the Act and the Indenture are brief summaries of certain provisions thereof. Such summaries do not purport to be complete, and reference is made to the Act and the Indenture, respectively, for a full and complete statement of such provisions. Copies of the documents mentioned in this paragraph are on file at the Office of the University's Associate Treasurer.

The execution and delivery of this Offering Memorandum by its Associate Treasurer have been duly authorized by the University.

RUTGERS, THE STATE UNIVERSITY

By: /s/ Adam J. Day
Adam J. Day
Associate Treasurer

Dated: August 4, 2020

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APPENDIX A.

INFORMATION CONCERNING RUTGERS, THE STATE UNIVERSITY

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RUTGERS, THE STATE UNIVERSITY

General Background

Rutgers, The State University ("Rutgers" or the "University"), one of the nation's nine colonial colleges, consists of 32 schools and colleges located in the State of New Jersey (the "State" or "New Jersey") at campuses in New Brunswick and adjacent areas, Newark, and Camden. Rutgers also maintains educational services in many other communities throughout the State. The University is the State University of New Jersey and the Land Grant College of the State of New Jersey. The University was created as a body corporate and politic with the title "The Trustees of Queens College in New Jersey" by royal charter granted by King George III on November 10, 1766. The charter was amended and confirmed by the Council and General Assembly of New Jersey in 1781 and again in 1799. Its title was changed to "The Trustees of Rutgers College in New Jersey" in 1825. In 1864, the Scientific School of Rutgers College was designated the "Land Grant College of the State of New Jersey" with curricula in agriculture, engineering, and chemistry. In 1945, the various schools and units were collectively designated the State University of New Jersey to be utilized as an instrumentality of the State for providing public higher education. The University's title was changed to "Rutgers, The State University" and its charter was amended and supplemented by an act of the Legislature of the State in 1956 (the "Rutgers Law").

The New Jersey Medical and Health Sciences Education Restructuring Act (the "Restructuring Act"), passed by the New Jersey Senate and Assembly on June 28, 2012, and signed into law by Governor Chris Christie on August 22, 2012, integrated all units of the University of Medicine and Dentistry of New Jersey ("UMDNJ"), except University Hospital in Newark and the School of Osteopathic Medicine in Stratford, into Rutgers effective July 1, 2013. As required by the Rutgers Law, the legislation required approval of both the Board of Governors of the University (the "Board of Governors") and the Board of Trustees of the University (the "Board of Trustees"). Both boards approved the integration of Rutgers and UMDNJ at their November 19, 2012 meetings, subject to the satisfaction of certain conditions that subsequently occurred. The University created a new unit, Rutgers Biomedical and Health Sciences ("RBHS"), to serve as the umbrella organization for the UMDNJ schools and clinical units, several pre-existing Rutgers units with health-related missions, and two research units that historically were jointly operated by Rutgers and UMDNJ.

All of the University's property and educational facilities are impressed with a public trust for higher education of the people of the State. The Board of Governors presents an annual request for State support of the University to the State Department of the Treasury and to the State Secretary of Higher Education (the "State Secretary") in accordance with legislation adopted in 1994 and a reorganization plan enacted into law pursuant to the terms of the Restructuring Act.

The Board of Governors has general supervision over the conduct of the University and is responsible for determining the programs and degree levels offered by the University.

The Board of Trustees is designated under the Rutgers Law to serve in an overall advisory capacity to the Board of Governors. The Board of Trustees must approve the use of properties acquired by the University prior to passage of the Rutgers Law, debt incurred by the University, and the investment of certain funds under its control. It must also consent on the selection of the University's president.

Unless otherwise indicated, references to years are to the University's fiscal year ended June 30.

Locations and Academic Programs

Rutgers is one university with three distinct operational locations in New Jersey – in Camden, Newark and New Brunswick – each headed by a Chancellor and characterized by its own distinct identity. With the creation of Rutgers Biomedical and Health Sciences (RBHS), the University has a fourth unit that is also headed by its own Chancellor, yet, unlike other units, is not defined by its geography but by its state-wide network of healthcare education, research, and service.

University degrees are awarded by 32 schools and colleges. In 2018-19, the University awarded more than 18,300 degrees, including 11,800 baccalaureate degrees, 4,600 master's degrees, and 1,800 doctorates (including professional doctorates). The University has locations in all 21 New Jersey counties, as well as academic and research enterprises around the world.

Rutgers University-New Brunswick

Rutgers University–New Brunswick is the land-grant unit of the University and its flagship campus. It is classified by the Carnegie Commission as a Doctoral University: Very High Research Activity, and it is a member of the prestigious Association of American Universities, the Big Ten Conference, and the Big Ten Academic Alliance.

Rutgers University-New Brunswick includes the Busch Campus in Piscataway, the College Avenue Campus in New Brunswick, the Cook Campus in New Brunswick and North Brunswick, the Douglass Campus in New Brunswick, and the Livingston Campus in Piscataway and Edison. In addition, Rutgers' New Jersey Agricultural Experiment Station has research centers across the state as well as Cooperative Extension offices in all 21 counties.

Twelve colleges and schools offer degrees: the School of Arts and Sciences, the School of Environmental and Biological Sciences, the School of Engineering, Mason Gross School of the Arts, Rutgers Business School – Newark and New Brunswick, the Edward J. Bloustein School of Planning and Public Policy, the Graduate School of Applied and Professional Psychology, the Graduate School of Education, the School of Communication and Information, the School of Social Work, the School of Management and Labor Relations, and the School of Graduate Studies, which is a unit of both Rutgers University–New Brunswick and RBHS.

Rutgers Biomedical and Health Sciences

As New Jersey's academic medical center, RBHS takes an integrated approach to educating students, providing clinical care, and conducting research, all with the goal of improving human health. RBHS has eight schools that offer degrees: Ernest Mario School of Pharmacy, New Jersey Medical School, Robert Wood Johnson Medical School, Rutgers School of Dental Medicine, the School of Health Professions, the School of Nursing, the School of Public Health, and the School of Graduate Studies, which is a unit of both Rutgers University–New Brunswick and RBHS.

In addition, RBHS includes the University Behavioral Health Care network and the following centers and institutes: Brain Health Institute; Center for Advanced Biotechnology and Medicine; Environmental and Occupational Health Sciences Institute; Institute for Health, Health Care Policy, and Aging Research; and the Rutgers Cancer Institute of New Jersey.

Clinical and academic facilities are located at Rutgers University–New Brunswick, the Newark Health Sciences Campus, and other locations throughout the state including Scotch Plains and Somerset. Clinical partners include the Robert Wood Johnson University Hospital in New Brunswick, Newark's University Hospital, and other affiliates.

Rutgers Health Group (RHG), a non-profit corporation, was incorporated on July 29, 2016 and officially commenced operations on July 1, 2017. Operating as "Rutgers Health," RHG is the University's integrated, interprofessional faculty group practice encompassing providers from Robert Wood Johnson Medical School, New Jersey Medical School, Cancer Institute of New Jersey, University Behavioral Health Care, School of Dental Medicine, and School of Nursing. See "Patient Care and Affiliate Revenues".

In July 2018, RBHS officially announced its partnership with RWJBarnabas Health to create the State's largest academic health care system dedicated to providing high-quality patient care, leading-edge research, and world-class health and medical education that will transform and advance health care in New Jersey. See "Patient Care and Affiliate Revenues".

Rutgers University-Newark

Rutgers University–Newark is an exceptionally diverse, urban institution, classified by the Carnegie Commission as a Doctoral University: High Research Activity. Located in downtown Newark, the campus identifies itself as also being of Newark — an anchor institution of its home city.

Rutgers University-Newark has six colleges and schools that offer degrees: School of Arts and Sciences – Newark, University College–Newark, the Graduate School–Newark, Rutgers Business School – Newark and New Brunswick, the School of Public Affairs and Administration, and the School of Criminal Justice. The School of Law has a site at Rutgers University – Newark.

Rutgers University-Camden

Rutgers University–Camden combines the benefits of an urban, regional public research university with the personalized experience of a small campus. It is classified by the Carnegie Commission as a Doctoral University: High Research Activity, and it has developed a focus on providing its students with opportunities for civic engagement and experiential learning.

Rutgers University-Camden has five colleges and schools that offer degrees: Camden College of Arts and Sciences, University College–Camden, the School of Nursing-Camden, the Graduate School–Camden, and the School of Business–Camden. The School of Law has a site at Rutgers University – Camden.

State Economic Impact

In 2017, the University completed a study of its economic impact on New Jersey and, therefore, its critical importance to well-being of the State and its residents. The study's findings are summarized below:

- Rutgers fuels the New Jersey economy by generating $5.2 billion in economic activity, $4.3 billion in annual wages, and $798.2 million in state and local taxes.
- For every $1 the State invests in Rutgers, Rutgers returns almost $7 to the New Jersey economy.
- Rutgers supports 58,000 New Jersey jobs: 26,000 directly and 32,000 indirectly.
- Rutgers spends $658 million on research and development that sparks innovation and supports the economy – more than all other public and private universities in the state combined.
- Rutgers devotes $684 million to helping people with their health care needs, providing outstanding patient care as well as access to clinical trials, specialists, and the latest technology and treatments.
- Rutgers is the third-largest nongovernmental employer in New Jersey.

Strategic Planning

Six years after creating a strategic plan with input from tens of thousands across the university, Rutgers is taking its place among the best universities in America. Today, Rutgers is well positioned to fulfill its expanded mission as an academic, health, and research powerhouse that leverages outstanding talent, resources, and expertise to improve the human condition, in New Jersey and around the world.

Some of the key accomplishments are as follows:

- Outstanding Faculty. More than doubling the number of named professorships – from 41 to 89 – and a leap in faculty elected to the National Academies.

- Richer Student Experience. State-of-the-art Honors College that attract brilliant students, and a renewed focus on affordability and student friendly procedures.

- Greater Prominence. Capitalizing on a spectacular 250th commemoration to make continuing gains in our reputation.

- Model 21st Century University. Innovative partnership with New Jersey's leading health care system to deliver world-class academic healthcare.

- Financial Strength. Record fundraising and endowment totals backed by revamped administrative and budgeting systems.

- Transformed Campuses. The most extensive period of construction at Rutgers in a half-century, with $2.5 billion invested across all campuses.

Faculty and Staff

Many of the University's faculty members have received the highest recognition from their peers by being named fellows of prominent scholarly organizations or have received other prestigious awards for their distinguished accomplishments. These include 42 memberships in the National Academies of Sciences, Engineering, and Medicine. As well as 27 memberships in the American Academy of Arts and Sciences, and more than 115 memberships in the American Association for the Advancement of Science.

As of Fall 2019, the University's faculty and staff who were employed full-time or part-time on a regular basis totaled 25,571, of whom 20,877 were represented, for purposes of collective negotiations, by 7 academic labor organizations, and 17 administrative, clerical, healthcare, service, and technical labor organizations.

As of Fall 2019, there were 4,694 employees who were not represented by unions consisting of managerial, professional, supervisory, and confidential employees.

In 2019, the University completed negotiations with unions representing almost all of the staff with overall salary and wage increases in the 3% range. Ratified contracts with such unions are in place through June 30, 2022. The University is currently in negotiations with unions to amend contracts due to the fiscal emergency brought about the current health crisis. See "COVID-19 Pandemic" herein.

Presidential Transition

On January 21, 2020, the Rutgers Board of Governors, with the concurrence of the Rutgers Board of Trustees, appointed Jonathan Holloway as the 21st president of Rutgers, The State University of New Jersey. He commenced serving as president on July 1, 2020, succeeding President Robert Barchi, who began his tenure in September 2012. Prior to Rutgers, Dr. Holloway served as Northwestern University's provost and was also a professor of History and African American studies, specializing in post-emancipation social and intellectual United States history. Before moving to Northwestern, Dr. Holloway was the dean of Yale College and Edmund S. Morgan Professor of African Studies, History, and American Studies at Yale University. Dr. Holloway received a bachelor's degree with honors in American Studies from Stanford University and a Ph.D. in History from Yale University.

Accreditation

In 2018, the Middle States Commission on Higher Education conducted its periodic full accreditation review and reaffirmed the University's accreditation without conditions through June 30, 2027. Certain programs at the University are also accredited by specialized accrediting organizations.

AAU Membership

In 1989, the University was elected to membership in the prestigious Association of American Universities (the "AAU"), an association of the 62 leading public and private research universities in the United States and Canada. The AAU focuses on national and institutional issues that are important to research-intensive universities, such as funding for research, research and education policy, and graduate and undergraduate education. Rutgers and Princeton University are the only AAU member institutions in the State.

Big Ten Conference

In 2012, the University became the 14th member of the Big Ten Conference, and the Scarlet Knights began competing in the Big Ten in all intercollegiate athletic programs. In addition, the University also became a member of the Big Ten Academic Alliance, a consortium of world-class research universities dedicated to forging institutional collaborations while advancing their university's academic missions. Membership in this consortium creates invaluable opportunities for new and expanded partnerships in cutting-edge research and academic programs.

University Enrollment

For Fall 2019, the University enrolled 71,011 students, representing the highest enrollment in its history, exceeding the previous high of 70,876 students in Fall 2018.

COVID-19 Pandemic

The information set forth below is current as of the date of this Offering Memorandum. Due to the evolving nature of the pandemic, the circumstances and the overall impact of the pandemic will continue to change. The University monitors Governor Murphy's directives on reopening and will comply with all laws, regulations and executive orders as the situation evolves. Although the University may provide additional information to the public from time to time regarding the matters described below, it does not anticipate providing such information in the form of a supplement to this Offering Memorandum after the date hereof.

Operational Considerations

In response to this pandemic, the University took numerous operational steps in March, 2020 to ensure its students, faculty, and staff in the United States and abroad were safe and that its education and research missions would continue uninterrupted, including:

- Students studying abroad were recalled completing the remainder of the Spring 2020 semester through alternative delivery methods;

- All University related travel for students, faculty and staff was suspended;

- Face-to-face instruction was suspended, and the University transitioned to alternative delivery methods;

- With limited exceptions, housing and dining facilities were closed and will remain closed through the summer session;

- The pandemic necessitated that the University ramp down all research projects that were not deemed critical. Critical research was continued remotely and in person, maintaining social distancing. The University recently release guidance on accomplishing a complete return to research as rapidly as feasible while taking into account, among other things, compliance with all federal state and local laws, attention to health risks and concerns, and strategic use of resources;

- Business continuity plans were implemented for all mission critical functions;

- All on-campus activities were discontinued, other than those deemed essential and to the maximum extent possible, operations continue remotely;

- A COVID-19 related Telecommuting policy was enacted to enable faculty and staff to work remotely.

On June 19, 2020, the University published a Returning to Rutgers guidebook (https://coronavirus.rutgers.edu/returning-to-rutgers-guidebook/) and on June 29, 2020, the University published a Returning to Research guidebook (https://sites.rutgers.edu/coronavirus/wp-content/uploads/sites/425/2020/06/Returning-to-Research-at-Rutgers-06-29-20-FINAL-de-00000002.pdf). Reference to the University's website is presented herein for informational purposes only. Such website and the information or links contained therein are not incorporated into, and are not part of, the Offering Memorandum.

The University is planning for a fall 2020 semester that will combine a majority of remotely delivered courses with a limited number of in-person classes. Most courses in fall 2020 will rely on remote methods of instruction—delivered both in real-time and asynchronously, with some exceptions for select courses in the arts, laboratory or field work, and clinical instruction. Essential student services like academic, health, and wellness counseling, will continue to be available to all students. IT infrastructure, libraries, and other student resources will all be available as well. On-campus housing is expected to be very limited.

Financial Considerations

The COVID-19 pandemic is expected to have a significant financial impact on the University in fiscal years 2020 and 2021. The pandemic has resulted in the refunding of certain student charges and the recognition of additional expenses, and is expected to adversely impact numerous sources of revenue including enrollment in future academic sessions, intercollegiate athletic events and athletic conference revenue sharing, income generated by medical facilities and services, and fundraising. In addition, the University provided a pro-rated refund for spring semester room, board, and parking fees of approximately $45 million as a result of most students vacating the residence halls.

In addition to the circumstances described above, on March 23, 2020, Governor Murphy announced a state spending freeze which resulted in the loss of approximately $46.8 million in State appropriations for the University through June 30, 2020. The State extended its 2020 fiscal year for three months to September

30, 2020 to address the financial situation resulting from the pandemic. The University will receive $66.5 million in operating appropriations during this time, which is the University's first quarter of the 2021 fiscal year. The University expects that total state appropriations for fiscal year 2021 will be approximately $350.4 million, an $89.6 million decrease from the State's original fiscal year 2020 budget.

The University's adopted fiscal year 2021 working budget takes into account COVID-19 related projections, including expected decreased revenue and increased expenses. The University will continue to monitor its performance and expectations and will update the budget in the fall.

On March 27, 2020, the federal government enacted the Coronavirus Aid, Relief and Economic Security Act ("CARES Act") which provides approximately $14 billion in grants directly to institutions of higher education. The University received approximately $54 million under the CARES Act, the third-highest amount among all higher education institutions; of which at least $27 million is required to be allocated to students as emergency financial aid grants to help cover the expenses related to the disruption of campus operations due to COVID-19. The University's COVID-19 related losses are offset in part by the institutional share of CARES Act funding along with various costs containment measures implemented by the University described below. Governor Murphy stated his intention to allocate $68.8 million from the Governor's Emergency Education Relief Fund portion of the CARES Act to New Jersey's higher education institution, of which Rutgers University will receive $19.2 million. The University will continue to seek federal, state, and local support through stimulus funding and FEMA reimbursements along with continued review of operations to decrease expenses to offset the adverse impact of the pandemic.

In an effort to offset the negative impact of COVID-19 on fiscal years' 2020 and 2021 financial performance, while making every effort to maintain as many jobs as possible, the University has implemented the following measures:

- A hiring freeze and withholding of certain contractual pay increases set to take effect on July 1, 2020;
- A suspension of non-negotiated or out-of-cycle pay increases;
- A 10% salary reduction for President Barchi, the executive vice presidents, chancellors, the New Brunswick athletic director, and the head coaches for football and men's and women's basketball as well as a 5% salary reduction for 100 other senior administrators from April 2020 through August 2020;
- A 10% salary reduction for President Holloway for the 2021 fiscal year;
- A workshare furlough program for non-aligned and certain union employees during fiscal year 2021;
- Review of expenses and reduction of non-essential spending;
- Suspension of all new construction projects and a review of active projects; and
- A freeze on discretionary spending.

In April 2020, the University estimated a $200 million reduction in revenues for fiscal year 2020 due to enrollment decline, reduction in clinical revenues, and other fiscal challenges. However, this early estimate was substantially reduced to a forecasted net deficit of approximately $60 million as a result of the measures cited above.

As a result of the global impact of COVID-19, on June 16, 2020, the Board of Governors approved a tuition and fee freeze for both in-state and out-of-state undergraduate and most graduate students through the 2020-2021 academic year. Subsequently, the President announced a 15% reduction on the Campus Fee for the 2020-2021 academic year, which equates to an impact of approximately $19.5 million for the academic year.

The University's operational and financial performance will depend on several factors including the duration and trajectory of the COVID-19 pandemic and its impact on enrollment, operations, and financial markets. The situation continues to evolve at a rapid pace. As a result, the actual impact of COVID-19 on the University cannot be precisely predicted or quantified at this time. Actual losses could be materially different from current estimates.

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TABLE 1
University Enrollment*
(Full-Time and Part-Time)

	2015-16	2016-17	2017-18	2018-19	2019-20
New Brunswick					
Undergraduate	33,060	33,653	33,274	33,704	33,880
Graduate and Professional	8,639	8,661	9,534	9,650	9,509
Newark					
Undergraduate	7,713	8,170	8,551	9,142	9,319
Graduate and Professional	4,007	4,151	4,217	4,309	4,286
Camden					
Undergraduate	4,899	5,021	5,489	5,776	5,739
Graduate and Professional	1,509	1,454	1,364	1,395	1,494
RBHS					
Undergraduate	2,424	2,515	2,367	2,335	2,278
Graduate and Professional	5,305	5,317	4,402	4,565	4,506
Total	**67,556**	**68,942**	**69,198**	**70,876**	**71,011**

* Effective Fall 2017, the Graduate School of New Brunswick and the Graduate School of Biomedical Sciences merged into the School of Graduate Studies. This merger impacted the distribution of graduate and professional students reported for New Brunswick and RBHS campus areas.

For Fall 2019, the University received a record 45,262 applications and enrolled 9,466 first-year undergraduate students. The Fall 2019 undergraduate entering class is comprised of 82 percent New Jersey residents, 7 percent international students and 11 percent domestic out-of-state-students. While Fall 2020 application and enrollment numbers are not available until later in the Fall 2020 term, the University budgeted a $58 million decrease in tuition and fee revenues due to the estimated decline in enrollment as a result of the COVID-19 health emergency. See “COVID-19 Pandemic” herein.

TABLE 2
Fall First Year Enrollment
Undergraduate Schools

	2015-16	2016-17	2017-18	2018-19	2019-20
Applicants	37,641	39,173	41,361	45,153	45,262
% Admitted (selectivity)	67.1	66.5	72.7	70.7	76.6
Admitted Students	25,242	26,054	30,054	31,925	34,671
% Enrolled (yield)	32.6	32.5	27.8	28.8	27.3
Enrolled Students	8,236	8,467	8,351	9,183	9,466

TABLE 3
Transfer Students
Undergraduate Schools

	2015-16	2016-17	2017-18	2018-19	2019-20
Enrolled Students	4,602	4,813	4,716	4,737	4,485

The University continues to admit high quality students, as seen in the average SAT scores of first-year students set forth in the table below. Fall 2015 marked the opening of the Honors College of Rutgers University – New Brunswick, a residential Honors College where the highest achieving students from New Jersey and around the world live and learn together. The Fall 2019 Honors College class of 493 students had an average SAT (M+ERW) score of 1491.

TABLE 4
SAT Scores*

	2015-16	2016-17	2017-18	2018-19	2019-20
New Brunswick	1226	1229	1294	1299	1318
Newark	1031	1012	1088	1109	1107
Camden	1029	1015	1087	1091	1080

* Combined mean score for all entering first-year students (all admit types). Effective Fall 2017, SAT scores are based on new redesigned SAT (M+ERW) and includes a combination of new scores and concorded old scores to the new scale; past data not comparable. For years prior to 2017-2018, combined mean scores reflect Math+Verbal

In 2015, Rutgers joined the Coalition for Access, Affordability, and Success (the "Coalition") as a founding member. The Coalition is a group of more than 140 distinguished colleges and universities across the U.S. that joined together to increase students' access to higher education, and to improve the college application process with a single centralized toolkit for students to organize, build and refine applications to numerous institutions. One of the driving forces behind the formation of the Coalition was research demonstrating that students thinking about college early in high school results in higher application rates, and early engagement supports under-resourced students during the college preparation process. Rutgers appeared on the Coalition Application platform in 2017, greatly increasing the University's national visibility. Fall 2019 applications from this national application platform comprised twenty-two percent of the total first-year applicant pool.

Admissions counselors recruit abroad in Asia, Europe, Central and South America, and countries in the Middle East. The University maintains a state, national, and global reach by attracting competitive applicants from all 50 states and more than 100 countries.

Rutgers conducts aggressive marketing, communications, and recruitment campaigns to advance the University's competitive position and academic reputation to prospective and admitted students and their families. In the spring of 2017, Rutgers launched four new admissions websites and has had 2 million yearly visits and 4.6 million pages viewed. More than 10,000 viewers saw a new mobile-friendly, customizable, digital view book to learn more about the University. Engagement across social media platforms has increased with Rutgers-New Brunswick having 595,000 Twitter impressions.

In 2017, Rutgers developed a multi-year marketing and branding campaign targeting students in Connecticut, Illinois, Maryland, New York, Pennsylvania, and Virginia. Rutgers-New Brunswick's membership in the Big Ten Academic Alliance and Big Ten Athletic Conference continues to bolster recruitment initiatives in the Midwest and the campus hosted over 28,000 guests for campus visits and tour programs. Rutgers-Camden opened a new Welcome Center in 2017, a state-of-the-art, one-stop location for prospective students and families to meet admissions counselors and tour the 40-acre campus. A key aspect of marketing and recruitment efforts are the Honors programs at the New Brunswick, Newark, and Camden campuses. More than 1,200 students across the University enroll in Honors programs offering an enriched educational experience, interdisciplinary exploration, and experiential learning. Anticipated during the 2019-20 Academic Year, Rutgers University – Newark will open a 400-bed Honors Living-

Learning Community that will enhance the enrollment of students in this transformational college access and success program.

Tuition, Charges and Fees

The University operates its full-time academic programs on a two-semester basis. Tuition and fees vary with the college or school year. In July of each year, the Board of Governors approves the University's annual tuition and fees rates for the undergraduate and graduate schools.

Over the past five years, undergraduate tuition increases have averaged about 2%, consistent with the University's overall goal of making higher education more affordable to a broad range of students. In response to the COVID-19 pandemic, the Board of Governors approved a tuition and fee freeze for both in-state and out-of-state undergraduate and most graduate students through the 2020-2021 academic year. Subsequently, the President announced a 15% reduction on the Campus Fee for academic year 2020-2021. See "COVID-19 Pandemic" herein.

The following table indicates the University's tuition and other charges per academic year as indicated for the various classifications of full-time students for the related academic years.

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TABLE 5
Tuition, Charges and Fees ($)

	2016-17	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Tuition[1]:					
Undergraduate students:					
Residents	$11,408	$11,619	$11,886	$12,230	$12,230
Non -Residents	27,059	27,560	28,194	29,012	29,012
Room and Board Charges[2]	12,260	12,452	12,706	13,075	13,075
Fees[3]	2,964	3.019	3,088	3,177	3,177
Tuition:					
Graduate students:[4]					
Residents:					
Maximum (12 credits)	16,536	16,848	17,232	17,736	17,736
Minimum (9 credits)	12,402	12,636	12,924	13,302	13,302
Non -Residents:					
Maximum (12 credits)	28,128	28,656	29,304	30,144	30,144
Minimum (9 credits)	21,096	21,492	21,978	22,608	22,608
New Jersey Medical School:					
Residents	39,288	40,074	40,274	41,281	43,345
Non -Residents	60,622	61,834	62,143	63,697	66,882
Robert Wood Johnson Medical School:					
Residents	39,288	40,074	40,274	41,281	43,345
Non -Residents	60,622	61,834	62,143	63,697	66,881
Rutgers School of Dental Medicine:					
Residents	39,661	44,024	47,766	50,154	53,164
Non -Residents	64,261	71,329	77,392	81,262	86,137
Graduate School of Biomedical Sciences (GSBS):[5]					
Residents	9,996	10,396	-	-	-
Non -Residents	14,902	15,498	-	-	-

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1 Undergraduate Tuition charges are for New Brunswick School of Arts and Sciences students.

2 Board charges based on the plan for 210 meals. Room charges reflects a New Brunswick double-occupancy resident hall rate.

3 Fees include the campus fee, the school fee, the computer fee and the capital improvement fee. Fees for 2020-21 as originally approved by the Board and not restated for the 15% campus fee reduction subsequently announced by the President. See "COVID-19 Pandemic" herein.

4 Graduate student charges shown are for the School of Graduate Studies. For the School of Graduate Studies, a full-time graduate student is defined as taking at least 9 credits per semester and will be charged on a per credit basis up to 12 credits per semester. The Medical School rates for residents are for incoming students only.

5 Effective Fall 2017, the Graduate School of New Brunswick and the Graduate School of Biomedical Sciences merged into the School of Graduate Studies.

Student Financial Aid

The University's current policy is to consider admissions without regard to financial ability to meet the cost of Rutgers' education and a commitment to provide assistance to those admitted who demonstrate financial need. During 2019, 52,919 University students (74.7% of the total enrollment) received some form of University administered student aid.

In 2019, University students received $1.05 billion in federal, state, and University financial assistance. Federal funds include Pell Grants, Supplemental Educational Opportunity Grants, the Federal Work-Study Program, and a variety of loans through the Williams D. Ford Federal Direct Loan Program. State funds include the New Jersey Tuition Aid Grants, the Educational Opportunity Fund, and the three specific merit scholarships which, taken together, comprise the Governor's Urban Scholarship Program. University or Institutional funds include the Rutgers Assistance Grant Program, which provided $33.2 million to over 11,500 recipients in 2019. Table 6 provides information concerning financial assistance the University has provided to students for the five years ended June 30, 2019. Federal and State government programs are subject to annual appropriations and funding by the respective legislatures and there can be no assurance that such funding will be available in the future.

TABLE 6
Student Financial Aid
($ in millions)

	2014-15	2015-16	2016-17	2017-18	2018-19
Scholarships/Grants:					
Institutional Funds[1]	$158.0	$169.9	$183.8	$198.8	$208.6
State Funds	98.1	99.9	104.4	116.0	121.4
External Funds	6.9	7.6	7.0	6.7	7.8
Federal Funds	77.1	78.9	81.2	89.9	94.1
Total Scholarships/Grants	340.1	356.3	376.4	411.4	431.9
Loans Made To Students:					
University Loan Funds	0.6	0.6	0.5	0.7	0.7
State Loan Funds	16.7	17.6	17.6	16.1	14.2
External Funds	53.0	62.4	62.9	62.1	66.8
Federal Loan Funds	431.0	442.4	452.3	449.6	442.6
Total Loans Made To Students	501.3	523.0	533.3	528.5	524.3
Student Employment:					
Federal Work-Study	5.2	5.9	5.8	6.6	7.1
University Student Payroll	67.8	73.3	72.0	76.9	87.0
Total Student Employment	73.0	79.2	77.8	83.5	94.1
TOTAL	**$914.4**	**$958.5**	**$987.5**	**$1,023.4**	**$1,050.3**

[1] Includes Rutgers Assistance Grant funds and tuition remission benefits provided to graduate and teaching assistants, employees and children of employees.

TABLE 7A
Operating Results
($ in thousands)

Table 7A summarizes the University's Operating Results for the five fiscal years ended June 30, 2019. Figures shown for FY2015 through FY2019 were derived from the University's Financial Statements.

In October 2016, the University implemented a new financial management system to enhance University-wide reporting and controls. This implementation resulted in a reevaluation of certain transaction classifications. As a result, reporting of financial data, in some cases, may not directly correspond to data as reported in prior years and, for FY2017 and FY2018, the University's financial statements are in a single-year presentation as opposed to a comparative-year format that has been used in prior years and in FY2019. In the Management Discussion and Analysis (MD&A) section of the University's 2019 Annual Report, the University shows comparative data for fiscal years ended June 30, 2017, 2018, and 2019. For additional information, see "APPENDIX B- Independent Auditors' Report and Financial Statements of Rutgers, The State University" herein.

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	2015	2016	2017	2018	2019
Operating Revenues:					
Student Tuition & Fees[1]	$863,051	$905,762	$954,005	$965,993	$1,017,782
Grants & Contracts	584,867	575,198	597,691	608,426	581,844
Auxiliary Enterprises[1]	306,260	317,429	259,106	248,469	256,580
Net Patient Services Revenues	518,019	533,932	206,276	232,591	256,247
Health Service Contract Revenues	-	-	520,305	549,432	615,229
Other	130,439	163,661	133,472	126,729	150,432
Total operating revenues	2,402,636	2,495,982	2,670,855	2,731,640	2,878,114
Operating Expenses:					
Education & General	1,601,024	1,681,099	2,224,076	2,246,329	2,321,632
Sponsored Research	660,879	649,903	436,186	530,921	540,713
Patient Care Services	653,446	684,222	636,343	661,082	702,032
Auxiliary Enterprises	288,869	288,680	260,895	262,229	274,758
Scholarships & Fellowships	54,201	58,596	79,708	51,238	72,691
Depreciation	152,525	151,254	184,782	180,969	181,337
OPEB Expenses[2]	-	-	-	276,630	185,875
Other	784	398	228	-	-
Total operating expenses	3,411,728	3,514,152	3,822,218	4,209,398	4,279,038
Operating loss	(1,009,092)	(1,018,170)	(1,151,363)	(1,477,758)	(1,400,924)
Nonoperating revenues/(expenses):					
State Appropriations	455,194	439,930	435,175	428,800	435,790
Fringe Benefits Paid Directly by the State of New Jersey	326,690	335,736	372,336	385,111	443,841
OPEB Paid by the State	-	-	-	276,630	185,875
Federal Appropriations	7,346	7,429	6,371	6,592	7,061
Governmental Student Aid	188,707	188,625	198,552	214,126	224,978
Contributions	52,416	51,367	32,560	37,723	150,410
Investment Income (including Net Increase/(Decrease) in Fair Value of Investment)	47,499	19,380	152,395	128,863	105,304
Interest on Capital Asset Related Debt	(80,214)	(83,866)	(88,010)	(83,672)	(90,095)
Loss on Disposal of Capital Assets	(928)	(206)	(1,807)	(1,018)	(2,960)
Other	5,297	1,386	(60,616)	9,315	(8,950)
Net nonoperating revenues	1,002,007	959,781	1,046,956	1,402,470	1,451,254
Income/(Loss) before other revenues	(7,085)	(58,389)	(104,407)	(75,288)	50,330
Capital Grants & Gifts	112,994	124,702	101,484	68,282	51,693
Additions to Permanent Endowments	20,721	34,709	27,573	32,926	24,385
Increase in Net Position	**$126,630**	**$101,022**	**$24,650**	**$25,920**	**$126,408**

[1] The following scholarship allowances have been deducted from Student Tuition and Fees and Auxiliary Enterprises:

Student Tuition and Fees	$205,331	$215,188	$237,246	$259,233	$273,884
Auxiliary Enterprises	43,307	46,110	42,282	46,201	48,224
Total Scholarships & Fellowships	$248,638	$261,298	$279,528	$305,434	$322,108

[2] Beginning FY2018, the University adopted GASB 75 which addresses accounting and financial reporting for other postemployment benefits (OPEB) that are provided to the employees of state and local government employers.

Budgeting Procedures of the University

The University submits an annual request for partial funding of operating expenses to the State Department of the Treasury for review and possible incorporation in the Governor's proposed budget for the State's upcoming Fiscal Year. A portion of the amount included in the University's budget for operating expenditures is, upon enactment of a final State budget, appropriated out of the State's General Fund and held by the State for payment to the University in accordance with the Senior Publics Drawdown Schedule or other appropriation schedules. Auxiliary enterprise facilities are operated substantially on a self-supporting basis.

At the beginning of each calendar year, a proposed operating budget for the University is developed by the Chief Budget Officer, working with University Vice Presidents and Chancellors, utilizing a Responsibility Center Management budgeting approach. When the State's appropriation for operating expenses is approved by the Legislature of the State and enacted into law by signature of the Governor, the University's proposed operating budget is submitted for review and approval to the University's Board of Governors. Thereafter, oversight of the University's budget rests with the Office of the Executive Vice President for Finance and Administration and University Treasurer. Budget reports are reviewed and analyzed by the Executive Vice President for Finance and Administration and University Treasurer throughout the year, and the Administration takes appropriate steps to ensure that budgets are adhered to or adjusted to meet changed needs.

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TABLE 7B
Operating Budget
($ in thousands)

Table 7B summarizes the University's FY2018 through FY2021 Operating Budget as adopted by the Board of Governors. This information is presented on a budgetary basis.

	2018	2019	2020[3]	2021[4]
Revenues:				
Student Tuition & Fees[1]	$1,249,060	$1,283,282	$1,334,994	$1,277,284
Grants & Contracts	465,776	473,833	494,373	503,414
Facilities and Administrative Recoveries	106,047	108,647	111,822	117,617
Auxiliary Enterprises[1]	304,173	310,606	318,625	176,346
Healthcare Revenue	546,092	570,956	597,611	570,028
Affiliated and House Staff	266,038	291,714	352,255	415,221
State Appropriations	428,420	433,971	439,974	350,425
Fringe Benefits Paid Directly by the State of New Jersey[2]	633,588	444,742	447,196	447,196
Federal Appropriations	5,335	6,857	7,053	7,324
Governmental Student Aid	186,798	212,139	226,166	231,016
Contributions	40,086	34,286	37,909	43,691
Investment Income	54,432	63,756	64,634	59,844
Other	104,433	107,464	120,098	115,116
Total revenues	**$4,390,278**	**$4,342,255**	**$4,552,710**	**$4,314,522**
Expenses:				
Salaries and Wages	$2,045,388	$2,140,251	$2,246,675	$2,242,270
Fringe Benefits[2]	906,129	712,833	734,714	716,640
Supplies and Other	230,807	245,290	239,381	245,721
Travel	38,106	44,415	46,755	39,821
Plant Operation and Maintenance	123,179	122,630	127,345	140,937
Debt Service	154,568	170,341	172,354	182,317
Other Operating Expense	245,399	220,405	271,032	228,587
Professional Services	258,739	273,587	284,876	270,489
Scholarships & Fellowships[1]	354,009	400,098	423,581	439,948
Provision for Initiatives and Contingencies	33,954	12,405	5,997	-
Total expenses	**$4,390,278**	**$4,342,255**	**$4,552,710**	**$4,506,730**

[1] The following scholarship allowances have not been deducted from Student Tuition and Fees and Auxiliary Enterprises:

Student Tuition and Fees	$251,509	$269,163	$280,010	$288,694
Auxiliary Enterprises	41,703	50,537	51,841	50,946
Total (Scholarships & Fellowships)	$293,212	$319,700	$331,851	$339,640

[2] FY2018 State Paid Fringe Benefits revenue and Fringe Benefits expense were budgeted using the composite rate. Effective FY2019, State Paid Fringe Benefits revenue and Fringe Benefits expense were budgeted consistent with the State of NJ valuation of State Paid Fringe Benefits. Using the State of NJ valuation, FY2018 State Paid Fringe Benefits revenue and Fringe Benefits expense would have been budgeted as $385,111 and $657,652, respectively.

[3] FY2020 as originally reported and not restated for COVID-19 pandemic considerations. See "COVID-19 Pandemic" herein.

[4] While the full impact of COVID-19 pandemic cannot be predicted at this time, FY2021 is based on assumptions as of the June 16, 2020 Board of Governors Budget approval. The budget gives the University spending authority and approves the tuition, fees, room and board rates for FY2021. The FY2021 budget will be revisited as new information becomes available and management will bring any changes to the Board of Governors in the Fall 2020 meeting. See "COVID-19 Pandemic" herein.

Research and Development

Rutgers is one of the nation's leading research institutions. According to the most recent data published by the National Science Foundation for 2018, annual research and other sponsored expenditures at Rutgers exceeded $706.3 million, which ranked the University among the top 20 public universities nationally. Total awards for sponsored research and programs in 2019 were $750.8 million. Federal awards remain the most significant source of research funding for the University totaling $356.3 million in 2019. In 2019, the University received $231.0 million in Department of Health and Human Services funding, which includes the National Institutes of Health funding and $49.2 million in National Science Foundation funding. The University also receives substantial research funding from the State, foundations, and corporations.

Notable research items include:

- In 2019, Rutgers' innovation has led to 67 U.S. and 147 global patents, 193 new inventions, and 8 new startups formed, with 86 active start-ups moving ahead.

- Rutgers received 3,817 research awards, 131 of which were valued at more than one million dollars, in 2019.

- In 2019, two Rutgers faculty members were elected to the National Academy of Sciences, a world-renowned organization that recognizes and promotes outstanding scientific achievement. Masayori Inouye is a Distinguished Professor with the Department of Biochemistry and Molecular Biology, Robert Wood Johnson Medical School at Rutgers University – RBHS. Professor Inouye's discoveries have led to new drugs for those with cancer and AIDS. Gabriel Kotliar is a Board of Governors Professor Chair with the Department of Physics and Astronomy, School of Arts and Sciences at Rutgers University – New Brunswick. Professor Kotliar researches new materials with useful properties, such as solids that will harvest wasted heat from industrial processes or combustion engines and turn it into electricity.

- In 2017 and 2018, in recognition of their contributions to innovation, education, and scientific leadership, nine members of the Rutgers community joined the ranks of elected Fellows of the American Association for the Advancement of Science (AAAS), the world's largest multidisciplinary scientific society. The election of Fellows recognizes members for their scientifically or socially distinguished efforts toward the advancement of science or its applications.

The University's research and sponsored grants and contracts awarded for the five years ended June 30, 2019 are shown below.

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TABLE 8
Research and Sponsored Grants and Contracts Awarded
($ in millions)

	2015	2016	2017	2018	2019
Federal	$303.2	$335.5	$301.3	$299.6	$356.3
State of New Jersey	177.8	148.9	146.0	152.9	196.2
Corporate	31.0	39.7	49.6	47.3	85.1
Foundations/Other	99.8	113.8	111.8	111.1	113.2
Total	**$611.8**	**$637.9**	**$608.7**	**$610.9**	**$750.8**

State Appropriations

The University has received annually and anticipates receiving appropriations from the State, which are to be applied to the educational and general expenditures of the University.

The State, in accordance with State statutes, also makes employer contributions on behalf of the University's three retirement plans as well as for health coverage and other benefits. Reimbursement is based upon a composite fringe benefit rate provided by the State for all State plans. See "APPENDIX B – Independent Auditors' Report and Financial Statements of Rutgers, The State University; Note 14" herein.

During the five years ended June 30, 2019, the State appropriations received by the University for educational and general expenditures, together with fringe benefits for Rutgers employees paid directly by the State are shown below:

TABLE 9
State Appropriations to the University
($ in thousands)

Fiscal Year	State Appropriation	Fringe Benefits Paid Directly By the State	Total
2015	$455,194	$326,690	$781,884
2016	439,930	335,736	775,666
2017	435,175	372,336	807,511
2018	428,800	385,111	813,911
2019	435,790	443,841	879,631
TOTAL	**$2,194,889**	**$1,863,714**	**$4,058,603**

The State's 2020 budget originally provided for $440.0 million in State appropriations and $447.2 million in fringe benefits paid directly by the State. The State operating appropriations were reduced by $46.8 million due to a 'freeze on appropriations' that was communicated in April 2020 due to the COVID-19 health emergency. The State's 2020 fiscal year was extended by one quarter, corresponding with the University's first quarter of fiscal year 2021, with appropriations for that quarter set at $61.5 million. The State's 2021 budget for the remaining three quarters has not been approved at this time.

Patient Services and Affiliate Revenues

In addition to its academic mission, research, and education, RBHS faculty provide clinical services across a broad range of disciplines including medicine, dentistry, nursing, mental and behavioral health, and physical and rehabilitation science through its faculty practices and community health programs. There are approximately 2.1 million patient visits to RBHS health care facilities annually, and patients are served by over 1,300 physicians, dentists, mental health professionals, and other health practitioners. RBHS clinical facilities are located throughout the state, in 16 of 21 New Jersey counties. Clinical partners include the Robert Wood Johnson University Hospital in New Brunswick (part of RWJBarnabas Health), University Hospital in Newark, and other affiliates.

In 2019, RBHS net patient services revenue, including revenue related to patient care services generated within faculty practice operations, community health care centers, and other clinical activities, was $256.2 million, up from $232.6 million in 2018. In addition, RBHS health service contract revenue, including affiliate revenue and reimbursements for graduate medical education residency programs, was $615.2 million in 2019, up from $549.4 million in 2018.

