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

Delivery of the 2020 Series Q Bonds is conditioned upon receipt of an approving opinion of Bond Counsel dated the Delivery Date of the 2020 Series Q Bonds, stating that in the opinion of McCarter & English, LLP, Bond Counsel to the University, assuming compliance by the University with certain tax requirements described in "TAX MATTERS" herein, under existing law, interest on the 2020 Series Q Bonds is excluded from the gross income of the owners of the 2020 Series Q Bonds for federal income tax purposes pursuant to Section 103 of the Code, and interest on the 2020 Series Q Bonds is not an item of tax preference under Section 57 of the Code. Such opinion also is required to state that Bond Counsel is further of the opinion that under existing law, interest on the 2020 Series Q Bonds and net gains from the sale of the 2020 Series Q Bonds are exempt from the tax imposed by the New Jersey Gross Income Tax Act. See "TAX MATTERS" herein.

$17,820,000
RUTGERS, THE STATE UNIVERSITY
(The State University of New Jersey)
General Obligation Refunding Bonds
2020 Series Q
(Tax-Exempt)

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

The General Obligation Refunding Bonds, 2020 Series Q (Tax-Exempt) (the "2020 Series Q 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 Official Statement. The 2020 Series Q 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 an Thirteenth Supplemental Indenture of Trust, dated as of February 1, 2020, by and between the University and the Trustee (the "Thirteenth Supplemental Indenture," and together with the Master Indenture, the "Indenture").

The 2020 Series Q 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").

The 2020 Series Q Bonds are being issued to provide funds for, among other things, (a) the current refunding of certain outstanding bonds of the University, as described herein (the "Prior Bonds") and (b) the financing of certain administrative, legal, financing and incidental expenses relating to the issuance of the 2020 Series Q Bond (the "2020 Series Q Refunding Project"). See "PLAN OF FINANCE" herein. The 2020 Series Q 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 Q 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 Q 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 Q Bonds. So long as Cede & Co., as nominee of DTC, is the owner of the 2020 Series Q Bonds, references herein to the owners or registered owners will mean Cede & Co., and will not mean the Beneficial Owners of the 2020 Series Q Bonds. See "BOOK-ENTRY-ONLY SYSTEM."

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

The 2020 Series Q Bonds are not subject to redemption prior to maturity.

All legal matters incident to the authorization and issuance of the 2020 Series Q 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 Q Bonds in definitive form will be available for delivery through the facilities of DTC in New York, New York on or about February 5, 2020.

Morgan Stanley **Barclays**

September 11, 2019

MATURITY SCHEDULE

$17,820,000 GENERAL OBLIGATION REFUNDING BONDS, 2020 SERIES Q (Tax-Exempt)

Maturity May 1	Principal Amount	Interest Rate	Yield	CUSIP Number*
2021	$1,565,000	5.00%	1.35%	783186TQ2
2022	1,575,000	5.00	1.38	783186TR0
2023	1,585,000	5.00	1.42	783186TS8
2024	3,610,000	5.00	1.43	783186TT6
2025	1,860,000	5.00	1.47	783186TU3
2026	1,875,000	5.00	1.55	783186TV1
2027	1,895,000	5.00	1.60	783186TW9
2028	1,915,000	5.00	1.69	783186TX7
2029	1,940,000	5.00	1.75	783186TY5

* 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