Rutgers Health Group (RHG), a non-profit corporation, was incorporated on July 29, 2016 and officially commenced operations on July 1, 2017. Operating as "Rutgers Health," RHG is the University's integrated, inter-professional faculty group practice encompassing providers from Robert Wood Johnson Medical School, New Jersey Medical School, Cancer Institute of New Jersey, University Behavioral Health Care, School of Dental Medicine, and School of Nursing. The mission of RHG is to be a state-wide integrated faculty practice that attracts and retains the best providers and serves as the foundational component of a premier academic health center, an effective partner to patients, hospitals, community providers and other affiliates and a leader in delivering consistent, value-based healthcare that improves our patients' well-being. While RHG is legally separate from the University, the University is the sole corporate member of RHG and has various reserved powers with respect to RHG's operations.

In July 2017, RBHS signed a letter of intent with RWJBarnabas Health to partner and create the State's largest academic health care system dedicated to providing high-quality patient care, leading-edge research and world-class health and medical education that will transform and advance health care in New Jersey. In July 2018, Rutgers and RWJBarnabas Health announced the official launch of the Rutgers, RWJBarnabas Health, and RHG Master Affiliation Agreement. The new venture will enhance the delivery and accessibility of evidence-based health care across the State; boost the recruitment of prominent academic, research and clinical practitioners; and strengthen the advancement of health science innovation and education. The alliance will result in a multi-specialty group comprised of more than 2,500 practitioners – one of the largest medical groups in the country.

As part of the 20-year agreement, RWJBarnabas Health provided an initial investment of $100 million in FY2019 and will provide up to $50 million annually over a 10-year period, with up to $1.0 billion projected over 20 years.

Rutgers and RWJBarnabas Health officials have begun jointly recruiting leading academic, research and clinical practitioners in support of the proposed partnership. In 2017, Rutgers and RWJBarnabas Health jointly recruited Dr. Steven Libutti, a nationally renowned researcher and clinician to lead both the Rutgers Cancer Institute of New Jersey and the Cancer Services of RWJBarnabas. In 2018, Rutgers and RWJBarnabas Health jointly recruited Dr. Anil Nanda, a nationally renowned clinician and educator in Neurological Surgery, to serve as Chair of the Department of Neurological Surgery and to lead the development of the Neuroscience service lines across the combined organizations.

RWJBarnabas Health and Rutgers will remain separate corporations; Rutgers faculty will remain Rutgers faculty and Rutgers will provide clinical services to RWJBarnabas Health through Rutgers Health Group. The newly formed academic health care system has created a joint committee for strategic planning and oversight.

The Rutgers University Foundation and Fundraising

The Rutgers University Foundation (the "Foundation") was incorporated in 1973. The sole mission of the Foundation is to support the University and help it attain excellence in education, research, and public service. By building relationships with alumni, parents, friends, corporations, foundations, and other supporters, the Foundation raises money for, and matches donors' interests to, Rutgers' priorities, as set forth by University leadership.

In 2019, the Foundation had its third consecutive record-breaking year by raising $250.9 million in new gifts and pledges. After the successful completion of a $1 billion fundraising campaign on December 31, 2014, with a total of $1.037 billion in new gifts and pledges, the Foundation began the silent phase for its next campaign on July 1, 2019. The total goal for this fundraising campaign has yet to be determined at this time.

Gifts to the University are received through the Foundation and various University departments. The Foundation maintains the central database and acknowledges all gifts received for the benefit of the University.

Table 10 sets forth the total gifts received for outright gifts and payments toward outstanding pledges for the benefit of the University for the five years ended June 30, 2019.

TABLE 10
The Rutgers University Foundation and Fundraising Gifts Received
($ in thousands)

Fiscal Year	Total Receipts
2015	$150,958
2016	140,015
2017	164,945
2018	159,318
2019	184,722

Endowment and Other Investments

Table 11 sets forth the estimated fair value of the University's endowment and similar funds as of June 30 in each of the five years ended June 30, 2019. As of May 31, 2020 (unaudited), the University's endowment and similar funds had an approximate market value of $1.3 billion.

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TABLE 11
Endowment and Similar Funds
($ in thousands)

Fiscal Year	Estimated Fair Value
2015	$916,227
2016	999,469
2017	1,139,605
2018	1,230,346
2019	1,366,231

The above table does not include funds held in trust by others, which at June 30, 2019 had a market value of $68.1 million.

Endowment Investment Management and Spending Policy

The long-term investment objective for the endowment as stated in the University's Investment Policy is to achieve a total return averaging at least the spending policy plus inflation, net of fees and expenses. The Board of Governors and Board of Trustees are responsible as fiduciaries for the management of the endowment and have charged the Joint Committee on Investments with active and independent oversight of the University's Investment Policy. The Joint Committee is assisted in its duties by the University's Endowment Office. Endowment assets are allocated to a diverse set of asset classes within ranges set forth in the Investment Policy. The majority of endowment fund assets are held in the Long-Term Investment Pool (LTIP).

The following table presents the LTIP asset allocation as of June 30, 2019.

TABLE 12
Asset Allocation

Fund	Allocation
US Equity	19.2%
International Large Stocks	21.0%
International Emerging Stocks	5.2%
Private Equity	17.5%
Fixed Income	12.9%
Cash	3.8%
Hedge Funds	13.1%
Real Assets	7.3%
Total	**100.0%**

TABLE 13
Long-Term Investment Pool Performance

The LTIP's performance for the period ended June 30, 2019 is as follows:

	Return
1-Year	5.2%
3-Year	9.0%
5-Year	5.9%
10-Year	8.4%

The University's annual spending policy is to spend an amount not to exceed 4.00% of the trailing 13-quarter average of the endowment's market values. The endowment also distributes 0.95% of the trailing 13-quarter average of the endowment's market value annually to the Rutgers University Foundation for development activities.

University Operating Funds

The University had approximately $2.1 billion in total cash and investments as of May 31, 2020 (unaudited). Of this amount, approximately $747.0 million were operating funds of the University with at least monthly liquidity.

Physical Master Plan and Capital Projects

In June 2015, the University completed its Physical Master Plan, *Rutgers 2030*, which envisions development at Rutgers over a 15-year period and is comprehensive in its scope, taking into account buildings, the natural and constructed landscape, transportation, and infrastructure. While the physical master plan provides guidance and vision for capital projects over this 15-year period, many projects are now under way that will dramatically improve the student experience on the campuses, support strengths in arts and sciences, and grow critical disciplines. These projects have been made possible by the generosity of the University's private donors, by creative partnerships with the public sector, and by funds made available through the historic Building Our Future Bond Act approved by New Jersey voters in November 2012, as well as other State bond programs.

In total, the University has received approximately $402 million in funding from the State for capital projects from these and other State programs, since 2014.

The major construction projects in progress include:

- The construction of 125,000 square feet at RWJ Barnabas Health Athletic Performance Center on the Livingston Campus that will provide a state-of-the-art practice facility for Men's & Women's Basketball, Gymnastics, and Wrestling. The building will also include spaces for strength and conditioning, nutrition, coaches' offices, and other spaces to support the athletic programs housed in the building. In addition, a 28,000 square foot parking structure will consist of six (6) levels providing approximately 555 parking spaces.

- The construction of 155,000 square feet at Honors Living Learning Community on the Newark Campus that will feature residential space, 322 parking spaces, and 20,000 square feet of retail establishments, amenity, and academic spaces that will house almost 400 talented diverse undergraduate student cohort.

- Busch Livingston and Newark RBHS Co-Generation Plants Upgrades for each project that includes replacement of the three (3) aging turbines with a capacity increase of at least 2.8 MW, which will improve reliability and efficiency, reduce energy costs, reduce emissions, and produce energy credits. The new equipment eliminates the use of 8,000,000 gallons of water per year, much of which is discharged to sanitary sewers. The project also includes electrical and mechanical upgrades.

- Student Services One-Stop on Busch Campus that supports student services needs under one roof. Students will benefit from a highly accessible, one-stop service center that allows them to easily address their needs in a single, streamlined location, connected to the transportation hub. The project consists of the gut renovation of half of the first floor (approximately 13,000 square feet) of the building for the front-facing student services space, with an associated small addition that will allow for an effective entrance and waiting area. The second and third floors (26,000 square feet each) will each undergo substantial renovation including HVAC systems, window units, and new finishes and furnishings. This work will take place in multiple phases.

- School of Dental Medicine D South Clinic Renovation that includes substantial interior non-structural renovation of the 11,700 square feet, which the clinic currently occupies. This renovation will provide 80 operatory clinics with ancillary support rooms/functions, which will handle half of the south wing DMD students and their patients.

Outstanding Indebtedness of the University

TABLE 14
Outstanding Indebtedness of the University
($ in thousands)

Table 14 summarizes the short-term and long-term outstanding indebtedness of the University as of May 31, 2020 (unaudited).

	Final Maturity	Outstanding
General Obligation Bonds, 2009 Series G	2039	$60,710
General Obligation Bonds, 2010 Series H (Federally Taxable – Build America Bonds)	2040	381,420
General Obligation Refunding Bonds, 2013 Series J	2025	52,635
General Obligation Refunding Bonds, 2013 Series K	2033	91,415
General Obligation Bonds, 2013 Series L	2024	9,715
General Obligation Refunding Bonds, 2016 Series M	2039	157,970
General Obligation Bonds, 2018 Series N	2028	44,045
General Obligation Bonds, 2018 Series O	2048	100,655
General Obligation Bonds, 2019 Series P	2119	330,000
General Obligation Refunding Bonds, 2019 Series R	2043	614,485
General Obligation Refunding Bonds, 2020 Series Q	2029	17,820
General Obligation Commercial Paper		70,207
Long-Term Notes		226
Other Long-Term Obligations		48,346
Capital Lease Obligations		317,126
Loan Payable		2,200
Total Indebtedness		**$2,298,975**

General Obligation Bonds

The University has outstanding five series of General Obligation Refunding Bonds and six series of General Obligation Bonds issued under the 2002 Master Indenture, the Seventh Supplemental Indenture, the Eighth Supplemental Indenture, the Ninth Supplemental Indenture, the Tenth Supplemental Indenture, the Eleventh Supplemental Indenture, the Twelfth Supplemental Indenture, the Thirteenth Supplemental Indenture, and the Fourteenth Supplemental Indenture. Such bonds constitute direct and general obligations of the University. The full faith and credit of the University has been pledged to the payment of the principal and redemption price of the Bonds and interest thereon.

As of May 31, 2020, the University issued General Obligation Bonds, 2019 Series P and 2019 Series R, and 2020 Series Q for $330.0 million, $614.5 million, and $17.8 million respectively. The 2019 Series P bonds were issued to provide financing for various capital projects approved by the Board of Governors and the 2019 Series R bonds were issued to partially refund the 2013 Series J and the 2013 Series L bonds. The 2020 Series Q bonds were issued to refund the 2010 Series I Bonds.

Other Indebtedness

The Commercial Paper program constitutes direct general obligations of the University for the payment of which as to both principal and interest the full faith and credit of the University are pledged. Principal of the Commercial Paper, to the extent not paid from the proceeds of general obligation bonds and proceeds of other Commercial Paper, and interest on the Commercial Paper is payable from other available moneys of the University. The University has capitalized lease obligations and state backed programs through various state authorities. See "APPENDIX B – Independent Auditors' Report and Financial Statements of Rutgers, The State University; Note 9 and Note 10" herein.

Other Bonds Issued and to be Issued by the University

Capital projects currently being considered by the University may be financed through the issuance of future bonds and/or Commercial Paper, gifts and/or other University resources.

Standby Purchase Agreements for Bonds and Commercial Paper

On April 29, 2009, the University issued $80.0 million aggregate principal amount of General Obligation Bonds, 2009 Series G (the "2009 Series G Bonds") pursuant to the Master Indenture and the Seventh Supplemental Indenture. The University entered into a Standby Bond Purchase Agreement (the "Standby Bond Purchase Agreement") with TD Bank (the "Bank") under which the Bank will provide liquidity, upon the occurrence of certain event, for the purchase of 2009 Series G Bonds bearing interest at the Daily Rate or Weekly Rate which are delivered to the Trustee but not remarketed by the Remarketing Agent. The Standby Bond Purchase Agreement will expire on July 1, 2023, unless extended or terminated. Nothing in the Seventh Supplemental Indenture shall require the University to deliver to the Trustee a Substitute Liquidity Facility upon expiration or termination of a Liquidity Facility.

On June 16, 2020, the University increased the authorized principal amount of the Commercial Paper Program by $250,000,000 to an amount not to exceed $750,000,000. As of July 23, 2020, there is no Commercial Paper outstanding under the program. The Commercial Paper Program is backed by a combination of the University's self-liquidity and supplemental liquidity provided by Wells Fargo Bank, National Association through a Standby Commercial Paper Purchase Agreement, which will terminate on April 10, 2021 unless, terminated prior to such date in accordance with its terms.

Interest Rate Swaps

The University has entered into various interest rate swaps related to its Bonds as detailed in Table 15. The University had posted $36.2 million in collateral to secure its exposure related to certain swaps at May 31, 2020 (unaudited).

TABLE 15
Interest Rate Swaps
($ in thousands)

Counterparty	Current Notional Amount	Termination Date	Rate paid by Dealer	Rate paid by Rutgers	Fair Value[1]
Bank of New York	$8,520	5/1/2027	SIFMA	3.824%	($1,286)
Merrill Lynch Capital Services, Inc.	$100,000	11/1/2038	100% 3MO LIBOR	4.080%	($55,275)

[1] As of May 31, 2020 (unaudited).

Other Obligations of the University

Rutgers Community Park

In 1999, the University and the City of Camden entered into a joint venture for the acquisition, development and construction of an outdoor recreational complex designated the "Rutgers Community Park" which is used by the University as the site of its softball and soccer fields. Public use of the facility is managed by the University. In 2002, the University agreed to assume the obligation for debt service payable on an aggregate of $1.0 million in loans that the City of Camden received from the Green Acres Program of the State, together with an aggregate of $1.0 million in grants receivable from this program in connection with the Rutgers Community Park. The assumption of the debt service payable on the Green Acres Program is a general obligation of the University. The outstanding amount due on the loans was $0.09 million at May 31, 2020 (unaudited).

Guaranty of LEAP School Bond Financing

In 2003, the University entered into a Guaranty Agreement guaranteeing the timely payment of principal and interest due and payable on the $8.5 million Delaware River Port Authority Charter School Project Bonds, Series of 2003 (LEAP Academy University Charter School, Inc.), issued by the Delaware River Port Authority (the "DRPA 2003 Bonds") for the purpose of financing the costs of the design, development, construction and equipping of the LEAP Academy University High Charter School (the "LEAP School") in Camden. The LEAP School is owned and managed by the LEAP Academy University Charter School, Inc., a New Jersey not-for-profit corporation, and serves over 200 students in grades 9-12. The LEAP School site is adjacent to the Camden Campus. The University's obligations under the Guaranty are a general obligation of the University. On October 1, 2015, the existing DRPA 2003 Bonds were refinanced by the New Jersey Economic Development Authority for $5.9 million.

Financial Statements of the University and Independent Auditors

The business-type activities of the University maintains its financial records in a manner consistent with accounting principles generally accepted in the United States of America, as prescribed by the Governmental Accounting Standards Board ("GASB"). The financial statements of the University have been audited by KPMG LLP, independent auditors, as stated in their report.

See "APPENDIX B – Independent Auditors' Report and Financial Statements of Rutgers, The State University" herein.

Insurance

The University at all times insures its buildings and contents, including buildings under construction, against losses under an All Risk Property program which is a broad form policy providing for full repair or replacement without deduction for depreciation.

The current property insurance carried by the University is based upon declared replacement value totaling $8.4 billion as of July 1, 2019 with a maximum claim of $1.0 billion per occurrence. Net revenues from major auxiliary enterprise operations (dormitories and apartments, dining services and intercollegiate athletics) are insured against loss due to untenantability of facilities caused by fire and other perils insured under a business interruption policy.

The University has in force primary general and automobile liability policies with $2.0 million limits of liability to protect it and its employees from claims arising from its operations and activities, whether for personal injury or property damage. The University also maintains Umbrella and Excess coverage with limits of liability of $123.0 million to provide protection above the primary policies. The

University maintains a self-insurance program for workers' compensation covering all employees of the University. The self-insurance program is funded with reserves and excess loss protection.

For additional information, see "APPENDIX B – Independent Auditors' Report and Financial Statements of Rutgers, The State University; Note 16" herein.

Pension Programs of the University

Eligible University employees participate in State administered retirement programs. Rutgers employees by law are deemed to be employees of the State for purposes of participation in State administered retirement programs. Thus, most of the University's employees participate in the New Jersey Public Employees' Retirement System (PERS), the Alternate Benefit Program (ABP) or the Police and Firemen's Retirement System (PFRS). Generally, PERS is the program applicable to most staff employees and ABP is applicable to those faculty and staff members in certain positions as prescribed by law. Prior to July 1, 2010, the New Jersey state pension law provided for a 5% employee contribution and an 8% employer contribution to the mandatory Alternate Benefit Program (ABP), up to the Federal IRS annual compensation limit; however, on July 1, 2010, Governor Christie signed Chapter 31, P.L. 2010 into law, which only allowed employer contributions to the ABP for salaries up to $141,000. In response to this state-imposed limit, Rutgers established the Alternate Benefits Program and Trust. Through the program, Rutgers continues to make the full 8% employer ABP contributions for salaries in excess of $141,000, up to the Federal IRS Annual Compensation limit.

Some employees assigned to the New Jersey Agricultural Experiment Station participate in the federal Civil Service Retirement System (CSRS) or the Federal Employees' Retirement System (FERS). PERS, PFRS, CSRS and FERS are defined benefit pension plans, and ABP is a defined contribution pension plan. The rules governing participation and benefits are determined by State and federal statutes and regulations. Employer contributions to the State retirement plans are made by the State for those positions authorized and budgeted by the State. With respect to employees whose positions are self-supporting or grant funded, Rutgers reimburses the State for the employer's pension contributions. Rutgers makes no contributions to the federal retirement plans. Rutgers does not have its own retirement programs.

Postemployment Benefits Other Than Pension (OPEB)

In addition to providing pension benefits, the State provides certain health care and life insurance benefits for the University's retired employees, in accordance with State statutes. Full health coverage is provided to eligible employees retiring with 25 years of service credited on or before June 30, 1997 in one of the State's mandatory pension plans. Employees retiring with 25 years of service credited after June 30, 1997 may share in the cost of the health care provided under the State Plan according to the terms specified in the appropriate bargaining unit agreement in effect at the time the employee reaches 25 years of credited service. The rules governing the contribution rate are the same as those for active employees.

For additional information, see "APPENDIX B – Independent Auditors' Report and Financial Statements of Rutgers, The State University; Note 14" herein.

Other Matters

The University is cooperating with an investigation and records request initiated by Department of Education in connection with the University's compliance with federal requirements to report any gifts from or contracts with a foreign source, the value of which is $250,000 or more (alone or in aggregate) in a calendar year. The University does not believe that the outcome of this investigation and records request will have a material adverse financial effect on the University.

In April and May 2020, two lawsuits were filed against the University, one in the United States District Court, District of New Jersey and another in Superior Court of New Jersey, Law Division, Middlesex County. The lawsuits were brought by parents of students and purport to be class actions. The complaints allege, among other claims, breach of contract, unjust enrichment, and conversion following the outbreak of COVID-19 and the University's transition to distance learning for the remainder of the Spring 2020 semester and seek damages in the form of refunds in tuition and mandatory fees; pre-judgement interest; and attorney's fees. The University believes that the lawsuits are without merit and intends to defend the lawsuits vigorously. The impact of the lawsuits cannot be determined at this time. These complaints mirror complaints filed against institutions of higher education across the country.

APPENDIX B.

INDEPENDENT AUDITORS' REPORT AND FINANCIAL STATEMENTS OF RUTGERS, THE STATE UNIVERSITY

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Financial Report
2018-2019

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RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

Governors and Trustees

During the Year Ended June 30, 2019

University Finance and Administration
Rutgers, The State University of New Jersey
Winants Hall 214
7 College Avenue
New Brunswick, NJ 08901-1280

michael.gower@rutgers.edu
p. 848-932-4300
f. 732-932-4273

J. Michael Gower
Executive Vice President for Finance and Administration
University Treasurer

December 18, 2019

President Robert L. Barchi
The Board of Governors
The Board of Trustees of Rutgers, The State University of New Jersey

I am pleased to submit the Annual Financial Report of Rutgers, The State University of New Jersey for the year ended June 30, 2019. The report contains the KPMG LLP Independent Auditors' Report on the University's financial statements. The financial information presented in this report is designed to assist the reader in comprehending the scope of the University's use of resources in meeting its primary missions of instruction, research, public service, and healthcare.

The report sets forth the complete and permanent record of the financial status of the University for the year.

Respectfully submitted,

J. Michael Gower
Executive Vice President for Finance
and Administration, and University Treasurer

KPMG LLP
New Jersey Headquarters
51 John F. Kennedy Parkway
Short Hills, NJ 07078-2702

Independent Auditors' Report

The Board of Governors
The Board of Trustees
Rutgers, The State University of New Jersey:

We have audited the accompanying financial statements of the business-type activities and the aggregate discretely presented component units of Rutgers, The State University of New Jersey (the University), a component unit of the State of New Jersey, 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'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 U.S. generally accepted accounting principles; 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.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We did not audit the financial statements of University Physicians Associates of New Jersey, Inc. and Affiliate (UPA), which represent approximately 37%, 20%, 52%, as of June 30, 2019 and 36%, 20%, and 47%, as of June 30, 2018, respectively, of the assets, net position, and revenues of the aggregate discretely presented component units. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for UPA, is based solely on the report of the other auditors. We conducted our audit 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 auditors' 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 unmodified and modified audit opinions.

KPMG

Summary of Opinions

Basis for Qualified Opinion on the Aggregate Discretely Presented Component Units

The financial statements of University Physicians Associates of New Jersey, Inc. and Affiliate were prepared on a modified basis of cash receipts and disbursements, which is a comprehensive basis of accounting other than U.S. generally accepted accounting principles. The amount by which this departure would affect the assets, net position, and revenues of the aggregate discretely presented component units has not been determined.

Qualified Opinion

In our opinion, based on our audits and the report of the other auditors, except for the effects of the matter described in the Basis for Qualified Opinion on the Aggregate Discretely Presented Component Units paragraph, the financial statements referred to above present fairly, in all material respects, the respective financial position of the aggregate discretely presented component units of the University, as of June 30, 2019 and 2018, and the respective changes in financial position thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

Unmodified Opinion

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

Other Matter

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis and the schedules of employer contributions, schedules of proportionate share of the net pension liability, and schedules of the proportionate share of the total OPEB liability 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 audit 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.

KPMG LLP

Short Hills, New Jersey
December 18, 2019

Management's Discussion and Analysis (unaudited)

June 30, 2019

The following management's discussion and analysis (MD&A) provides a comprehensive overview of the financial position of Rutgers, The State University of New Jersey (the University or Rutgers) at June 30, 2019 and 2018, and its changes in financial position for the fiscal years then ended, with fiscal year 2017 data presented for comparative purposes. Management has prepared the basic financial statements and related footnote disclosures along with this MD&A in accordance with generally accepted accounting principles as defined by the Governmental Accounting Standards Board for public colleges and universities. This MD&A should be read in conjunction with the audited financial statements and related footnotes of the University, which directly follow the MD&A.

In fiscal 2019, the financial reporting entity of Rutgers included over 29 degree granting schools and colleges, offering more than 150 undergraduate majors, more than 400 graduate programs and degrees, with approximately 71,000 students enrolled. These schools are located at Rutgers University–New Brunswick, Rutgers University–Newark, and Rutgers University–Camden. Rutgers Biomedical and Health Sciences, a division within Rutgers, is an academic health care center providing medical education, and conducting research. On July 29, 2016, Rutgers Health Group (RHG), a non-profit corporation, was incorporated by combining the University's clinical operations into a single entity. RHG operations commenced on July 1, 2017 to deliver high quality, cost-effective patient care at clinical locations supportive of the University's teaching and research missions; to participate in education and research exclusively in support of the charitable, scientific and educational purposes of the University; and to support the University's education and training of healthcare students, post-graduate students and professionals. The University also maintains educational services in many other communities throughout the State of New Jersey (the State). The University operates research and institutional facilities on over 6,000 acres in all 21 counties and 98 municipalities.

The University's financial report includes three basic financial statements: the Statement of Net Position, the Statement of Revenues, Expenses, and Changes in Net Position, and the Statement of Cash Flows. These statements focus on the financial condition of the University, the changes in financial position, and cash flows of the University's business-type activities as a whole rather than the accountability of funds.

The financial statements for the Rutgers University Foundation (the Foundation) and University Physicians Associates of New Jersey, Inc. and Affiliate (UPA) are presented discretely. The Foundation was formed to aid the University in obtaining private funds and other resources to meet the needs and achieve the goals of the University. UPA supports Rutgers Biomedical and Health Sciences through administrative assistance to clinical faculty of the New Jersey Medical School.

Financial Highlights

The University's financial condition at June 30, 2019, improved with an increase in net position of $126.4 million. Total operating revenues increased by $146.5 million, or 5.4%, with increases of 5.4% in net student tuition and fees, 10.2% in net patient service revenues, 12.0% in health service contract revenues, 18.7% in other operating revenues and 3.3% in auxiliary revenues offset by decreases of 4.4% in grants and contracts revenue. Operating expenses increased by $69.6 million, or 1.7%, primarily due to increases in salaries, wages and fringes, while net non-operating revenues increased by $48.8 million, or 3.5%, primarily due to an increase in contributions.

Tuition revenue is a significant source of funding for the University. In fiscal 2019, the enrollment peak was 70,876 students compared to 69,198 students in fiscal 2018. Approved increases in tuition and fee rates of about 2.3% were offset by increases in scholarship allowances.

Annual appropriations from the State represent a vital part of the University's funding. In fiscal 2019, State appropriations, including operating aid and fringe benefits paid on-behalf of Rutgers by the State, increased as a result of additional special appropriations and higher pension and health care costs to $879.6 million, or 8.1% over fiscal 2018. State appropriations, including OPEB Paid by the State, as well as contributions, investment income, and governmental student aid, are shown as non-operating revenue.

Implementation of GASB 68 and GASB 75

In June 2012, the GASB issued Statement No. 68, *Accounting and Reporting for Pensions* (GASB68). This statement addresses accounting and financial reporting for pensions that are provided to the employees of state and local governmental employers through pension plans that are administered through trusts. The university participates in the Public Employees

Retirement System (PERS) and the Police and Firemen's Retirement System (PFRS) both defined benefit cost-sharing multiple-employer pension plans. GASB 68 requires that the proportionate share of the net position present value of projected benefit payments attributed to past periods of the employee service net of the pension plan's fiduciary net position. A cost-sharing employer is also required to recognize its proportionate share of pension expense and report deferred outflows and deferred inflows of resources for its proportionate share. The changes in net position liability adjusted for the deferred inflows and deferred outflows of resources result on pension expense.

In June 2015, the GASB issued Statement No. 75, *Accounting and Reporting for Postemployment Benefits Other Than Pensions* (GASB75). This statement addresses accounting and financial reporting for other postemployment benefits (OPEB) that are provided to the employees of state and local governmental employers. GASB 75 establishes standards for recognizing and measuring liabilities, deferred outflows of resources, deferred inflows of resources, and expenses related to OPEB in the basic financial statements, in addition to requiring more extensive disclosures and required supplementary information.

For MD&A purposes in order to provide a comparison of 2019 to the prior years, the amounts recorded as a result of the implementation of GASB 75 have been shown separately along with the results of GASB 68. GASB 75 is applicable for fiscal years 2019 and 2018 in the Statement of Revenues, Expenses and Changes in Net Position.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

Statement of Net Position

The Statement of Net Position presents the financial position of the University at the end of the fiscal year and includes all assets (current and noncurrent), deferred outflows of resources, liabilities (current and noncurrent), deferred inflows of resources, and net position (the difference between total assets, deferred outflows of resources, total liabilities, and deferred inflows of resources) of the University. Current assets are classified as such if they are available to satisfy current liabilities, which are generally defined as being due within one year of the date of the statement of net position. Net position is one indicator of the financial condition of the University, while the change in net position is an indicator of whether the overall financial condition has improved or worsened during the year. A summarized comparison of the University's assets, deferred outflows of resources, liabilities, deferred inflows of resources and net position at June 30, 2019, 2018 and 2017 is as follows (in thousands):

Condensed Statements of Net Position

June 30, 2019, 2018 and 2017

(dollars in thousands)

	2019	**2018**	**2017**
Assets:			
Current assets	$ 1,028,490	$ 1,088,315	$ 1,189,075
Noncurrent assets:			
Capital assets, net	3,938,297	3,772,242	3,575,173
Other noncurrent assets	1,684,035	1,554,417	1,399,609
Total Assets	6,650,822	6,414,974	6,163,857
Deferred Outflows of Resources	470,276	467,634	583,172
Total Assets and Deferred Outflows of Resources	7,121,098	6,882,608	6,747,029
Liabilities:			
Current liabilities	798,187	688,561	701,401
Noncurrent liabilities	3,749,887	3,846,586	3,988,425
Total Liabilities	4,548,074	4,535,147	4,689,826
Deferred Inflows of Resources	380,538	281,383	17,045
Total Liabilities and Deferred Inflows of Resources	4,928,612	4,816,530	4,706,871
Net Position (Deficit):			
Net investment in capital assets	1,991,541	1,905,842	1,750,777
Restricted – nonexpendable	738,674	713,327	646,363
Restricted – expendable	622,096	511,414	459,394
Unrestricted	(1,159,825)	(1,064,505)	(816,376)
Total Net Position	$ 2,192,486	$ 2,066,078	$ 2,040,158

For MD&A purposes, the tables below show the impact of GASB 68 to the Statements of Net Position as of June 30, 2019, 2018 and 2017.

Condensed Statement of Net Position
June 30, 2019
(dollars in thousands)

	As Reported	GASB 68 Adjustment	Before GASB 68 Adjustment
Assets:			
Current assets	$ 1,028,490	$ -	$ 1,028,490
Noncurrent assets:			
Capital assets, net	3,938,297	-	3,938,297
Other noncurrent assets	1,684,035	-	1,684,035
Total Assets	6,650,822	-	6,650,822
Deferred Outflows of Resources	470,276	(368,777)	101,499
Liabilities:			
Current liabilities	798,187	-	798,187
Noncurrent liabilities	3,749,887	(1,731,180)	2,018,707
Total Liabilities	4,548,074	(1,731,180)	2,816,894
Deferred Inflows of Resources	380,538	(380,538)	-
Net Position (Deficit):			
Net investment in capital assets	1,991,541	-	1,991,541
Restricted – nonexpendable	738,674	-	738,674
Restricted – expendable	622,096	-	622,096
Unrestricted	(1,159,825)	1,742,941	583,116
Total Net Position	$ 2,192,486	$ 1,742,941	$ 3,935,427

Condensed Statement of Net Position
June 30, 2018
(dollars in thousands)

	As Reported	GASB 68 Adjustment	Before GASB 68 Adjustment
Assets:			
Current assets	$ 1,088,315	$ -	$ 1,088,315
Noncurrent assets:			
Capital assets, net	3,772,242	-	3,772,242
Other noncurrent assets	1,554,417	-	1,554,417
Total Assets	6,414,974	-	6,414,974
Deferred Outflows of Resources	467,634	(374,409)	93,225
Liabilities:			
Current liabilities	688,561	-	688,561
Noncurrent liabilities	3,846,586	(1,772,534)	2,074,052
Total Liabilities	4,535,147	(1,772,534)	2,762,613
Deferred Inflows of Resources	281,383	(281,383)	-
Net Position (Deficit):			
Net investment in capital assets	1,905,842	-	1,905,842
Restricted – nonexpendable	713,327	-	713,327
Restricted – expendable	511,414	-	511,414
Unrestricted	(1,064,505)	1,679,508	615,003
Total Net Position	$ 2,066,078	$ 1,679,508	$ 3,745,586

Condensed Statement of Net Position
June 30, 2017
(dollars in thousands)

	As Reported	GASB 68 Adjustment	Before GASB 68 Adjustment
Assets:			
Current assets	$ 1,189,075	$ -	$ 1,189,075
Noncurrent assets:			
Capital assets, net	3,575,173	-	3,575,173
Other noncurrent assets	1,399,609	-	1,399,609
Total Assets	6,163,857	-	6,163,857
Deferred Outflows of Resources	583,172	(474,654)	108,518
Liabilities:			
Current liabilities	701,401	-	701,401
Noncurrent liabilities	3,988,425	(2,057,977)	1,930,448
Total Liabilities	4,689,826	(2,057,977)	2,631,849
Deferred Inflows of Resources	17,045	(17,045)	-
Net Position (Deficit):			
Net investment in capital assets	1,750,777	-	1,750,777
Restricted – nonexpendable	646,363	-	646,363
Restricted – expendable	459,394	-	459,394
Unrestricted	(816,376)	1,600,368	783,992
Total Net Position	$ 2,040,158	$ 1,600,368	$ 3,640,526

Current Assets and Current Liabilities

Current assets include unrestricted and restricted cash and cash equivalents, investments that mature within one year, receivables, inventories, and other short-term assets. Noncurrent assets include unrestricted investments that mature in more than a year, cash and cash equivalents and investments that are restricted by donors or external parties as to their use, and capital assets. Receivables deemed to be collectible in more than a year are also included as noncurrent. Current assets decreased by $59.8 million from 2018 to 2019. This was primarily due to a decrease of $86.6 million in short-term investments attributable largely to investment management strategy changes and an increase in cash and cash equivalents of $28.1 million due to purchases of money markets. Current assets decreased by $100.8 million from 2017 to 2018. This was primarily due to a decrease of $179.5 million in cash and cash equivalents, and short-term investments attributable largely to a rebalancing from current unrestricted cash to long-term investments and an increase in accounts receivable of $77.5 million. The increase in accounts receivable is primarily due to the University's final State Appropriation payment of $31.1 million and Tuition Aid Grant (TAG) funds in the amount of $4.5 million being accrued for. In addition, University Correctional Health Care (UCHC) accrued $34.5 million more than in 2017 due to being five months behind in billings rather than the normal two months. These receivables were subsequently collected.

Current liabilities include all liabilities that are payable within the next fiscal year. Unearned revenues, principally from summer programs and grant revenue received in advance, are also presented as current liabilities. Liabilities that are due to be paid beyond the next fiscal year are reported as noncurrent liabilities.

Current liabilities increased $109.6 million from $688.6 million in 2018 to $798.2 million in 2019. The increase is primarily related to an issuance of commercial paper borrowing in 2019, increases in unearned grant revenues, as well as increases in accounts payable and accrued expenses owed to vendors and employees for settled salary agreements. Current liabilities deceased $12.8 million from $701.4 million in 2017 to $688.6 million in 2018. The decrease was primarily related to a decrease in scheduled principal payments on General Obligation Bonds (GOB) offset by an increase in short-term liabilities related to the issuance of Commercial Paper Series E. The University's current assets cover current liabilities by a factor of 1.3 times in 2019, 1.6 times in 2018 and 1.7 times in 2017. Despite the decreases, the ratio continues to represent an indicator of good liquidity and the ability to bear short-term demands on working capital. The University's current assets also cover approximately three months of its total operating expenses, excluding depreciation in 2019, 2018 and 2017.

Deferred Outflows of Resources

Deferred outflows of resources are the consumption of net position that is applicable to a future reporting period. In 2019, deferred outflows of resources increased $2.6 million, primarily as a result of the change in value of the University's interest rate swaps offset by a decrease in the adjustment for GASB 68 which is due to changes in the University's proportionate share of the net pension liability and the difference between assumptions and actual experience. Without this adjustment, deferred outflows of resources increased $8.3 million in 2019, which is primarily a result of the change in value of the interest rate swaps. In 2018, deferred outflows of resources decreased $115.5 million primarily as a result of the adjustment for GASB 68. Without this adjustment, deferred outflows of resources decreased $15.3 million in 2018, which is primarily a result of the change in the value of the interest rate swaps.

Endowment and Other Investments

The primary financial objective of the investment management of the endowment is to preserve and enhance its real (inflation-adjusted) purchasing power while providing a relatively predictable, stable, and constant (in real terms) stream of earnings for current use. The long-term investment goal of the endowment is to attain a total return of at least 4.0% plus inflation net of fees and expenses. The investment objectives of the endowment are based upon a long-term investment horizon allowing interim fluctuations to be viewed in an appropriate perspective. Most of the University's endowment is maintained in the long-term investment pool managed by the University's Joint Investment Committee. The total annual return for the long-term investment pool was 5.2%, 9.3% and 12.7% in fiscal years 2019, 2018 and 2017, respectively. The average annual return over the 5-year period ending June 30, 2019, 2018 and 2017 was 5.9%, 8.0% and 8.3%, respectively.

The University distributes endowment earnings in a way that balances the annual support needed for operational purposes against the requirement to preserve the future purchasing power of the endowment. The endowment spending-rate policy is based on total return, not just cash earnings. The total distribution for the endowment was $46.8 million in fiscal 2019, $43.2 million in fiscal 2018, and $40.5 million in fiscal 2017.

The University's endowments consist of permanent (true), term and quasi endowments. Permanent or true endowments are funds received from donors stipulating that the principal gift remain inviolate and be invested in perpetuity with the income generated from the investment to be expended for a specific purpose as designated by the donor. These permanent endowments increased $26.5 million to $752.4 million for fiscal 2019 and $67.0 million to $725.9 million for fiscal 2018. Term endowments are those funds received from donors that function as endowments until a specified event occurs. The University's term endowments decreased by $2.8 million to $52.6 million in fiscal 2019 and increased by $2.0 million to $55.4 million in fiscal 2018. Quasi endowments primarily consist of unrestricted funds that have been designated by the University for long-term investment purposes, and therefore, act as endowments. The University's restricted and unrestricted quasi endowments increased by $130.9 million in fiscal 2019 to $579.9 million and increased $27.3 million in fiscal 2018 to $449.0 million.

From a net position perspective, earnings from the endowment, while expendable, are mostly restricted in use by the donors. It is important to note that of the University's endowment funds, only $304.3 million, or 22.0%, can be classified as unrestricted net position in 2019, $286.5 million, or 23.3% in 2018 and $266.2 million, or 23.4% in 2017. From this unrestricted endowment, a significant portion of the income is internally designated by the University for scholarships, fellowships, professorships, and research efforts.

Capital Assets and Debt Activities

The University Physical Master Plan, Rutgers 2030, envisions development at Rutgers over a 15-year time frame and is comprehensive in its scope taking into account buildings, the natural and constructed landscape, transportation and infrastructure. While our physical master plan provides guidance and vision for capital projects over the next 15 years, many projects are now under way that will dramatically improve the student experience on our campuses, support our strengths in arts and sciences, and grow critical disciplines. These projects have been made possible by the generosity of our private donors, by creative partnerships with the public sector, and by funds made available through the historic Building Our Future Bond Act approved by New Jersey voters in November 2012, as well as other state bond programs.

The Building Our Future Bond Act authorized the issuance of State general obligation bonds totaling $750.0 million to help increase academic capacity at New Jersey institutions of higher education. The University received a total of $173.9 million from this program. The University recorded $2.7 million in revenue from this program in 2019, $30.7 million in revenue in 2018 and $38.8 million in revenue in 2017.

In addition to the Building Our Future Bond Act, the State has also authorized the issuance of bonds to fund several higher education initiatives. The Higher Education Facilities Trust Fund (HEFT) Act authorized the New Jersey Educational Facilities Authority (NJEFA) to issue bonds for institutions of higher education in New Jersey for the purpose of the construction, reconstruction, development, extension, and improvement of instructional, laboratory, communication, and research facilities. The University received $69.0 million from this program. The University recorded $1.2 million, $3.9 million and $14.6 million in revenue from the HEFT program in fiscal years 2019, 2018 and 2017, respectively.

NJEFA also issued bonds under the Higher Education Capital Improvement Fund Act (HECIF) to provide funds to certain public and private institutions of higher education in the State for the purpose of paying the costs, or a portion of the costs, of certain capital improvements authorized in accordance with the Capital Improvement Fund Act. The University has been awarded a total of $112.3 million from this program. The University recorded $7.5 million, $10.4 million and $21.0 million in revenue from these bonds in 2019, 2018 and 2017, respectively.

The University also received funds under the Technology Infrastructure Fund Act, which created the Higher Education Technology Infrastructure Fund (HETI). HETI funds are required to be used to develop technology infrastructure within and among New Jersey's institutions of higher education in order to provide access effectively and efficiently to information, educational opportunities, and workforce training, and to enhance the connectivity of higher education institutions to libraries and elementary and secondary schools. Rutgers received a total of $3.3 million for several technology projects, of which the remaining $0.1 million was recorded in 2017.

Finally, the State authorized NJEFA to issue bonds for the Higher Education Equipment Leasing Fund program under the Higher Education Equipment Leasing Fund Act (ELF). This act authorizes NJEFA to issue bonds to finance the purchase of any property consisting of, or relating to, scientific, engineering, technical, computer, communications, and instructional equipment for lease to public and private institutions of higher education in the State. The University has been awarded $43.8 million from this bond issue for the purchase of this type of equipment. The University recorded $0.3 million, $0.1 million and $6.6 million in revenue from this program in 2019, 2018 and 2017, respectively.

In 2008, the Board of Governors and the Board of Trustees of the University approved a commercial paper program. The commercial paper program is being used for the interim financing of capital projects and temporary funding of outstanding debt issues. On February 8, 2018, the Board of Governors approved a revised debt management policy to provide a strategic framework to manage debt in a manner that is consistent with the University's Strategic Plans, ensure access to capital markets and preserve and enhance the long-term financial health of the University.

In 2019, the University issued $100.0 million of taxable commercial paper to provide interim financing for certain capital projects. The University also issued $50.0 million and retired $100.0 million of taxable commercial paper in 2019 for the purpose of managing its liquidity. In 2018, the University issued 2018 Series N and O bonds totaling to $144.7 million to provide financing for the Newark Honors Living-Learning Community project and for various capital projects. In addition, $50.0 million of taxable commercial paper was issued to manage the University's liquidity. This commercial paper matured and was paid on August 13, 2018.

The funds received from these State programs, University bonds and other funds received by the University have resulted in the $166.1 million increase in fiscal 2019 in net capital assets. Capital additions primarily comprised replacement, renovation, and new construction of academic and research facilities as well as significant investments in equipment, including information technology. Several major projects completed during fiscal 2019 include:

- The construction of 125,000 square feet at RWJ Barnabas Health Athletic Performance Center on the Livingston Campus that will provide a state-of-the-art practice facility for Men's & Women's Basketball, Gymnastics, and Wrestling. The building will also include spaces for strength and conditioning, nutrition, coaches' offices, and other spaces to support the athletic programs housed in the building. In addition, a 28,000 square foot parking structure will consist of six (6) levels providing approximately 555 parking spaces.
- New Brunswick Performing Arts Center that includes the development of two (2) state-of-the-art theater spaces, dedicated rehearsal studios, academic, and office space. At the top this new theater complex, a tower which will provide 250 residential apartments including the construction of a new 400 car parking facility on Bayard Street.

Several major projects completed during fiscal 2018 include:

- Construction of a new facility for the Department of Chemistry and Chemical Biology on the Busch Campus that will feature 145,000 square feet of flexible research space and classrooms designed to facilitate collaborative research and learning, providing a state-of-the-art facility to train the next generation of globally engaged scientists and support the needs of the chemical industry in New Jersey and beyond.

- Construction of 104,000 square feet at a new facility for the Richard Weeks Hall of Engineering, which will feature an advanced infrastructure of classrooms, laboratories, and common space to facilitate key research and educational advancements
- Construction and renovation 24,000 square feet on the New Brunswick Campus of the entire seventh floor of the Clinical Academic Building (CAB). The space will house laboratories, lab support, research department offices, and graduate student and post-doctorate tech spaces.

In addition, as of June 30, 2019, the University had various projects under construction or in the design stage. Significant projects include:

- Busch Livingston and Newark RBHS Co-Generation Plants Upgrades for each project that includes replacement of the three (3) aging turbines with a capacity increase of at least 2.8 MW, which will improve reliability and efficiency, reduce energy costs, reduce emissions, and produce energy credits. The new equipment eliminates the use of 8,000,000 gallons of water per year, much of which is discharged to sanitary sewers. The project also includes electrical and mechanical upgrades.
- Student Services One-Stop on Busch Campus that supports student services needs under one roof. Students will benefit from a highly accessible, one-stop service center that allows them to easily address their needs in a single, streamlined location, connected to the transportation hub. The project consists of the gut renovation of half of the first floor (approximately 13,000 square feet) of the building for the front-facing student services space, with an associated small addition that will allow for an effective entrance and waiting area. The second and third floors (26,000 square feet each) will each undergo substantial renovation including HVAC systems, window units, and new finishes and furnishings. This work will take place in multiple phases.
- School of Dental Medicine D South Clinic Renovation that includes substantial interior non-structural renovation of the 11,700 square feet, which the clinic currently occupies. This renovation will provide 80 operatory clinics with ancillary support rooms/functions, which will handle half of the south wing DMD students and their patients.

Net Pension Liability

In June 2012, GASB issued Statement No. 68, *Accounting and Financial Reporting for Pensions* (GASB 68). This statement addresses accounting and financial reporting for pensions that are provided to the employees of state and local governmental employers through pension plans that are administered through trusts. The University participates in the Public Employees Retirement System (PERS) and the Police and Firemen's Retirement System (PFRS), both defined benefit cost-sharing multiple-employer pension plans. GASB 68 requires that the proportionate share of the net pension liability be recognized by each participating employer in the plan. The net pension liability is the portion of the actuarial present value of projected benefit payments attributed to past periods of employee service net of the pension plan's fiduciary net position. A cost-sharing employer is also required to recognize its proportionate share of pension expense and report deferred outflows and deferred inflows of resources for its proportionate share. The changes in net pension liability adjusted for the deferred inflows and deferred outflows of resources result in pension expense. Prior to 2015, the University only recognized pension expense for these plans up to the amount contributed to the plan by the state as indicated within the fringe benefit rate provided by the state. Historically, the state has directly covered pension contributions on behalf of the University and has no current plans to change that. GASB 68 also required the recording of the deferred outflow of resources of $368.8 million, $374.4 million and $474.7 million, a net pension liability of $1,731.2 million, $1,772.5 million and $2,058.0 million and a deferred inflow of resources of $380.5 million, $281.4 million and $17.0 million in 2019, 2018 and 2017, respectively.

The amounts recorded as a result of GASB 68 have been shown separately.

Net Position

Net Position represents the residual interest in the University's assets and deferred outflows of resources after the deduction of its liabilities and deferred inflows of resources. The change in net position measures whether the overall financial condition has improved or declined during the year. Net position consists of four major categories; net investment in capital assets, restricted net position (nonexpendable and expendable), and unrestricted net position. Prior to the pension adjustment required by GASB 68, the University's net position increased by $189.8 million in 2019 ($105.1 million in 2018 and $180.7 million in 2017).

The first category, net investment in capital assets, represents the University's capital assets of land, buildings and equipment net of accumulated depreciation and net of outstanding principal balances of debt attributable to the acquisition, construction, or improvement of those assets. The increase of $85.7 million in fiscal 2019 ($155.1 million in 2018 and $116.6 million in 2017), resulted primarily from the various construction projects described in the capital assets and debt activities section.

The next category is restricted net position, which is divided into two categories, nonexpendable and expendable. Nonexpendable restricted net position is those resources that have been set aside and invested as required by the provider of the resources. These funds are not available for expenditures, but rather must be invested in perpetuity with the earnings on those investments to be used as specified by the external donor at the time the resources are received. The nonexpendable net position includes the permanent and term endowments mentioned previously under the Endowment and Other Investments section. The restricted nonexpendable net position increased by $25.3 million in fiscal 2019 ($67.0 million in 2018 and $64.4 million in 2017).

Expendable restricted net position is available for expenditure by the University, but must be spent for purposes as specified by external donors. This category includes contributions received from donors and unspent income from endowed funds. There was an increase of $110.7 million in fiscal 2019 ($52.0 million in 2018 and $12.6 million 2017).

The final category is unrestricted net position. Unrestricted net position is available to the institution for any lawful purpose. Substantially all of the University's unrestricted net position has been designated by the governing boards or management to support specific programs such as student activities, research projects, continuing education and summer programs, agricultural experiment station activities, junior year abroad programs, auxiliary enterprises and other self-supporting organized activities relating to educational departments as well as capital projects. Many of these designations result from the funds being earned through special purpose fees charged for the specific purposes. The University, therefore, has an obligation to its students to maintain these funds for the purposes that they were received. Prior to the adjustment for GASB 68, there was a decrease of $31.9 million in unrestricted net assets for 2019 ($169.0 million decrease in 2018 and a $12.4 million increase in 2017). Subsequent to the GASB 68 adjustment, unrestricted net assets decreased $95.3 million in 2019 ($248.1 million in 2018 and $143.7 million in 2017).

Statement of Revenues, Expenses, and Changes in Net Position

The Statement of Revenues, Expenses, and Changes in Net Position presents the revenues earned and the expenses incurred during the fiscal year. Activities are classified as either operating, non-operating, or other. Revenues received and expenses incurred as a result of the University providing goods and services to its customers are considered operating activities. Non-operating revenues are those received for which goods and services are not directly provided. The financial reporting model classifies state appropriations and gifts as non-operating revenues. The operating deficit demonstrates the University's dependency on state support and gifts. In addition, appropriations, grants and gifts received by the University, specifically for capital expenditures as well as gifts received from donors as endowments, are reported as other revenues. A summary of the University's revenues, expenses, and changes in net position for the years ended June 30, 2019, 2018, and 2017 is as follows (dollars in thousands).

Condensed Statements of Revenues, Expenses and Changes in Net Position
For the Years Ended June 30, 2019, 2018 and 2017
(dollars in thousands)

	2019	2018	2017
Operating revenues:			
Student tuition and fees (net of scholarship allowances)	$ 1,017,782	$ 965,993	$ 954,005
Grants and contracts	581,844	608,426	597,691
Auxiliary enterprises (net of scholarship allowances)	256,580	248,469	259,106
Net patient service revenues	256,247	232,591	206,276
Health service contract revenues	615,229	549,432	520,305
Other operating revenues	150,432	126,729	133,472
Total operating revenues	2,878,114	2,731,640	2,670,855
Operating expenses	4,279,038	4,209,398	3,822,218
Operating loss	(1,400,924)	(1,477,758)	(1,151,363)
Non-operating revenues/(expenses):			
State appropriations (including fringe benefits paid directly by the state)	879,631	813,911	807,511
OPEB paid by the State	185,875	276,630	-
Contributions	150,410	37,723	32,560
Endowment and investment income	48,297	44,820	34,349
Net increase in fair value of investments	57,007	84,043	118,046
Governmental student aid	224,978	214,126	198,552
Interest on capital asset related debt	(90,095)	(83,672)	(88,010)
Net other non-operating revenues/(expenses)	(4,849)	14,889	(56,052)
Net non-operating revenues	1,451,254	1,402,470	1,046,956
Income/(Loss) before other revenues	50,330	(75,288)	(104,407)
Other revenues	76,078	101,208	129,057
Increase in net position	126,408	25,920	24,650
Net position at beginning of year	2,066,078	2,040,158	2,015,508
Net position at end of year	$ 2,192,486	$ 2,066,078	$ 2,040,158

For MD&A purposes, the tables below show the impact of GASB 68 and 75 to the Statements of Revenues, Expenses and Changes in Net Position for the years ended June 30, 2019, 2018 and 2017.

Condensed Statement of Revenues, Expenses and Changes in Net Position
For the Year Ended June 30, 2019
(dollars in thousands)

	As Reported	GASB 68 & 75 Adjustments	Before GASB 68 & 75 Adjustments
Operating revenues:			
Student tuition and fees (net of scholarship allowances)	$ 1,017,782	$ -	$ 1,017,782
Grants and contracts	581,844	-	581,844
Auxiliary enterprises (net of scholarship allowances)	256,580	-	256,580
Net patient service revenues	256,247	-	256,247
Health service contract revenues	615,229	-	615,229
Other operating revenues	150,432	-	150,432
Total operating revenues	2,878,114	-	2,878,114
Operating expenses:			
Salaries and Wages	2,144,603	-	2,144,603
Fringe Benefits	724,692	(63,434)	661,258
OPEB Expenses	185,875	(185,875)	-
Supplies and Services	947,730	-	947,730
Grant Aid to Students	94,801	-	94,801
Depreciation	181,337	-	181,337
Total operating expenses	4,279,038	(249,309)	4,029,729
Operating loss	(1,400,924)	249,309	(1,151,615)
Non-operating revenues (expenses):			
State appropriations (including fringe benefits paid directly by the state)	879,631	-	879,631
OPEB paid by the State	185,875	(185,875)	-
Contributions	150,410	-	150,410
Endowment and investment income	48,297	-	48,297
Net increase in fair value of investments	57,007	-	57,007
Governmental student aid	224,978	-	224,978
Interest on capital asset related debt	(90,095)	-	(90,095)
Net other non-operating revenues/(expenses)	(4,849)	-	(4,849)
Net non-operating revenues	1,451,254	(185,875)	1,265,379
Income/(Loss) before other revenues	50,330	63,434	113,764
Other revenues	76,078	-	76,078
Increase in net position	126,408	63,434	189,842
Net position at beginning of year	2,066,078	1,679,507	3,745,585
Net position at end of year	$ 2,192,486	$ 1,742,941	$ 3,935,427

Condensed Statement of Revenues, Expenses and Changes in Net Position
For the Year Ended June 30, 2018
(dollars in thousands)

	As Reported	GASB 68 & 75 Adjustments	Before GASB 68 & 75 Adjustments
Operating revenues:			
Student tuition and fees (net of scholarship allowances)	$ 965,993	$ -	$ 965,993
Grants and contracts	608,426	-	608,426
Auxiliary enterprises (net of scholarship allowances)	248,469	-	248,469
Net patient service revenues	232,591	-	232,591
Health service contract revenues	549,432	-	549,432
Other operating revenues	126,729	-	126,729
Total operating revenues	2,731,640	-	2,731,640
Operating expenses:			
Salaries and Wages	2,053,071	-	2,053,071
Fringe Benefits	690,278	(79,139)	611,139
OPEB Expenses	276,630	(276,630)	-
Supplies and Services	913,592	-	913,592
Grant Aid to Students	94,858	-	94,858
Depreciation	180,969	-	180,969
Total operating expenses	4,209,398	(355,769)	3,853,629
Operating loss	(1,477,758)	355,769	(1,121,989)
Non-operating revenues (expenses):			
State appropriations (including fringe benefits paid directly by the state)	813,911	-	813,911
OPEB paid by the State	276,630	(276,630)	-
Contributions	37,723	-	37,723
Endowment and investment income	44,820	-	44,820
Net increase in fair value of investments	84,043	-	84,043
Governmental student aid	214,126	-	214,126
Interest on capital asset related debt	(83,672)	-	(83,672)
Net other non-operating revenues/(expenses)	14,889	-	14,889
Net non-operating revenues	1,402,470	(276,630)	1,125,840
Income/(Loss) before other revenues	(75,288)	79,139	3,851
Other revenues	101,208	-	101,208
Increase in net position	25,920	79,139	105,059
Net position at beginning of year	2,040,158	1,600,368	3,640,526
Net position at end of year	$ 2,066,078	$ 1,679,507	$ 3,745,585

Condensed Statement of Revenues, Expenses and Changes in Net Position
For the Year Ended June 30, 2017
(dollars in thousands)

	As Reported	GASB 68 Adjustment	Before GASB 68 Adjustment
Operating revenues:			
Student tuition and fees (net of scholarship allowances)	$ 954,005	$ -	$ 954,005
Grants and contracts	597,691	-	597,691
Auxiliary enterprises (net of scholarship allowances)	259,106	-	259,106
Net patient service revenues	206,276	-	206,276
Health service contract revenues	520,305	-	520,305
Other operating revenues	133,472	-	133,472
Total operating revenues	2,670,855	-	2,670,855
Operating expenses:			
Salaries and Wages	1,982,858	-	1,982,858
Fringe Benefits	778,438	(156,063)	622,375
OPEB Expenses	-	-	-
Supplies and Services	805,550	-	805,550
Grant Aid to Students	70,590	-	70,590
Depreciation	184,782	-	184,782
Total operating expenses	3,822,218	(156,063)	3,666,155
Operating loss	(1,151,363)	156,063	(995,300)
Non-operating revenues (expenses):			
State appropriations (including fringe benefits paid directly by the state)	807,511	-	807,511
OPEB paid by the State	-	-	-
Contributions	32,560	-	32,560
Endowment and investment income	34,349	-	34,349
Net increase in fair value of investments	118,046	-	118,046
Governmental student aid	198,552	-	198,552
Interest on capital asset related debt	(88,010)	-	(88,010)
Net other non-operating revenues/(expenses)	(56,052)	-	(56,052)
Net non-operating revenues	1,046,956	-	1,046,956
Income/(Loss) before other revenues	(104,407)	156,063	51,656
Other revenues	129,057	-	129,057
Increase in net position	24,650	156,063	180,713
Net position at beginning of year	2,015,508	1,444,305	3,459,813
Net position at end of year	$ 2,040,158	$ 1,600,368	$ 3,640,526

Operating revenues represent 67.7%, 64.5% and 72.6% of total revenues in 2019, 2018 and 2017, respectively, excluding interest on capital asset related debt and net increase in fair value of investments. Significant components of operating revenues include the following:

Student Tuition and Fees, net of scholarship allowances is the largest component of operating revenues. Tuition and fees are reflected net of scholarship allowances, which represent scholarships and fellowships applied to student accounts for tuition and residence fees. These scholarships and fellowships are funded through federal and state grant programs, gifts raised by the Foundation, and University funds. The University provided $322.1 million of a total $416.9 million of student aid directly to student accounts. The remaining $94.8 million was paid to students and is reflected as grant aid to students expense. Scholarship allowances allocated to tuition and fees amounted to $273.9 million. Another $48.2 million was allocated to residence fees, which are included in auxiliary revenues. Tuition and fees, net of scholarship allowances, increased $51.8 million in fiscal year 2019. The change resulted primarily from approved increases in tuition and fee rates of approximately 2.3% and an enrollment peak of 70,876 for 2019 (69,198 in 2018) offset by an increase in scholarship allowances. In fiscal year 2019, management made a decision to record residence life fees that were applicable to auxiliary housing units as auxiliary revenues. In previous years, these fees were recorded as tuition and fee revenues. In fiscal years 2018 and 2017, $10.7 million and $11.6 million, respectively, of these residence life fees were reclassified to auxiliary revenues. Tuition and fees, net of scholarship allowances, increased $12.0 million in fiscal year 2018. The change resulted primarily from approved increases in tuition and fee rates of approximately 1.85% and an enrollment peak of 69,198 for 2018 offset by an increase in the scholarship allowance.

Grants and Contracts includes revenues for sponsored programs from federal, state, and nongovernmental grants and contracts that normally provide for the recovery of direct and indirect costs, or expenses. In fiscal years 2019 and 2018, total grant and contract revenue was $581.8 million and $608.4 million, respectively, a decrease of $26.6 million, or 4.4%. This decrease is attributable to a decrease in the number awards from non-governmental sources received in fiscal year 2019. In fiscal years 2018 and 2017, total grant and contract revenue was $608.4 million and $597.7 million, respectively, an increase of $10.7 million, or 1.8%. The increase was attributable to an increase in the number of federal awards received in fiscal year 2018.

Auxiliary Enterprises includes revenues from the University's housing, dining facilities and other student related services, as well as other business-type activities such as the bookstore and the golf course that provide support to the University's primary missions of education, research, and public service. Total auxiliary revenues were $256.6 million and $248.5 million in fiscal years 2019 and 2018, respectively, net of scholarship allowances of $48.2 million and $46.2 million in fiscal years 2019 and 2018, respectively. Housing and dining revenues, gross of scholarship allowances, totaled $248.5 million, or 81.5%, of total auxiliary revenues in fiscal year 2019. Housing rates increased by 1.9% and dining rates increased by 2.25% in 2019. As noted earlier in the MD&A, certain revenues previously reported as tuition and fee revenues are now classified in auxiliary revenue. These amounts related to residence life fees. Auxiliary net revenues increased slightly in 2019 by $8.1 million or 3.3%. The increase is primarily a result of the increase in housing rates as well as increased occupancy. Auxiliary net revenues decreased slightly in 2018 by $10.6 million, or 4.1%. The decrease was primarily a result of fewer dining meal plans purchased in 2018 and an increase in scholarship allowances.

Net Patient Service Revenues include revenues related to patient care services, which are generated within RBHS behavioral healthcare, RHG, faculty practice operations, community healthcare centers and cancer center, under contractual arrangements with governmental payers and private insurers. In fiscal 2019, net patient service revenues was $256.2 million compared to $232.6 million for fiscal 2018, an increase of $23.6 million, or 10.2%. This increase in revenue is primarily due to new faculty hires supported by agreements with RWJ Barnabas Health, an increase in volume at behavioral healthcare clinics. In fiscal 2018, net patient service revenues was $232.6 million compared to $206.3 million for fiscal 2017, an increase of $26.3 million, or 12.8%. This is primarily due to increase in revenue under the Medical Access to Physician Services (MAPS) program, 340B Drug Program growth, and behavioral healthcare revenues.

Health Service Contract Revenues include revenues from physician services provided under agreements with certain New Jersey hospitals, such as University Hospital of Newark, Cooper Hospital, RWJ Barnabas Health, UCHC and others. It also includes reimbursements for graduate medical education residency programs provided by house staff in connection with RWJ Medical School, New Jersey Medical School, and Rutgers School of Dental Medicine. In fiscal 2019, health service contract revenues was $615.2 million, including affiliate and other contract revenues of $505.6 million and house staff revenues of $109.6 million, representing an overall increase of $65.8 million, or 12.0% over related revenues for fiscal 2018 of $549.4 million, including affiliate and other contract revenues of $442.4 million and house staff revenues of $107.0 million. The total related revenues for fiscal 2017 were $520.3 million, including affiliate and other contract revenues of $412.3 million and house staff revenues of $108.0 million, representing an overall increase of $29.1 million, or 5.6%. The increase in affiliate revenues is primarily driven by RWJ Barnabas Health support for programs at RWJ Medical School, CINJ and contract revenues at New Jersey Medical School and behavioral healthcare facilities.

Significant components of non-operating revenues include the following:

State Appropriations includes both operating assistance and fringe benefits paid on-behalf of Rutgers by the State. Total operating assistance was $435.8 million, $428.8 million and $435.2 million in 2019, 2018 and 2017, respectively. Fringe benefits paid on-behalf of Rutgers by the State totaled $443.8 million, $385.1 million and $372.3 million in fiscal 2019, 2018 and 2017, respectively.

Governmental Student Aid is also a significant component of non-operating revenues. The University's students benefit from various federal programs, such as, Pell Grants and the Federal Supplemental Educational Opportunity Grants. In addition, the State provides aid through the Tuition Aid Grant (TAG) program and the Educational Opportunity Fund (EOF). The University received a total of $99.9 million in 2019 from federal programs, an 8.1% increase over the $92.4 million received in 2018. The University also received $125.1 million from the State in 2019 or an increase of 2.8% over the $121.7 million received in 2018. The increases are primarily due to an increase in award recipients. The total of $92.4 million received in 2018 from federal programs, or a 6.6% increase over the $86.7 million received in 2017, was primarily due to increases in award recipients.

Other Revenues consist of grants and gifts received by the University for capital projects, as well as additions to permanent endowments. The University received a total of $51.7 million in 2019 for capital grants and gifts compared with $68.3 million in 2018. The decrease of $16.6 million from fiscal 2018 is mainly due to the continued winding down of the State revenue reimbursement program as a result of the completion or near completion of related projects. The University received $24.4 million in fiscal 2019 and $32.9 million in 2018 in gifts to add to our endowment as a result of the Foundation's activities. The University received a total of $68.3 million in 2018 for capital grants and gifts compared with $101.5 million in 2017. The decrease of $33.2 million from fiscal 2017 is mainly due to winding down of the State revenue reimbursement program because of completion or near completion of related projects. The University received $32.9 million in fiscal 2018 and $27.6 million in 2017 in gifts to add to our endowment as a result of the Foundation's activities.

Operating Expenses are reported by natural classification in the Statement of Revenue, Expenses, and Changes in Net Position and by functional classification in the notes to the financial statements (See Note 13).

The natural classification of expenses demonstrates that the major expenditure of the University in 2019 is salaries and wages accounting for 50.1% of total operating expenses with GASB 68 and 75 adjustments (48.8% in 2018 and 51.9% in 2017) and 53.2% without the GASB 68 and 75 adjustments in 2019 (53.3% in 2018 and 54.1% in 2017). Negotiated and other staff salary and wage increases for 2019 were approximately 3% and 2018 and 2017 were approximately 2.0%. Pension expense for the GASB 68 adjustment was $63.4 million in 2019, compared to $79.1 million in 2018 and $156.1 in 2017. OPEB expense for the GASB 75 adjustment was $185.9 million in 2019 and $276.6 million in 2018 the first year of implementation.

Economic Factors that will affect the future

The University continues to maintain a strong financial outlook and is well positioned to fulfill its expanded mission as an academic, health and research center that leverages outstanding talent, resources and expertise to improve the human condition, in New Jersey and around the world.

Direct State support for fiscal year 2020 increased by $2.5 million as the State of New Jersey maintained its investment in higher education. While tuition and fee increases for the 2019-20 academic year were 2.9%, the average increases over the last five-year period has been 2.1%. A portion of the increase will be used to fund the estimated 3% increase in salaries for the majority of unionized faculty and staff in fiscal year 2020 as a result of new contract agreements. In September 2019, the University issued a 100 year general obligation bond to in part provide funds for the financing of various capital projects. Operating revenues related to healthcare and patient services have continued to steadily increase as a result of the establishment of the Rutgers Health Group (RHG) in fiscal year 2018. The university continues to look for ways to reduce operating expenses, to operate more efficiently and to add additional sources of income.

In July 2019, the Rutgers University President Robert Barchi informed the Board of Governors the 2019-20 academic year would be his last as University President. The University is embarking on a national search for the new president. Challenges such as continued pressure on university budgets, attracting a high-achieving and diverse student body, maintaining and replacing aging campus infrastructure, achieving an ideal mix of in-state and out-of-state undergraduates, defining the optimal structure of academic units, and engaging alumni and keeping pace with faculty recruitment in critical disciplines will continue to be assessed by the current and incoming president.

STATEMENTS OF NET POSITION
June 30, 2019 and 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey		Component Unit: Rutgers University Foundation		Component Unit: University Physician Associates of New Jersey, Inc., and Affiliates	
	2019	2018	2019	2018	2019	2018
ASSETS:						
Current Assets						
Cash and Cash Equivalents	$ 158,683	$ 130,830	$ 1,914	$ 2,640	$ 233	$ 10,119
Cash and Cash Equivalents - Restricted	417	158	14,431	15,788	4,189	1,562
Short-Term Investments	323,933	410,511	28	-	69,556	66,659
Short-Term Investments - Restricted	-	-	17,475	16,383	3,886	-
Accounts Receivable, net	532,328	534,421	7,043	5,585	-	-
Contributions Receivable, net	-	-	45,158	41,524	-	-
Inventories	5,108	4,466	-	-	-	-
Prepaid Expenses and Other Assets	8,021	7,929	788	786	7	10
Total Current Assets	1,028,490	1,088,315	86,837	82,706	77,871	78,350
Noncurrent Assets						
Cash and Cash Equivalents	1,933	2,271	-	-	-	-
Cash and Cash Equivalents - Restricted	106,864	131,486	-	-	-	-
Long-Term Investments	465,933	433,048	2,279	2,095	-	-
Long-Term Investments - Restricted	1,021,166	898,879	5,279	5,965	-	-
Accounts Receivable, net	88,139	88,733	-	-	-	-
Contributions Receivable, net	-	-	36,005	48,822	-	-
Cash Surrender Value of Whole Life Insurance Policies	-	-	763	745	-	-
Other Noncurrent Assets	-	-	-	137	-	-
Capital Assets, net	3,938,297	3,772,242	-	-	26	44
Total Noncurrent Assets	5,622,332	5,326,659	44,326	57,764	26	44
TOTAL ASSETS	6,650,822	6,414,974	131,163	140,470	77,897	78,394
DEFERRED OUTFLOWS OF RESOURCES:						
Loss on Refunding	70,197	74,980	-	-	-	-
Pension Related	368,777	374,409	-	-	-	-
Interest Rate Swaps	31,302	18,245	-	-	-	-
TOTAL DEFERRED OUTFLOWS OF RESOURCES	470,276	467,634	-	-	-	-
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	7,121,098	6,882,608	131,163	140,470	77,897	78,394

(Continued)

STATEMENTS OF NET POSITION
June 30, 2019 and 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey		Component Unit: Rutgers University Foundation		Component Unit: University Physician Associates of New Jersey, Inc., and Affiliates	
	2019	2018	2019	2018	2019	2018
LIABILITIES:						
Current Liabilities						
Accounts Payable and Accrued Expenses	407,219	365,822	6,639	4,328	36,838	36,969
Payable to Rutgers, The State University of New Jersey	-	-	-	-	12,934	11,526
Unearned Revenue	121,708	93,919	801	393	-	-
Payroll Withholdings	24,614	26,313	-	-	-	-
Other Payables	1,670	3,486	-	-	-	-
Beneficial Interest Payable	-	-	925	715	-	-
Commercial Paper	175,711	130,704	-	-	-	-
Long-Term Liabilities - Current Portion	67,265	68,317	-	-	-	-
Total Current Liabilities	798,187	688,561	8,365	5,436	49,772	48,495
Noncurrent Liabilities						
Other Noncurrent Liabilities	47,619	56,632	544	525	-	-
Unearned Revenue	61,301	58,029	-	-	-	-
Derivative Instruments	31,302	18,245	-	-	-	-
Beneficial Interest Payable	-	-	7,027	7,405	-	-
Net Pension Liability	1,731,180	1,772,533	-	-	-	-
Long-Term Liabilities - Noncurrent Portion	1,878,485	1,941,147	-	-	-	-
Total Noncurrent Liabilities	3,749,887	3,846,586	7,571	7,930	-	-
TOTAL LIABILITIES	4,548,074	4,535,147	15,936	13,366	49,772	48,495
DEFERRED INFLOWS OF RESOURCES:						
Pension Related	380,538	281,383	-	-	-	-
Irrevocable Split Interest Agreements	-	-	3,745	3,882	-	-
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	4,928,612	4,816,530	19,681	17,248	49,772	48,495
NET POSITION (DEFICIT):						
Net Investment in Capital Assets	1,991,541	1,905,842	-	-	-	-
Restricted for						
Nonexpendable						
Instruction	291,673	286,279	63	1,498	-	-
Scholarships and Fellowships	316,666	295,882	945	2,724	-	-
Other	130,335	131,166	653	2,216	-	-
Expendable			-			
Instruction	175,402	167,486	3,550	3,387	-	-
Research	35,806	48,797	34,786	35,888	-	-
Scholarships and Fellowships	103,489	90,186	10,371	8,102	-	-
Loans	73,492	70,019	-	1	-	-
Capital Projects	73,743	54,737	38,454	45,901	-	-
Debt Service Reserve	-	13,556	-	-	-	-
Healthcare and Professional Services	11,854	11,638	507	601	-	-
Other	148,310	54,995	14,649	16,379	-	-
Unrestricted	(1,159,825)	(1,064,505)	7,504	6,525	28,125	29,899
TOTAL NET POSITION	$ 2,192,486	$ 2,066,078	$ 111,482	$ 123,222	$ 28,125	$ 29,899

See accompanying notes to the financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the Years Ended June 30, 2019 and 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey		Component Unit: Rutgers University Foundation		Component Unit: University Physician Associates of New Jersey, Inc., and Affiliates	
	2019	2018	2019	2018	2019	2018
OPERATING REVENUES:						
Student Tuition and Fees (net of scholarship allowances of $273,884 in 2019 and $259,233 in 2018)	$ 1,017,782	$ 965,993	$ -	$ -	$ -	$ -
Federal Grants and Contracts	388,960	381,847	-	-	-	-
State and Municipal Grants & Contracts	111,372	121,705	-	-	-	-
Nongovernmental Grants & Contracts	81,512	104,874	21,675	36,486	-	-
Auxiliary Enterprises (net of scholarship allowances of $48,224 in 2019 and $46,201 in 2018)	256,580	248,469	-	-	-	-
Net Patient Service Revenues	256,247	232,591	-	-	127,697	131,008
Health Service Contract Revenues	615,229	549,432	-	-	-	-
Other Operating Revenues	150,432	126,729	4,411	4,613	-	-
Total Operating Revenues	2,878,114	2,731,640	26,086	41,099	127,697	131,008
OPERATING EXPENSES:						
Salaries and Wages	2,144,603	2,053,071	16,296	15,384	4,903	4,528
Fringe Benefits	724,692	690,278	6,310	6,002	767	722
OPEB Expenses	185,875	276,630	-	-	-	-
Supplies and Services	947,730	913,592	11,600	10,056	137,681	130,848
Grant Aid to Students	94,801	94,858	-	-	-	-
Depreciation	181,337	180,969	-	-	39	25
Distributions to Rutgers, The State University of New Jersey	-	-	107,427	116,802	-	-
Total Operating Expenses	4,279,038	4,209,398	141,633	148,244	143,390	136,123
Operating Loss	(1,400,924)	(1,477,758)	(115,547)	(107,145)	(15,693)	(5,115)

(Continued)

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the Years Ended June 30, 2019 and 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey		Component Unit: Rutgers University Foundation		Component Unit: University Physician Associates of New Jersey, Inc., and Affiliates	
	2019	2018	2019	2018	2019	2018
NON-OPERATING REVENUES (EXPENSES):						
State Appropriations	435,790	428,800	-	-	-	-
State Paid Fringe Benefits	443,841	385,111	-	-	-	-
OPEB Paid by the State	185,875	276,630	-	-	-	-
Administrative Fees and Support from Rutgers, The State University of New Jersey	-	-	24,622	24,459	-	-
Noncash Support from Rutgers, The State University of New Jersey	-	-	2,715	2,008	-	-
Federal Appropriations	7,061	6,592	-	-	-	-
Federal Student Aid	99,874	92,387	-	-	-	-
State Student Aid	125,104	121,739	-	-	-	-
Contributions	150,410	37,723	44,673	42,947	-	-
Endowment and Investment Income (net of investment management fees for the University of $3,889 in 2019 and $3,648 in 2018)	48,297	44,820	252	80	1,860	1,710
Net Increase / (Decrease) in Fair Value of Investments	57,007	84,043	(88)	39	654	26
Interest on Capital Asset Related Debt	(90,095)	(83,672)	-	-	-	-
Loss on Disposal of Capital Assets	(2,960)	(1,018)	-	-	-	-
Other Non-operating (Expenses) / Revenues	(8,950)	9,315	18	14	11,405	11,367
Total Net Non-operating Revenues	1,451,254	1,402,470	72,192	69,547	13,919	13,103
Income/(Loss) before Other Revenues	50,330	(75,288)	(43,355)	(37,598)	(1,774)	7,988
Capital Grants and Gifts	51,693	68,282	15,033	22,382	-	-
Additions to Permanent Endowments	24,385	32,926	16,582	29,391	-	-
Increase/(Decrease) in Net Position	126,408	25,920	(11,740)	14,175	(1,774)	7,988
Net Position - Beginning of the Year	2,066,078	2,040,158	123,222	109,047	29,899	21,911
Net Position - End of the Year	$ 2,192,486	$ 2,066,078	$ 111,482	$ 123,222	$ 28,125	$ 29,899

See accompanying notes to the financial statements.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

STATEMENTS OF CASH FLOWS
For the Years Ended June 30, 2019 and 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey	
	2019	**2018**
Cash Flows from Operating Activities:		
Student Tuition and Fees	$ 1,009,467	$ 980,272
Research Grants and Contracts	599,436	614,000
Services to Patients	241,387	228,566
Health Service Contract Receipts	612,005	503,118
Payments to Employees and for Benefits	(2,356,764)	(2,302,701)
Payments to Suppliers	(906,388)	(892,460)
Payments for Grant Aid to Students	(94,801)	(94,858)
Collection of Loans to Students and Employees	12,411	15,526
Loans to Students and Employees	(5,964)	(20,094)
Auxiliary Enterprises Receipts	272,673	265,478
Other Receipts	141,906	134,985
Net Cash Used by Operating Activities	(474,632)	(568,168)
Cash Flows from Noncapital Financing Activities:		
State Appropriations	462,213	402,003
Federal Appropriations	7,061	6,592
Proceeds from Operating Debt	50,000	-
Principal Paid on Operating Debt	(100,000)	-
Contributions for other than Capital Purposes	150,410	37,723
Federal and State Student Aid	228,107	202,837
Contributions for Endowment Purposes	24,385	32,926
Net Cash Provided by Noncapital Financing Activities	822,176	682,081
Cash Flows from Financing Activities:		
Proceeds from Capital Debt and Leases	106,335	201,799
Capital Grants and Gifts Received	44,312	80,995
Purchases of Capital Assets and Construction in Progress	(373,900)	(379,578)
Principal Paid on Capital Debt and Leases	(69,869)	(60,729)
Interest Paid on Capital Debt and Leases	(94,970)	(86,321)
Proceeds from Capital Asset Disposals	6,993	-
Net Cash Used by Financing Activities	(381,099)	(243,834)
Cash Flows from Investing Activities:		
Proceeds from Sales and Maturities of Investments	1,231,228	1,175,599
Investment Income	48,297	44,820
Purchase of Investments	(1,242,818)	(1,275,628)
Net Cash Provided / (Used) by Investing Activities	36,707	(55,209)
Net Increase / (Decrease) in Cash and Cash Equivalents	3,152	(185,130)
Cash and Cash Equivalents - Beginning of the year	264,745	449,875
Cash and Cash Equivalents - End of the year	$ 267,897	$ 264,745

(Continued)

STATEMENTS OF CASH FLOWS
For the Years Ended June 30, 2019 and 2018
(dollars in thousands)

Reconciliation of Operating Loss to Net Cash Used by Operating Activities:	**2019**	**2018**
Operating Loss	$ (1,400,924)	$ (1,477,758)
Adjustments to Reconcile Operating Loss to Net Cash Used by Operating Activities:		
State Paid Fringe Benefits	443,841	385,111
OPEB Paid by the State	185,875	276,630
Depreciation	181,337	180,969
Provision for Bad Debts	37,647	25,413
Changes in Assets and Liabilities:		
Receivables	(46,516)	(103,752)
Inventories	(642)	(599)
Prepaid Expenses and Other Assets	(92)	620
Accounts Payable and Accrued Expenses	20,109	30,940
Unearned Revenue	44,815	27,123
Payroll Withholdings	(1,699)	6,781
Other Payables	(1,816)	1,215
Net Pension Liability	63,433	79,139
Net Cash Used by Operating Activities	$ (474,632)	$ (568,168)

Non-Cash Investing and Financing Activities	**2019**	**2018**
Net Increase in Accrued Capital Assets	$ 17,573	$ 5,136
Change in Fair Value of Derivatives	(13,057)	10,233
Net Increase in Fair Value of Investments	57,007	84,043

See accompanying notes to the financial statements.

NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Organization

Rutgers, The State University of New Jersey (the University), one of the nation's nine colonial colleges, consists of 29 degree granting schools and colleges located at campuses in New Brunswick and adjacent areas, Newark, and Camden, and maintains educational services in many other communities throughout the State of New Jersey (the State). The University is the State University of New Jersey and the Land Grant College of the State of New Jersey. The University was created as a body corporate and politic with the title "The Trustees of Queens College in New Jersey" by royal charter granted by King George III, on November 10, 1766. In 1945, an act of the State Legislature designated Rutgers as the State University of New Jersey to be utilized as an instrumentality of the State for providing public higher education and thereby increasing the efficiency of its public school system. The University's title was changed to "Rutgers, The State University" and its charter was amended and supplemented by an act of the Legislature of the State in 1956 (the Rutgers Law).

Effective July 1, 2013, the New Jersey Medical and Health Sciences Education Restructuring Act (the Act), (Chapter 45, P.L. 2012), went into effect. The Act integrated the Cancer Institute of New Jersey and all units of the University of Medicine and Dentistry of New Jersey (UMDNJ), except University Hospital (UH) in Newark and the School of Osteopathic Medicine (SOM) in Stratford, into Rutgers. The UMDNJ schools and units transferred to Rutgers and joined the existing Rutgers School of Nursing, Rutgers Ernest Mario School of Pharmacy and the Rutgers Institute of Health, Health Care Policy and Aging Research to form the Rutgers Biomedical and Health Sciences (RBHS) division.

Basis of Accounting

The basic financial statements of the University have been prepared on the accrual basis of accounting, using the economic resources measurement focus, and in accordance with generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB). The University reports as a special purpose government engaged only in business-type activities as defined in GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* as amended by GASB Statement No. 35 *Basic Financial Statements – and Management's Discussion and Analysis – Public Colleges and Universities.* Business-type activities are those that are financed in whole or in part by fees charged to external parties for goods or services.

GASB Statement No. 34 requires that the financial statements be presented on a comprehensive entity-wide basis, reporting the University as an economic unit.

Reporting Entity

The University's financial statements and notes thereto include the financial statements of the Rutgers University Foundation (the Foundation) and the University Physician Association of New Jersey, Inc., and Affiliate (UPA). Rutgers Health Group, Inc. (RHG), is a new unit whose operations commenced on July 1, 2017 (see Note 18).

The Foundation is a legally separate, not-for-profit organization, which exists solely for the benefit of the University and was formed to aid the University to obtain private funds and other resources to meet the needs and achieve the goals of the University for which adequate funds may not be available from other sources. To fulfill this mission, the Foundation solicits and receives gifts and pledges from private sources including individuals, corporations, and foundations. All of the financial data for the Foundation is from their audited financial statements, reported in accordance with generally accepted accounting principles promulgated by GASB. The Foundation is discretely presented in the University's financial report as it would be misleading to exclude it and they exist for the direct benefit of the University, its students, and faculty.

On October 4, 2017, the Foundation established a new limited liability company, RUF NYC LLC. The organization was created to provide a license to the University, for the benefit of the Rutgers Business School, to occupy space in New York City for the purpose of hosting potential donors and individuals in the fashion industry and develop and enhance a fashion business program at the University. As RUF NYC LLC operates under the authority of a sole Foundation officer as a registered agent of the newly formed organization and who has operational responsibility of the entity, RUF NYC LLC is considered a blended component unit and assets, liabilities, and operating activities of RUF NYC LLC are included in the basic financial statements of the Foundation. Copies of the Foundation's financial statements can be obtained by writing to the Foundation at Rutgers University Foundation, Liberty Plaza, 335 George Street, Floor 2, New Brunswick, NJ 08901.

UPA, a not-for-profit organization, was incorporated on August 16, 1984. Located in Newark, New Jersey, its primary purpose was to support UMDNJ through administrative assistance to clinical faculty of the New Jersey Medical School

(NJMS). An agreement between UPA and UMDNJ (the Affiliation Agreement) established activities to be performed by UPA in support of UMDNJ. During 1992, UPA established the Doctors' Center Management Corporation (DCMC) to manage the Doctors Office Center. DCMC is considered an affiliate of UPA and is included in the UPA financial statements.

Pursuant to the Act, UMDNJ ceased to exist and NJMS was incorporated within the University. Also, effective July 1, 2013, the Affiliation Agreement between UPA and UMDNJ was amended to state that, as of that date, the parties to the Affiliation Agreement are the University and UPA, the effect of which is that Rutgers succeeds to UMDNJ's obligations under the agreement. The Affiliation Agreement was further amended so that the term now extends through July 1, 2020.

UPA became a component unit of the University due to the integration under the Act and meets the criteria to be reported as a discretely presented component unit of the University since there is a financial benefit and it would be misleading to exclude UPA as a result of the nature and significance of their relationship. UPA's combined financial statements were prepared on a modified basis of cash receipts and disbursements, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America. Separate financial statements for UPA can be obtained by writing to the Executive Director/ Chief Executive Officer, University Physician Associates of New Jersey, Inc., 30 Bergen Street, ASMC 12, Room 1205, Newark, New Jersey 07107.

RHG is considered a blended component unit per GASB 80, *Blending Requirements for Certain Component Units* – An Amendment of GASB Statement No. 14 (GASB 80), and was organized as the University's integrated, inter-professional faculty practice for the University's health care practitioners to deliver high quality, cost-effective patient care at clinical locations supportive of the University's teaching and research missions; to participate in education and research exclusively in support of the charitable, scientific and educational purposes of the University; and to support the University's education and training of healthcare students, post-graduate students and professionals. Although RHG is legally separate from the University, the University is the sole member of RHG, has various reserved powers with respect to RHG's operations, and appoints a majority of RHG's trustees.

Under GASB Statement No. 61, *The Financial Reporting Omnibus*, an amendment of GASB Statement No. 14, *The Financial Reporting Entity,* and GASB Statement No. 34, the University is considered a component unit of the State of New Jersey for financial reporting purposes. Accordingly, the University's financial statements are included in the State of New Jersey's Comprehensive Annual Financial Report.

Cash and Cash Equivalents

Current cash and cash equivalents, which are both unrestricted and restricted in nature, consist of cash on hand, and all highly liquid investments with an original maturity of three months or less except for those managed as a component of the University's investment portfolio, which are included in non-current restricted cash. The University reclassifies net overdrafts from Cash and Cash Equivalents to Accounts Payable and Accrued Liabilities. For 2019, this amount totaled $24.8 million ($21.0 million in 2018). Noncurrent unrestricted cash and cash equivalents consist of funds that are not externally restricted and are comprised of fixed inome class funds and long-term insurance claim reserves. Noncurrent restricted cash and cash equivalents are externally restricted to maintain sinking or reserve funds, purchase or construct capital or other noncurrent assets or collateral requirements for interest rate swaps, or are related to endowed funds.

Investments

Investments are recorded in the statements of net position at fair value, amortized cost and net asset value depending on asset type. Please refer to Note 3 – Cash and Cash Equivalents and Investments for further details about investments at fair value and net asset value. Investments with a maturity greater than one year and investments externally restricted for endowment purposes, to maintain sinking or reserve funds, and to purchase or construct capital or other noncurrent assets are classified as noncurrent assets in the statements of net position. The year-to-year change in the fair value of investments is reported in the statements of revenues, expenses, and changes in net position as net increase in fair value of investments.

Funds Held in Trust

Funds held in trust by others or not in the possession of, nor under the control of, the University are not included in the University's accompanying financial statements because they do not meet eligibility requirements for recognition. The market value of such funds aggregated approximately $68.1 million at June 30, 2019 ($68.4 million in 2018). Income derived from such irrevocable trust funds held by others, aggregating approximately $3.3 million in 2019 ($3.2 million in 2018), is reported in the accompanying financial statements as non-operating revenue. Due to these funds being donor established perpetual trusts, they do not meet the requirements of irrevocable split-interest agreements as defined in GASB 81, *Irrevocable Split-Interest Agreements.*

Prior to July 1, 2013, the New Jersey Health Foundation (NJHF) operated to support medical, dental and other healthcare education and research of UMDNJ and for other scientific, charitable, literary and educational purposes. As a result of the integration of UMDNJ, except for UH and SOM, into the University, the fundraising function for the resulting RBHS division was assumed by the Foundation on July 1, 2013. NJHF is not considered a component unit within the University. However, NJHF holds permanently restricted net assets for RBHS that consist of endowment contributions from donors with income to be used for specific or general purposes, as well as temporarily restricted net assets for RBHS subject to donor imposed stipulations that will be met by actions of NJHF or by the passage of time.

Inventories

Inventories are stated at lower of cost or market. Cost is determined principally on a first-in, first-out basis.

Capital Assets

Capital assets consist of land, buildings, land improvements, equipment, and construction in progress and art collections. Capital assets are recorded at cost at the date of acquisition, or fair market value on the date of gift if donated, and are shown net of accumulated depreciation. Depreciation on buildings, land improvements, and equipment is calculated using the straight-line method over the assets' estimated useful lives, ranging from 5 to 50 years. Beginning in 2017, the components of certain buildings (i.e., those with a cost in excess of $15.0 million and that have greater than 30.0% of assignable square footage allocated to organized research) are depreciated over the estimated useful life of those components. Library books totaling approximately 6.7 million volumes in 2019 (6.3 million volumes in 2018) have not been capitalized. The capitalization threshold is $5,000 and above. Works of art or historical treasures that are held for public exhibition, education, or research in furtherance of public service are capitalized at the acquisition value of the item at the time of acquisition.

Unearned Revenue

Unearned revenue includes summer session activity for July and August, as well as billings to third and fourth year medical and dental schools, which will be recognized as revenue in the following fiscal year. It also includes cash received from grant and contract sponsors which has not yet been earned under the terms of the agreement. In addition, tax credits received from New Brunswick Development Corporation (DEVCO) related to 15 Washington Street and the College Avenue Redevelopment project are included in unearned revenue.

Net Position (Deficit)

Net position is the difference between the University's assets and deferred outflows of resources, and its liabilities and deferred inflows of resources. These resources are classified for accounting and reporting purposes into four categories as follows:

Net investment in capital assets represents the University's investment in capital assets, net of outstanding debt obligations related to those capital assets.

Restricted net position – nonexpendable consists of endowment and similar type funds for which donors or other outside sources have stipulated, as a condition of the gift instrument, that the principal is to be maintained inviolate and in perpetuity, and invested for the purpose of producing income, which may either be expended or added to principal.

Restricted net position – expendable includes all resources for which the University is legally or contractually obligated to spend the resources in accordance with restrictions imposed by external third parties as well as Perkins loans and U.S. government grants refundable.

Unrestricted net position (deficit) represents resources available to the University for educational and general operations and spendable endowment income. These resources are derived from student tuition and fees, state appropriations, net patient service revenue, and sales and services of educational departments and auxiliary enterprises. Auxiliary enterprises and several academic programs, such as summer session and continuing education, are substantially self-supporting activities that provide services for students, faculty and staff.

Under the University's decentralized management structure, it is the responsibility of individual departments to determine whether to first apply restricted or unrestricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position is available.

Revenue Recognition

Revenues from student tuition and fees and auxiliary enterprises are presented net of scholarship allowances applied to student accounts and are recognized in the period earned. Other payments made directly to students are presented as scholarships and are included in operating expenses in the period incurred.

Grants and contracts revenue is comprised mainly of funds received from grants from federal, State of New Jersey and municipal, and other nongovernmental sources and is recognized when all eligibility requirements for revenue recognition are met, which is generally the period in which the related expenses are incurred.

Net patient service revenues are generated from patient care services and include the operations of faculty practice plans. Net patient service revenues are recorded in the period in which the services are provided and are reported at estimated net realizable amounts from patients, third-party payers and others. Amounts recorded are net of allowances to give recognition to differences between charges and reimbursement rates from third-party payers. Reimbursement from third-party payers varies, depending upon the type and level of care provided. Certain net revenues received are subject to audit and retroactive adjustments for which amounts are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined.

Health service contract revenues include revenues related to health service contract activities and are recorded in the period in which the services are provided. This includes contractual billings for physician services under affiliate agreements with certain New Jersey hospitals and physician services for house staff, which is principally comprised of reimbursements for salaries and fringe benefits, paid by the University for physician services provided through graduate medical education residency programs.

Revenue from State appropriations is recognized in the fiscal year for which the State of New Jersey appropriates the funds to the University. The University is fiscally dependent upon these appropriations.

Contributions are recognized as revenues when all eligibility requirements are met, which is generally in the period donated. Additions to permanent endowments are recognized upon receipt. Endowment and investment income is recognized in the period earned.

Classification of Revenue

The University's policy for defining operating activities in the statements of revenues, expenses, and changes in net position are those that serve the University's principal purpose and generally result from exchange transactions such as the payment received for services and payment made for the purchase of goods and services. Examples include (1) student tuition and fees, net of scholarship allowances, (2) auxiliary enterprises, net of scholarship allowances, (3) most federal, state, and municipal, and other nongovernmental grants and contracts, (4) net patient services and (5) health service contracts. Non-operating revenues include activities that have the characteristics of nonexchange transactions, such as operating appropriations from the State, student aid, endowment and investment income and contributions. Interest on capital asset related debt is reported as a non-operating expense.

Grant Aid to Students

Grant aid to students include payments made directly to students in the form of student aid. Any aid applied directly to the students' accounts in payment of tuition and fees, housing charges and dining services is reflected as a scholarship allowance and is deducted from the University's revenues. Certain governmental grants, such as Pell grants, and other federal, state, or nongovernmental programs, are recorded as non-operating revenues in the University's financial statements. To the extent that revenues from such programs are used to satisfy tuition and fees and other student charges, the University has recorded a scholarship discount and allowance.

The University received $91.9 million during the year ended June 30, 2019 ($84.0 million in 2018), from the Federal Pell Grant program, and $120.1 million during the year ended June 30, 2019 ($109.8 million in 2018), from Tuition Aid Grants, from the State of New Jersey, the largest state student aid program.

The University distributes loans to students under the Federal Direct Loan Program. Under this program, the U.S. Department of Education makes interest subsidized and unsubsidized loans, through schools, directly to students. During the year ended June 30, 2019, the University disbursed $429.0 million ($419.0 million in 2018) under the Federal Direct Loan Program. Direct student loans receivable is not included in the University's statements of net position since they are repayable directly to the U.S. Department of Education.

Income Taxes

The University is exempt from income taxes on related income pursuant to federal and state tax laws as an instrumentality of the State of New Jersey.

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 and liabilities 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.

Reclassifications

Certain reclassifications have been made to prior year amounts to conform to the current year presentation.

Accounting Pronouncements Applicable to the University, Issued but Not Yet Effective

In June 2017, GASB issued Statement No. 87, *Leases*, effective for the University's fiscal year beginning July 1, 2020. This statement establishes a single approach to accounting for and reporting leases based on the principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. Limited exceptions to the single-approach guidance are provided for short-term leases, defined as lasting a maximum of twelve months at inception, including any options to extend, financed purchases, leases of assets that are investments and certain regulated leases. The University is evaluating the impact of this new statement.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period* (GASB 89). This statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interst cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. GASB 89 will be effective for reporting periods beginning after December 15, 2019, which is fiscal year 2021. The University is evaluating the impact of this new statement.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests* (GASB 90). This statement improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. GASB 90 will be effective for reporting periods beginning afer December 15, 2018, which is fiscal year 2020. The University is evaluating the impact of this new statement.

In May 2019, GASB issued Statement No. 91, *Conduit Debt Obligations* (GASB 91). This statement requires issuers to disclose general information about their conduit debt obligations, organized by type of commitment, including the aggregate outstanding principal amount of the issuers' conduit debt obligations and a description of each type of commitment. Issuers that recognize liabilities related to supporting the debt service of conduit debt obligations also should disclose information about the amount recognized and how the liabilities changed during the reporting period. This GASB statement is effective for financial reporting period beginning after December 15, 2020, which is fiscal year 2022. The University is evaluating the impact of this new statement.

NOTE 2 – ADOPTION OF ACCOUNTING PRONOUNCEMENTS

The University adopted GASB Statement No. 83, *Certain Asset Retirement Obligations* (GASB 83). This statement requires a government entity to recognize an asset retirement obligation when the liability is incurred and reasonably estimable. The government entity would measure the obligation based on its best estimate of the current value of outlays expected to be incurred. The adoption of this standard did not have a significant impact on the University's financial statements.

The University also adopted GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements* (GASB 88). This statement defines debt for purposes of disclosures in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings and direct placements. Direct borrowings and direct placements have terms negotiated directly with the investor or lender and are not offered for public sale. The adoption of this standard did not have a significant impact on the University's financial statements.

NOTE 3 – CASH AND CASH EQUIVALENTS AND INVESTMENTS

Cash and Cash Equivalents

The University's cash and cash equivalents consist of the following at June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Money Market Funds	$ 213,940	$ 165,615
Cash and Deposits	53,957	99,130
Total Cash and Cash Equivalents	$ 267,897	$ 264,745

The University's net cash and cash equivalents balance at June 30, 2019, includes a cash book balance of $54.0 million ($99.1 million in 2018). The actual amount of cash on deposit in the University's bank accounts at June 30, 2019, was $62.1 million ($105.7 million in 2018). Of this amount, $1.0 million was insured by the Federal Deposit Insurance Corporation at June 30, 2019 ($1.0 million in 2018). At June 30, 2019, $35.5 million ($77.3 million in 2018) was collateralized, and cash and cash equivalents in excess of these balances were uncollateralized.

Investments

The Board of Governors and the Board of Trustees, through the Joint Committee on Investments, exercise authority over the investment of the University's Long-Term Investment Pool. Professional investment managers manage the investment of funds in accordance with the Investment Policy as established by the Joint Committee on Investments, approved by the Board of Governors with the consent of the Board of Trustees. Additionally, professional investment staff and a consultant monitor and report on the Long-Term Investment Pool and the individual investment managers. Under the terms of the University's bond indentures, bond proceeds and debt service funds may be invested and reinvested only in obligations which will by their terms mature on or before the date funds are needed for expenditure or withdrawal.

The primary financial objective of the investment management of the University's Long-Term Investment Pool is to preserve and enhance the Long-Term Investment Pool's real purchasing power while providing a relatively constant stream of earnings for current use. The long-term investment goal of the endowment is to attain a total return of at least 4.0% plus inflation, fees, and costs. In 2019 and 2018, the University's actual annual spend was 4.0% of a trailing 13-quarter average of the Long-Term Investment Pool's market values.

The University's investments are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the amounts reported in the statements of net position.

The University's investments consist of the following at June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Common Stock	$ 159,155	$ 157,584
Commercial Paper	4,966	33,985
U.S. Government Agencies	1,741	3,994
U.S. Government Bonds	62,254	22,372
Certificates of Deposits (CD's)	3,507	45,994
Corporate Bonds	149,884	202,679
Mutual Funds - Common Stock	536,590	484,834
Mutual Funds - Fixed Income	301,937	240,363
Fixed Income Funds	49,730	30,997
Hedge Funds	227,236	251,799
Private Equity	176,821	149,616
Real Estate	58,458	49,498
Real Assets	75,109	64,354
Other	3,644	4,369
Total	$ 1,811,032	$ 1,742,438

The Hedge Funds description includes: Credit, Long/Short Equity, Global Macro, Multi-Strategy Hedge Funds and Other. In addition, the Private Equity description includes Venture Capital.

Fair Value Measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the financial statements measurement date. The fair value hierarchy categorizes the inputs to valuation techniques used to measure fair value into three levels as follows:

Level 1 – unadjusted quoted prices for identical assets or liabilities in active markets that a government can access at the measurement date

Level 2 – quoted prices other than those included within Level 1 and other inputs that are observable for an asset or liability, either directly or indirectly

Level 3 – unobservable inputs for an asset or liability

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3. When the fair value of an asset or a liability is measured using inputs from more than one level of the fair value hierarchy, the measurement is considered to be based on the lowest priority level that is significant to the entire measurement.

While the University believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

The following is a description of the valuation methodologies used for instruments measured at fair value:

All or a portion of the following categories were classified in Level 1 of the hierarchy as they are valued using prices quoted in active markets: Common Stock, Mutual Funds – Common Stock, and Mutual Funds – Fixed Income.

All or a portion of the following categories were classified in Level 2 of the hierarchy as they are valued using prices based on bid evaluations or quoted prices on an inactive market: Mutual Funds – Common Stock, Corporate Bonds, Commercial Paper, Certificates of Deposit, Mutual Funds – Fixed Income, U.S. Government Agencies, and U.S. Government Bonds.

Level 3 assets within the Real Asset category include real asset limited partnership interests where the investments are valued based on unobservable inputs such as analysis on current oil and gas reserves, future production estimates and NYMEX futures prices. Included in the Other category is a captive, pooled insurance vehicle for which the University has a long-term commitment and whose shares are not readily available and valued based upon the University's paid-in capital to the vehicle as well as its share of retained earnings from underwriting profits.

The University's interests in alternative investment funds are generally reported at the net asset value or its equivalent (NAV) reported by the fund managers and assessed as reasonable by the University, which is used as a practical expedient to estimate the fair value of the University's interest therein. Investments measured at NAV are not categorized in the fair value hierarchy.

The following tables summarize the University's investments by strategy type as of June 30, 2019 and 2018 (dollars in thousands):

	2019			
		Investments Measured at Fair Value		
Investment Type	Fair Value	Level 1	Level 2	Level 3
Common Stock	$ 159,155	$ 159,155	$ -	$ -
Commercial Paper	4,966	-	4,966	-
U.S. Government Agencies	1,741	-	1,741	-
U.S. Government Bonds	62,254	-	62,254	-
Certificates of Deposits (CD's)	3,507	-	3,507	-
Corporate Bonds	149,884	-	149,884	-
Mutual Funds - Common Stock	536,590	315,279	221,311	-
Mutual Funds - Fixed Income	301,937	113,289	188,648	-
Real Assets	32,599	-	-	32,599
Other	3,644	-	-	3,644
Subtotal	$ 1,256,277	$ 587,723	$ 632,311	$ 36,243

Investment Type	Net Asset Value
Private Equity	$ 135,015
Real Estate	58,458
Real Assets	42,510
Venture Capital	41,806
Fixed Income Funds	49,730
Credit Hedge Funds	36,071
Long/Short Hedge Funds	86,184
Global Macro Hedge Funds	13,262
Multi-Strategy Hedge Funds	91,587
Other Hedge Funds	132
Subtotal	$ 554,755
Total	$ 1,811,032

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Investment Type	Fair Value	Investments Measured at Fair Value (2018) Level 1	Level 2	Level 3
Common Stock	$ 157,584	$ 157,584	$ -	$ -
Commercial Paper	33,985	-	33,985	-
U.S. Government Agencies	3,994	-	3,994	-
U.S. Government Bonds	22,372	-	22,372	-
Certificates of Deposits (CD's)	45,994	-	45,994	-
Corporate Bonds	202,679	-	202,679	-
Mutual Funds - Common Stock	484,834	199,953	284,881	-
Mutual Funds - Fixed Income	240,363	71,585	168,778	-
Real Assets	17,221	-	-	17,221
Other	4,369	-	-	4,369
Subtotal	$ 1,213,395	$ 429,122	$ 762,683	$ 21,590

Investment Type	Net Asset Value
Private Equity	$ 113,508
Real Estate	49,498
Real Assets	47,133
Venture Capital	36,108
Fixed Income Funds	30,997
Credit Hedge Funds	45,827
Long/Short Hedge Funds	98,452
Global Macro Hedge Funds	17,348
Multi-Strategy Hedge Funds	90,016
Other Hedge Funds	156
Subtotal	$ 529,043
Total	$ 1,742,438

Investments Measured at Net Asset Value

In addition to traditional stocks and fixed-income securities, the University also holds alternative investment funds including hedge fund, private equity, venture capital, real estate and real asset strategies. Alternative investments are typically subject to restrictions that limit the University's ability to withdraw capital after such investment and, most often in hedge funds, limit the amount that may be withdrawn as of a given redemption date. The redemption terms of the University's investments in hedge funds vary greatly (as described below). Generally, the University has no discretion to withdraw its investments in private equity, venture capital, real estate, and real asset funds; distributions are made when assets are sold within the funds.

The University is obligated in most alternative strategies to fund investment opportunities as they arise up to specified commitment levels over a period of several years. These commitments have fixed expiration dates and other termination clauses. The following table represents the unfunded commitments, redemption frequency and redemption notice period for investments measured at NAV as of June 30, 2019 and 2018 (dollars in thousands):

Investment Type	2019 Unfunded Commitments	2018 Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Private Equity	$ 112,807	$ 95,467	Illiquid	N/A
Real Estate	47,203	52,982	Illiquid	N/A
Real Assets	46,584	46,947	Illiquid	N/A
Venture Capital	16,979	12,944	Illiquid	N/A
Fixed Income Funds	20,007	6,522	Illiquid	N/A
Credit Hedge Funds	N/A	N/A	Quarterly, Annually	45 - 90 days
	N/A	N/A	Quarterly	90 days
Global Macro Hedge Funds				
Long/Short Hedge Funds	N/A	N/A	Daily, Monthly, Quarterly, Annually	6 - 60 days
Multi-Strategy Hedge Funds	N/A	N/A	Quarterly, Semi-Annually, Annually, Rolling Two-years	60 - 90 days
Total	$ 243,580	$ 214,862		

Because of the inherent uncertainties of valuation, these net asset values may differ significantly from values that would have been used had a ready market existed, and the differences could be material. Such valuations are determined by fund managers and generally consider variables such as operating results, comparable earnings multiples, projected cash flows, recent sales prices, and other pertinent information, and may reflect discounts for the illiquid nature of certain investments held.

Management's estimate of the lives of the funds could vary significantly depending on the investment decisions of the external fund managers, changes in the University's portfolio, and other circumstances. Furthermore, the University's obligation to fund the commitments noted above may be waived by the fund manager for a variety of reasons including market conditions and/or changes in investment strategy.

The University does have various sources of internal liquidity at its disposal, including cash and cash equivalents, which are available to fund the required commitments.

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Strategy Descriptions

Private Equity – Funds that typically invest in private companies or engage in buyouts of public companies with the intent of improving their portfolio companies by investing in their growth as well as implementing operational and financial best practices. These strategies are implemented through illiquid vehicles and cannot be redeemed. The investment periods of these funds typically range from 2 – 5 years with full terms of 10 – 12 years. Capital is distributed back as the fund's investments are liquidated over that time period.

Real Estate – This strategy includes funds that invest in the equity or debt of real estate assets or businesses related to the real estate industry. These strategies are implemented through illiquid vehicles and cannot be redeemed. The investment periods of these funds typically range from 2 – 5 years with full terms of 10 – 12 years. Capital is distributed back as the fund's investments are liquidated over that time period.

Real Assets – This strategy includes funds that invest in businesses or physical commodities in a wide variety of asset classes including but not limited to energy, infrastructure, metals and mining, and other commodity-related industries. These strategies are implemented through illiquid vehicles and cannot be redeemed. The investment periods of these funds typically range from 2 – 5 years with full terms of 10 – 12 years. Capital is distributed back as the fund's investments are liquidated over that time period.

*Fixed Income Fund*s– Include funds that invest throughout the capital structure. Typical investments may include senior secured, unsecured, subordinated or mezzanine loans, corporate credit, non-performing loans, and various other credit investments. The investment periods of these funds typically range from 2 – 3 years with full terms 5 – 8 years. Capital is distributed back as the fund's investment are liquidated over that time period.

Venture Capital – Funds that invest in early, mid, and late-stage high growth companies, which are typically at the forefront of innovation in their specific fields. These are typically higher risk/reward opportunities in the fields of technology and medicine of which the companies will generally have negative cash flow at the start. These strategies are implemented through illiquid vehicles and cannot be redeemed. The investment periods of these funds typically range from 2 – 5 years with full terms of 10 – 12 years. Capital is distributed back as the fund's investments are liquidated over that time period.

Credit Hedge Funds – Strategies that typically invest both long and short in high yield and high-grade bonds, structured products, and distressed debt strategies that take advantage of corporate securities in default, under bankruptcy protection, in distress, or in liquidation. Two of the current investments within the portfolio have redemption restriction mechanisms whereas once a redemption is submitted the investor can only receive 25% of its capital per quarter.

Long/Short Hedge Funds – Strategies that typically invest in long and short positions primarily in publicly traded equities.

Global Macro Hedge Funds – Strategies which base its exposures on economic and political views and outcomes from around the world and in many markets. Funds of this nature can invest in a wide variety of securities such as equity, fixed income, currencies, commodities, and futures markets.

Multi-Strategy Hedge Funds – Multi-strategy hedge funds consist of variety of investment strategies such as equity long/short, convertible bond arbitrage, credit, merger and statistical arbitrage, event driven, etc. in order to lower and diversify risk as well as reduce volatility.

Other Hedge Funds – Legacy hedge fund positions which have been redeemed, but continue to be liquidated.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The operating funds of the University are managed against the expected cash requirements of these funds. The University projects its cash requirements and arranges investment maturities accordingly. Special attention is given to the interest rate environment in times of economic growth or downturns. The table below reflects the operation of this process. Endowment funds have a much longer outlook and are invested by professional managers against an index as provided in the University's investment guidelines. The following table summarizes the maturities of investments that are subject to interest rate risk at June 30, 2019 and 2018 (dollars in thousands):

	2019				
		Investment Maturities (in years)			
Investment Type	**Market Value**	**Less than 1**	**1-5**	**6-10**	**More than 10**
U.S. Government Bonds	$ 62,254	$ 998	$ 60,920	$ 336	$ -
U.S. Government Agencies	1,741	1,740	1	-	-
Corporate Bonds	149,884	19,029	104,556	11,828	14,471
Commercial Paper	4,966	4,966	-	-	-
Certificates of Deposits (CD's)	3,507	3,507	-	-	-
Mutual Funds - Fixed Income	301,937	301,937	-	-	-
Total	$ 524,289	$ 332,177	$ 165,477	$ 12,164	$ 14,471

	2018				
		Investment Maturities (in years)			
Investment Type	**Market Value**	**Less than 1**	**1-5**	**6-10**	**More than 10**
U.S. Government Bonds	$ 22,372	$ 12,904	$ 7,993	$ 331	$ 1,144
U.S. Government Agencies	3,994	3,992	-	2	-
Corporate Bonds	202,679	26,830	160,432	7,073	8,344
Commercial Paper	33,985	30,972	3,013	-	-
Certificates of Deposits (CD's)	45,994	45,994	-	-	-
Mutual Funds - Fixed Income	240,363	240,363	-	-	-
Total	$ 549,387	$ 361,055	$ 171,438	$ 7,406	$ 9,488

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The University's Investment Policy states that individual bonds shall be rated with an investment grade by at least two of the three rating agencies (Moody's, Fitch, and Standard & Poor's (S&P)). The average credit quality of the Core Fixed Income Fund shall be maintained at AA (by S&P or equivalent rating by Moody's or Fitch) or higher. The prospect of credit risk or risk of permanent loss shall be avoided in the Fixed Income Fund. Issues of state or municipal agencies shall not be purchased except in unusual circumstances. A fixed income manager may invest in foreign securities up to a limit of 20% of the portfolio. At June 30, 2019 and 2018, the University's cash and cash equivalent and investment quality ratings as rated by Standard & Poor's were as follows (dollars in thousands):

Investment Type	Quality Rating	2019	2018
U.S. Government Agencies and Bonds	AAA	$ 63,496	$ 2,000
U.S. Government Agencies and Bonds	AA+	499	24,366
Certificates of Deposits (CD's)	AAA	-	11,994
Certificates of Deposits (CD's)	A+	3,507	34,000
Commercial Paper	AAA	-	15,483
Commercial Paper	A+	3,473	18,502
Commercial Paper	A	993	-
Commercial Paper	AA–	500	-
Corporate Bonds	AAA	66,646	51,429
Corporate Bonds	AA+	1,248	31,064
Corporate Bonds	AA	-	1,805
Corporate Bonds	AA–	9,583	10,508
Corporate Bonds	A+	15,729	20,329
Corporate Bonds	A	12,271	20,736
Corporate Bonds	A–	13,290	15,977
Corporate Bonds	BBB+	10,688	12,646
Corporate Bonds	BBB	11,030	14,357
Corporate Bonds	BB+	-	995
Corporate Bonds	BBB-	9,399	11,926
Corporate Bonds	Not Rated	-	10,907
Mutual Funds - Fixed Income	Not Rated	301,937	240,363
Money Market Funds	AAA	213,940	165,615
Total		$ 738,229	$ 715,002

Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of a failure of the counterparty, the University will not be able to recover the value of the investments that are in the possession of an outside party. Custodial credit risk should not be confused with market risk, which is the risk that the market value of a security may decline. The University's investment securities are exposed to custodial credit risk if the securities are uninsured and unregistered and held by the counterparty, or by its trust department or agent but not in the University's name. Money market funds are not subject to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form. At June 30, 2019 and 2018, the University's investment securities were not subject to custodial credit risk.

Investments - Endowment Funds

Most of the endowment funds assets are invested in the Long-Term Investment Pool. Each individual fund subscribes to or disposes of units in the pools on the basis of the per-unit market value at the beginning of the three-month period within which the transaction takes place. At June 30, 2019, the fair value of the Long-Term Investment Pool was $1,328.3 million ($1,194.6 million at June 30, 2018). In addition, the aggregate endowment market value of funds separately invested was $38.0 million at June 30, 2019 ($35.8 million at June 30, 2018). The investment appreciation was $38.7 million at June 30, 2019 ($78.2 million at June 30, 2018). These amounts are included in restricted nonexpendable, restricted expendable and unrestricted net position.

The University employs a spending policy, which provides for annual spending at a stated rate determined by the Joint Investment Committee of the Board of Governors and the Board of Trustees. Income earned above the stated rate is reinvested and added to the endowment principal, while any shortfall is covered by capital appreciation. The University complies with the "Uniform Prudent Management of Institutional Funds Act" (UPMIFA) P.L. 2009, Chapter 64, adopted by New Jersey. This law speaks to the management and use of funds held by charitable institutions.

NOTE 4 – ACCOUNTS RECEIVABLE AND ALLOWANCE FOR DOUBTFUL ACCOUNTS

Accounts receivable are shown net of the allowance for doubtful accounts and are comprised of the following at June 30, 2019 and 2018 (dollars in thousands):

	Accounts Receivable	Allowance	Net 2019
Government Grants and Other Sponsored Programs Receivable	$ 182,188	$ 6,312	$ 175,876
Construction Related Receivable	36,640	-	36,640
Student Notes Receivable	71,950	6,812	65,138
Patient Accounts Receivable	59,427	15,201	44,226
Federal and State Governments Receivable	82,159	-	82,159
Student Accounts Receivable	46,049	11,508	34,541
Health Service Contract Receivable	168,009	14,748	153,261
Other Receivable	29,961	1,335	28,626
Total	$ 676,383	$ 55,916	$ 620,467

	Accounts Receivable	Allowance	Net 2018
Government Grants and Other Sponsored Programs Receivable	$ 172,289	$ 6,312	$ 165,977
Construction Related Receivable	36,198	-	36,198
Student Notes Receivable	78,432	6,846	71,586
Patient Accounts Receivable	44,005	14,636	29,369
Federal and State Governments Receivable	114,130	-	114,130
Student Accounts Receivable	39,309	9,439	29,870
Health Service Contract Receivable	157,320	7,282	150,038
Other Receivable	27,265	1,279	25,986
Total	$ 668,948	$ 45,794	$ 623,154

The allowances for doubtful accounts and notes are based upon management's best estimate of uncollectible accounts and notes at June 30, 2019 and 2018, considering type, age, collection history and other appropriate factors.

NOTE 5 – NET PATIENT SERVICE REVENUES AND HEALTH SERVICE CONTRACT REVENUES

Net patient service revenues include revenues related to patient care services, generated primarily by Rutgers Health Group behavioral healthcare clinics, community healthcare centers, cancer center, and the operations of faculty practice plans.

University Behavioral Health Care (UBHC) provides care to patients who meet certain criteria defined by the New Jersey Department of Health and Senior Services and the Department of Human Services without charge or at amounts less than their established rates. UBHC and other units maintain records to identify and monitor the level of charity care they provide, which includes the amount of gross charges foregone for services and supplies furnished.

Net patient service revenues comprised of the following for the years ended June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Gross Charges	$ 665,709	$ 553,529
Deductions from Gross Charges		
Contractual and Other Allowances	(379,164)	(300,932)
Provision for Bad Debts	(30,298)	(20,006)
Net Patient Service Revenues	$ 256,247	$ 232,591

Health service contract revenues relate to professional services provided under contractual arrangements. This includes providing physician services under affiliate agreements with certain New Jersey hospitals (such as University Hospital of Newark, Cooper Hospital, RWJ Barnabas Health and others). It also includes physician services for housestaff, which is comprised of reimbursements for graduate medical education residency programs in connection with RWJ Medical School, New Jersey Medical School and Rutgers School of Dental Medicine. At June 30, 2019, health service contract revenues totaled $615.2 million ($549.4 million in 2018), which included reimbursement for housestaff salaries, fringe benefits and insurance of $109.6 million ($107.0 million in 2018), and billings under other contractual arrangements of $505.6 million ($442.4 million in 2018).

NOTE 6 – CAPITAL ASSETS

The detail of capital assets activity for the year ended June 30, 2019 and 2018 is as follows (dollars in thousands):

	July 1, 2018	Additions	Retirements/ Capitalization	June 30, 2019
Capital Assets Not Being Depreciated:				
Land	$ 77,195	$ 1,342	$ -	$ 78,537
Capitalized Art Collections	66,269	18,355	-	84,624
Construction in Progress	322,706	283,799	178,474	428,031
Total	466,170	303,496	178,474	591,192
Capital Assets Being Depreciated:				
Land Improvements	415,118	33,015	-	448,133
Buildings	4,954,545	155,282	20,013	5,089,814
Equipment	804,157	47,950	29,060	823,047
Total	6,173,820	236,247	49,073	6,360,994
Less Accumulated Depreciation:				
Land Improvements	294,413	20,054	-	314,467
Buildings	1,939,032	126,244	8,544	2,056,732
Equipment	634,303	35,039	26,652	642,690
Total	2,867,748	181,337	35,196	3,013,889
Net Capital Assets Being Depreciated	3,306,072	54,910	13,877	3,347,105
Total Capital Assets, net	$ 3,772,242	$ 358,406	$ 192,351	$ 3,938,297

During 2019, the University capitalized interest expense of $5.2 million in construction in progress in the accompanying statements of net position.

	July 1, 2017	Additions	Retirements/ Capitalization	June 30, 2018
Capital Assets Not Being Depreciated:				
Land	$ 77,202	$ -	$ 7	$ 77,195
Capitalized Art Collections	61,315	4,954	-	66,269
Construction in Progress	401,928	296,164	375,386	322,706
Total	540,445	301,118	375,393	466,170
Capital Assets Being Depreciated:				
Land Improvements	387,635	34,262	6,779	415,118
Buildings	4,569,575	385,039	69	4,954,545
Equipment	781,291	34,030	11,164	804,157
Total	5,738,501	453,331	18,012	6,173,820
Less Accumulated Depreciation:				
Land Improvements	282,763	17,512	5,862	294,413
Buildings	1,818,693	120,378	39	1,939,032
Equipment	602,317	43,079	11,093	634,303
Total	2,703,773	180,969	16,994	2,867,748
Net Capital Assets Being Depreciated	3,034,728	272,362	1,018	3,306,072
Total Capital Assets, net	$ 3,575,173	$ 573,480	$ 376,411	$ 3,772,242

During 2018, the University capitalized interest expense of $4.6 million in construction in progress in the accompanying statements of net position.

NOTE 7 – ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses consist of the following at June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Vendors	$ 100,728	$ 78,764
Accrued Salaries and Benefits	71,154	62,130
Compensated Absences	53,509	52,610
Workers Compensation	19,929	19,929
Interest Payable	13,641	12,910
Other Accrued Expenses	148,258	139,479
Total Accounts Payable and Accrued Expenses	$ 407,219	$ 365,822

NOTE 8 – NONCURRENT LIABILITIES

Noncurrent liability activity for the year ended June 30, 2019 and 2018 is as follows (dollars in thousands):

	July 1, 2018	Additions	Reductions	June 30, 2019	Current Portion
Other Noncurrent Liabilities	$ 56,632	$ –	$ 9,013	$ 47,619	$ –
Net Pension Liabilities	1,772,533	–	41,353	1,731,180	–
Unearned Revenue	151,948	138,734	107,673	183,009	121,708
Derivative Instruments	18,245	13,057	–	31,302	–
Long-Term Liabilities	2,009,464	6,335	70,049	1,945,750	67,265
Total	$ 4,008,822	$ 158,126	$ 228,088	$ 3,938,860	$ 188,973

	July 1, 2017	Additions	Reductions	June 30, 2018	Current Portion
Other Noncurrent Liabilities	$ 46,292	$ 10,340	$ –	$ 56,632	$ –
Net Pension Liabilities	2,057,977	–	285,444	1,772,533	–
Unearned Revenue	153,662	107,268	108,982	151,948	93,919
Derivative Instruments	28,478	–	10,233	18,245	–
Long-Term Liabilities	1,917,953	151,799	60,288	2,009,464	68,317
Total	$ 4,204,362	$ 269,407	$ 464,947	$ 4,008,822	$ 162,236

NOTE 9 – COMMERCIAL PAPER

The University has a combined taxable and tax-exempt commercial paper program that provides for interim or short-term financing of various capital projects, equipment, refundings and for other lawful purposes. The Board approved a maximum outstanding amount at any time of $500.0 million, provided the maximum principal amount will not exceed the amount secured by a Liquidity Facility. The current Liquidity providers are Wells Fargo Bank, N.A. up to $200.0 million until April 10, 2021 and Bank of America, N.A up to $100.0 million until July 31, 2020.

Commercial paper activity as of June 30, 2019 and 2018, is as follows (dollars in thousands):

	July 1, 2018	Additions	Retirements	June 30, 2019
Taxable	$ 106,655	$ 150,000	$ 102,170	$ 154,485
Tax-exempt	24,049	-	2,823	21,226
Total Commercial Paper	$ 130,704	$ 150,000	$ 104,993	$ 175,711

	July 1, 2017	Additions	Retirements	June 30, 2018
Taxable	$ 58,825	$ 50,000	$ 2,170	$ 106,655
Tax-exempt	26,845	-	2,796	24,049
Total Commercial Paper	$ 85,670	$ 50,000	$ 4,966	$ 130,704

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NOTE 10 – LONG-TERM LIABILITIES

Long-term liability activity for the year ended June 30, 2019, is as follows (dollars in thousands):

	Maturity Date	Interest Rates	July 1, 2018	Additions	Retirements and Payments	June 30, 2019	Current Portion
Notes:							
U.S. Department of Education	2021	5.50%	$327	$ –	$126	$201	$132
City of Camden	2023	1.00%	189	–	56	133	42
New Jersey Department of Human Services	2018	0.00%	272	–	272	–	–
Bonds Payable:							
General Obligation Bonds:							
2009 Series F	2039	2.00% - 5.00%	7,610	–	7,610	–	–
2009 Series G	2039	Variable Rate	64,850	–	2,030	62,820	2,110
2010 Series H	2040	3.776% - 5.665%	390,990	–	4,715	386,275	4,855
2010 Series I	2029	2.00% - 5.00%	23,065	–	1,395	21,670	1,455
2013 Series J	2036	1.00% - 5.00%	311,480	–	15,345	296,135	15,275
2013 Series K	2033	0.40% - 4.712%	105,505	–	7,540	97,965	6,550
2013 Series L	2043	1.00% - 5.00%	324,645	–	5,295	319,350	2,795
2016 Series M	2039	3.00% - 5.00%	164,610	–	–	164,610	6,640
2018 Series N	2028	4.00% - 5.00%	44,045	–	–	44,045	–
2018 Series O	2048	4.15%	100,655	–	–	100,655	–
Other Long-Term Obligations:							
New Jersey Educational Facilities Authority:							
Higher Education Capital Improvement Fund:							
Series 2002 A	2022	3.00% - 5.25%	264	–	–	264	–
Series 2014 A	2033	3.50% - 5.00%	27,000	–	1,147	25,853	1,201
Series 2016 A	2022	2.84%	29,301	–	5,776	23,525	5,940
Series 2016 B	2036	4.73%	4,784	–	157	4,627	165
Higher Education Equipment Leasing Fund, Series 2014 A	2023	5.00%	3,563	–	1,763	1,800	418
Capital Lease Obligations:							
Housing Authority of the City of New Brunswick	2020	3.00% - 5.00%	7,530	–	3,675	3,855	3,855
Robert Wood Johnson University Hospital Sublease	2020	3.00% - 5.00%	(1,328)	–	(648)	(680)	(680)
New Jersey Economic Development Authority:							
College Avenue Redevelopment Project	2046	4.00% - 5.00%	229,710	–	3,940	225,770	4,120
15 Washington Street Housing Project	2031	3.10%	51,495	–	2,665	48,830	2,740
University Hospital Space Leases:							
Ambulatory Care Center, 140 Bergen St.	2089	4.16%[1]	18,931	–	47	18,884	48
New Jersey Medical School, 150 Bergen St.	2089	4.16%[1]	16,080	–	39	16,041	41
Equipment Leases		Various	777	6,335	1,931	5,181	5,181
Loan Payable:							
New Brunswick Development Corporation:							
15 Washington Street Housing Project	2025	12.00%	2,200	–	–	2,200	–
			1,928,550	6,335	64,876	1,870,009	62,883
Unamortized Bond Discounts			(978)	–	(44)	(934)	(44)
Unamortized Bond Premiums			81,892	–	5,217	76,675	4,426
Total Long-Term Liabilities			$2,009,464	$6,335	$70,049	$1,945,750	$67,265

[1] Effective interest rate.

Long-term liability activity for the year ended June 30, 2018, is as follows (dollars in thousands):

	Maturity Date	Interest Rates	July 1, 2017	Additions	Retirements and Payments	June 30, 2018	Current Portion
Notes:							
U.S. Department of Education	2021	5.50%	$445	$ –	$118	$327	$125
City of Camden	2023	1.00%	243	–	54	189	55
New Jersey Department of Human Services	2018	0.00%	311	–	39	272	272
Bonds Payable:							
General Obligation Bonds:							
2002 Series A	2018	Variable Rate	11,400	–	11,400	–	–
2009 Series F	2039	2.00% - 5.00%	14,895	–	7,285	7,610	7,610
2009 Series G	2039	Variable Rate	66,800	–	1,950	64,850	2,030
2010 Series H	2040	3.776% - 5.665%	390,990	–	–	390,990	4,715
2010 Series I	2029	2.00% - 5.00%	24,420	–	1,355	23,065	1,395
2013 Series J	2036	1.00% - 5.00%	317,655	–	6,175	311,480	15,345
2013 Series K	2033	0.40% - 4.712%	111,225	–	5,720	105,505	7,540
2013 Series L	2043	1.00% - 5.00%	328,645	–	4,000	324,645	5,295
2016 Series M	2039	3.00% - 5.00%	164,610	–	–	164,610	–
2018 Series N	2028	4.00% - 5.00%	–	44,045	–	44,045	–
2018 Series O	2048	4.15%	–	100,655	–	100,655	–
Other Long-Term Obligations:							
New Jersey Educational Facilities Authority:							
Higher Education Capital Improvement Fund:							
Series 2002 A	2022	3.00% - 5.25%	264	–	–	264	–
Series 2014 A	2033	3.50% - 5.00%	28,102	–	1,102	27,000	1,147
Series 2016 A	2022	2.84%	34,690	–	5,389	29,301	5,776
Series 2016 B	2036	4.73%	4,888	–	104	4,784	157
Higher Education Equipment Leasing Fund, Series 2014 A	2023	5.00%	5,241	–	1,678	3,563	1,763
Capital Lease Obligations:							
Housing Authority of the City of New Brunswick	2020	3.00% - 5.00%	11,030	–	3,500	7,530	3,675
Robert Wood Johnson University Hospital Sublease	2020	3.00% - 5.00%	(1,945)	–	(617)	(1,328)	(648)
New Jersey Economic Development Authority:							
College Avenue Redevelopment Project	2046	4.00% - 5.00%	233,440	–	3,730	229,710	3,940
15 Washington Street Housing Project	2031	3.10%	54,075	–	2,580	51,495	2,665
University Hospital Space Leases:							
Ambulatory Care Center, 140 Bergen St.	2089	4.16%[1]	18,975	–	44	18,931	46
New Jersey Medical School, 150 Bergen St.	2089	4.16%[1]	16,118	–	38	16,080	39
Equipment Leases		Various	38	858	119	777	207
Loan Payable:							
New Brunswick Development Corporation:							
15 Washington Street Housing Project	2025	12.00%	2,200	–	–	2,200	–
			1,838,755	145,558	55,763	1,928,550	63,149
Unamortized Bond Discounts			(1,023)	–	(45)	(978)	(45)
Unamortized Bond Premiums			80,221	6,241	4,570	81,892	5,213
Total Long-Term Liabilities			$1,917,953	$151,799	$60,288	$2,009,464	$68,317

[1] Effective interest rate.

Bonds Payable

The University issues general obligation bonds to (i) provide financing of various capital projects, (ii) provide for the refinancing of certain outstanding commercial paper and (iii) provide for the current and/or advance refunding of all or a portion of certain outstanding bonds of the University. These bonds are payable from revenues and other legally available funds. The bonds are secured under the provisions of an Indenture of Trust dated February 1, 2002 by and between the University and U.S. Bank, N.A. The Indenture of Trust contains a provision that in an event of default, the principal of all the bonds outstanding and the interest accrued thereon, shall be due and payable immediately.

All bonds bear interest at fixed rates with the exception of 2009 Series G, which bears interest at variable rates. The bonds are secured by a Liquidity Facility through a Standby Bond Purchase Agreement. The current Liquidity Facility for the 2009 Series G bonds is provided by TD Bank, N.A. until July 1, 2023. As of June 30, 2019, no funds have been drawn against this agreement.

Debt service to maturity for all General Obligation Bonds, using variable rates as of June 30, 2019, and using the net interest rate swap payments as of June 30, 2019 (See Note 11 for additional information about derivatives), are as follows (dollars in thousands):

	Fixed Rate Bonds		Variable Rate Bonds		Interest Rate	
Year	Principal	Interest	Principal	Interest	Swaps, Net	Total
2020	$ 37,570	$ 70,098	$ 2,110	$ 1,225	$ 1,036	$ 112,039
2021	38,760	68,442	2,195	1,184	997	111,578
2022	42,990	66,676	2,280	1,141	957	114,044
2023	62,295	64,711	2,370	1,096	915	131,387
2024	44,585	61,837	2,465	1,050	871	110,808
2025-2029	289,750	271,954	13,855	4,492	3,641	583,692
2030-2034	311,965	193,520	16,905	3,028	2,422	527,840
2035-2039	246,390	124,123	20,640	1,240	991	393,384
2040-2044	267,200	53,902	–	–	–	321,102
2045-2048	89,200	10,685	–	–	–	99,885
Total	$ 1,430,705	$ 985,948	$ 62,820	$ 14,456	$ 11,830	$ 2,505,759

During fiscal year 2018, the University issued General Obligation Bonds, 2018 Series N (tax-exempt) and 2018 Series O (Federally taxable) for $44.0 million and $100.7 million, respectively. The 2018 Series N bonds were issued to provide financing for the construction and equipping of the Rutgers University—Newark Honors Living-Learning Community and the 2018 Series O bonds were issued to provide financing of various capital projects approved by the Board of Governors.

Other Long-Term Obligations

Under the provisions of the State of New Jersey Higher Education Capital Improvement Fund Act (CIF) and the Higher Education Equipment Leasing Fund Act (ELF), the University has been allocated funds from bonds issued by the New Jersey Educational Facilities Authority to finance various capital expenditures. The University is obligated to pay amounts equal to one-third and one-fourth of the amount necessary to pay the principal and interest on the portion of the CIF and ELF bonds, respectively.

Principal and interest payments for other long-term obligations are as follows (dollars in thousands):

Year	Principal	Interest	Total
2020	$ 7,724	$ 2,069	$ 9,793
2021	7,950	1,821	9,771
2022	7,762	1,558	9,320
2023	8,053	1,280	9,333
2024	1,669	1,082	2,751
2025-2029	9,637	4,115	13,752
2030-2034	12,182	1,795	13,977
2035-2037	1,092	84	1,176
Total	$ 56,069	$ 13,804	$ 69,873

Capital Lease Obligations

- **Housing Authority of the City of New Brunswick**

Pursuant to the terms of the capital lease and agreement dated July 1, 1992 between the University and the Housing Authority of the City of New Brunswick (the Housing Authority), the Housing Authority issued bonds for the purpose of providing long-term financing for the construction of a student apartment complex, parking deck, health club facility and multi-unit retail center. The bonds will mature on July 1, 2020. Upon retirement of the bonds, title to the student apartment complex, parking deck, health club facility and the related common space will be transferred to the University. As discussed more fully below, a portion of this capital lease obligation is being funded under a sublease agreement.

- **Robert Wood Johnson University Hospital Sublease**

In conjunction with the Housing Authority capital lease and agreement, the University simultaneously entered into a sublease and agreement with the Robert Wood Johnson University Hospital, Inc. (the Hospital), dated July 1, 1992, whereby the Hospital agreed to lease a portion of the parking facility from the University. At the end of the term, title to the Hospital's portion of the parking deck will be transferred to the Hospital.

New Jersey Economic Development Authority

- **College Avenue Redevelopment Project**

On September 12, 2013, the New Jersey Economic Development Authority (the Authority) issued $237.1 million of its General Obligation Lease Revenue Bonds, Series 2013. The proceeds of the bonds were loaned by the Authority to College Avenue Redevelopment Associates, LLC (the Company), whose sole and managing member is the New Brunswick Development Corporation (DEVCO), pursuant to a Loan Agreement dated September 1, 2013 to finance the construction of an academic building for the School of Arts and Sciences, a residence hall for honors students, a residence building, and a multistory parking structure and surface lot being undertaken and constructed by the Company on behalf of the University. The Company is leasing the entire Property to the University pursuant to the Master Lease Agreement dated September 1, 2013. At the end of the term, title to the academic building, the residence hall for honor students, the residence building and the multistory parking structure and surface lot will be transferred to the University.

- **15 Washington Street**

On May 30, 2014, the New Jersey Economic Development Authority (the Authority) issued $58.3 million of its Revenue Notes, Series 2014. The proceeds of the notes were loaned by the Authority to Washington Street University Housing

Associates, LLC (the Landlord), whose sole and managing member is DEVCO, pursuant to a Loan Agreement dated May 30, 2014, to finance the renovation of the Residential Estate to provide housing for graduate and undergraduate students. The Landlord is leasing the Property to the University pursuant to the Master Lease Agreement dated May 30, 2014. At the end of the term, title to the residential estate and its improvements will be transferred to the University upon payment of the outstanding amounts due on the Authority's notes and on the Developer's equity contribution.

Ambulatory Care Center

On July 2, 2013, the University (subtenant) entered into a sublease agreement with University Hospital (sub landlord) to sublease the Ambulatory Care Center located at 140 Bergen Street, Newark, New Jersey. The present value of the sublease was calculated using a discount rate of 4.16%. The sublease expiration date is May 31, 2089 and the base rent is $0.8 million per year.

New Jersey Medical School – Hospital Building

On July 1, 2013, the University (subtenant) entered into a sublease agreement with University Hospital (sub landlord) to sublease a portion of the Hospital Building located at 150 Bergen Street, Newark, New Jersey. The present value of the sublease was calculated using a discount rate of 4.16%. The sublease expiration date is May 31, 2089 and the base rent is $0.7 million per year.

Principal and interest payments applicable to the capital lease obligations are as follows (dollars in thousands):

Year	Principal	Interest	Total
2020	$ 10,124	$ 14,361	$ 24,485
2021	7,283	13,906	21,189
2022	7,561	13,596	21,157
2023	7,905	13,273	21,178
2024	8,220	12,936	21,156
2025-2029	38,132	59,438	97,570
2030-2034	63,691	48,142	111,833
2035-2039	48,330	36,164	84,494
2040-2044	61,632	22,855	84,487
2045-2049	30,018	8,232	38,250
2050-2054	1,641	5,760	7,401
2055-2059	2,012	5,389	7,401
2060-2064	2,467	4,934	7,401
2065-2069	3,024	4,377	7,401
2070-2074	3,708	3,693	7,401
2075-2079	4,546	2,855	7,401
2080-2084	5,573	1,828	7,401
2085-2089	6,833	568	7,401
Total	$ 312,700	$ 272,307	$ 585,007

Miscellaneous Equipment Leases

The University has entered into certain lease-purchase agreements for equipment. The following represents the book value of the University's equipment capital leases at June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Cost	$7,912	$1,578
Accumulated Depreciation	(1,243)	(720)
Net Book Value	$6,669	$858

LEAP School Bond Financing Guaranty

In 2003, the Delaware River Port Authority issued $8.5 million of Charter School Project Bonds, Series 2003 (LEAP Academy University Charter School, Inc.) to finance the costs of the design, development, construction and equipping of the LEAP Academy University Charter School, which is adjacent to the Camden Campus. During fiscal year 2016, the New Jersey Economic Development Authority issued $10.0 million of Charter School Revenue Bonds, Series 2014 to refund, among others, in whole the Series 2003 Bonds. As part of the University's commitment to contributing to the community of the City of Camden, the University guarantees the payment of the principal and interest on the bonds through its maturity in 2028.

Bank Letter of Credit

As of June 30, 2019 and 2018, the University had a standby letter of credit with TD Bank, N.A. totaling to $2.2 million for general liability and workers compensation insurance purposes related to current construction projects. There were no draws against the letter of credit during these fiscal years.

Defeased Bonds

The University has defeased various bonds with the proceeds of new debt or with University funds. The funds are deposited to an irrevocable escrow trust account for the payment of the principal, interest, and call premiums, if any, on the refunded bonds. The defeased bonds and the related trusts are not reflected in the accompanying financial statements. The following represents the defeased debt at June 30, 2019 and 2018 (dollars in thousands):

	Amount Defeased	Final Maturity/Call Date	Amount Outstanding at June 30, 2019	Amount Outstanding at June 30, 2018
NJEFA Revenue Refunding Bonds, 2009 Series B	$214,885	6/1/2019	-	$168,705
General Obligation Bonds, 2009 Series F	166,185	5/1/2019	-	166,185
Total	$381,070		-	$334,890

NOTE 11 – DERIVATIVE FINANCIAL INSTRUMENTS

The University has entered into various pay-fixed, receive-variable interest rate swaps in order to protect against adverse changes in cash flows caused by variable prices, costs, rates, or terms that cause future prices to be uncertain. These swaps are valued using a market approach that considers benchmark interest rates and, therefore, are classified in Level 2 of the fair value hierarchy.

For the years ended June 30, 2019 and 2018, the University had two derivative instruments outstanding (dollars in thousands).

			Notional Amount						Fair Value		
Swap #	Type	Objective	2019	2018	Effective Date	Termination Date	Terms	Counterparty Credit Rating (Moody's/S&P)	2019	2018	Change in Fair Value from 2018
1	Pay fixed, receive variable interest rate swap	Hedge of changes in cash flows on variable-rate General Obligation Bond and General Obligation Commercial Paper	$100,000	$100,000	5/1/2008	11/1/2038	Pay fixed 4.080%, receive 100% of 3-Month LIBOR	Aa3/AA	($30,462)	($17,102)	($13,360)
2	Pay fixed, receive variable interest rate swap	Hedge of changes in cash flows on variable-rate General Obligation Bond	9,505	10,440	5/1/2007	5/1/2027	Pay fixed 3.824%, receive SIFMA swap index	Aa2/AA–	(840)	(1,143)	303
			$109,505	$110,440					($31,302)	($18,245)	($13,057)

Risk
The use of derivatives may introduce certain risks for the University, including the following:

Credit Risk:
As of June 30, 2019 and 2018, the University was not exposed to credit risk with its swap counterparties because all of the swaps had negative fair values.

To mitigate credit risk, the University and the counterparties require the posting of collateral based on their respective credit rating. The amount of (i.e., value of) such collateral shall equal the market value of the swap in excess of the applicable collateral threshold based on the rating of such counterparty at such time. The table below shows when collateralization would be required or triggered.

Ratings by Moody's and S&P	Collateral Threshold
Aaa/AAA	Infinite
Aa3/AA–	Infinite
A1/A+	$20.0 million
A2/A	$10.0 million
A3/A–	$10.0 million
Baa1/BBB+	$5.0 million
Baa2/BBB	$5.0 million
Baa3/BBB–	Zero
Below Baa3/BBB– or not rated	Zero

As of June 30, 2019 and 2018, the University's credit ratings by Moody's and S&P was Aa3 and A+, respectively. As of June 30, 2019, the university was required to post collateral totaling to $11.6 million. No collateral was required to be posted in 2018.

Basis Risk:
There is a risk that the variable payment received on interest rate swaps will not match the variable payment on the bonds or commercial paper. This risk is known as basis risk. Swaps have basis risk because the interest rates on the bonds and commercial paper are reset periodically by the remarketing agent or commercial paper dealer and may not exactly match the variable receipt on the interest rate swaps, which are based on a percentage of either LIBOR or SIFMA indexes.

Rollover Risk:
The University is exposed to rollover risk on swaps only if the counterparty exercises its termination option, in which case the University will not realize the synthetic rate offered by the swaps on the underlying debt issues.

Termination Risk:
The University or any of the involved counterparties may terminate any of the swaps if the other party fails to perform under the terms of the contract. If a swap is terminated, the variable rate debt issue would no longer carry a synthetic fixed interest rate. Also, if at termination a swap has a negative fair value, the University would be liable to the appropriate counterparty for a payment equal to the swap's fair value.

NOTE 12 – COMMITMENTS

At June 30, 2019, the estimated cost of capital projects under construction and/or in the design stage with approved sources of funding, aggregated approximately $735.5 million ($705.4 million in 2018). The additional funding required at June 30, 2019 reflects amounts for completion and will be received over several years. Anticipated sources of funding for these projects are summarized as follows (dollars in thousands):

	Total Project Funding		
	Received at June 30, 2019	Additional Funding Required at June 30, 2019	Estimated Total Cost
Borrowing	$ 160,056	$ 235,907	$ 395,963
State	10,088	3,912	14,000
Gifts and Other Sources	226,492	99,063	325,555
Total	$ 396,636	$ 338,882	$ 735,518

The University leases certain space used in general operations. Rental expense was approximately $22.9 million in 2019 ($16.2 million in 2018). The leases are non-cancelable and have been classified as operating leases which are expected to expire through 2048. Minimum annual rental commitments approximate the following (dollars in thousands):

Fiscal Year	Amount
2020	$ 21,292
2021	16,285
2022	14,840
2023	13,379
2024	11,324
2025-2029	32,341
2030-2034	16,796
2035-2039	15,161
2040-2044	12,377
2045-2049	7,401
Total	$ 161,196

NOTE 13 – NATURAL EXPENSES BY FUNCTIONAL CLASSIFICATION

The University reports operating expenses by natural classification. Details of these expenses by functional classification at June 30, 2019 and 2018, are as follows (dollars in thousands):

	2019	2018
Instruction	$ 953,424	$ 911,764
Research	540,713	530,921
Extension and Public Service	225,969	225,409
Academic Support	462,491	442,963
Student Services	146,713	145,479
Operations and Maintenance of Plant	247,371	245,196
General Administration and Institutional	285,664	275,518
Scholarships and Fellowships	72,691	51,238
Depreciation	181,337	180,969
Patient Care Services	702,032	661,082
Auxiliary Enterprises	274,758	262,229
OPEB Expenses	185,875	276,630
Total Operating Expenses	$ 4,279,038	$ 4,209,398

NOTE 14 - EMPLOYEE BENEFITS

Retirement Plans

The University has primarily three retirement plans available to its employees, the State of New Jersey Public Employees Retirement System, State of New Jersey Police and Firemen's Retirement System, and the Alternate Benefit Program. Under these plans, participants make annual contributions, and the State of New Jersey makes employer contributions on behalf of the University for these Plans. Reimbursement is based upon a composite fringe benefit rate provided by the State for all State plans. The University is charged for contributions on behalf of employees through a fringe benefits charge assessed by the State, which is included within the state paid fringe benefits in the accompanying statement of revenues, expenses, and changes in net position. Summary information regarding these plans is provided below.

Public Employees Retirement System (PERS)

Plan Description — The State of New Jersey Public Employees' Retirement System (PERS) is a cost-sharing multiple-employer defined benefit pension plan administered by the State of New Jersey, Division of Pensions and Benefits (the Division). For additional information about PERS, please refer to Division's Comprehensive Annual Financial Report (CAFR), which can be found at **http://www.nj.gov/treasury/pensions/financial-reports.shtml**.

Benefits — The vesting and benefit provisions are set by N.J.S.A. 43:15A. PERS provides retirement, death, and disability benefits. All benefits vest after ten years of service, except for medical benefits, which vest after 25 years of service or under the disability provisions of PERS.

The following represents the membership tiers for PERS:

Tier	Definition
1	Members who were enrolled prior to July 1, 2007
2	Members who were eligible to enroll on or after July 1, 2007 and prior to November 2, 2008
3	Members who were eligible to enroll on or after November 2, 2008 and prior to May 22, 2010
4	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
5	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits of 1/55th of final average salary for each year of service credit is available to tiers 1 and 2 members upon reaching age 60 and to tier 3 members upon reaching age 62. Service retirement benefits of 1/60th of final average salary for each year of service credit is available to tier 4 members upon reaching age 62 and tier 5 members upon reaching age 65. Early retirement benefits are available to tiers 1 and 2 members before reaching age 60, tiers 3 and 4 before age 62 with 25 or more years of service credit and tier 5 with 30 or more years of service credit before age 65. Benefits are reduced by a fraction of a percent for each month that a member retires prior to the age at which a member can receive full early retirement benefits in accordance with their respective tier. Tier 1 members can receive an unreduced benefit from age 55 to age 60 if they have at least 25 years of service. Deferred retirement is available to members who have at least 10 years of service credit and have not reached the service retirement age for the respective tier.

Contributions – As of July 1, 2019, the PERS contribution rate was set at 7.5%. The State contributes the remaining amounts necessary to pay benefits when due. The State's pension contribution is based on an actuarially determined amount, which includes the employer portion of the normal cost and an amortization of the unfunded accrued liability. A contribution on behalf of the University is included within the State's contribution. The contribution requirements of the plan members and the University are established and may be amended by the State.

The State issues publicly available financial reports that include financial statements and required supplementary information for PERS. These reports may be obtained by writing to the State of New Jersey, Division of Pensions and Benefits, PO Box 295, Trenton, NJ 08625-0295.

Police and Firemen's Retirement System (PFRS)

Plan Description – The State of New Jersey Police and Firemen's Retirement System (PFRS) is a cost-sharing multiple-employer defined benefit pension plan administered by the State of New Jersey, Division of Pensions and Benefits (the Division). For additional information about PFRS, please refer to Division's Comprehensive Annual Financial Report (CAFR) which can be found at **http://www.nj.gov/treasury/pensions/financial-reports.shtml**.

Benefits – The vesting and benefit provisions are set by N.J.S.A. 43:16A. PFRS provides retirement as well as death and disability benefits. All benefits vest after ten years of service, except disability benefits which vest after four years of service.

The following represents the membership tiers for PFRS:

Tier	Definition
1	Members who were enrolled prior to May 22, 2010
2	Members who were eligible to enroll on or after May 22, 2010 and prior to June 28, 2011
3	Members who were eligible to enroll on or after June 28, 2011

Service retirement benefits are available at age 55 and are generally determined to be 2% of final compensation for each year of creditable service, as defined, up to 30 years plus 1% for each year of service in excess of 30 years. Members may seek special retirement after achieving 25 years of creditable service, in which benefits would equal 65% (tiers 1 and 2 members) and 60% (tier 3 members) of final compensation plus 1% for each year of creditable service over 25 years but not to exceed 30 years. Members may elect deferred retirement benefits after achieving ten years of service, in which case benefits would begin at age 55 equal to 2% of final compensation for each year of service.

Contributions – The State's pension contribution is based on an actuarially determined amount, which includes the employer portion of the normal cost and an amortization of the unfunded accrued liability. A contribution on behalf of the University is included within the State's contribution. The active member contribution rate is 10.0% of annual compensation during fiscal year 2019.

Net Pension Liability, Deferred Amounts Related to Pensions and Pension Expense

The University's respective net pension liability, deferred outflows of resources, deferred inflows of resources, and pension expense related to PERS and PFRS are calculated by the State of New Jersey Division of Pension and Benefits. At June 30, 2019, the University reported a liability of $1,650.9 million and $80.2 million for PERS and PFRS, respectively ($1,703.5 million and $69.0 million for PERS and PFRS, respectively, in 2018), for its proportionate share of the respective PERS' and PFRS' net pension liabilities. The total pension liability used to calculate the net pension liability at June 30, 2019, was determined by an actuarial valuation as of July 1, 2017, and rolled forward to the measurement date of June 30, 2018, for both PERS and PFRS. The total pension liability used to calculate the net pension liability at June 30, 2018, was determined by an actuarial valuation as of July 1, 2016, and rolled forward to the measurement date of June 30, 2017, for both PERS and PFRS. The University's proportionate share of the respective net pension liabilities for the fiscal year was based on actual contributions to PERS and PFRS on behalf of the University relative to the total contributions of participating state-group employers for each plan for fiscal 2018, which was 7.0% and 1.9% for PERS and PFRS, respectively (6.6% and 1.6%, respectively, in 2017). The University's proportionate share of the respective net pension liabilities for the plan was 3.8% and 0.4% for PERS and PFRS, respectively (3.5% and 0.3%, respectively in 2017).

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the respective fiduciary net position of the PERS and PFRS and additions to/deductions from PERS' and PFRS' respective fiduciary net position have been determined on the same basis as they are reported by PERS and PFRS. Accordingly, 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.

The June 30, 2018 and 2017 measurement of the net pension liability for PERS and PFRS used the following actuarial assumptions:

	2018 and 2017	
	PERS	PFRS
Inflation Rate	2.25%	2.25%
Salary Increases:		
Through 2026	1.65–4.15% based on age	2.10–8.98% based on age
Thereafter	2.65–5.15% based on age	3.10–9.98% based on age
Investment rate of return	7.00%	7.00%

Pre-retirement mortality rates for PERS were based on the RP-2000 Employee Pre-retirement Mortality Table for male and female active participants. For State employees, mortality tables are set back 4 years for males and females. In addition, the tables provide for future improvements in mortality from the base year of 2013 using a generational approach based on the Conduent modified 2014 projection scale. Post-retirement mortality rates were based on the RP-2000 Combined Healthy Male and Female Mortality Tables (set back 1 year for males and females) for service retirements and beneficiaries of former members. In addition, the tables for service retirements and beneficiaries of former members provide for future improvements in mortality from 2012 to 2013 using Projection Scale AA and using a generational approach based on the Conduent 2014 projection scale thereafter. Disability retirement rates used to value disabled retirees were based on the RP-2000 Disabled Mortality Table (set back 3 years for males and set forward 1 year for females).

Pre-retirement mortality rates for PFRS were based on the RP-2000 Combined Healthy Mortality tables projected on a generational basis from the base year of 2000 to 2013 using Projection Scale BB and the Conduent modified 2014 projection scale thereafter. For pre-retirement accidental mortality, a custom table with representative rates was used and there is no mortality improvement assumed. Post-retirement mortality rates for male service retirements are based on the RP-2000 Combined Healthy Mortality Tables projected on a generational basis using Projection Scale AA from the base year of 2012 to 2013 and the Conduent modified 2014 projection scale thereafter. Post-retirement mortality rates for female service retirements and beneficiaries were based on the RP-2000 Combined Healthy Mortality Tables projected on a generational basis from the base year of 2000 to 2013 using Projection Scale BB and the Conduent modified 2014 projection scales thereafter. Disablity mortality rates were based on a custom table with representative rates and no mortality improvement assumed.

The actuarial assumptions used in the July 1, 2017 and July 1, 2016 valuations were based on the results of an actuarial experience study for the period July 1, 2011, to June 30, 2014 for PERS, and July 1, 2010, to June 30, 2013 for PFRS.

Long-Term Expected Rate of Return — The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rate of return (expected returns, net of pension plans investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in PERS' and PFRS' target asset allocation as of June 30, 2018 and June 30, 2017 are summarized in the following tables:

	2018	
Asset Class	**Target Allocation**	**Long-Term Expected Real Rate of Return**
Risk Mitigation Strategies	5.00%	5.51%
Cash equivalents	5.50%	1.00%
U.S. Treasuries	3.00%	1.87%
Investment Grade Credit	10.00%	3.78%
High Yield	2.50%	6.82%
Global Diversified Credit	5.00%	7.10%
Credit Oriented Hedge Funds	1.00%	6.60%
Debt related Private Equity	2.00%	10.63%
Debt related Real Estate	1.00%	6.61%
Private Real Estate	2.50%	11.83%
Equity related Real Estate	6.25%	9.23%
U.S. Equity	30.00%	8.19%
Non-U.S. Developed Markets Equity	11.50%	9.00%
Emerging Markets Equity	6.50%	11.64%
Buyouts/Venture Capital	8.25%	13.08%

	2017	
Asset Class	**Target Allocation**	**Long-Term Expected Real Rate of Return**
Absolute return/risk mitigation	5.00%	5.51%
Cash equivalents	5.50%	1.00%
U.S. Treasuries	3.00%	1.87%
Investment Grade Credit	10.00%	3.78%
Public High Yield	2.50%	6.82%
Global Diversified Credit	5.00%	7.10%
Credit Oriented Hedge Funds	1.00%	6.60%
Debt related Private Equity	2.00%	10.63%
Debt related Real Estate	1.00%	6.61%
Private Real Estate	2.50%	11.83%
Equity related Real Estate	6.25%	9.23%
U.S. Equity	30.00%	8.19%
Non-U.S. Developed Markets Equity	11.50%	9.00%
Emerging Markets Equity	6.50%	11.64%
Buyouts/Venture Capital	8.25%	13.08%

Discount Rate — The discount rate used to measure the total pension liability for PERS was 5.66% and 5.00% as of June 30, 2018 and 2017, respectively. The discount rate used to measure the total pension liability for PFRS was 6.51% and 6.14% as of June 30, 2018 and 2017, respectively. This single blended discount rate was based on the long-term expected rate of return on pension plan investments of 7.00%, and a municipal bond rate of 3.87% and 3.58% as of June 30, 2018 and 2017, respectively, based on the Bond Buyer GO 20-Bond Municipal Bond Index which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made based on the contribution rate in the most recent fiscal year. Based on those assumptions, the plan's fiduciary net position was projected to be available to make projected future benefit payments of current plan members through 2046 for PERS and 2062 for PFRS as of June 30, 2018 and 2040 for PERS and 2057 for PFRS as of June 30, 2017. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2046 for PERS and 2062 for PFRS as of June 30, 2018 and 2040 for PERS and 2057 for PFRS as of June 30, 2017, and the municipal bond rate was applied to projected benefit payments after that date in determining the total pension liability.

Change in Assumptions — For the valuation used in the measurement of the net pension liability for PERS as of June 30, 2018, the discount rate increased 0.66% to 5.66% while the long-term expected rate of return remained at 7.00%. For the valuation used in the measurement of the net pension liability for PFRS as of June 30, 2018, the discount rate increased 0.37% to 6.51% while the long-term expected rate of return remained at 7.00%. For the valuation used in the measurement of the net pension liability for PERS as of June 30, 2017, the discount rate increased 1.02% to 5.00% while the long-term expected rate of return decreased 0.65% to 7.00%. For the valuation used in the measurement of the net pension liability for PFRS as of June 30, 2017, the discount rate increased 0.59% to 6.14% while the long-term expected rate of return decreased 0.65% to 7.00%.

Sensitivity of the Collective Net Pension Liability to Changes in the Discount Rate — The following presents the collective net pension liability of the University, measured as of June 30, 2018 and 2017, respectively, calculated using the discount rate as disclosed above as well as what the collective net pension liability would be if it was calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate (dollars in thousands):

	2018		
	At 1% Decrease	At Current Discount Rate	At 1% Increase
PERS (4.66%, 5.66%, 6.66%, respectively)	$1,909,256	$1,650,950	$1,434,556
PFRS (5.51%, 6.51%, 7.51%, respectively)	94,332	80,230	68,616
Total	$2,003,588	$1,731,180	$1,503,172

	2017		
	At 1% Decrease	At Current Discount Rate	At 1% Increase
PERS (4.00%, 5.00%, 6.00%, respectively)	$1,980,686	$1,703,498	$1,473,269
PFRS (5.14%, 6.14%, 7.14%, respectively)	81,702	69,035	58,651
Total	$2,062,388	$1,772,533	$1,531,920

Deferred Outflows of Resources and Deferred Inflows of Resources — The following presents a summary of the deferred outflows of resources and deferred inflows of resources reported at June 30, 2019 and 2018 (dollars in thousands):

2019	PERS	PFRS	Total
Deferred Outflows of Resources			
Changes of Assumptions	$161,316	$2,954	$164,270
Changes in Proportionate Share	96,378	11,508	107,886
Difference Between Expected and Actual Experience	28,739	–	28,739
Difference Between Projected and Actual Earnings on Pension Plan Investments	4,669	1,176	5,845
Contributions Subsequent to Measurement Date	55,817	6,220	62,037
Total	$346,919	$21,858	$368,777
Deferred Inflows of Resources			
Changes of Assumptions	$332,281	$9,460	$341,741
Changes in Proportionate Share	$15,810	$8,091	$23,901
Difference Between Expected and Actual Experience	13,773	1,123	14,896
Difference Between Projected and Actual Earnings on Pension Plan Investments	–	–	–
Total	$361,864	$18,674	$380,538

2018	PERS	PFRS	Total
Deferred Outflows of Resources			
Changes of Assumptions	$222,829	$4,132	$226,961
Changes in Proportionate Share	45,517	1,730	47,247
Difference Between Expected and Actual Experience	39,028	–	39,028
Difference Between Projected and Actual Earnings on Pension Plan Investments	10,820	1,263	12,083
Contributions Subsequent to Measurement Date	44,280	4,810	49,090
Total	$362,474	$11,935	$374,409
Deferred Inflows of Resources			
Changes of Assumptions	$241,172	$5,873	$247,045
Changes in Proportionate Share	$22,250	$11,194	$33,444
Difference Between Expected and Actual Experience	–	894	894
Difference Between Projected and Actual Earnings on Pension Plan Investments	–	–	–
Total	$263,422	$17,961	$281,383

Included in deferred outflows of resources related to pensions is $62.0 million and $49.1 million on June 30, 2019 and 2018 respectively, from contributions made on behalf of the University subsequent to the measurement date, which will be recognized as a reduction of the net pension liability in the year ended June 30, 2020 and 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows (dollars in thousands):

Years Ending June 30	PERS	PFRS	Total
2020	$28,741	($201)	$28,540
2021	9,498	(882)	8,616
2022	(50,390)	(2,272)	(52,662)
2023	(47,331)	(615)	(47,946)
2024	(11,280)	934	(10,346)
Total	($70,762)	($3,036)	($73,798)

Annual Pension Expense — The University's annual pension expense for PERS and PFRS for the year ended June 30, 2019, was approximately $120.8 million and $6.5 million, respectively ($130.7 million and $3.3 million, respectively, in 2018).

Alternate Benefit Program (ABP)

Plan Description — ABP is an employer defined contribution State retirement plan established as an alternative to PERS. The payroll for employees covered by ABP for the year ended June 30, 2019 and 2018 was $1,244.7 million and $1,138.2 million, respectively.

Faculty, part-time lecturers, professional and administrative staff, and certain other salaried employees are eligible to participate in ABP. Employer contributions vest on reaching one year of credited service. The program also provides long-term disability and life insurance benefits. Benefits are payable upon termination at the member's option unless the participant is re-employed in another institution which participates in ABP.

Contributions — The employee mandatory contribution rate for ABP is 5.0% of base salary and is matched by the State at 8.0% of base salary. Contributions can be invested with up to seven investment carriers available under the plan for fiscal year 2019. Additional voluntary contributions may be made on a tax-deferred basis, subject to limits within the Internal Revenue Code. Employer contributions for the years ended June 30, 2019 and 2018 were $100.2 million and $91.7 million, respectively. Employee contributions for the years ended June 30, 2019 and 2018 were $65.3 million and $63.1 million, respectively.

Effective July 1, 2018, Governor Murphy signed Chapter 14, P.L. 2018 into law, which set the annual salaries of cabinet members in New Jersey at $175,000. Chapter 31, P.L. 2010 sets the allowed employer contributions to the Alternate Benefits Program (ABP) for salaries up to the maximum salary of cabinet member, which is $175,000. In response to this state imposed limit, the University established the Alternate Benefits Program and Trust. Through this program, the University continues to make the full 8% employer ABP contributions for salaries in excess of $175,000, up to the Federal IRC Annual Compensation limit of $275,000 for calendar year 2018 and $280,000 for calendar year 2019.

Other Retirement Plans

The University has a small number of employees enrolled in two Federal retirement plans, the Civil Service Retirement System (CSRS) and the Federal Employees Retirement System (FERS). Both plans are defined benefit plans and cover the University's police and selected positions related to the University's Cook College/New Jersey Agricultural Experiment Station (CSRS or FERS). The University also has a small number of employees enrolled in the Defined Contribution Retirement Program (DCRP). The DCRP was established under the provisions of Chapter 92, P.L. 2007 and expanded under the provisions of Chapter 89, P.L. 2008 and Chapter 1, P.L. 2010. The DCRP provides eligible members with a tax sheltered, defined contribution retirement benefit, along with life insurance and disability coverage. Employees who are ineligible for PERS and PFRS, because the hours of work are fewer than those required for PERS and PFRS membership, are eligible for enrollment in the DCRP provided the annual salary is $5,000 or higher. Employees enrolled in PERS on or after July 1, 2007, who earn salary in excess of established "maximum compensation" limits; and employees otherwise eligible to enroll in PERS on or after November 2, 2008, who do not earn the minimum annual salary (indexed annually) for PERS Membership but who earn a salary of at least $5,000 annually, are eligible to enroll in the DCRP. Eligible employees contribute 5.5% of base salary and the employer match is 3% of base salary. Participation in all of these plans is limited with the associated amount of employee and employer contribution totaling $0.4 million.

Employees can also make voluntary contributions to two optional State of New Jersey tax-deferred investment plans, the Supplemental Annuity Collective Trust (SACT) and the Additional Contributions Tax Sheltered (ACTS) programs. Both plans are subject to limits within the Internal Revenue Code.

Deferred Compensation Plan

University employees with membership in PERS, ABP or PFRS are eligible to participate in the New Jersey State Employees Deferred Compensation Plan created in accordance with Internal Revenue Code Section 457. The plan permits employees to elect pre-tax and/or after-tax Roth contributions to invest a portion of their base salary until future years. The deferred compensation is not available to employees until termination, retirement, death or unforeseeable emergency. The plan is administered by Prudential Financial. The plan does not include any matching employer (State) contributions. All amounts of compensation deferred under the plan, all property and rights purchased with those amounts and all income attributable to those amounts, property or rights, are held in trust by the State for the exclusive benefit of the participating employees and their beneficiaries.

Postemployment Benefits Other Than Pension

The University's retirees participate in the State Health Benefit State Retired Employees Plan (the Plan).

Plan description, including benefits provided - The Plan is a single-employer defined benefit OPEB plan, which provides medical, prescription drug, and Medicare Part B reimbursements to retirees and their covered dependents. Although the Plan is a single-employer plan, it is treated as a cost-sharing multiple employer plan for standalone reporting purposes. In accordance N.J.S.A. 52:14-17.32, the State is required to pay the premiums and periodic charges for OPEB of State employees who retire with 25 years or more of credited service, or on a disability pension, from one or more of the following pension plans: PERS, ABP or PFRS. In addition, N.J.S.A. 52-14-17.26 provides that for purposes of the Plan, an employee of the University shall be deemed to be an employee of the State. As such, the State is legally obligated for the benefit payments on behalf of the retirees of the University; therefore, the Plan meets the definition of a special funding situation as defined in GASB 75.

Retirees who are not eligible for employer-paid health coverage at retirement can continue in the program by paying the cost of the insurance for themselves and their spouse. Pursuant to Chapter 78, P.L, 2011, future retirees eligible for postretirement medical coverage, who have less than 20 years of creditable service on June 28, 2011, will be required to pay a percentage of the cost of their healthcare coverage in retirement provided they retire with 25 years or more of pension service credit. The percentage of the premium for which the retiree will be responsible for will be determined based on the retiree's annual retirement benefit and level of coverage.

The Plan is administered on a pay-as-you-go-basis. Accordingly, no assets are accumulated in a qualifying trust that meets the definition of a trust as per GASB 75.

Total OPEB Liability and OPEB Expense

As of June 30, 2019, the State recorded a liability of $4,053.9 million ($4,702.3 million in 2018), which represents the portion of the State's total proportionate share of the collective total OPEB liability that is associated with the University (the University's share). The University's share was based on the ratio of its members (active and retired) to the total members of the Plan. At June 30, 2019, the University's share was 56.7% (57.5% in 2018) and 17.2% (16.73% in 2018) of the special funding situation and of the Plan, respectively.

For the year ended June 30, 2019, the University recognized OPEB expense of $185.9 million ($276.6 million in 2018). As the State is legally obligated for benefit payments on behalf of the University, the University recognized revenue related to the support provided by the State of $185.9 million ($276.6 million in 2018).

Actuarial assumptions and other inputs – The State's liability associated with the University at June 30, 2019 was determined by an actuarial valuation as of June 30, 2017, which was rolled forward to the measurement date of June 30, 2018. The State's liability associated with the University at June 30, 2018 was determined by an actuarial valuation as of June 30, 2016, which was rolled forward to the measurement date of June 30, 2017. The valuation used the following assumptions:

	2018	2017
Inflation Rate	2.50%	2.50%
Discount Rate	3.87%	3.58%
Salary Increases:		
Through 2026	1.55 – 8.98%	1.55 – 8.98%
Thereafter	2.00 – 9.98%	2.00 – 9.98%

The discount rate is based on the Bond Buyer GO 20-Bond Municipal Bond Index, which includes tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. Salary increases depend on the pension plan a member is enrolled in. In addition, they are based on age or years of service.

The June 30, 2017 valuation used preretirement mortality rates based on the RP-2006 Headcount-Weighted Healthy Employee Male/Female mortality table with fully generational mortality improvement projections from the central year using the MP-2017 scale. Postretirement mortality rates were based on the RP-2006 Headcount-Weighted Healthy Annuitant Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale. Disability mortality was based on the RP-2006 Headcount-Weighted Disabled Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale.

The June 30, 2016 valuation used preretirement mortality rates based on the RP-2014 Headcount-Weighted Healthy Employee Male/Female mortality table with fully generational mortality improvement projections from the central year using the MP-2017 scale. Postretirement mortality rates were based on the RP-2014 Headcount-Weighted Healthy Annuitant Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale. Disability mortality was based on the RP-2014 Headcount-Weighted Disabled Male/Female mortality table with fully generational improvement projections from the central year using the MP-2017 scale.

Certain actuarial assumptions used in the June 30, 2017 and 2016 valuations were based on the results of actuarial experience studies of the State's defined benefit pension plans, including PERS (July 1, 2011 through June 30, 2014), ABP (using the experience of the Teacher's Pension and Annuity Fund – July 1, 2012 through June 30, 2015), and PFRS (July 1, 2010 through June 30, 2013).

Health Care Trend Assumptions - For pre-Medicare preferred provider organization (PPO) and health maintenance organization (HMO) medical benefits, this amount initially is 5.8% and 5.9% for the June 30, 2017 and 2016 valuations, respectively, and decreases to a 5.0% long-term trend rate after eight and nine years, respectively. For self-insured post-65 PPO and HMO medical benefits, the trend rate is 4.5% for the June 30, 2017 and 2016 valuations. For prescription drug benefits, the initial trend rate is 8.0% and 10.5% for the June 30, 2017 and 2016 valuations, respectively, decreasing to a 5.0% long-term trend rate after seven and eight years, respectively. For the Medicare Part B reimbursement, the trend rate is 5.0% for the June 30, 2017 and 2016 valuations. The Medicare Advantage trend rate is 4.5% for the June 30, 2017 and 2016 valuations and will continue in all future years.

NOTE 15 - COMPENSATED ABSENCES

The University accounts for compensated absences as directed by GASB Statement No. 16, *Accounting for Compensated Absences*. A liability for compensated absences (i.e. unused vacation, sick leave, and paid leave bank days attributable to services already rendered and not contingent on a specific event that is outside the control of the employer and employee) is accrued as employees earn the rights to the benefits.

The University recorded a liability for accumulated vacation time in the amount of $53.5 million at June 30, 2019 ($52.6 million in 2018). The liability is calculated based upon employees' accrued vacation time as of the statement of net position date and is recorded in accounts payable and accrued expenses in the accompanying statement of net position.

Payments for accumulated sick leave balances are made to retiring employees upon regular retirement. The payout to retirees for unused accumulated sick time is calculated at the lesser of ½ the value of earned time or $15,000. Employees separating from the University service prior to retirement are not entitled to payments for accumulated sick leave balances. The University recorded a liability for accumulated sick leave balances in the amount of $18.5 million at June 30, 2019 ($18.8 million in 2018), which is included in other noncurrent liabilities in the accompanying statement of net position.

The University also recorded a liability for paid leave bank days in the amount of $2.8 million at June 30, 2019 ($3.0 million in 2018), which is included in other noncurrent liabilities in the accompanying statement of net position. Employees began using these days on July 1, 2010, and may continue for the duration of employment with the University. Once these days are exhausted, the employee will not be eligible for any additional days.

NOTE 16 - RISK MANAGEMENT

In 1980, the University, jointly with 15 other higher education institutions, established Genesis Ltd. (Genesis), a Class 2 reinsurer under the Insurance Act of 1978 of Bermuda. Genesis, a Captive Reinsurance Company, was formed to reinsure general liability, professional liability, and automobile liability risks of its shareholders.

In 2004, the University and its 15 partners formed a Vermont Reciprocal Risk Retention Group, Pinnacle Consortium of Higher Education (Pinnacle), to enhance and support the insurance programs and provide fronting services for Genesis. The primary purpose of this second alternate risk funding company was to reduce costs, reduce collateral requirements for Genesis and provide the flexibility to conduct business in the U.S. The insurance policies have deductibles that vary by policy, the most significant of which provides for the payment of general liability claims.

Effective January 1, 2016, in order to eliminate certain redundancies and gain further operational efficiency, the Shareholders and Subscribers of Genesis and Pinnacle, respectively, consolidated the insurance operations into Pinnacle in a two-step process by: discontinuing Genesis in Bermuda, and, immediately merging it into Pinnacle, with Pinnacle remaining as the surviving entity. Pinnacle assumed all of Genesis' obligations as reinsurer of Pinnacle, and is holding all of the assets previously held by Genesis to support such obligations. Going forward, Pinnacle will retain all of the risk that previously was ceded to Genesis.

The University is self-insured for workers' compensation and retains various deductibles for general liability, automobile liability, and all risk property insurance. The total liability at June 30, 2019, for these items is $37.2 million ($34.9 million in 2018). The reserve balance recorded at June 30, 2019, is $31.5 million ($38.0 million in 2018). Workers' compensation reserves are discounted at appropriate levels determined by management. The self-insurance reserve represents the estimated ultimate cost of settling claims and related expenses resulting from events that have occurred. The reserve includes the amount that will be required for future payments of claims that have been reported and claims related to events that have occurred, but have not been reported (IBNR).

The University participates in the State's Medical Malpractice Self-Insurance Fund (the Fund), which is used to pay malpractice claims and insurance premiums for the University. The contributions made during the current fiscal year by the University and its affiliate hospitals, UPA, Department of Corrections (DOC), and faculty practice plans are equal to the amount established in memoranda agreements between the Department of the Treasury and the University. If the contributions are insufficient to pay claims expenditures, the State's General Fund will be used to pay remaining claims.

Payment of claims from the Fund totaled $19.5 million in 2019 ($24.2 million in 2018). Contributions to the Fund from the State totaled $10.3 million in 2019 ($14.2 million in 2018), while contributions from RBHS affiliates, DOC, and faculty practice plans totaled $9.2 million in 2019 ($10.0 million in 2018).

The University has accrued expenses for deductibles and IBNR liabilities in the statement of net position. The accrued expenses are based on estimates by management and third-party claims administrators and generally represent the present value of the unpaid claims including the estimates for claims.

NOTE 17 - CONTINGENCIES

The University is a party to various legal actions arising in the ordinary course of its operations. While it is not feasible to predict the ultimate outcome of these actions, it is the opinion of management that the resolution of these matters will not have a material adverse effect on the University's financial statements.

The University receives funds from federal, state, and private agencies under grants and contracts for research, training, and other activities. The costs, both direct and indirect, charged to these grants and contracts are subject to audit and possible disallowance by the sponsoring agency. It is the University's belief that any disallowances or adjustments would not have a significant effect on the University's financial statements.

RUTGERS
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NOTE 18 – BLENDED COMPONENT UNIT – RUTGERS HEALTH GROUP

As indicated in the Summary of Significant Accounting and Reporting Policies in Note 1 the University consolidates Rutgers Health Group (RHG) in a blended presentation. Condensed RHG financial information for the years ended June 30, 2019 and 2018 is as follows.

CONDENSED STATEMENT OF NET POSITION
June 30, 2019
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES:			
Current Assets	$ 856,362	$ 172,128	$ 1,028,490
Current Assets-Due from RHG/(to) Rutgers	120,810	(120,810)	-
Capital Assets, Net	3,926,334	11,963	3,938,297
Other Noncurrent Assets	1,684,035	-	1,684,035
Deferred Outflows	397,329	72,947	470,276
TOTAL ASSETS AND DEFERRED OUTFLOWS	6,984,870	136,228	7,121,098
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES:			
Current Liabilities	731,289	66,898	798,187
Non Current Liabilities	3,412,597	337,290	3,749,887
Deferred Inflows	270,775	109,763	380,538
TOTAL LIABILITIES AND DEFERRED INFLOWS	4,414,661	513,951	4,928,612
NET POSITION (DEFICIT):			
Net Investment in Capital Assets	1,982,699	8,842	1,991,541
Restricted for			
Nonexpendable	738,674	-	738,674
Expendable	624,742	(2,646)	622,096
Net Unrestricted	(775,906)	(383,919)	(1,159,825)
TOTAL NET POSITION/(DEFICIT)	$ 2,570,209	$ (377,723)	$ 2,192,486

CONDENSED STATEMENT OF NET POSITION
June 30, 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES:			
Current Assets	$ 922,019	$ 166,296	$ 1,088,315
Current Assets-Due from RHG/(to) Rutgers	115,038	(115,038)	-
Capital Assets, Net	3,760,260	11,982	3,772,242
Other Noncurrent Assets	1,554,417	-	1,554,417
Deferred Outflows	451,470	16,164	467,634
TOTAL ASSETS AND DEFERRED OUTFLOWS	6,803,204	79,404	6,882,608
LIABILITIES AND DEFERRED INFLOWS OF RESOURCES:			
Current Liabilities	636,730	51,831	688,561
Non Current Liabilities	3,780,223	66,363	3,846,586
Deferred Inflows	244,079	37,304	281,383
TOTAL LIABILITIES AND DEFERRED INFLOWS	4,661,032	155,498	4,816,530
NET POSITION (DEFICIT):			
Net Investment in Capital Assets	1,894,688	11,154	1,905,842
Restricted for			
Nonexpendable	713,327	-	713,327
Expendable	510,271	1,143	511,414
Net Unrestricted	(976,114)	(88,391)	(1,064,505)
TOTAL NET POSITION/(DEFICIT)	$ 2,142,172	$ (76,094)	$ 2,066,078

CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
Year ended June 30, 2019
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
OPERATING REVENUES			
Student Tuition and Fees (net of scholarship allowances)	$ 1,017,782	$ -	$ 1,017,782
Grants and Contracts	524,092	57,752	581,844
Auxiliary Enterprises (net of scholarship allowances)	256,580	-	256,580
Net Patient Service Revenues	25,673	230,574	256,247
Health Service Contract Revenues	149,778	465,451	615,229
Other Operating Revenues	149,562	870	150,432
Total Operating Revenues	2,123,467	754,647	2,878,114
OPERATING EXPENSES			
Operating Expenses, excluding depreciation and OPEB Expense	2,849,885	1,061,941	3,911,826
Depreciation Expense	180,079	1,258	181,337
OPEB Expense	154,474	31,401	185,875
Cost Pool	(30,381)	30,381	-
Total Operating Expenses	3,154,057	1,124,981	4,279,038
Operating loss	(1,030,590)	(370,334)	(1,400,924)
NON-OPERATING REVENUES/(EXPENSES)			
State Appropriations (including fringe benefits paid directly by the State)	764,354	115,277	879,631
OPEB Paid by the State	154,474	31,401	185,875
Contributions	150,383	27	150,410
Endowment and Investment Income	48,297	-	48,297
Net Increase/(Decrease)in Fair Value of Investments	57,007	-	57,007
Governmental Student Aid	224,978	-	224,978
Interest on Capital Asset Related Debt	(90,095)	-	(90,095)
Loss on Disposal of Capital Assets	(1,906)	(1,054)	(2,960)
Net Other Non-Operating Revenues	(3,009)	1,120	(1,889)
Net Non-Operating Revenue	1,304,483	146,771	1,451,254
Loss Before Other Revenues	273,893	(223,563)	50,330
Other Revenues	75,971	107	76,078
Transfers From/(To) the University	78,173	(78,173)	-
Increase/(Decrease) in Net Position	428,037	(301,629)	126,408
Net Position/(Deficit) at Beginning of Year	2,142,172	(76,094)	2,066,078
Net Position/(Deficit) at End of Year	$ 2,570,209	$ (377,723)	$ 2,192,486

In 2019, operating expenses, excluding depreciation, include $290.1 million in allocated pension expenses based upon actuarial assumptions with a measurement date of June 30, 2018. Pension expense increased due to RHG's existence beginning July 1, 2017.

CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

Year ended June 30, 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
OPERATING REVENUES			
Student Tuition and Fees (net of scholarship allowances)	$ 965,993	$ -	$ 965,993
Grants and Contracts	556,592	51,834	608,426
Auxiliary Enterprises (net of scholarship allowances)	248,469	-	248,469
Net Patient Service Revenues	22,726	209,865	232,591
Health Service Contract Revenues	137,977	411,455	549,432
Other Operating Revenues	126,010	719	126,729
Total Operating Revenues	2,057,767	673,873	2,731,640
OPERATING EXPENSES			
Operating Expenses, excluding depreciation and OPEB Expense	3,260,559	767,870	4,028,429
Depreciation Expense	179,293	1,676	180,969
OPEB Expense	-	-	-
Cost Pool	(30,933)	30,933	-
Total Operating Expenses	3,408,919	800,479	4,209,398
Operating loss	(1,351,152)	(126,606)	(1,477,758)
NON-OPERATING REVENUES/(EXPENSES)			
State Appropriations (including fringe benefits paid directly by the State)	708,425	105,486	813,911
OPEB Paid by the State	276,630	-	276,630
Contributions	37,723	-	37,723
Endowment and Investment Income	44,820	-	44,820
Net Increase/(Decrease)in Fair Value of Investments	84,043	-	84,043
Governmental Student Aid	214,126	-	214,126
Interest on Capital Asset Related Debt	(83,672)	-	(83,672)
Net Other Non-Operating Revenues	10,132	4,757	14,889
Net Non-Operating Revenue	1,292,227	110,243	1,402,470
Loss Before Other Revenues	(58,925)	(16,363)	(75,288)
Other Revenues	101,208	-	101,208
Transfers From/(To) the University	59,731	(59,731)	-
Increase/(Decrease) in Net Position	102,014	(76,094)	25,920
Net Position/(Deficit) at Beginning of Year	2,040,158	-	2,040,158
Net Position/(Deficit) at End of Year	$ 2,142,172	$ (76,094)	$ 2,066,078

CONDENSED STATEMENT OF CASH FLOWS
Year ended June 30, 2019
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
Net Cash Flows from Operating Activities	$ (448,752)	$ (25,880)	$ (474,632)
Net Cash Flows from Noncapital Financing Activities	793,882	28,294	822,176
Net Cash Flows from Financing Activities	(378,676)	(2,423)	(381,099)
Net Cash Flows from Investing Activities	36,707	-	36,707
Net Increase/(Decrease) in Cash and Cash Equivalents	3,161	(9)	3,152
Cash and Cash Equivalents - Beginning of the Year	264,737	8	264,745
Cash and Cash Equivalents - End of the Year	$ 267,898	$ (1)	$ 267,897

CONDENSED STATEMENT OF CASH FLOWS
Year ended June 30, 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey (Excludes RHG)	Rutgers Health Group	Rutgers, The State University of New Jersey (Total)
Net Cash Flows from Operating Activities	$ (535,141)	$ (33,027)	$ (568,168)
Net Cash Flows from Noncapital Financing Activities	648,971	33,110	682,081
Net Cash Flows from Financing Activities	(243,759)	(75)	(243,834)
Net Cash Flows from Investing Activities	(55,209)	-	(55,209)
Net Increase/(Decrease) in Cash and Cash Equivalents	(185,138)	8	(185,130)
Cash and Cash Equivalents - Beginning of the Year	449,875	-	449,875
Cash and Cash Equivalents - End of the Year	$ 264,737	$ 8	$ 264,745

NOTE 19 - COMPONENT UNIT - RUTGERS UNIVERSITY FOUNDATION

Cash, Cash Equivalents, and Investments

The Foundation's cash and cash equivalents consist of the following as of June 30, 2019 and 2018 (dollars in thousands):

	2019	2018
Money Market Account	$ 809	$ 850
Cash and Deposits	15,536	17,578
	$ 16,345	$ 18,428

The Board of Overseers, through its Investment Committee, has authority over the investment of Foundation funds. Professional investment managers are engaged by the Foundation to buy, sell, invest, and reinvest portions of the assets in accordance with the investment policies and objectives established by the Investment Committee.

Fair Value Measurement

The Foundation's investments at June 30, 2019 are summarized in the following table by their fair value hierarchy (dollars in thousands):

	2019			
	Investments by Fair Value Level			
Investment Type	Fair Value	Level 1	Level 2	Level 3
U.S. Treasury Securities	$ 170	$ 170	$ –	$ –
Municipal Bonds	4	4	–	–
Corporate Bonds	122	101	9	12
Mortgage-backed Securities	1	1	–	–
Preferred Stock	15	–	15	–
Fixed Income Mutual Funds	7,246	7,246	–	–
Equity Securities	6,222	6,222	–	–
International Equity Securities	794	794	–	–
Money Market Mutual Funds	10,239	10,239	–	–
Real Estate	188	–	188	–
Privately Held Securities	60	–	–	60
	$ 25,061	$ 24,777	$ 212	$ 72

The Foundation's investments at June 30, 2018 are summarized in the following table by their fair value hierarchy (dollars in thousands):

	2018			
	Investments by Fair Value Level			
Investment Type	Fair Value	Level 1	Level 2	Level 3
U.S. Treasury Securities	$ 116	$ 116	$ –	$ –
Municipal Bonds	4	4	–	–
Mortgage-backed Securities	1	1	–	–
Preferred Stock	243	177	53	13
Fixed Income Mutual Funds	17,349	17,349	–	–
Equity Securities	5,158	5,158	–	–
International Equity Securities	889	889	–	–
Real Estate	233	–	233	–
Privately Held Securities	60	–	–	60
	$ 24,053	$ 23,694	$ 286	$ 73
Investments measured at net asset value or its equivalent:				
Alternative investments	390			
Subtotal	390			
Total Investments	$ 24,443			

The custodial credit risk associated with the Foundation's cash and cash equivalents includes uncollateralized deposits, including any bank balance that is collateralized with securities held by pledging financial institutions, or by its trust department or agent, but not in the Foundation's name. As of June 30, 2019, the amount on deposit with the banks was $15.6 million ($17.7 million in 2018). As of June 30, 2019, the Foundation had insured deposits up to the Federal Deposit Insurance Corporation (FDIC) coverage limits totaling $0.3 million ($0.3 million in 2018). Cash and cash equivalents in excess of those balances are uncollateralized.

As of June 30, 2019, the Foundation's investments were either insured, registered, or held by the Foundation's agent in the Foundation's name, except for money market and mutual funds, which are not subject to custodial credit risk because their existence is not evidenced by securities that exist in physical or book entry form.

The Foundation limits the concentration of credit risk by placing a limit on the amount the investment managers may invest in any one issuer. No initial purchase of an equity or fixed income security in any one issuer should exceed 5% of the portion of the Foundation's assets under management by each investment manager. In addition, no single equity security should be greater than 10% of the market value of the Foundation's assets under management. As of June 30, 2019, there are no investments in any one issuer greater than 5% of total investments.

Credit Risk - The Foundation's investment policy states that individual bonds shall be rated investment grade by at least two recognized or authorized rating agencies (Moody's and Standard & Poor's). The average credit quality of the fixed income securities must be maintained at a Class "BBB/Baa" or higher as rated by both standard services (Moody's and Standard & Poor's). Up to 10% of the investment manager's portfolio may be invested in securities rated "BBB/Baa" or lower as rated by both standard services (Moody's and Standard & Poor's). The dollar-weighted average rating of the fixed income portfolio for each manager of marketable bonds shall be "A/A" or better.

As of June 30, 2019 and 2018, the Foundation's investment quality ratings as rated by Standard & Poor's were as follows (dollars in thousands):

Investment Type	Quality Rating	2019 Amount	2018 Amount
U.S. Treasury Securities	AA+	$ 170	$ 116
Municipal Bonds	AAA	4	4
Corporate Bonds	BBB	12	–
Corporate Bonds	BBB-	52	–
Corporate Bonds	BB+	34	–
Corporate Bonds	BB	13	–
Corporate Bonds	Not Rated	11	–
Mortgage-backed Securities	AA+	1	1
Preferred Stock	A-	–	1
Preferred Stock	BBB+	1	–
Preferred Stock	BBB-	14	96
Preferred Stock	BB+	–	83
Preferred Stock	BB	–	39
Preferred Stock	Not Rated	–	24
Money Market Mutual Funds	AAA	10,239	–
Fixed Income Mutual Funds	Not Rated	7,246	17,349
Total		$ 17,797	$ 17,713

Interest Rate Risk –The Foundation does not have a provision in the investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. While the general provisions of the investment strategy should be implemented with a long-term prospective, all holdings must be sufficiently liquid so as to allow liquidation of the entire portfolio on one month's notice. In addition, annuity pooled investments in the planned giving portion of the portfolio are governed by the New Jersey Prudent Investor Act. The required reserves for this pool are reviewed utilizing actuarial assumptions of the charitable gift annuity assets.

The following table summarizes the maturities as of June 30, 2019 and 2018 (dollars in thousands):

		2019			
		Investment Maturities (in years)			
Investment Type	Fair Value	Less than 1	1 – 5	6 – 10	More than 10
U.S. Treasury Securities	$ 170	$ 16	$ 154	$ –	$ –
Mortgage-backed Securities	1	–	–	1	–
Municipal Bonds	4	–	–	4	–
Corporate Bonds	122	64	49	9	–
Preferred Stock	15	1	–	–	14
Money Market Mutal Funds	10,239	10,239	–	–	–
Fixed Income Mutual Funds	7,246	–	4,996	2,250	–
Total	$ 17,797	$ 10,320	$ 5,199	$ 2,264	$ 14

Investment Type	Fair Value	Less than 1	1 – 5	6 – 10	More than 10
		2018 Investment Maturities (in years)			
U.S. Treasury Securities	$ 116	$ 24	$ 86	$ 6	$ –
Mortgage-backed Securities	1	–	–	1	–
Municipal Bonds	4	–	–	4	–
Preferred Stock	243	141	37	12	53
Fixed Income Mutual Funds	17,349	10,042	2,826	4,481	–
Total	$ 17,713	$ 10,207	$ 2,949	$ 4,504	$ 53

Administrative Fees and Support from Rutgers, The State University of New Jersey

The Foundation's operations, including certain payroll taxes and benefits, the fair rental value of space occupied, and office furnishings used by the Foundation are supported extensively by the University for operating purposes. Funding sources for the year ended June 30, 2019 and 2018 were as follows (dollars in thousands):

	2019	2018
Administrative Fees and Support:		
Endowment Administrative Fee	$ 10,423	$ 9,879
University Support	14,199	14,580
	$ 24,622	$ 24,459
Noncash Support:		
Fair Rental Value of Space Occupied	$ 1,138	$ 453
University-Paid Payroll Taxes and Benefits	1,577	1,555
	2,715	2,008
Total	$ 27,337	$ 26,467

Assessment Fee Income

The Foundation charges an assessment fee on all new gifts and nongovernmental grants in order to further advancement efforts on behalf of Rutgers, the State University of New Jersey. For the year ended June 30, 2019, assessment fees totaling $3.8 million ($3.9 million in 2018) were recorded.

Restricted Contributions Receivable

The anticipated receipt of contributions receivable as of June 30, 2019 and 2018, is as follows (dollars in thousands):

	2019	2018
Year Ending June 30:		
Within One Year	$ 49,942	$ 45,926
Two to Five Years	38,176	51,502
	88,118	97,428
Less Allowance for Uncollectible Contributions Receivable	(6,955)	(7,082)
	$ 81,163	$ 90,346

Contributions receivable related to permanent endowments and term endowments do not meet the eligibility requirements for recognition of GASB Statement No. 33 until received. This contribution receivable, which approximated $122.9 million as of June 30, 2019 ($88.0 million in 2018) has not been included in the accompanying financial statements.

University Receipts on Foundation Pledges

The Foundation records pledges receivable, and the associated gift income, for nonendowment related gifts and private grants based upon written commitments from these entities. From individual donors, the written support is primarily in the form of a fund agreement signed by both the donor(s) and the Foundation. Private grants obtained from private corporations and foundations are recorded upon confirmation of the grant award to the University via correspondence from the private organization. Payments on these pledges are not all received at the Foundation, as some payments are made directly to the University. Any payments made directly to the University are captured in the Foundation's Statements of Revenues, Expenses and Changes in Net Position as gift revenue as well as distributions to the University. The total of these payments to the University as of June 30, 2019 were $17.7 million ($16.8 million in 2018).

NOTE 20 – COMPONENT UNIT – UNIVERSITY PHYSICIAN ASSOCIATES OF NEW JERSEY, INC., AND AFFILIATE

The following information has been taken from UPA's audited financial statements, which were prepared in accordance with financial pronouncements of the Financial Accounting Standards Board.

The accompanying combined financial statements of UPA are prepared on a modified cash basis of accounting, which is a comprehensive basis of accounting other than accounting principles generally accepted in the United States of America.

Investments and Assets Whose Use is Limited

Assets limited as to use at June 30, 2019 and 2018, is set forth in the following table (dollars in thousands):

	2019	2018
Cash and Cash Equivalents – Restricted	$ 4,189	$ 1,562
Short-term Investments - Restricted	3,886	–
	$ 8,075	$ 1,562

Investments

The composition of investments at June 30, 2019 and 2018, is set forth in the following table (dollars in thousands):

	2019	2018
Cash and Cash Equivalents	$ 3,605	$ 2,966
Marketable Equity Securities	11,058	14,417
U.S. Government Securities	15,139	3,593
Bonds	39,754	45,683
Total Short-term Investments	$ 69,556	$ 66,659

The fair value of UPA's financial assets that are measured on a recurring basis at June 30, 2019 and 2018, are as follows (dollars in thousands):

Assets	Valuation Techniques(1)	Quoted Priced in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	2019 Total Fair Value
Marketable Equity Securities	M	$ 11,058	$ –	$ –	$ 11,058
U.S. Government Securities	M	–	15,139	–	15,139
Certificates of Deposit	M	–	2,965	–	2,965
Bonds	M	–	39,754	–	39,754
Total Assets		$ 11,058	$ 57,858	$ –	$ 68,916

Assets	Valuation Techniques(1)	Quoted Priced in Active Markets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	2018 Total Fair Value
Marketable Equity Securities	M	$ 14,417	$ –	$ –	$ 14,417
U.S. Government Securities	M	–	3,593	–	3,593
Bonds	M	–	45,683	–	45,683
Total Assets		$ 14,417	$ 49,276	$ –	$ 63,693

(1) The three valuation techniques are market approach (M), cost approach (C), and income approach (I).

At June 30, 2019, there was approximately $0.6 million ($3.0 million in 2018) of cash and cash equivalents in investments within the statement of net position that are excluded from the charts above as they are not considered recurring fair value measurements.

Transactions with Related Parties

The Board of Directors of UPA includes certain participating UPA physicians, the Dean of Rutgers New Jersey Medical School and the Senior Vice President for Finance and Administration of Rutgers University.

Under the terms of the Affiliation Agreement between Rutgers University and UPA, all professional fees collected by UPA will be distributed in varying proportions to the following:

- UPA participating physicians – Faculty members who are required to or permitted to participate in the faculty practice plan. Included are full time, part time and voluntary faculties.
- Rutgers New Jersey Medical School department funds – 7% of gross patient service on system and off system collections are paid into the Departmental Chairs Fund.
- Rutgers New Jersey Medical School dean's fund – 7% of gross patient service on system and off system collections are paid into the Dean's Fund.
- Participant fund – These are funds voluntarily voted on by participants through their specific departments within Rutgers New Jersey Medical School, with varying amounts allocated for each participant.

- Rutgers University medical malpractice fund – 3% of gross patient service on system and off system collections are paid into Rutgers University's self-insured pool for medical malpractice coverage per the affiliation agreement.

The payables to related parties as of June 30, 2019 and 2018, are as follows (dollars in thousands):

	2019	2018
Payable to Rutgers University Medical Malpractice Fund	$ 583	$ 653
Payable to New Jersey Medical School Mandatory Department Account	1,418	3,817
Payable to New Jersey Medical School Deans' Fund	5,278	3,154
Payable to Voluntary Department Account	3,189	2,133
Payable to Voluntary Division Account	2,399	1,769
Payable to Voluntary Group Account	68	109
Payable to Voluntary Practice Group Account	36,838	36,860
Total Current Liabilities	$ 49,773	$ 48,495

Lease Commitments

UPA originally leased 47,500 square feet of rental space located in the Doctor's Office Center in Newark, New Jersey from UMDNJ. UMDNJ and UPA entered into a lease dated May 7, 2001, with four subsequent addendums to extend the terms of the lease. The fourth addendum effective January 1, 2006 has extended to lease to December 31, 2006 under the same terms and conditions set forth in the May 7, 2001 lease, which is subject to renewal. Effective July 1, 2013, the lease agreement between UPA and UMDNJ was amended to state that, as of that date, the parties to the Lease Agreement are Rutgers University and UPA. Total rental expense in fiscal year 2019 was $0.6 million ($0.5 million in 2018).

NOTE 21 – SUBSEQUENT EVENTS

On September 10, 2019, the University issued a 100-year "century bond", General Obligation Bonds, 2019 Series P (Federally Taxable) for $330.0 million. They were issued, at a yield of 3.915%, due on May 1, 2119, to provide funds for the financing and/or refinancing of the construction of various capital projects and financing of certain administrative, legal, financial and incidental expenses related to the issuance of the 2019 Series P Bonds. This is the first-ever century bond for the University.

On October 24, 2019, the University issued General Obligation Refunding Bonds, 2019 Series R (Federally Taxable) for $614.5 million to refund a portion of General Obligation Refunding Bonds, 2013 Series J and a portion of General Obligation Bonds, 2013 Series L. As part of the refunding, the University reduced its total debt service over the next 24 years by $51.7 million and obtained an economic gain (difference between the present values of the old and new debt service payments less escrow funds used) of $50.5 million.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

Schedules of Employer Contributions*
For the Five Years Ended June 30, 2019
(dollars in thousands)

Public Employees' Retirement System (PERS)	2019	2018	2017	2016	2015
Contractually Required Contribution	$55,817	$44,280	$28,964	$25,859	$14,888
Contributions in relation to the Contractually Required Contribution	$55,817	$44,280	$28,964	$25,859	$14,888
Contribution Deficiency (Excess)	–	–	–	–	–
University Employee Covered Payroll (as of Fiscal Year End)	$298,101	$298,169	$294,177	$296,594	$294,526
Contributions as a percentage of Employee Covered Payroll	18.72%	14.85%	9.85%	8.72%	5.05%

Police and Firemen's Retirement System (PFRS)	2019	2018	2017	2016	2015
Contractually Required Contribution	$6,220	$4,810	$3,069	$1,512	$1,298
Contributions in relation to the Contractually Required Contribution	$6,220	$4,810	$3,069	$1,512	$1,298
Contribution Deficiency (Excess)	–	–	–	–	–
University Employee Covered Payroll (as of Fiscal Year End)	$9,716	$9,418	8,932	8,091	$8,466
Contributions as a percentage of Employee Covered Payroll	64.02%	51.07%	34.36%	18.69%	15.33%

Schedules of Proportionate Share of the Net Pension Liability*
For the Five Years Ended June 30, **2019**
(dollars in thousands)

Public Employees' Retirement System (PERS)	2019	2018	2017	2016	2015
University Proportionate Share of the Net Pension Liability – State Group	6.96%	6.64%	6.72%	6.60%	6.42%
University Proportionate Share of the Net Pension Liability – Total Plan	3.80%	3.48%	3.35%	3.39%	3.33%
University Proportionate Share of the Net Pension Liability	$1,650,950	$1,703,499	$1,973,868	$1,566,143	$1,292,223
University Employee Covered-Payroll (for year ended as of measurement date)	$298,169	$294,177	$296,594	$294,526	$299,132
University Proportionate Share of the Net Pension Liability as a Percentage of the Employee Covered-Payroll	553.70%	579.07%	665.51%	531.75%	431.99%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	40.45%	36.78%	31.20%	38.21%	42.74%

Police and Firemen's Retirement System (PFRS)	2019	2018	2017	2016	2015
University Proportionate Share of the Net Pension Liability – State Group	1.85%	1.57%	1.79%	1.76%	1.76%
University Proportionate Share of the Net Pension Liability – Total Plan	0.41%	0.32%	0.33%	0.36%	0.36%
University Proportionate Share of the Net Pension Liability	$80,230	$69,035	$84,109	$78,598	$62,433
University Employee Covered-Payroll (for year ended as of measurement date)	$9,418	$8,932	$8,091	$8,466	$9,043
University Proportionate Share of the Net Pension Liability as a Percentage of the Employee Covered-Payroll	851.88%	772.89%	1039.55%	928.40%	690.40%
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	57.91%	54.52%	48.55%	52.84%	58.86%

*Information provided for Required Supplementary Information will be provided for ten (10) years as the information becomes available in subsequent years.

Notes to Required Supplementary Information

Changes in benefit terms – There were no significant changes in benefits for any of the actuarial valuations used to determine required contributions.

Changes in assumptions – There were no significant changes in assumptions except for the annual change in the discount rate and the change in the long-term rate as follows:

PERS
For 2018, the discount rate changed to 5.66% and the long-term expected rate of return remained at 7.00%. For 2017, the discount rate changed to 5.00% and the long-term expected rate of return changed to 7.00%. For 2016, the discount rate changed to 3.98% and the long-term expected rate of return changed to 7.65% from 7.90%. For 2015, the discount rate changed to 4.90% from 5.39%.

PFRS
For 2018, the discount rate changed to 6.51% and the long-term expected rate of return remained at 7.00%. For 2017, the discount rate changed to 6.14% and the long-term expected rate of return changed to 7.00%. For 2016, the discount rate changed to 5.55% and the long-term expected rate of return changed to 7.65% from 7.90%. For 2015, the discount rate changed to 5.79% from 6.32%.

Schedules of Proportionate Share of the Total OPEB Liability*
For the Two Years Ended June 30, 2019
(dollars in thousands)

	2019	2018
University's proportion of the total OPEB liability	0%	0%
University's proportionate share of the total OPEB liability	–	–
State of New Jersey's proportionate share of the total OPEB liability associated with the University	$4,053,949	$4,702,301
Total OPEB liability	$4,053,949	$4,702,301
University's covered-employee payroll	$1,777,964	$1,558,444
University's proportionate share of the total OPEB liability as a percentage of the University's covered-employee payroll	0%	0%

* Information provided for Required Supplementary Information will be provided for ten (10) years as information becomes available in subsequent years.

Notes to Required Supplementary Information

For the State Health Benefit State Retired Employees Plan, there are no assets accumulated in a trust that meets the criteria in paragraph 4 of GASB 75.

Changes in assumptions – There were no significant changes in assumptions except for the annual change in the discount rate. For 2018, the discount rate changed to 3.87% from 3.58%.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

University Administrative Officers

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President

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Phoebe A. Haddon, J.D.
Chancellor, Rutgers University–Camden

Christopher J. Molloy, Ph.D.
Chancellor, Rutgers University–New Brunswick

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J. Michael Gower, M.B.A.
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Director of Intercollegiate Athletics

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Secretary of the University

APPENDIX C.

SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND FIFTEENTH SUPPLEMENTAL INDENTURE

The statements made herein concerning the Master Indenture and the Fifteenth Supplemental Indenture are summaries and do not purport to be complete. Such statements use certain terms defined in the Master Indenture and the Fifteenth Supplemental Indenture and are qualified in their entirety by reference to the detailed provisions of the Master Indenture and the Fifteenth Supplemental Indenture. References in this summary to the Indenture will be deemed to be references to the Master Indenture.

Certain Definitions

The following are definitions in summary form of certain terms contained in the Master Indenture and Fifteenth Supplemental Indenture and used hereinafter:

Account: shall mean a special trust account established under the Indenture.

Act: shall mean Rutgers, The State University Law, Chapter 65 of Title 18A of the New Jersey Statutes Annotated, as amended and supplemented.

Additional Bonds: shall mean one or more Series of Bonds issued under and secured by the Indenture for the purpose of providing funds for each Additional Project.

Additional Project: shall mean one or more Facilities of the University all or part of the cost of which has been or is being financed by Additional Bonds pursuant to the Indenture or refinanced by Refunding Bonds pursuant to the Indenture.

Annual Debt Service: shall mean the aggregate of Principal Installments and Interest Requirements as the same become due and payable on all Outstanding Bonds of the University.

Annual Financial Information: shall mean

(a) (i) the Audited Financial Statements of the University for the preceding Fiscal Year, and Unaudited Financial Statements for such Fiscal Year if such Audited Financial Statements are unavailable, pursuant to the Indenture;

(ii) an update of the tabular information presented in the Official Statement with respect to the 2020 Series S Bonds dated August 4, 2020 under "APPENDIX A — INFORMATION CONCERNING RUTGERS, THE STATE UNIVERSITY"; and

(iii) the information regarding amendments to the Indenture required pursuant to the Indenture.

Annual Financial Information shall include Audited Financial Statements, if available, or Unaudited Financial Statements.

The descriptions contained in clause (ii) above constituting Annual Financial Information are of general categories of financial information and operating data. When such descriptions include information that no longer can be generated because the operations to which it related have been materially changed or discontinued, a statement to that effect shall be provided in lieu of such information; and

(b) such narrative explanation as may be necessary to avoid misunderstanding and to assist the reader in understanding the presentation of such financial and operating data listed in (a) above.

Any or all of the items listed above may be included by specific reference to other documents which have been submitted to the MSRB, or filed with the SEC. If such document is an Official Statement, it must be available from the MSRB.

In the event that any of the financial information or operating data constituting Annual Financial Information that no longer can be generated because the operations to which such information or data relate have been materially changed or discontinued, or such information is deemed to be no longer meaningful, a statement to that effect shall be provided in lieu of such information.

Arbitrage Certificate: shall mean the Arbitrage and Use of Proceeds Certificate dated the date of issuance of each Series of Tax Exempt Bonds, setting forth the expectations, certifications and representations concerning the use of the proceeds of such Bonds and other matters relating to compliance with the Code and consistent with the covenant of the University pursuant to the Indenture.

Audited Financial Statements: shall mean, with respect to the University, the annual financial statements, if any, of the University, audited by such auditor selected by the University. Audited Financial Statements shall be prepared in accordance with accounting principles generally accepted in the United States of America; *provided, however,* that the University may from time to time, if required by federal or State legal requirements, modify the basis upon which its financial statements are prepared. Notice of any such modification shall include a reference to the specific federal or State law or regulation describing such accounting basis and shall be provided by the University to the Trustee, who shall promptly deliver such notice to the MSRB.

Authorized Denomination: shall mean $5,000 or any integral multiple thereof.

Authorized Newspaper: shall mean two newspapers customarily published at least once a day for at least five days (other than legal holidays) in each calendar week, printed in the English language and of general circulation, respectively, in the City of Trenton, New Jersey, and in the Borough of Manhattan, City and State of New York.

Authorized Officer of the University: shall mean the President, the Executive Vice President for Finance and Administration, the Secretary, an Assistant Secretary, Vice President for Finance, the Treasurer, Associate Treasurer or the Chief Financial Officer of the University or any person duly authorized under the Indenture by the University to perform specific acts or duties under the Indenture.

Bond or *Bonds:* shall mean any bond or bonds, as the case may be, authenticated and delivered under and pursuant to the Indenture.

Bond Facility: shall mean an insurance policy, surety bond or agreement, standby bond purchase agreement, line of credit, letter of credit or other credit enhancement or liquidity facility entered into for the same or similar purposes, with respect to the Bonds.

Bondholder or *Holder of Bonds:* shall mean the registered owner of any Bond or Bonds.

Bond Proceeds Fund: shall mean that fund established pursuant to the Indenture.

Bond Year: shall have the meaning set forth in the Arbitrage Certificate for such Series of Bonds.

Business Day: shall mean any day which shall not be (i) a Saturday or Sunday, (ii) legal holiday or a day on which banking institutions located in the State or any of the cities in which the principal office of the Trustee, any Paying Agent, any remarketing agent or any provider of a Bond Facility for such Series of Bonds is located, are authorized or required by law or executive order to close, or (iii) a day on which the New York Stock Exchange is closed.

Calendar Year: shall mean a twelve-month period commencing January 1 and ending December 31 of any year.

Certificate of Determination: means the applicable Certificate of Determination for a Series of Bonds, to be delivered on or prior to the date of delivery of the Bonds of such Series. The Executive Vice President for Finance and Administration and University Treasurer or any authorized representative of the Executive Vice President for Finance and Administration and University Treasurer, or the Assistant Treasurer, is authorized by the Fifteenth Supplemental Indenture to execute any such Certificate of Determination for the purpose of determining certain matters with respect to the 2020 Series S Bonds, subject to and in compliance with all applicable requirements of the Indenture and the Fifteenth Supplemental Indenture.

Code: shall mean the Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

Construction Account: shall mean that account established pursuant to the Indenture.

Costs of Construction: with respect to any Facility, shall mean the cost of construction, the cost of acquisition by the University of real or personal property or interests therein, the cost of demolishing or removing any buildings or structures on lands so acquired, including the cost of acquiring any lands to which such buildings or structures may be moved, or premiums on insurance during construction, administrative expenses, legal fees, the cost of all machinery and equipment, financing expenses, fees and expenses of the Trustee and Paying Agents, the cost of plans, specifications, surveys, estimates of cost and revenues, and any other expenses necessary or incidental to determining the feasibility or practicability of constructing such Facility, amounts, if any, required by the Indenture to be paid into the Debt Service Fund and the Debt Service Reserve Fund, if applicable, upon the issuance of any Series, and payments when due (whether at the maturity of principal or due date of interest or upon redemption) on any

Indebtedness of the University (other than Bonds), incurred for such Facility, all to the extent applicable to the construction of such Facility and payable by the University, and such other expenses payable by the University not specified in the Indenture as may be necessary or incident to the financing or the construction of such Facility or the acquisition of land therefor and the placing of such Facility in operation.

Costs of Issuance: shall mean all costs related to the proceedings under which Bonds are issued under the Indenture including but not limited to salaries, administrative expenses, insurance premiums, fees, expenses or other similar charges payable to providers of a Bond Facility, a Swap Facility, a Swap Provider, including a Termination Payment, other than Reimbursement Obligations or Swap Payments or other termination payments, auditing and legal expenses and fees and expenses incurred for professional consultants, financial advisors and fiduciaries, fees and expenses of the Trustee, fees for issuing and Paying Agents, fees and expenses of remarketing agents and dealers, fees and expenses of the underwriters if payable other than as a result of a discount on the purchase price of Bonds or Notes, fees and expenses of rating agencies, transfer or information agents, the publication of advertisements and notices, printers' fees or charges incurred by the University to comply with applicable federal and State securities or tax laws; and with respect to Bonds the interest on which is excludable from gross income of the recipient under the Code means only the costs of issuance of a Series of Bonds which may be paid with Bond proceeds as shall be consistent with the Indenture.

Costs of Issuance Account: shall mean such account established by the Indenture.

Counsel's Opinion: shall mean an opinion signed by an attorney or firm of attorneys selected by the University (who may be counsel to the University); *provided, however,* that for the purposes of the provisions of the Indenture relating to the authorization and issuance of Bonds and the redemption of Bonds, such term shall mean an opinion signed by an attorney or firm of attorneys of recognized standing in the field of law relating to municipal bonds (who may be counsel to the University) selected by the University.

Debt Service Fund: shall mean that fund established pursuant to the Indenture.

Debt Service Fund Requirements: for any Fiscal Year shall mean, as of any date of calculation and with respect to any Series of Bonds, an amount equal to the aggregate of (i) Interest Requirements, except to the extent that such interest shall have been provided for out of Bond proceeds, and (ii) Principal Installments becoming due on all Outstanding Bonds.

Debt Service Requirements: for any Fiscal Year shall mean, as of any date of calculation and with respect to any Series of Bonds, the sum of interest accruing thereon during such Year, except to the extent that such interest shall have been provided for out of the proceeds of such Series of Bonds, and that portion of each Principal Installment for such Series of Bonds coming due on such Bonds during such Year *provided, however,* that for purposes of calculating the Debt Service Reserve Requirement on Variable Rate Indebtedness, the interest rate on such Variable Rate Indebtedness shall be deemed to be the Maximum Rate.

Debt Service Reserve Fund: shall mean that fund established pursuant to the Indenture.

Debt Service Reserve Requirement: shall mean, to the extent required pursuant to the terms of a Supplemental Indenture authorizing such Series of Bonds, as of any date of calculation, an amount not to exceed the lesser of (i) the maximum Debt Service Requirements due on such Series of Bonds for the then current or any future Fiscal Year, (ii) 125% of average Annual Debt Service on such Series of Bonds, or (iii) 10% of the Bond Proceeds (face amount of such Series of Bonds plus accrued interest and premium less original issue discount).

Depositary: shall mean a bank or trust company, which is a member of the Federal Deposit Insurance Corporation, selected by the University as a depositary of moneys and securities held under the provisions of the Indenture, and may include the Trustee.

DTC: means The Depository Trust Company, New York, New York.

Earnings Fund: shall mean that fund established pursuant to the Indenture.

EMMA: shall mean the Electronic Municipal Market Access system for municipal securities disclosures.

Facility or *Facilities:* shall mean any Additional Project including any structure designed for use as a dormitory or other housing facility, dining facility, student union, academic building, administrative facility, library, classroom building, research facility, faculty office facility, athletic facility, health care facility, laboratory, maintenance, storage or utility facility or other building or structure essential, necessary or useful to the University, or any multi-purpose structure designed to combine two or more of the functions performed by the types of structures enumerated above, and shall include all real and personal property, lands, improvements, driveways, roads, approaches, pedestrian access roads, rights-of-way, utilities, easements, machinery and equipment, and all other appurtenances and facilities either on, above or under the ground which are used or usable in connection with any of the aforementioned structures, and shall also include landscaping, site preparation, furniture, machinery, equipment and other similar items necessary or convenient for the operation of a particular facility or structure in the manner for which its use is intended, but does not include items that are customarily, under applicable accounting principles, considered as a current operating charge, unless the category and maximum amount thereof is specifically included by a determination of the University in the financing transaction proceedings and by percentage or otherwise as may be limited pursuant to such proceedings in order to preserve the excludability of the interest on the securities issued therefor from federal taxation under the applicable provisions of the Code, or any subsequent corresponding internal revenue code of the United States as from time to time amended.

Fiduciary or *Fiduciaries:* shall mean the Trustee, the Paying Agents, the Registrar, or any or all of them, as may be appropriate.

Financial Obligation shall mean a (i) debt obligation, (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation, or (iii) guarantee of (i) or (ii). 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.

Fiscal Year: shall mean a twelve-month period commencing July 1 and ending June 30 of the next calendar year or such other period of twelve (12) consecutive months as may be adopted by the Board of Trustees.

Fitch: means Fitch Ratings, a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any other nationally recognized securities rating agency designated by the University, by notice to the other Notice Parties.

Fund: shall mean a special trust fund established under the Indenture.

Indebtedness: shall mean all obligations incurred or assumed by the University for payments of principal and interest with respect to borrowed money including, without limitation, all outstanding Indebtedness of the University' under the Indenture, the 1967 Indenture, the 1986 Indenture or the 1987 Indenture.

Interest Payment Date: means for the 2020 Series S Bonds, May 1 and November 1 of each year.

Interest Requirement: shall mean, as of the date of computation with respect to a Calendar Year, an amount equivalent to the aggregate maximum amount coming due during such Calendar Year on any Interest Payment Date, of (i) interest which may be payable on Outstanding Bonds and (ii) Swap Payments, provided that interest on Variable Interest Rate Bonds or Notes or Swaps shall be calculated in accordance with the Variable Interest Rate Calculation Rate, and further provided that if the University shall have entered into one or more Swaps (that is not a Subordinated Swap) with respect to a Variable Interest Rate Bond or Note, then the Bonds or Notes of such series in a principal amount equal to the Notional Amount shall be treated for purposes of this definition as bearing interest for such period at the fixed rate payable by the University under such Swap; if the University shall have entered into one or more Swaps (that is not a Subordinated Swap) with respect to a Bond or Note that is not a Variable Interest Rate Bond or Note which calls for a Variable Interest Rate Swap Payment by the University then the Bonds or Notes of such series in a principal amount equal to the Notional Amount shall be treated for purposes of this definition as a Variable Interest Rate Bond or Note bearing interest for such period at the Variable Interest Rate payable by the University under such Swap.

Investment Securities: shall, as it may relate solely to the 2020 Series S Bonds, mean and include any securities, if and to the extent the same are at the time legal for investment of the University's funds in accordance with the Act, and, as to the investment of any funds held by the Trustee, shall be further limited to the following:

(1) Obligations of or guaranteed by the State of New Jersey or the United States of America (including obligations which have been stripped of their unmatured interest coupons, and interest coupons which have been stripped from such obligations).

(2) Obligations issued or guaranteed by any instrumentality or agency of the United States of America, whether now existing or hereafter organized.

(3) Obligations issued or guaranteed by any state of the United States or the District of Columbia, so long as such obligations are rated at the time of purchase in either of the highest two credit rating categories by each nationally recognized securities rating agency which has issued a rating of the 2020 Series S Bonds.

(4) Repurchase agreements with any banking institution (including the Trustee) fully secured by obligations of the kind specified in (1), (2) or (3) above, provided that the Trustee has a perfected first security interest in such obligations, that the Trustee or an agent (as acknowledged by such agent in writing) has possession of the obligations or the Trustee or such agent is deemed the owner or secured party of such obligations pursuant to book entry system maintained by a Federal Reserve Bank, and that the seller of such obligations represents that such obligations are free and clear of claims by third parties.

(5) Interest-bearing deposits in any bank or trust company (which may include the Trustee), provided that all such deposits shall, to the extent not insured, be secured by a pledge of obligations of the kind specified in (1), (2) or (3) above.

(6) Units of participation in the New Jersey Cash Management Fund, or any similar common trust fund which is established pursuant to law as a legal depository of public moneys and for which the New Jersey State Treasurer is custodian.

(7) Shares of an open-end, diversified investment company which is registered under the Investment Company Act of 1940, as amended, and which (i) invests its assets exclusively in obligations of or guaranteed by the United States of America or any instrumentality or agency thereof having in each instance a final maturity date of less than one year from their date of purchase; (ii) seeks to maintain a constant net asset value per share; and (iii) has aggregate net assets of not less than $50,000,000 on the date of purchase of such shares.

(8) Cash (insured at all times by the Federal Deposit Insurance Corporation or otherwise collateralized with direct obligations of the Department of the Treasury of the United States of America).

(9) Direct obligations of (including obligations issued or held in book entry form on the books of) the Department of the Treasury of the United States of America.

(10) Obligations of any federal agencies which obligations represent the full faith and credit of the United States of America whether now existing or hereafter organized and including but not limited to:

(A) Export-Import Bank

(B) Farm Credit Financial Assistance Corporation

(C) Rural Economic Community Development Administration (formerly the Farmers Home Administration)

(D) General Services Administration

(E) U.S. Maritime Administration

(F) Small Business Administration

(G) Government National Mortgage Association (GNMA)

(H) U.S. Department of Housing & Urban Development (PHA's)

(I) Federal Housing Administration; and

(J) Federal Financing Bank.

(11) Direct obligations of any of the following federal agencies which obligations are not fully guaranteed by the full faith and credit of the United States of America:

(A) Senior debt obligations issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation so long as such organizations are rated "AAA" by S&P or "Aaa" by Moody's;

(B) Obligations of the Resolution Funding Corporation (REFCORP);

(C) Senior debt obligations of the Federal Home Loan Bank System; and

(D) Senior debt obligations of other government sponsored agencies.

(12) Interest bearing deposits, federal funds and banker's acceptances with any bank or trust company which have a rating on their short term certificates of deposit on the date of purchase of "A-1" or "A-1+" by S&P and "P-1" by Moody's. In the event the bank or trust company does not have a rating as indicated, then the deposits shall be secured by a pledge of obligations rated A2/A or better.

(13) Investments in a money market fund rated "AAAm" or "AAAm-G" or better by S&P (which may include funds for which the Trustee or any affiliate of the Trustee is the financial advisor).

(14) Obligations issued or guaranteed by any municipality or other subdivision of any state of the United States with a rating of A2/A or higher from Moody's, S&P or Fitch.

(15) Pre-refunded municipal obligations defined as follows: bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state which are not callable at the option of the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor to call on the date specified in the notice; and

(A) Which are rated, based on an irrevocable escrow account or fund (the "Escrow"), in the highest rating category of S&P and Moody's or any successors thereto; or

(B) (i) which are fully secured as to principal and interest and redemption premium, if any, by an Escrow consisting only of cash or obligations described in paragraph A above, which Escrow may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the specified redemption date or dates pursuant to such irrevocable instructions, as appropriate, and (ii) which Escrow is sufficient, as verified by a nationally recognized independent certified public accountant, to pay principal of and interest and redemption premium, if any, on the bonds or other obligations described in this paragraph on the maturity date or dates specified in irrevocable instructions referred to above, as appropriate.

Any other investment or security acceptable to, and approved in writing by, an Authorized Officer of the University.

Material Event: shall mean any of the following events with respect to any Bonds under the Indenture:

(i) principal and interest payment delinquencies;

(ii) non-payment related defaults, if material;

(iii) unscheduled draws on debt service reserves reflecting financial difficulties;

(iv) unscheduled draws on credit enhancements reflecting financial difficulties;

(v) substitution of credit or liquidity providers, or their failure to perform;

(vi) 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 Bonds, or other material events affecting the tax-exempt status of any Bonds;

(vii) modifications to rights of Bondholders, if material;

(viii) Bond calls, if material, and tender offers;

(ix) defeasances;

(x) release, substitution, or sale of property securing repayment of the Bonds, if material;

(xi) Rating changes;

(xii) bankruptcy, insolvency, receivership or similar event of the obligated person;

(xiii) The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, 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;

(xiv) Appointment of a successor or additional trustee or the change of name of a trustee, if material;

(xv) Incurrence of a Financial Obligation of the University, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the University, any of which affect security holders, if material; and

(xvi) 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.

Material Event Notice: shall mean notice of an Event required to be provided pursuant to the Indenture.

Moody's: shall mean Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of New York, its successors and their assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the University, by notice to the other Notice Parties.

MSRB: shall mean the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934 or any successor entity.

Nationally Recognized Bond Counsel: shall mean any counsel acceptable to the University and experienced in matters relating to the federal tax exemption of interest on bonds issued by states and their political subdivisions.

Nominee: means Cede & Co., nominee of DTC.

Notes: shall mean any obligations or other evidences of indebtedness or borrowing of the University , other than Bonds, issued for the purposes of the Act to provide funds for deposit in the Construction Fund and issued in anticipation of Bonds.

Notice Parties: means the University and the Trustee.

Official Statement: shall mean the "final official statement," as defined in paragraph (f)(3) of the Rule, relating to any Series of Bonds.

Operating Cost: shall mean, as of any particular date, the University's operating expenses and all other expenses of carrying out and administering its powers, duties and functions under the Act and shall include, without limiting the generality of the foregoing, salaries, supplies, utilities, mailing, labor, materials, office rent, maintenance, furnishings, equipment, machinery and apparatus, insurance premiums, legal, accounting, management, consulting and banking services and expenses, the fees and expenses of the Trustee, the Depositary and the Paying Agent including Costs of Issuance other than Costs of Issuance paid from proceeds of Bonds, payments to pension, retirement, health and hospitalization funds. Operating Costs may also include administrative expenses, insurance premiums, fees, expenses or other similar charges payable to providers of a Bond Facility, a Swap Facility or a Swap Provider, (including any Termination Payments but not including Reimbursement Obligations, Swap Payments or other termination payments).

Outstanding: when used with reference to Bonds, shall mean, as of any date, Bonds theretofore or thereupon being authenticated and delivered under the Indenture except:

(i) Any Bonds cancelled by the Trustee at or prior to such date;

(ii) Bonds (or portions of Bonds) for the payment or redemption of which moneys, equal to the principal amount or Redemption Price thereof, as the case may be, with interest to the date of maturity or redemption date, shall be held in trust under the Indenture and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such Bonds (or portions of Bonds) are to be redeemed, notice of such redemption shall have been given as provided in the Indenture or provision satisfactory to the Trustee shall have been made for the giving of such notice;

(iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to the Indenture; and

(iv) Bonds deemed to have been paid as provided in the Indenture.

Paying Agent: shall mean any bank or trust company designated as paying agent for the Bonds of any Series, and its successor or successors hereafter appointed in the manner provided in the Indenture.

Principal: shall mean the principal amount of the Bonds of a Series as due on a certain future date.

Principal Installment: for any Calendar Year, means, as of any date of calculation and with respect to any Series, so long as any Bonds thereof are Outstanding,

(i) the principal amount of Bonds of said Series which mature in such Year, reduced by the aggregate principal amount of such Bonds which would be retired before such year by reason of the payment when due of, and application in accordance with the Indenture of, Sinking Fund Installments payable before such year for the retirement of such Bonds, plus

(ii) the unsatisfied balance (determined as provided in the Indenture) of the Sinking Fund Installments, if any, due during such Year for the Bonds of such Series.

Principal Installment Date: shall mean each date on which Principal and Sinking Fund Installments, if any, are payable on the Bonds as provided in or pursuant to the Indenture (or, if such date is not a Business Day, the immediately succeeding Business Day).

Rating Agency: shall mean Standard & Poor's, Moody's or Fitch and such other nationally recognized securities rating agency as shall then have a rating assigned to the 2020 Series S Bonds.

Rebate Amount: shall have the meaning set forth in the respective Arbitrage Certificate.

Rebate Fund: shall mean that fund established pursuant to the Indenture.

Record Date: shall mean the fifteenth day of each April and October.

Redemption Fund: shall mean that fund established pursuant to the Indenture.

Redemption Price: shall mean, with respect to any Bond, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to such Bond or the Indenture.

Refunding Bonds: shall mean all Bonds whether issued in one or more Series, authenticated and delivered on original issuance pursuant to the Indenture and thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Indenture.

Registrar: shall mean the Trustee serving in such capacity as provided in the Indenture.

Reimbursement Obligation: shall mean any obligation of the University to make payments to a provider of a Bond Facility in reimbursement of or as interest on (which interest may be higher than the interest rate on the related Bond) an advance or other payment made by such provider for the purpose of paying

(i) the Principal, Sinking Fund Installment, if any, or Redemption Price of, or interest on, any Bonds, or

(ii) the purchase price, plus accrued interest, if any, of any Bonds tendered pursuant to the provisions of the applicable Supplemental Indenture,

but only to the extent the principal amortization requirements with respect to such reimbursement are equal to the amortization requirements for such related Bonds, without acceleration. Reimbursement Obligations shall not, unless otherwise provided for, include (i) any payments of any fees, expenses, or other similar obligations to any such provider, unless specifically included as a part thereof and approved as a portion of the Special Debt Service Requirement, or (ii) any payments pursuant to term-loan or other principal amortization requirements in reimbursement of any such advance that are more accelerated than the amortization requirements on such related Bonds. Reimbursement Obligations may be evidenced by Bonds designated as "Bank Bonds," which may bear a higher interest rate than the rate borne by the Bonds to which they relate.

Rule: shall mean Rule 15c2-12 promulgated by the SEC under the Securities Exchange Act of 1934 (17 CFR Part 240, §240.15c2-12), as in effect on the date of the Indenture, including any official interpretations thereof issued either before or after such date which are applicable to the Indenture.

SEC: shall mean the United States Securities and Exchange Commission or any successor agency..

Series or *Bonds of a Series:* or words of similar meaning, shall mean the Series of Bonds authorized by the Indenture and a Supplemental Indenture.

Sinking Fund Installment: shall mean, for any Calendar Year as of any date of calculation and with respect to any Bonds of a Series, so long as any Bonds thereof are Outstanding, the amount of money required by the Indenture or a Supplemental Indenture to be paid on a single future fixed date for the retirement of any Outstanding Bonds of said Series that mature after said future date, but does not include any amount payable by the University by reason only of the maturity of a Bond, and said fixed future date is deemed to be the date when such Sinking Fund Installment is payable and the date of such Sinking Fund Installment and said Outstanding Bonds are deemed to be the Bonds entitled to such Sinking Fund Installment.

Special Debt Service Requirements: shall mean for any period, and with respect to the Bonds, subject to the Indenture and any Supplemental Indenture authorizing the issuance of the Bonds, the sum of (A) the Principal Installments and interest accruing and coming due during such period, (B) the amounts, if any, required, with respect to interest rate fluctuations on variable rate debt, (C) annual expenses of issuance and administration with respect to securities, (D) the amounts, if any, becoming due and payable under a reimbursement agreement or similar agreement entered into pursuant to authority granted under the proceedings authorizing the issuance of securities, (E) net amounts owing under interest rate agreements authorized and effective, (F) arbitrage rebate requirements and (G) any other annual costs or expenses necessary or proper to be paid in connection with the securities, including, without limitation, the annual cost of any Bond Facility, issued by a financial institution pursuant to an agreement approved in the financing transaction proceedings.

Standard & Poor's: shall mean Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business, its successors and their assigns, and, if such corporation shall be dissolved or liquidated or shall no longer perform the functions of a securities rating agency, "Standard & Poor's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the University, by notice to the other Notice Parties.

State: shall mean the State of New Jersey.

Subordinated Swap or *Subordinated Swap Payments:* shall mean either a financial arrangement that meets the definition of Swap or a net amount to be paid by the University under such financial arrangement that meets the definition of Swap Payment but does not qualify as a Swap or Swap Payment, respectively, and is expressly subordinated pursuant to the Indenture.

Supplemental Indenture: shall mean any series or supplemental indenture entered into by the Trustee and the University pursuant to and in compliance with the provisions of the Indenture dealing with the authorization and issuance of Bonds and the redemption of Bonds, providing for the issuance of Additional Bonds or Refunding Bonds, and shall also mean any other indenture between the same parties entered into pursuant to and in compliance with the provisions of the Indenture dealing with supplemental indentures amending or supplementing the provisions of the Indenture as originally executed or as theretofore amended or supplemented, including the Fifteenth Supplemental Indenture.

Surety: shall mean any surety agreement, insurance agreement, letter of credit or other type of agreement or arrangement satisfying the provisions of the Indenture or of any applicable Supplemental Indenture authorizing a Series of Bonds, which provides for the availability, at all times required under the Indenture or under any such Supplemental Indenture, of the amount of money or the value of the Investment Obligations in lieu of which such agreement or arrangement is substituted; provided that (i) the financial institution providing such Surety shall have an outstanding, unsecured, uninsured and unguaranteed debt issue that, or (ii) the Surety, is assigned any of the three highest ratings (without regard to the addition of a plus (+) or a minus (-) to any rating) by Standard & Poor's and Moody's or Fitch and is then rating such financing institution or Surety; and provided further that if the financial institution providing or guaranteeing such Surety is an insurance company, the claims-paying ability of such insurance company shall be assigned any of the three highest ratings (without regard to the addition of a plus (+) or a minus (-) to any rating) by Standard & Poor's and Moody's or Fitch and is then rating such insurance company.

Swap: shall mean any financial arrangement (i) that is entered into by the University with an entity that is a Swap Provider at the time the arrangement is entered into; (ii)(a) which provides that the University shall pay to such entity an amount based on the interest accruing at a fixed rate on the Notional Amount equal to all or part of the outstanding principal amount of a Series of Bonds issued under the Indenture, and that such entity shall pay to the University an amount based on the interest accruing on the Notional Amount at a variable rate of interest computed according to a formula set forth in such arrangement (which need not be the same as the actual rate of interest borne by such Series of Bonds) or that one (after adjustment for any cap, floor, collar or other financial arrangement referred to in (ii)(c) below, with respect thereto) shall pay to the other the net amount (Swap Payment or Swap Receipt) due under such arrangement; (b) which provides that the University shall pay to such entity an amount based on the interest accruing on the Notional Amount equal to all or part of the outstanding principal amount of a Series of Bonds issued under the Indenture, at a variable rate of interest computed according to a formula set forth in such arrangement and that such entity shall pay to the University an amount based on the interest accruing at a fixed rate on the Notional Amount (which need not be the same as the actual rate of interest borne by such Series of Bonds) or that one (after adjustment for any cap, floor, collar or other financial arrangement referred to in (ii)(c) below, with respect thereto) shall pay to the other the net amount (Swap Payment or Swap Receipt) due under such arrangement; or (c) which is included as part of or covered by the financial transaction described in (ii)(a) or (ii)(b) above or is separately executed and which is a cap, floor or collar, forward rate, future rate, asset, swap or index, price or market linked transaction or agreement, other exchange or rate protection transaction agreement, other similar transaction (however designated) or any combination thereof or any option with respect thereto executed by the University for the purpose of moderating interest rate fluctuations or otherwise; and (iii) which has been designated in writing to the Trustee by an Authorized Officer of the University and authenticated or otherwise registered by the Trustee under the Indenture as a Swap with respect to a Series of Bonds or Notes. "Swap" shall also include any such financial arrangement described in clauses (ii) and (iii) above entered into by the University with a Swap Provider, as a replacement of a Swap that has been terminated and which has been so designated in writing to the Trustee by an Authorized Officer of the University with respect to a Series of Bonds or Notes.

Swap Facility: shall mean an insurance policy, surety bond, letter of credit or other credit enhancement with respect to a Swap or any similar facility entered into for the same or similar purposes and may include Investment Obligations properly pledged to the University under the Indenture pursuant to the Swap Facility or by the Swap Provider, in each case sufficient to maintain any existing rating of the University's long term debt. Payments by the University under a Swap Facility related to a Swap shall be deemed Swap Payments under the Indenture and shall not be deemed Reimbursement Obligations and payments to the University under a Swap Facility related to a Swap shall be deemed Swap Receipts. Payment by the University under a Swap Facility applicable to any fees, expenses or similar other charges or obligations thereunder shall be a Cost of Issuance or Operating Cost, as applicable.

Swap Payment: shall mean the net amount required to be paid by the University under a Swap (that is not a Subordinated Swap Payment) that is applicable to the interest rate exchange effected thereunder, but not any (a) fees, expenses or similar other charges or obligations thereunder (which shall be Costs of Issuance or Operating Expense, as applicable) or (b) any Termination Payment or other payments by the University on account of termination of the Swap.

Swap Provider: shall mean a financial institution whose long term debt obligations, or whose obligations under a Swap are fully covered by a Swap Facility whose long term debt obligations are (i) rated at least in the three highest rating categories by at least two nationally recognized rating agencies, or (ii) secured by a pledge of Investment Obligations in amounts sufficient to achieve the ratings described in (i) above, or (iii) meeting the requirements set forth in any Supplemental Indenture relating thereto.

Swap Receipt: shall mean the net amount required to be paid to the University under a Swap, but shall not include any Termination Receipt.

Termination Payment: shall mean, with respect to a Swap, an amount required to be paid by the University to the Swap Provider or related Swap Facility as a result of the termination of the Swap or required to be paid by the University into a collateral account as security for any termination provided, (a)(i) that such termination occurs prior to the next succeeding Interest Payment Date, and (ii) that any such required amount is not due prior to the next succeeding Interest Payment Date, and (b) that any payment by the University on account of termination of either a Swap other than as described in (a) above or a Subordinated Swap shall be deemed a Subordinated Swap Payment under the Indenture.

Termination Receipt: shall mean with respect to a Swap an amount required to be paid by the Swap Provider or related Swap Facility as a result of the termination of the Swap.

Trustee: shall mean U.S. Bank National Association, successor to Wachovia Bank, National Association and First Union National Bank, a national banking association, in its capacity as Trustee under the Indenture, and its successors in such capacity and their assigns appointed in the manner provided in the Indenture.

Unaudited Financial Statements: shall have the same meaning as Audited Financial Statements, except that they shall not have been audited.

University: shall mean Rutgers, The State University, a public educational corporation, organized and existing under and by virtue of a royal charter granted November 10, 1766, as amended and confirmed by the State of New Jersey, and having its principal office in the City of Brunswick, New Jersey.

Variable Interest Base Rate: shall mean with respect to any Variable Interest Rate Notes or Bonds or Swap Payments, the average interest rate borne by such series of Variable Interest Rate Notes or Bonds or Swap Payments for the twelve full calendar months (or such lesser period as such Series of Variable Interest Rate Notes or Bonds or Swap Payments shall be outstanding) preceding the date of calculation.

Variable Interest Rate: shall mean a variable interest rate to be borne by any Bond or Note within a Series of Bonds or Notes or by any Swap (whether a Swap Payment or Swap Receipt). The method of computing such variable interest rate shall be specified in the Supplemental Indenture authorizing such Series of Bonds or Notes or the Swap relating thereto. Such Supplemental Indenture or Swap shall also specify either (i) the particular period or periods of time for which such variable interest rate shall remain in effect or (ii) the time or times upon which any change in such variable interest rate shall become effective.

Variable Interest Rate Bonds or *Notes* or *Swap Payments:* shall mean Bonds or Notes which bear a Variable Interest Rate or a Swap Payment which by the terms of the Swap requires and provides for a Variable Interest Rate Swap Payment by the University.

*Var*iable Interest Rate Calculation Rate: shall mean with respect to each Calendar Year (i) with respect to Variable Interest Rate Bonds or Notes or Swap Payments bearing a Variable Interest Rate, which is not capped pursuant to the Swap or a Swap Facility, and/or is for a period or periods of time ending prior to the next immediate Interest Payment Date, the interest rate thereon in effect (pursuant to the Variable Interest Rate Bonds or Notes or a Swap applicable thereto) until the next date of change (being the date of calculation referred to in the definition of Variable Interest Base Rate) and thereafter for the balance of such Calendar Year the Variable Interest Base Rate or (ii) with respect to Variable Interest Rate Bonds or Notes or Swap Payments bearing a Variable Interest Rate which, for a period of time ending prior to the next immediate Interest Payment Date, is either capped by its terms or pursuant to the Swap or a Swap Facility or is fixed, the lesser of (a) the interest rate by which the Variable Interest Rate is so capped if less than the rate calculated in (i) above or (b) the Variable Interest Rate, so fixed, on the Variable Interest Rate Bonds or Notes or Swap Payments, respectively (pursuant to the Variable Interest Rate Bonds or Notes or a Swap applicable thereto).

Authorization of Bonds; General Obligations

Under the Indenture, Bonds issued and authenticated are direct and general obligations of the University, the full faith and credit of which has been pledged by the University to the payment of the principal and Redemption Price of and interest on all of the Bonds (provided, however, there shall be excluded from the pledge of the Indenture any revenues, moneys, securities or funds heretofore or hereafter specially pledged by the University for the payment of other bonds, notes or other indebtedness); and the Bonds are further secured by a pledge of all amounts and investment earnings thereon held by the Trustee in the Funds established under the Indenture (other than any amounts held in the Rebate Fund and in any funds or accounts established under the applicable Supplemental Indenture and intended to be excluded from the pledge of the Indenture).

Bonds issued under the Indenture shall not be deemed to constitute a debt or liability of the State or any municipality thereof or a pledge of the faith and credit of the State or of any such municipality and the Bonds, Notes, Swaps, Subordinated Swaps, obligations of the University under a Swap Facility or Bond Facility, Reimbursement Obligations, Swap Payments and Termination Payments or other similar obligations of or payments by the University issued or incurred shall not constitute a debt or liability issued or guaranteed by or otherwise of the State.

(Indenture, Section 2.1)

General Provisions for Issuance of Bonds

The Supplemental Indenture authorizing the issuance of Bonds must specify or provide for all of the following matters: the authorized principal amount of said Series of Bonds; the purposes for which such Series of Bonds are being issued, which shall be one or more of the purposes of the Act; the date or dates of issue, maturity date or dates and amounts of each maturity of the Bonds of said Series; the interest rate or rates, or the manner of determining such rate or rates of the Bonds of said Series, and the interest payment dates (thereafter each an Interest Payment Date) therefor; the denomination or denominations of, and the manner of numbering and lettering, the Bonds of such Series; the Paying Agent and, subject to the provisions of the Indenture, the place or places of payment of the principal, Sinking Fund Installments, if any, and Redemption Price, if any, of and interest on the Bonds of such Series; the Redemption Price or Redemption Prices, if any, and, subject to the redemption provisions of the Indenture, the redemption terms, if any, for the Bonds of such Series; the form or forms of the Bonds of such Series (including whether such Bonds shall be issued in book-entry only form or definitive form) and the Trustee's certificate of authentication; directions for the application of the proceeds of the Bonds of such Series; any other provisions determined to be necessary, convenient or desirable to better secure the Bonds or to make the Bonds more marketable and which are in the best interests of the University and not in conflict with the provisions of the Act and the Indenture, including but not limited to the funding of a Debt Service Reserve Fund with respect to such Series; and the provisions relating to a Swap, if any, or Swap Facility for the purpose of moderating interest rate fluctuations in connection with the issuance of the Bonds of such Series provided, however, in connection with the execution of a Swap related to a Series of Outstanding Bonds or a portion thereof, a Supplemental Indenture authorizing such Swap and identifying such Bonds of such Series to which the Swap relates and otherwise setting forth the applicable provisions under this heading shall be adopted.

(Indenture, Section 2.2)

Conditions Precedent to Delivery of Bonds

All Bonds issued under the Indenture and Supplemental Indentures to the Indenture shall be executed by the University for the original issuance and delivered to the Trustee and thereupon shall be authenticated by the Trustee and delivered to the University or upon its order, but only upon receipt by the Trustee of (a) a copy of the Indenture and any such Supplemental Indentures, certified by an Authorized Officer of the University; (b) a copy, certified by an Authorized Officer of the University, of the resolution or resolutions of the appropriate board or boards of the University authorizing and providing the terms of such Bonds and providing for the sale or exchange thereof, and if the authority to make determinations as to sale or exchange of such Bonds shall be delegated or vested in an Authorized Officer of the University, a certificate of such Officer as to such sale or exchange; (c) the written order of the University as to the delivery of such Bonds signed by an Authorized Officer of the University describing such Bonds to be authenticated and delivered, designating the purchaser or purchasers to whom such Bonds are to be delivered, and stating the purchase price of such Bonds; (d) a Counsel's Opinion dated as of the date of such delivery by the Trustee to the effect that (i) the Indenture and the Supplemental Indenture authorizing the issuance of such Bonds, if any, have been duly and lawfully entered into by the University, are in full force and effect and are valid and binding upon the University and enforceable in accordance with their terms, (ii) the Indenture creates the valid pledge which it purports to create of the moneys, securities and funds held or set aside under the Indenture, subject to the application thereof to the purposes and on the conditions permitted by the Indenture, and (iii) upon the execution, authentication and delivery thereof, such Bonds will be duly and validly issued and will constitute valid and binding general obligations of the University entitled to the benefits of the Indenture and such applicable Supplemental Indenture; (e) except in the case of Refunding Bonds, a Certificate of an Authorized Officer of the University stating that the University is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Indenture; and (f) such further documents, opinions, moneys and securities as are required by the provisions of the Act, the provisions under this heading, the provisions under the immediately succeeding heading, the provisions of the Indenture regarding Events of Default and remedies of bondholders, or any Supplemental Indenture adopted pursuant to the provisions of the Indenture regarding supplemental indentures.

(Indenture, Section 2.3)

Additional Bonds for Additional Projects and Other Purposes

One or more Series of Additional Bonds may be issued under and secured by the Indenture for the purpose of providing funds for each Additional Project (including for the purpose of completing any Project or the funding of any deficiency in the Debt Service Reserve

Fund if required pursuant to the respective Supplemental Indenture). The Bonds of each such Series shall be authenticated and delivered by the Trustee only upon receipt by it of, among other things, a certificate of an Authorized Officer of the University stating that the University is not in default in the performance of any of the covenants, conditions, agreements or provisions contained in the Indenture.

(Indenture, Section 2.4)

Refunding Bonds

One or more series of Refunding Bonds may be authenticated and delivered to refund any Outstanding Bonds. Refunding Bonds shall be issued in a principal amount sufficient, together with other moneys available therefor, to accomplish such refunding and to make such deposits as are required by the provisions of the Act and the Indenture.

A series of Refunding Bonds may be authenticated and delivered upon original issuance only upon receipt by the Trustee (in addition to the receipt by it of the documents required by the Indenture) of:

(i) Irrevocable instructions to the Trustee, satisfactory to it, to give due notice of redemption of all the Bonds to be refunded on the redemption date, if any, specified in such instructions;

(ii) Irrevocable instructions to the Trustee, satisfactory to it, to give the notice provided for in the provisions regarding submission of Annual Financial Information (if applicable) to the Holders of the Bonds being refunded;

(iii) One of the following:

(a) moneys in an amount sufficient to effect payment at the applicable Redemption Price of the Bonds to be refunded, together with accrued interest on such Bonds to the redemption date, which moneys shall be held by the Trustee or any one or more of the Paying Agents in a separate account irrevocably in trust for and assigned to the respective Holders of the Bonds to be refunded, or

(b) Investment Obligations of the type described in the Indenture, in such principal amounts, of such maturities, bearing such interest, and otherwise having such terms and qualifications, as shall be necessary to provide moneys in an amount sufficient to effect payment at the applicable Redemption Price of the Bonds to be refunded, together with accrued interest on such Bonds to the Redemption Date, which money or Investment Obligations shall be held by the Trustee or any one or more of the Paying Agents in a separate account in trust under the Indenture, or

(c) any combination of (i) and (ii) above; and

(iv) a Certificate of an Authorized Officer containing such additional statements as may be reasonably necessary to show compliance with the requirements of clauses (a), (b), and (c) above.

Any balance of the proceeds of the Bonds of each such Series shall be deposited in such Funds or Accounts as shall be specified in the Supplemental Indenture authorizing such series of Refunding Bonds.

(Indenture, Section 2.5)

Application of Bond Proceeds

Except as otherwise expressly provided in the Indenture, proceeds of Bonds, upon their issuance, sale and delivery, shall be deposited in the Funds, Accounts or sub-accounts of the University in accordance with the provisions of the Supplemental Indenture authorizing the issuance of such Bonds and shall be expended solely for the purposes for which amounts in said Funds, Accounts or sub-accounts, respectively, may be expended in accordance with the provisions of the Indenture.

Accrued interest, if any, received upon the delivery of any Bonds and the amount received as a net premium over the principal amount of such Bonds, if any, upon delivery of such Bonds shall be deposited in the Costs of Issuance Account or otherwise, as set forth in the Supplemental Indenture.

The proceeds of sale of the Bonds of a series of Refunding Bonds shall be deposited in the Redemption Fund or shall be applied as otherwise provided in the Supplemental Indenture authorizing the issuance of such Bonds.

(Indenture, Section 4.1)

Establishment of Funds

The University establishes and creates the following funds and accounts to be held by the Treasurer, the University or the Trustee as set forth opposite such Fund or Account:

(a) Bond Proceeds Fund to be held by the University
   (i) Construction Account
   (ii) Costs of Issuance Account.
(b) Debt Service Fund to be held by the Trustee.
(c) Debt Service Reserve Fund (if required pursuant to the Supplemental Indenture authorizing such Series of Bonds) to be held by the Trustee.
(d) Redemption Fund to be held by the Trustee.
(e) Earning Fund to be held by the Trustee.
(f) Rebate Fund to be held by the Trustee.

The University reserves the right and power, subject to the Indenture, to establish additional funds, accounts and sub-accounts under the Indenture. All funds, accounts and sub-accounts created under the Indenture, in addition to other funds, accounts or sub-accounts from time to time established under the Indenture, shall be held and maintained by the Trustee or the University in accordance with the terms of the Indenture.

(Indenture, Section 5.1)

Bond Proceeds Fund

Amounts in each separate account established for the Facilities and any such Additional Project shall be applied to the payment of Costs of Construction, including the purpose or purposes specified in the Supplemental Indenture authorizing the Bonds issued with respect to the Facilities and any such Additional Project, as the case may be, and pending such application such amounts shall be subject to a lien and charge in favor of the Bondholders. Amounts in the Construction Account, in the discretion of the University, may be invested in Investment Securities maturing in such amounts and at such times as may be necessary to provide funds when needed to pay the costs to which such moneys are applicable. Upon the filing of a certificate by an Authorized Officer of the University evidencing completion of construction of any Additional Project, any balance remaining in the separate account of the Construction Account established for such Additional Project in excess of the amount, if any, stated in such certificate shall be paid over to the Trustee for deposit in the Debt Service Reserve Fund, if and to the extent necessary to make the amount in such Fund equal to the Debt Service Reserve Requirement with respect to such Series of Bonds, if applicable, and any remaining balance in said separate account of the Construction Account shall, upon written direction of the University, be applied to the Costs of Construction of any other Additional Project or be deposited in the Redemption Fund and applied to the purchase or redemption of Bonds pursuant to provisions regarding the Redemption Fund. The University covenants to use the proceeds of the Bonds in a manner consistent w with the Arbitrage Certificate and the preservation of the interest exemption on the Bonds pursuant to Section 103 of the Code.

Within the Bond Proceeds Fund the University shall maintain a separate account designated "Costs of Issuance Account." There shall be deposited in the Costs of Issuance Account (i) all moneys required to be deposited therein both pursuant to the Indenture and pursuant to a Supplemental Indenture under which Bonds are issued and (ii) all other moneys of the University available therefore, as determined by the University. The University shall apply amounts in the Costs of Issuance Account to pay the Costs of Issuance incurred in connection with the authorization, issuance and delivery of the corresponding Bonds.

After payment of all Costs of Issuance on the Bonds, any interest earnings in the Bond Proceeds Fund remaining shall be remaining amounts and credited for deposit in the Debt Service Reserve Fund, if and to the extent necessary to make the amount in such Fund equal to the Debt Service Reserve Requirement with respect to such Series of Bonds, if applicable, and any remaining balance in said separate account in the Costs of Issuance Account shall, upon written direction of the University, be applied to the Costs of Construction of any other Additional Project or be deposited in the Redemption Fund and applied to the purchase or redemption of Bonds pursuant to the provisions of the Indenture regarding payment of redeemed Bonds, and, prior thereto, any such amounts shall be credited to such fund or account thereof as shall be necessary to comply with the Arbitrage Certificate and the provisions of the Indenture regarding the Rebate Fund and, upon determination of the University, to meet an expenditure exception to the rebate requirement of the Code.

(Indenture, Section 5.2)

Payments

Except as otherwise provided in the applicable Supplemental Indenture, the University shall pay at least three days before each Interest Payment Date from legally available funds of the University to the Trustee sufficient funds, such that:

(a) on each Interest Payment Date, the Trustee shall pay out of the Debt Service Fund to the respective Paying Agents for any Bonds, (i) the amounts required for the payment of interest on Outstanding Bonds and Swap Payments due on such date and (ii) on or before the Redemption Date or date of purchase, the amounts required for the payment of accrued interest on Bonds redeemed or purchased for retirement, unless the payment of such accrued interest shall be otherwise provided for, and in each such case, such amounts shall be applied by such Paying Agents to such payments.

(b) on each Principal Installment Payment Date, the Trustee shall pay out of the Debt Service Fund to the respective Paying Agents the amounts required for the payment of principal due on Outstanding Bonds on such date and such amounts shall be applied by the Paying Agents to such payments.

(c) whenever the amount in a Debt Service Reserve Account of the Debt Service Reserve Fund shall be less than the Debt Service Reserve Requirement for such Series, one-twelfth of the original amount of such deficiency for deposit in such Account on the fifteenth day of each month commencing in the calendar month immediately succeeding the creation of such deficiency.

(Indenture, Section 5.3)

Application of Certain Funds

The Indenture provides for the application of moneys in the Funds set forth below as follows:

Debt Service Fund: The Trustee will pay out of the Debt Service Fund the amounts required for the interest payable and Swap Payments and principal payable when due.

Amounts accumulated in the Debt Service Fund with respect to any Sinking Fund Installments shall be set aside in said Fund for each such Sinking Fund Installment pro rata according to the amounts of the Sinking Fund Installments. The amount so set aside for each Sinking Fund Installment shall be applied as directed by the University (together with amounts accumulated therein with respect to interest on the Bonds for which such Sinking Fund Installment was established) by the Trustee prior to the 45th day preceding the due date of such Sinking Fund Installment to (i) the purchase at the written direction of the University of Bonds of the Series and maturity for which such Sinking Fund Installment was established, at prices not exceeding the applicable sinking fund Redemption Price, such purchases to be made in such manner (whether through direct negotiated purchases or otherwise) as the Trustee shall determine, or (ii) the redemption of such Bonds, if then redeemable by their terms. As soon as practicable after the 45th day preceding the due date of any such Sinking Fund Installment, the Trustee shall proceed to call for redemption on such due date Bonds of the Series and maturity for which such Sinking Fund Installment was established (except in the case of Bonds maturing on a Sinking Fund Installment due date) in such amount as shall be necessary to complete the retirement of the principal amount, specified for such Sinking Fund Installment, of the Bonds of such Series and maturity. The Trustee shall so call such Bonds for redemption whether or not it then has moneys in the Debt Service Fund sufficient to pay the applicable Redemption Price thereof together with interest thereon to the redemption date. The Trustee shall pay out of the Debt Service Fund to the appropriate Paying Agents, prior to such redemption date, the amount required for the redemption of the Bonds so called for redemption, and such amount shall be applied by such Paying Agents to such redemption.

Debt Service Reserve Fund: The Trustee shall establish in the Debt Service Reserve Fund a separate series account for the Bonds of any Series for which a Debt Service Reserve Account of the Debt Service Reserve Fund as shall be required in the applicable Supplemental Indenture securing such Series of Bonds.

If three (3) days prior to any Interest Payment Date, or as otherwise provided in the applicable Supplemental Indenture, there shall not have been deposited in the Debt Service Fund the amount required to pay interest and principal, or if the amount in the Debt Service Fund shall not be sufficient to pay the Interest Requirement and Principal Installment Requirement with respect to such Series of Bonds for which the Debt Service Reserve Account of the Debt Service Reserve Fund was established, as the same shall become due, the Trustee shall apply amounts from the applicable Debt Service Reserve Account of the Debt Service Reserve Fund to the extent necessary to fund such deficiency.

Subject to the Indenture, amounts in the Debt Service Reserve Account of the Debt Service Reserve Fund in excess of the applicable Debt Service Reserve Requirement with respect such Series of Bonds shall be transferred by the Trustee at the direction of an Authorized Officer of the University, either to the Construction Account and applied to the Costs of Construction of such Facility as shall be designated by such Authorized Officer of the University, to the Debt Service Fund or to the Redemption Fund.

Redemption Fund: The Trustee shall establish in the Redemption Fund a separate Series account for the Bonds of each series.

Any moneys which are required or permitted to be deposited into a Series account established as aforesaid, of the Redemption Fund pursuant to the Indenture shall be set aside in such sub-account. Upon deposit of such moneys in any such Series account or within thirty (30) day s thereafter, the University may give written direction to the Trustee signed by an Authorized Officer, of the Redemption Date, of the maturity or maturities of the Bonds of such Series to be purchased or redeemed and of the principal amounts of each maturity or maturities to be purchased or redeemed, subject to any limitations with respect thereto contained in the Indenture and the Supplemental Indenture authorizing such Series.

Moneys so held in each such separate account by the Trustee shall be applied to the purchase or retirement of Bonds of the Series in respect of which such account was created as follows:

(i) The Trustee shall promptly apply such moneys to the purchase of Bonds of such maturity or maturities of the Series in respect of which such account was created, as may be directed by an Authorized Officer in the manner provided in this paragraph and in such order or priority and subject to any limitations and permissions with respect thereto contained in this paragraph or the applicable Supplemental Indenture at the most advantageous price obtainable with reasonable diligence, whether or not such Bonds shall then be subject to redemption, such price, however, not to exceed the Redemption Price applicable by operation of the Redemption Fund which would be payable on the next ensuing Redemption Date on which Bonds of the Series so purchased are redeemable according to their terms. Unless otherwise directed by an Authorized Officer as aforesaid and subject to the other limitations set forth in the preceding sentence, the Trustee may purchase any Bonds of such Series. The Trustee shall pay the interest accrued on Bonds so purchased to the date of delivery thereof from the Interest Account and the balance of the purchase price from the applicable account established within the Redemption Fund, as hereinabove provided, to the Trustee, but no such purchase shall be made by the Trustee within the period of forty-five (45) days next preceding a date on which such Bonds are subject to redemption under the provisions of the Supplemental Indenture authorizing the issuance thereof.

(ii) In the event the Trustee is able to purchase a principal amount equivalent to the sum of the deposits in the account, as provided in this paragraph, of Bonds for such Account in accordance with and under the foregoing provisions of this paragraph at a purchase price less than the sum of such deposits in such account, excluding the applicable transfers from the Interest Account, upon the payment by the Trustee of the purchase price of such Bonds, the University shall direct the Trustee to transfer the balance of moneys remaining in such account to, and deposit the same in the Debt Service Fund.

In the event the Trustee is unable to purchase Bonds of a Series in accordance with and under the provisions described in the preceding paragraph, and there is $100,000 or more in the account established for such Series of Bonds, the Trustee shall call for redemption on the next ensuing Redemption Date such amount of Bonds of such maturity or maturities of the Series in respect of which such account was created as may be directed by an Authorized Officer in the manner provided in the immediately preceding paragraph and in such order or priority and subject to any limitations and permissions with respect thereto contained in this paragraph or the applicable Supplemental Indenture, at the Redemption Price applicable by operation of the Redemption Fund in the next ensuing Redemption Date, as will exhaust said Account as nearly as may be possible. Unless otherwise directed by an Authorized Officer as aforesaid and subject to the other limitations set forth in the preceding sentence, the Trustee shall redeem Bonds of such Series in inverse order of their maturities and by lot within a maturity. Such redemption shall be made pursuant to the redemption provisions of the Indenture. The Trustee shall pay the interest accrued on the Bonds so redeemed to the date of redemption from the Interest Account and the Redemption Price from the applicable account.

Except as otherwise required in the second paragraph under the sub-heading "Redemption Fund," and subject to the provisions of any Supplemental Indenture directing or permitting the application of any part of the moneys in the Redemption Fund to the purchase or redemption of Bonds of any particular Series, and to the redemption provisions of the Bonds, amounts in the Redemption Fund shall be applied by the Trustee to the purchase or redemption of Bonds (accrued interest on such Bonds to be provided out of the Interest Account) *provided, however,* the University shall direct the selection of the Bonds to be purchased and the purchase price thereof, within the limits provided by law, and the amount and date of redemption of the Bonds to be redeemed, so as to apply amounts in said Sub-Account to such purposes as rapidly as in its judgment is reasonably practicable. Such purchases shall be made in such manner as the Trustee shall determine and such redemption shall be made in the manner provided by the redemption provisions of the Indenture.

The University may, from time to time, by written instruction direct the Trustee to make purchases under clauses (i) and (ii) in the third paragraph under the sub-heading "Redemption Fund" only after receipt of tenders after published notice. The University may specify the length of notice to be given and the dates on which tenders are to be accepted. All such tenders shall be sealed proposals and no tenders shall be considered or accepted at any price exceeding the price specified under clauses (i) and (ii) in the third paragraph under the subheading "Redemption Fund" for the purchase of Bonds. The Trustee shall accept bids with the lowest price and if the moneys available for purchase pursuant to such tenders are not sufficient to permit acceptance of all tenders and there shall be tenders at an equal price above the amount of moneys available for purchase then the Trustee shall select by lot, in such manner as the Trustee shall determine in its discretion, the Bonds tendered which shall be purchased. No purchase of Bonds, either on tenders or otherwise, shall be made by the Trustee within the period of forty-five (45) days next preceding any date on which such Bonds are subject to redemption.

Upon any purchase or redemption of Bonds of any Series and maturity for which Sinking Fund Installments shall have been established other than by application of Sinking Fund Installments, an amount equal to the applicable Redemption Prices thereof (as specified below) shall be credited toward a part or all of any one or more of such Sinking Fund Installments, as directed by the University, or, failing such direction by the 15th day of the second month preceding the date of the applicable Sinking Fund Installment, toward such Sinking Fund Installments in inverse order of their due dates. Such applicable Redemption Prices shall be the respective Redemption Prices which would be applicable upon the redemption of such Bonds from the respective Sinking Fund Installments on the due dates thereof. The portion of any such Sinking Fund Installment remaining after the deduction of any such amounts credited toward the same (or the original amount of any such Sinking Fund Installment if no such amounts shall have been credited toward the same) shall constitute the unsatisfied balance of such Sinking Fund Installment for the purpose of the calculation of Principal Installments due on a future date.

Amounts in the Redemption Fund may, and at the direction of the University shall, be invested in Investment Obligations maturing not later than five (5) days prior to the date when such moneys must be applied to the purchase or redemption of Bonds in accordance with the redemption provisions of the Indenture.

Earnings Fund: All investment income or earnings on amounts held in the Bond Proceeds Fund, the Debt Service Fund, the Debt Service Reserve Fund, the Redemption Fund and the Earnings Fund or any other Fund or Account (other than the Rebate Fund) shall be deposited upon receipt by the Trustee and the University into the Earnings Fund; provided, however, that to the extent amounts held in any Fund shall be invested in Investment Securities having a yield not in excess of the yield on the applicable Series of Bonds, such earnings on the Investment Securities need not be so deposited for so long as such Investment Securities shall be in effect. The Trustee shall keep separate records which indicate all amounts deposited in the Earnings Fund to indicate the Fund source of the income or earnings. Within fifteen (15) days after the end of each Computation Period (as defined in the Arbitrage Certificate), the Trustee shall withdraw from the Earnings Fund that amount as is set forth as the Rebate Amount in a written certificate delivered by the University to the Trustee pursuant to the Arbitrage Certificate and the Indenture, and deposit, to the extent available, such amount in the Rebate Fund. Any amounts remaining in the Earnings Fund following such transfer will be deposited, at the written direction of an Authorized Officer of the University, either in the Bond Proceeds Fund, in the Debt Service Fund or in the Redemption Fund.

Rebate Fund: The Rebate Fund and the amounts deposited therein shall not be subject to a security interest, pledge, assignment, lien or charge in favor of the Trustee or any Bondholder or any other person. The Trustee, upon the receipt of a certification of the Rebate Amount from an Authorized Officer of the University, shall deposit in the Rebate Fund on the first day of each Bond Year after the first Bond Year, an amount such that the amount held in the Rebate Fund after such deposit is equal to the Rebate Amount calculated as of the last day of the prior Bond Year. In the event that on the first day of any Bond Year the amount on deposit in the Rebate Fund exceeds the Rebate Amount, the Trustee, upon the receipt of written instructions from an Authorized Officer of the University, shall withdraw such excess amount and deposit it, at the written direction of an Authorized Officer of the University, either in the Bond Proceeds Fund or in the Redemption Fund. The Trustee, upon the receipt of written instructions from an Authorized Officer of the University, shall pay the Rebate Amount to the United States out of amounts in the Rebate Fund.

(Indenture, Sections 5.4, 5.5, 5.6, 5.7 and 5.8)

Pledge Effected by the Indenture

All the moneys, securities and funds held or set aside by the Trustee under the Indenture (other than amounts held in the Rebate Fund and in any funds or accounts established under the applicable Supplemental Indenture and intended to be excluded from the pledge of the Indenture) are pledged by the Indenture to secure payment of the principal and Redemption Price of, interest on, and Sinking Fund Installments for, the Bonds.

(Indenture, Section 5.9)

Tax Covenant

The University has covenanted with the Holders of the Bonds to observe and perform all of the terms, covenants and conditions set forth in the Arbitrage Certificate and further covenants

(i) that it shall not use or permit the use of any proceeds of the Bonds or any other funds of the University, directly or indirectly, in any manner, and shall not take or permit to be taken any other action or actions which would result in any of the Bonds being treated as an obligation not described in Section 103 of the Code by reason of classification of such Bond as a "private activity bond" within the meaning of Section 141 of the Code; (ii) that no part of the proceeds of the Bonds or any other funds of the University shall at any time be used directly or indirectly to acquire securities or obligations the acquisition of which would cause any Bond to be an arbitrage bond as defined in Section 148 of the Code and any applicable regulations issued thereunder; (iii) that the University shall at all times do and perform all acts and things necessary or desirable and within its control in order to assure that interest paid on the Bonds shall, for the purposes of Federal income taxation, be not included in the gross income of the recipients thereof and exempt from such taxation; (iv) that the University will never permit the use of Bond proceeds, nor take nor omit to take any action, so as to cause the interest paid on the Bonds to be includable in the gross income of the recipients thereof for the purposes of Federal income taxation; and (v) that the University will file with the Internal Revenue Service of the United States Department of the Treasury or any other authorized governmental agency any and all statements or other instruments required under the Code and the regulations thereunder.

(Indenture, Section 5.11)

Investment of Certain Funds

The Indenture provides that moneys held in the Rebate Fund, Debt Service Fund, Debt Service Reserve Fund, Bond Proceeds Fund, Earnings Fund and Redemption Fund shall be invested and reinvested by the Trustee upon receipt of written instructions from the University, in Investment Securities, which obligations shall mature not later than necessary to provide moneys when needed for payments to be made from such Funds.

Unless otherwise provided in the Indenture, any income or interest earned and gains realized in excess of any losses suffered as a result of investment of moneys on deposit to the credit of any Fund or Account pursuant to the Indenture shall be credited as provided in the Indenture. Any investment authorized by the Indenture is subject to the condition that no amounts shall be used, directly or indirectly, in such manner as to cause any Bond to be an "arbitrage bond" within the meaning of Section 148 of the Code.

(Indenture, Section 6.3)

Valuation and Sale of Investments

In computing the amount in any Fund, obligations purchased as an investment of moneys therein shall be valued at cost or the principal amount thereof, whichever is lower, exclusive of accrued interest.

(Indenture, Section 6.4)

Payment of Bonds

The University has covenanted with the Holders of the Bonds that it will pay or cause to be paid promptly the principal and Redemption Price of and the interest on the Bonds at the places, on the dates and in the manner provided in the Indenture and in the Bonds and shall duly and punctually satisfy all Sinking Fund Installments which may be established for any Series. The Holders of all Bonds shall have a valid and enforceable lien on all moneys, securities or funds pledged under the Indenture (other than for amounts held in the Rebate Fund and in any funds or accounts established under the applicable Supplemental Indenture and intended to be excluded from the pledge of the Indenture) until all of the Bonds and the interest thereon shall have been paid in the manner provided in the Indenture.

(Indenture, Section 7.1)

Construction of Facility

The University covenants that it will promptly proceed with the construction of any Additional Project to be financed in whole or in part by the issuance of Bonds in conformity with law and all requirements of the governmental authorities having jurisdiction thereover and that it will complete such construction with all expedition possible.

(Indenture, Section 7.3)

Creation of Liens; Sale of Property

The University covenants (i) not to issue any bonds or other evidences of indebtedness, other than the Bonds, secured by a pledge of the moneys, securities or funds held or set aside by the University or by the Trustee under the Indenture, and (ii) not to create or cause to be created any lien or charge on such moneys, securities or funds; provided, however, that nothing contained in the Indenture shall prevent the University from issuing evidences of indebtedness payable out of or secured by a pledge of its general obligation or general revenues or any other sources available to the University.

(Indenture, Section 7.4)

Further Assurances

The University covenants that it will comply with all valid acts, rules and regulations, orders and directions of any legislative, executive, administrative or judicial body, applicable to the University.

(Indenture, Section 7.5)

Payment of Obligations

The University shall at all times charge and collect tuition, fees, rents, charges and other revenues which, together with other legally available funds, shall be sufficient to make all payments as the same become due of principal, interest and Sinking Fund Installments with respect to any and all Indebtedness of the University and to meet all other obligations of the University, provided that this paragraph shall not require the payment or performance of any debt, claim or obligation so long as the validity of the same shall be contested in good faith by the University.

(Indenture, Section 7.7)

Sale and Lease of Facilities

The University may, from time to time, sell, exchange or otherwise dispose of any real property or personal property constituting part of any Facility, if it shall determine that such property is not needed or serves no useful purpose in connection with the needs of the University. The proceeds of such disposition shall be applied by the University to any of its legally authorized purposes.

(Indenture, Section 7.8)

Documents Available for Inspection

The University covenants to have available for inspection of Bondholders at reasonable times at the offices of the Trustee and the University, the reports, certificates, statements and other documents required to be filed with the Trustee or the University pursuant to the Indenture.

(Indenture Section 7.10)

Events of Default

Each of the following events is an "Event of Default"- under the Indenture:

(a) Default in the payment of the principal or Redemption Price of any Bond when the same shall become due and payable whether at maturity or by call for redemption, or otherwise;

(b) Default in the payment of any installment of interest on any Bond when the same shall become due and payable, and continuance of such default for a period of thirty (30) days;

(c) The University shall for any reason be rendered incapable of fulfilling its obligations under the Indenture;

(d) The University shall (i) apply for or consent to the appointment of or the taking of possession by a receiver, liquidator, custodian or trustee of itself or of all or a substantial part of its property, (ii) admit in writing its inability, or be generally unable, to pay its debts as such debts become due, (iii) make a general assignment for the benefit of its creditors, (iv) commence a voluntary case under the Federal Bankruptcy Code, (v) file a petition seeking to take advantage of any other law relating to bankruptcy, insolvency, reorganization, winding-up, or composition or adjustment of debts, (vi) fail to controvert in a timely or appropriate manner, or acquiesce in writing to, any petition filed against itself in an involuntary case under such Bankruptcy Code, or (vii) take any action for the purpose of effecting any of the foregoing;

(e) The University shall default in the performance or observance of any other of the covenants, agreements or conditions on its part in the Indenture or in the Bonds contained, and such default shall continue for a period of sixty (60) days after written notice thereof to the University by the Trustee or to the University and to the Trustee by the Holders of not less than 10% in aggregate principal amount of the Bonds Outstanding; and

(f) An Event of Default, as defined in a Supplemental Indenture.

(Indenture, Section 8.1)

Acceleration of Due Date

Upon the happening and continuance of any Event of Default, unless the principal of all of the Bonds shall have already become due and payable, either the Trustee or the Holders of not less than 25% in aggregate principal amount of the Bonds Outstanding, may declare the principal of and interest accrued thereon of all the Bonds to be due and payable immediately. The right of the Trustee or of the Holders of not less than 25% in aggregate principal amount of the Bonds Outstanding to make such declaration is subject to the condition that if, at any time after such declaration, all defaults under the Bonds or the Indenture shall have been cured, then the Holders of a majority in aggregate principal amount of the Bonds Outstanding may rescind such declaration and annul such default, or, if the Trustee shall have acted w without a direction from the Holders of a majority in aggregate principal amount of the Bonds Outstanding, and if the Trustee shall not have received a written direction to the contrary from such Holders, then any such default shall be deemed annulled.

(Indenture, Section 8.2)

Enforcement of Remedies

The Trustee, in its own discretion or upon the written request of the Holders of not less than 25% in aggregate principal amount of Bonds Outstanding, shall, upon the happening and continuance of any Event of Default, proceed to protect and enforce its rights and the rights of the Holders of the Bonds, by suits in equity or at law, whether for the specific performance of any covenant or agreement in the Indenture or in aid of the execution of any power granted therein or in the law or for the enforcement of any legal or equitable rights or remedies the Trustee shall deem most effectual to protect and enforce such rights or to perform its duties.

Regardless of the happening of an Event of Default, the Trustee shall have the power to, but unless requested in writing by the Holders of 25% in aggregate principal amount of the Bonds then Outstanding, and furnished with reasonable security and indemnity, shall be under no obligation to, institute and maintain such suits and proceedings as it may be advised shall be necessary or expedient to prevent any impairment of the security under the Indenture by any acts which may be unlawful or in violation of the Indenture or of any resolution authorizing Bonds, and such suits and proceedings as the Trustee may be advised shall be necessary or expedient to preserve or protect its interests and the interests of the Bondholders.

All remedies conferred upon or reserved to the Holders of Bonds under the Indenture may also be conferred upon and reserved to the provider of a related Bond Facility, a Swap Provider or the provider of a Swap Facility authorized by a Supplemental Indenture and may be cumulative as provided in the Indenture. Nothing in the Indenture shall preclude the University from providing in an applicable Supplemental Indenture or in any Bond Facility, any Swap or any related Swap Facility authorized thereby, that the exercise of any remedy under the Indenture or the waiver of any event of default under the Indenture by the Trustee or the Holder of any such Bond shall be subject to the prior written consent of the provider of any related Bond Facility, any Swap Provider or the provider of a related Swap Facility. Such Supplemental Indenture or related Bond Facility or related Swap Facility may provide that any and all notices required to be given (by the provisions of the Indenture) regarding Events of Default and remedies of Bondholders by the University or the Trustee to the Holder of any Bond shall also be given to the provider of any related Bond Facility, any Swap Provider or the provider of a related Swap Facility.

(Indenture, Section 8.3)

Application of Revenues and Other Moneys after Default

If at any time the moneys in the Debt Service Fund, the Debt Service Reserve Fund and the Redemption Fund shall be insufficient for the payment of interest and principal or Redemption Price, then due on the Bonds, the Trustee shall apply such moneys and any other moneys held, received or collected by the Fiduciaries (other than moneys held for the payment or redemption of particular Bonds which have theretofore become due at maturity or by call for redemption), for the payment of the charges and expenses and liabilities incurred and advances made by the Fiduciaries in the performance of their duties under the Indenture, and then as follows:

(a) Unless the principal of all the Bonds shall have become or have been declared due and payable,

> First: To the payment to the persons entitled thereto of all installments of interest then due in the order of the maturity of such installments, together with accrued and unpaid interest on Bonds theretofore called for redemption, and, if the amount available shall not be sufficient to pay in full any installment, then to the payment thereof ratably, according to the amounts due on such installments, to the persons entitled thereto, without any discrimination or preference;
>
> Second: To the payment to the persons entitled thereto of the unpaid principal or Redemption Price of any Bonds which shall have become due, whether at maturity or by call for redemption, in the order of their due dates and, if the amount available shall not be sufficient to pay in full all the Bonds due on any date, then to the payment thereof ratably, according to the amounts of principal or

Redemption Price due on such date, to the persons entitled thereto, without any discrimination or preference; and

Third: To the payment to other persons entitled to payment under the Indenture or the applicable Supplemental Indenture.

(b) If the principal of all of the Bonds shall have become or have been declared due and payable, to the payment of the principal and interest then due and unpaid upon the Bonds without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any Bond over any other Bond, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds.

Whenever moneys are to be applied by the Trustee pursuant to the provisions under this heading, such moneys shall be applied by the Trustee at such times, and from time to time, as the Trustee in its sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional money becoming available for such application in the future; the deposit of such moneys with the Paying Agents, or otherwise setting aside such moneys in trust for the proper purpose, shall constitute proper application by the Trustee; and the Trustee shall incur no liability whatsoever to the University, to any Bondholder or to any other person for any delay in applying any such moneys, so long as the Trustee acts with reasonable diligence, having due regard for the circumstances, and ultimately applies the same in accordance with such provisions of the Indenture as may be applicable at the time of application by the Trustee. Whenever the Trustee shall exercise such discretion in applying such moneys, it shall fix the date (which shall be an Interest Payment Date unless the Trustee shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate for the fixing of any such date. Unless otherwise required by the book-entry system for the Bonds, the Trustee shall not be required to make payment to the Holder of any unpaid interest or any Bond unless such Bond shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

(Indenture, Section 8.4)

Majority Bondholders Control Proceedings

The Holders of a majority in aggregate principal amount of the Bonds Outstanding shall have the right to direct the time, method and place of conducting all remedial proceedings to be taken by the Trustee under the Indenture, provided that such direction shall not be otherwise than in accordance with law or the provisions of the Indenture.

(Indenture, Section 8.6)

Individual Bondholder Action Restricted

No Bondholder shall have any right to institute any suit, action, mandamus or other proceeding in equity or at law for the execution of any trust under the Indenture, or the protection or enforcement of any right under the Indenture or any right under the laws of the State of New Jersey, unless such Holder shall have given to the Trustee written notice of the Event of Default or breach of trust or duty on account of which such action or proceeding is to be taken and unless the Holders of not less than 25% in aggregate principal amount of Bonds Outstanding shall have requested the Trustee to institute the same in accordance with the Indenture. Nothing in the Indenture or in the Bonds shall affect or impair the obligation of the University, which is absolute and unconditional, to pay at the respective dates of maturity or redemption the principal or Redemption Price of and interest on the Bonds or affect or impair the right of action, which is absolute and unconditional, of any Holder to enforce such payment of his Bond.

(Indenture, Section 8.7)

Remedies Not Exclusive

No remedy by the terms of the Indenture conferred upon or reserved to the Trustee or to the Holders of the Bonds is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to any other remedy given under the Indenture whether at the time of execution of the Indenture or thereafter existing at law or in equity by statute.

(Indenture, Section 8.9)

Supplemental Indentures Without Bondholders' Consent

The University and the Trustee may, from time to time and at any time, make and enter into indentures supplemental to the Indenture without consent of the Bondholders, the provider of either a Bond Facility, or a Swap Facility or Swap Provider as follows: (i) to provide for the issuance of Bonds or Notes or Swaps pursuant to the provisions of the Indenture and to prescribe the terms and conditions pursuant to which such Bonds or Notes or Swaps may be issued, paid or redeemed; (ii) to cure (y) any formal defect or omission in the Indenture, or (z) any ambiguity therein if such action is not adverse to the interests of the Bondholders; (iii) to grant to or confer upon the Trustee for the benefit of the holders of the Bonds or Notes or Swaps, any additional rights, remedies, powers, authority or security which may lawfully be granted or conferred and which are not contrary to or inconsistent with the Indenture as theretofore in effect; (iv) to close the Indenture against, or provide limitations and restrictions in addition to the limitations and restrictions contained in the Indenture on, the authentication and delivery of Bonds, Notes or Swaps or the issuance of other evidences of indebtedness; (v) to add to the covenants and agreements of the University in the Indenture, other covenants and agreements to be observed by the University which are not contrary to or inconsistent with the Indenture as theretofore in effect; (vi) to add to the limitations and restrictions in the Indenture, other limitations and restrictions to be observed by the University which are not contrary to or inconsistent with the Indenture as theretofore in effect; (vii) to confirm, as further assurance, any pledge under, and the subjection to any lien or pledge created or to be created by, the Indenture, any other moneys, securities or funds; (viii) to modify any of the provisions of the Indenture in any respect whatever, provided that (y) such modification shall be, and be expressed to be, effective only after all Bonds of any Series Outstanding at the date of the execution of such Supplemental Indenture shall cease to be Outstanding and (z) such Supplemental Indenture shall be specifically referred to in the text of all Bonds of any Series authenticated and delivered after the date of the execution of such Supplemental Indenture and of Bonds issued in exchange therefor or in place thereof; (ix) to modify, amend, insert or delete such provisions of the Indenture as, in the opinion of Nationally Recognized Bond Counsel, shall be necessary or desirable to ensure the continued federal tax exemption of the interest on any Series of Bonds Outstanding under the Indenture; and (x) to make any other change which, in the judgment of the Trustee, does not materially adversely affect the interests of Bondholders.

(Indenture, Section 11.2)

Supplemental Indentures With Bondholders' Consent

Subject to the terms and provisions contained under this heading, and not otherwise, (i) the Holders of not less than a majority in aggregate principal amount of the Bonds then Outstanding, and (ii) in case less than all of the several Series of Bonds then Outstanding are affected, the Holders of not less than a majority in aggregate principal amount of the Bonds of each Series so affected and Outstanding shall have the right, from time to time, to consent to and approve the execution by the University and the Trustee of any Supplemental Indenture as shall be deemed necessary or desirable by the University for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in the Indenture; provided, however, that nothing contained in the Indenture shall permit, or be construed as permitting, (x) a change in the terms of redemption or maturity of the principal of or the interest on any Outstanding Bond, or a reduction in the principal amount or Redemption Price of any Outstanding Bond or the rate of interest thereon, without the consent of the Holder of such Bond, or (y) a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (z) a reduction in the aggregate principal amount of the Bonds required for consent to such Supplemental Indenture.

(Indenture, Section 11.3)

Modifications by Unanimous Consent

The rights and obligations of the university and of the Holders of the Bonds, and the terms and provisions of the bonds and the Indenture, may be modified or altered in any respect with the consent of the University and the consent of the Holders of all of the Bonds then Outstanding.

(Indenture, Section 11.6)

Consent of Bond Facility Provider

For purposes of the provisions regarding Supplemental Indentures, subject to the terms of such Bond Facility and only so long as the provider of a Bond Facility has not defaulted on its obligations under the Bond Facility, the provider of a Bond Facility shall be considered the sole

Holder of all Bonds to which such Bond Facility relates, except as otherwise provided in an applicable Supplemental Indenture.

(Indenture, Section 11.7)

Defeasance

If the University shall pay or cause to be paid, or there shall otherwise be paid, to the Holders of all Bonds, the principal or Redemption Price, if applicable, and interest due or to become due thereon, including all Reimbursement Obligations then due and payable, at the times and in the manner stipulated therein and in the Indenture and shall terminate any existing Bond Facility to the extent required in accordance with its terms, then the pledge of any revenues, moneys and securities pledged under the Indenture and all covenants, agreements and other obligations of the University to the Bondholders, shall thereupon cease, terminate and become void and be discharged and satisfied.

Bonds or interest installments for the payment or redemption of which moneys shall have been set aside and shall be held in trust by the Paying Agents (through deposit by the University of funds for such payment or redemption or otherwise) at the maturity or redemption date thereof shall be deemed to have been paid within the meaning and with the effect expressed above. Any Outstanding Bonds of any Series shall prior to the maturity or redemption date thereof be deemed to have been paid within the meaning and with the effect expressed above if: (i) in case any of said Bonds are to be redeemed on any date prior to their maturity, the University shall have given to the Trustee in form satisfactory to it irrevocable written instructions to mail notice of redemption on said date of such Bonds, (ii) there shall have been deposited with the Trustee either moneys in an amount which shall be sufficient, or Investment Securities the principal of and the interest on which when due will provide moneys which together with the moneys, if any, deposited with the Trustee at the same time, shall be sufficient, to pay when due the principal or Redemption Price, if applicable, and interest due and to become due on said Bonds on and prior to the redemption date or maturity date thereof, as the case may be, and (iii) in the event said Bonds are not by their terms subject to redemption within the next succeeding sixty (60) days, the University shall have given the Trustee in form satisfactory to it irrevocable written instructions to mail by first class mail, as soon as practicable, notice to the Holders of such Bonds that the deposit required by (ii) above has been made with the Trustee and that said Bonds and interest thereon are deemed to have been paid in accordance with this paragraph and stating such maturity or redemption date upon which moneys are to be available for the payment of the principal or Redemption Price, if applicable, on said Bonds. Neither Investment Securities or moneys deposited with the Trustee nor principal or interest payments on any such Investment Securities shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal or Redemption Price, if applicable, and interest on said Bonds; provided that any cash received from such principal or interest payments on such Investment Securities deposited with the Trustee, if not then needed for such purpose, shall to the extent determined in writing by the University, be reinvested in Investment Securities maturing at times and in amounts sufficient to pay when due the principal or Redemption Price, if applicable, and interest to become due on said Bonds on and prior to such redemption date or maturity date thereof, as the case may be, and interest earned from such reinvestments shall, subject to the provisions outlined under the subheading “Rebate Fund” above, be paid over to the University, as received by the Trustee, free and clear of any trust, lien or pledge. For the purposes of this paragraph, Investment Securities shall mean and include only those securities listed below and which shall not be subject to redemption prior to their maturity:

(i) any bonds or other obligations which as to principal and interest constitute direct obligations of, or are unconditionally guaranteed by, the United States of America, including obligations of any of the federal agencies set forth in clause (iii) below to the extent unconditionally guaranteed by the United States of America;

(ii) any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local government unit of any such state (A) which are not callable prior to maturity or as to which irrevocable instructions have been given to the trustee of such bonds or other obligations by the obligor to give due notice of redemption and to call such bonds for redemption on the date or dates specified in such instructions, (B) which are secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or bonds or other obligations of the character described in clause (i) above, the corpus or the corpus and the earnings on which fund may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the redemption date or dates specified in the irrevocable instructions referred to in subclause (A) of this clause (ii), as appropriate, and (C) as to which the principal of and interest on the bonds and obligations of the character described in clause (i) above which have been deposited in such fund along with any cash on deposit in such fund are sufficient to pay principal of and interest and premium, if any, on the bonds or other obligations described in this clause (ii) on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (A) of this clause (ii), as appropriate;

(iii) bonds, debentures, or other evidences of indebtedness issued or guaranteed by any agency or corporation which has been or may be created pursuant to an Act of Congress as an agency or instrumentality of the United States of America;

(iv) New Housing Authority Bonds issued by public agencies or municipalities and fully secured as to the payment of both principal and interest by a pledge of annual contributions under an annual contributions contract or contracts with the United States of America; or project notes issued by public agencies or municipalities and fully secured as to the payment of both principal and interest by a requisition or payment agreement with the United States of America;

(v) direct and general obligations of any state of the United States of America, to the payment of the principal of and interest on which the full faith and credit of such state is pledged, provided that at the time of their purchase under the Indenture such obligations are rated in either of the two highest rating categories by Moody’s and Standard & Poor’s; and

(vi) obligations of any state of the United States of America or any political subdivision thereof or any agency or instrumentality of any state or political subdivision which shall be rated in the highest category by Moody's Investors Service, Inc. and by Standard & Poor's Ratings Group.

(Indenture, Section 12.1)

Continuing Disclosure Undertaking

Continuing Disclosure Undertaking Amendments:

Commencing July 1, 2009, in accordance with certain amendments to SEC Rule 15c2-12, the University covenants to file or cause to be filed the Annual Financial Information and Material Event Notices with the MSRB and its Electronic Municipal Market Access system for municipal securities disclosures instead of with each NRMSIR or SID, if any.

Commencing December 1, 2010, in accordance with certain amendments to SEC Rule 15c2-12, the University covenants to file or cause to be filed, the Material Event Notices not in excess of ten (10) business days after the occurrence of the event which amends the requirement to file material event notices.

Purpose:

The provisions of the Indenture regarding the continuing disclosure undertaking shall constitute the written undertaking for the benefit of the Holders of the Bonds required by Section (b)(5)(i) of the Rule, and shall apply to all Bonds of the University under the Indenture.

Submission of Annual Financial Information Statements:

The University shall, while any Bonds are Outstanding, provide to the Trustee, when completed, Annual Financial Information with respect to each Fiscal Year of the University beginning with the Fiscal Year ending June 30, 2002, which Annual Financial Information shall be completed within 180 days of the end of such Fiscal Year (the "Submission Date"). Annual Financial Information may be provided in one document or multiple documents, and at one time or in part from time to time. The University shall include with each such submission of Annual Financial Information a written representation addressed to the Trustee to the effect that the Annual Financial Information so submitted is the Annual Financial Information required by the provisions of the Indenture regarding Annual Information Statements, and that such Annual Financial Information complies with the applicable requirements of the provisions of the Indenture regarding the continuing disclosure undertaking. The Trustee shall provide to the MSRB, such Annual Financial Information on or before four (4) Business Days following the Submission Date (the "Report Date") while any Bonds are Outstanding or, if not received by the Trustee by the Submission Date, then within three (3) Business Days of its receipt by the Trustee.

It shall be sufficient if the University provides to the Trustee and the Trustee provides to the MSRB, the Annual Financial Information by specific reference to documents previously provided to the MSRB, or filed with the Securities and Exchange Commission and, if such a document is an Official Statement, available from the MSRB.

Submission of Audited Financial Statements:

The University shall submit to the Trustee Audited Financial Statements for each Fiscal Year beginning for Fiscal Year 2002, when and if available (but not later than the Submission Date) while any Bonds are Outstanding, whether as part of the Annual Financial Information or separately, which Audited Financial Statements the Trustee shall then provide to the MSRB by the Report Date. If Audited Financial Statements for any Fiscal Year are not so provided to the Trustee by the Submission Date, the University shall provide to the Trustee (i) by the Submission Date, Unaudited Financial Statements for such Fiscal Year as part of the Annual Financial Information required to be delivered pursuant to the provisions of the Indenture described above, and (ii) when available, Audited Financial Statements for such Fiscal Year, which Audited Financial Statements the Trustee shall provide to the MSRB within three (3) Business Days of its receipt thereof.

Material Event Notices:

If a Material Event occurs while any Bonds are Outstanding, the University shall provide a Material Event Notice to the Trustee in a timely manner not in excess of ten (10) business days after the occurrence of the event, and the Trustee shall promptly provide to the MSRB such Material Event Notice. Each Material Event Notice shall be so captioned and shall prominently state the date, title and CUSIP numbers of the applicable Bonds.

The Trustee shall promptly advise the University whenever, in the course of performing its duties as Trustee under the Indenture, the Trustee identifies an occurrence which would require the University to provide a Material Event Notice under the Indenture; provided, however, that the failure of the Trustee so to advise the University shall not constitute a breach by the Trustee of any of its duties and responsibilities under the Indenture.

Notification by Trustee of Failure by the University to File Annual Financial Information:

The Trustee shall, while any Bonds are Outstanding, provide, in a timely manner, notice of any failure of the University to provide the Annual Financial Information by the date specified in the first paragraph under the sub-heading "Submission of Annual Financial Information Statements" above to the MSRB.

The Trustee shall, while any Bonds are Outstanding and without any direction or instruction from the University, provide on the Report Date to the MSRB, notice of any failure to provide to the MSRB Annual Financial Information on or before the Report Date (whether caused by failure of the University to provide such information to the Trustee by the Submission Date or for any other reason). For the purposes of determining whether information received from the University is Annual Financial Information, the Trustee shall be entitled conclusively to rely on the University's written representation made pursuant to the first paragraph under the sub-heading "Submission of Annual Financial Information Statements" above.

Additional Information:

Nothing in the provisions of the Indenture regarding the continuing disclosure undertaking shall be deemed to prevent the University from disseminating any other information, using the means of dissemination set forth in the provisions of the Indenture regarding the continuing disclosure undertaking or any other means of communication, or including any such other information in any Annual Financial Information or Material Event Notice, in addition to that required by the Indenture. If the University should so disseminate or include any such additional information, the University shall have no obligation under the provisions of the Indenture regarding the continuing disclosure undertaking to update, provide or include such additional information in any future materials disseminated pursuant to the provisions of the Indenture regarding the continuing disclosure undertaking or otherwise.

If the University provides to the Trustee additional information as described in the immediately preceding paragraph, and such additional information is not included in any Annual Financial Information or Material Event Notice, the University may direct the Trustee to provide such additional information to the MSRB, upon which direction the Trustee shall provide such additional information in a timely manner to the MSRB.

Reference to Other Documents:

It shall be sufficient for purposes of the provisions of the Indenture regarding submission of Annual Financial Information if the University provides Annual Financial Information by specific reference to documents previously provided to the MSRB, or filed with the SEC. If such a document is an Official Statement, it also must be available from the MSRB.

Transmission of Information and Notices:

Unless otherwise required by law and in the University's sole determination, subject to technical and economic feasibility, the University and the Trustee shall employ such methods of information and notice transmission as shall be requested or recommended by the herein-designated recipients of the information and notices required to be delivered pursuant to the provisions of the Indenture regarding the continuing disclosure undertaking.

Change in Fiscal Year, Submission Date and Report Date:

The University may adjust the Submission Date and the Report Date if the University changes its Fiscal Year by providing written notice of such change in Fiscal Year and the new Submission Date and Report Date to the Trustee, which written notice the Trustee shall then promptly deliver to the MSRB; provided, however, that the new Submission Date shall be no more than 180 days after the end of such new Fiscal Year and the new Report Date shall be no more than four (4) Business Days following the new Submission Date, and provided further that the period between the final Report Date relating to the former Fiscal Year and the initial Report Date relating to the new Fiscal Year shall not exceed one year in duration.

Termination:

The University's and the Trustee's obligations under the provisions of the Indenture regarding the continuing disclosure undertaking shall terminate immediately once the Bonds are no longer Outstanding.

The provisions of the Indenture regarding the continuing disclosure undertaking, or any provision thereof, shall be null and void in the event that the University delivers to the Trustee a Counsel's Opinion, addressed to the University and the Trustee, to the effect that those portions of the Rule which require the provisions of the Indenture regarding the continuing disclosure undertaking, or any of such provisions, do not or no longer apply to the Bonds, whether because such portions of the Rule are invalid, have been repealed, or otherwise, as shall be specified in such opinion. The Trustee shall, upon receipt of such opinion, promptly provide copies thereof to the MSRB.

Amendment:

The provisions of the Indenture regarding the continuing disclosure undertaking may be amended, by written agreement of the parties, without the consent of the Holders of the Bonds (except to the extent required under clause (A)(ii) below), if all of the following conditions are satisfied: (i) such amendment is made in connection with a change in circumstances that arises from a change in legal (including regulatory) requirements, a change in law (including rules or regulations) or in interpretations thereof, or a change in the identity, nature or status of the University or the type of business conducted thereby; (ii) the provisions of the Indenture regarding the continuing disclosure undertaking, as so amended would have complied with the requirements of the Rule as of the date of the Indenture, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, and (A) either (i) the University shall have delivered to the Trustee a Counsel's Opinion, addressed to the University and the Trustee, which opinion states that the amendment does not materially impair the interests of the Holders of the Bonds, or (ii) the Holders of the Bonds consent to the amendment to the provisions of the Indenture regarding the continuing disclosure undertaking pursuant to the same procedures as are required for amendments to the Indenture with consent of Holders of Bonds as in effect on the date of the Indenture. In the event the University delivers to the Trustee a Counsel's Opinion pursuant to clause (A)(i) above, the Trustee shall promptly deliver copies of such opinion and amendment to the MSRB.

In addition to the immediately preceding paragraph, the provisions of the Indenture regarding the continuing disclosure undertaking may be amended and any of the provisions of the Indenture regarding the continuing disclosure undertaking may be waived, by written agreement of the parties, without the consent of the Holders of the Bonds, if all of the following conditions are satisfied: (i) an amendment to the Rule is adopted, or a new or modified official interpretation of the Rule is issued, after the effective date of the Indenture which is applicable to the provisions of the Indenture regarding the continuing disclosure undertaking and (ii) the University shall have delivered to the Trustee a Counsel's Opinion, addressed to the University and the Trustee, to the effect that performance by the University and Trustee under the provisions of the Indenture regarding the continuing disclosure undertaking as so amended or giving effect to such waiver, as the case may be, will not result in a violation of the Rule. Upon receipt by the Trustee of such Opinion, the Trustee shall promptly deliver copies of such Opinion and amendment to the MSRB.

In the event of any amendment respecting the type of operating data or financial information contained in the University's Annual Financial Information, the University shall, in accordance with the Rule or any interpretation thereof by the SEC, provide in the first Annual Financial Information provided thereafter a narrative explanation of the reasons for the amendment and the impact of the change in the type of operating data or financial information being provided.

In the event of any amendment specifying the accounting principles to be followed in preparing financial statements, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative and, to the extent reasonably feasible, quantitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information. In the event of any such change in accounting principles, the University shall deliver notice of such change in a timely manner to the Trustee, upon receipt of which the Trustee shall promptly deliver such notice to the MSRB.

Benefit; Third-Party Beneficiaries: Enforcement:

The provisions of the Indenture regarding the continuing disclosure undertaking shall inure solely to the benefit of the Holders from time to time of the Bonds, except that beneficial owners of Bonds shall be third-party beneficiaries of the provisions of the Indenture regarding the continuing disclosure undertaking.

Except as provided in this paragraph, the provisions of the Indenture regarding the continuing disclosure undertaking shall create no rights in any person or entity. The obligations of the University to comply with the provisions of Indenture regarding the continuing disclosure undertaking shall be enforceable (i) in the case of enforcement of obligations to provide Audited Financial Statements, Annual Financial Information, operating data and notices, by any Holder of Outstanding Bonds, or by the Trustee on behalf of the Holders of Outstanding Bonds, or (ii), in the case of challenges to the adequacy of the financial statements, financial information and operating data so provided, by the Trustee on behalf of the Holders of Outstanding Bonds; provided, however, that the Trustee shall not be required to take any enforcement action except at the direction of the Holders of not less than twenty-five percent (25%) in aggregate principal amount of the Bonds at the time Outstanding who shall have provided the Trustee with adequate security and indemnity. The Holders' and Trustee's rights to enforce the provisions of the Indenture regarding the continuing disclosure undertaking shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of the University's obligations under the provisions of the Indenture regarding the continuing disclosure undertaking. In consideration of the third-party beneficiary status of beneficial owners of Bonds pursuant to the immediately preceding paragraph, beneficial owners shall be deemed to be Holders of Bonds for purposes of this paragraph. Without limiting the generality of the foregoing and except as otherwise provided in the Indenture with respect to the Trustee, neither the commencement nor the successful completion of an action to compel performance under the provisions of the Indenture regarding the continuing disclosure undertaking shall entitle the Trustee or any other person to attorney's fees, financial damages of any sort or any other relief other than an order or injunction compelling performance.

Any failure by the University or the Trustee to perform in accordance with the provisions of the Indenture regarding the continuing disclosure undertaking shall not constitute a default or an Event of Default under the Indenture or any Supplemental Indenture, and the rights and remedies provided by the Indenture or any Supplemental Indenture upon the occurrence of a default or an Event of Default shall not apply to any such failure.

The provisions of the Indenture regarding the continuing disclosure undertaking shall be construed and interpreted in accordance with the laws of the State, and any suits and actions arising out of the provisions of the Indenture regarding the continuing disclosure undertaking shall be instituted in a court of competent jurisdiction in the State; provided, however, that to the extent the provisions of the Indenture regarding the continuing disclosure undertaking address matters of federal securities laws, including the Rule, the provisions of the Indenture regarding the continuing disclosure undertaking shall be construed in accordance with such federal securities laws and official interpretations thereof.

Duties, Immunities and Liabilities of Trustee:

The Trustee shall have only such duties under the provisions of the Indenture regarding the continuing disclosure undertaking as are specifically set forth in the Indenture, and the University agrees to indemnify and save the Trustee, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties under this sub-heading, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Trustee's gross negligence or willful misconduct in the performance of its duties under this sub-heading. Such indemnity shall be separate from and in addition to that provided to the Trustee under the Indenture. The obligations of the University under this sub-heading shall survive resignation or removal of the Trustee and payment of the Bonds.

(Indenture, Sections 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8, 13.9, 13.10, 13.11, 13.12 and 13.13, as amended)

Successorship of University:

All of the covenants, stipulations, obligations and agreements contained in the Indenture by or on behalf of the University shall bind or inure to the benefit of the successor or successors of the University from time to time, and any officer, board, commission, authority, agency, or instrumentality to whom or to which any power or duty affecting such covenants, stipulations, obligations and agreements shall be transferred by or in accordance with law.

(Indenture, Section 14.1)

APPENDIX D.

PROPOSED FORM OF OPINION OF McCARTER & ENGLISH, LLP BOND COUNSEL TO THE UNIVERSITY

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McCarter & English, LLP
Four Gateway Center
100 Mulberry Street
Newark, NJ 07102-4056
www.mccarter.com

[CLOSING DATE]

Rutgers, The State University
New Brunswick, New Jersey

Re: Rutgers, The State University
General Obligation Refunding Bonds, 2020 Series S (Federally Taxable)

Ladies and Gentlemen:

We have served as Bond Counsel to Rutgers, The State University (the "University") in connection with the issuance by the University of its General Obligation Refunding Bonds, 2020 Series S (Federally Taxable) in the original principal amount of $220,900,000 (the "Bonds"). The Bonds are dated, mature, bear interest and are subject to redemption prior to maturity, upon the terms and conditions stated therein, in the Indenture (as hereinafter defined) and the Certificate of Determination of the University dated August 18, 2020 (the "Certificate of Determination"). All capitalized terms used herein and not defined herein shall have the meanings ascribed to such terms in the hereinafter-defined Indenture.

The Bonds are issued pursuant to: (i) the Rutgers, The State University Law, constituting Chapter 65 of Title 18A of the New Jersey Statutes Annotated (the "Act"); (ii) a resolution adopted by the Board of Governors of the University on October 2, 2019, and a resolution adopted by the Board of Trustees of the University on September 25, 2019 (collectively, the "Resolutions"); and (iii) an Indenture of Trust dated as of February 1, 2002 (the "Master Indenture"), as amended and supplemented, including as amended and supplemented by the Fifteenth Supplemental Indenture of Trust dated as of August 1, 2020 (the "Fifteenth Supplemental Indenture", and together with the Master Indenture, the "Indenture"), each by and between the University and U.S. Bank National Association (as successor to Wachovia Bank, National Association and First Union National Bank), as trustee (the "Trustee").

Pursuant to the Indenture, the proceeds from the sale of the Bonds are to be used by the University, together with other available funds, for the purpose of (i) the advance refunding of certain outstanding bonds issued by the New Jersey Economic Development Authority for the benefit of the University (as more fully described in the Fifteenth Supplemental Indenture) and (ii) financing certain administrative, legal, financing and incidental expenses relating to the issuance of the Bonds.

Pursuant to the terms of the Indenture, the University is obligated to make payments to the Trustee in amounts and at times sufficient to amortize the payment of the principal and redemption price, if any, of and interest on the Bonds.

As Bond Counsel to the University, we have examined the Act and the record of proceedings relating to the authorization and issuance of the Bonds, including, among other things: (i) certified copies of the Resolutions; (ii) an executed Bond; (iii) the executed Master Indenture and Fifteenth Supplemental Indenture; (iv) the opinion of the Office of the General Counsel to the University, upon which we have relied, with your permission, as to the matters set forth therein; (v) the Certificate of Determination; (vi) various certificates executed by the University; and (vii) such other documents, records and instruments as we have deemed necessary to enable us to express the opinions set forth below.

Attention is called to the fact that we have not been requested to examine and have not examined any documents or information relating to the University other than the Act and the record of proceedings hereinabove referred to, and no opinion is expressed as to any financial or other information, or the adequacy thereof, which has been or may be supplied to any purchaser of the Bonds.

With your permission, we have assumed (i) that the Master Indenture and the Supplemental Indentures thereto, other than the Fifteenth Supplemental Indenture, have been duly authorized, executed and delivered by the parties thereto, and (ii) that the Fifteenth Supplemental Indenture has been duly authorized, executed and delivered by the party thereto other than the University.

Based upon and subject to the foregoing and, with your permission, the further assumptions and qualifications set forth below, it is our opinion that:

1. The University is validly existing under the Act, and it is authorized to issue the Bonds and to enter into the Fifteenth Supplemental Indenture.

2. The Master Indenture and the Fifteenth Supplemental Indenture have been duly authorized, executed and delivered by the University, are in full force and effect and constitute the valid and binding agreements of the University, enforceable against the University in accordance with their respective terms.

3. The Indenture creates the valid pledge which it purports to create in the moneys, securities, and funds held or set aside by the Trustee under the Indenture, subject only to the provision of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth in the Indenture, the Resolutions and the Certificate of Determination.

4. The Bonds have been duly authorized and issued under the provisions of the Act, the Resolutions and the Indenture, constitute valid, binding,

direct and general obligations of the University, and are entitled to the benefit and security of the Indenture, to the extend provided therein.

5. Under existing law, interest on the Bonds and net gains from the sale thereof are exempt from the tax imposed by the New Jersey Gross Income Tax Act.

The foregoing opinions are qualified to the extent that the enforceability of the Bonds and the Indenture may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or limiting creditors' rights generally and the application of general principles of equity.

The opinions expressed herein are based upon and limited to the laws, exclusive of conflicts of law provisions, and judicial decisions of the State of New Jersey and the federal laws and judicial decisions of the United States as of the date hereof and are subject to any amendment, repeal or other modification of the applicable laws or judicial decisions that served as the basis for our opinion, or laws or judicial decisions hereafter enacted or rendered. Our engagement by the University with respect to the opinions expressed herein does not require, and shall not be construed to constitute, a continuing obligation on our part to notify or otherwise inform the addressee hereof of the amendment, repeal or other modification of the applicable laws or judicial decisions that served as the basis for this opinion letter or of laws or judicial decisions hereafter enacted or rendered which impact on this opinion letter.

We have examined one of the Bonds as executed by the University and authenticated by the Trustee, and, in our opinion, their form, execution and authentication are regular and proper. We have assumed that all of the Bonds have been so executed and authenticated.

This opinion letter is being furnished solely to the party to whom it is addressed and may not be relied upon by any other person or quoted in whole or in part or otherwise referred to, except as required by law, without our prior written consent. This is only an opinion letter and not a warranty or guaranty of the matters discussed herein.

Very truly yours,

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APPENDIX E.

SUMMARY OF BONDS TO BE REFUNDED

Bond	Maturity Date	Interest Rate	Par Amount	Call Date	Call Price
NJEDA Series 2013, Serial Bonds:					
	6/15/2027	5.000%	$5,825,000.00	06/15/2023	100%
	6/15/2028	5.000%	6,090,000.00	06/15/2023	100
	6/15/2029	5.000%	6,415,000.00	06/15/2023	100
	6/15/2030	5.000%	6,720,000.00	06/15/2023	100
	6/15/2031	5.000%	7,065,000.00	06/15/2023	100
	6/15/2032	5.000%	7,415,000.00	06/15/2023	100
	6/15/2033	5.000%	7,785,000.00	06/15/2023	100
			$47,315,000.00		
NJEDA Series 2013, 2038 Term Bond:					
	6/15/2034	5.000%	$8,180,000.00	06/15/2023	100
	6/15/2035	5.000%	8,580,000.00	06/15/2023	100
	6/15/2036	5.000%	9,020,000.00	06/15/2023	100
	6/15/2037	5.000%	9,465,000.00	06/15/2023	100
	6/15/2038	5.000%	9,935,000.00	06/15/2023	100
			$45,180,000.00		
NJEDA Series 2013, 2046 Term Bond:					
	6/15/2039	5.000%	$10,440,000.00	06/15/2023	100
	6/15/2040	5.000%	10,955,000.00	06/15/2023	100
	6/15/2041	5.000%	11,505,000.00	06/15/2023	100
	6/15/2042	5.000%	12,080,000.00	06/15/2023	100
	6/15/2043	5.000%	12,690,000.00	06/15/2023	100
	6/15/2044	5.000%	13,310,000.00	06/15/2023	100
	6/15/2045	5.000%	13,985,000.00	06/15/2023	100
	6/15/2046	5.000%	14,695,000.00	06/15/2023	100
			$99,660,000.00		
			$192,155,000.00		

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RUTGERS, THE STATE UNIVERSITY (THE STATE UNIVERSITY OF NEW JERSEY) • GENERAL OBLIGATION REFUNDING BONDS, 2020 SERIES S (FEDERALLY TAXABLE)

1766 RUTGERS

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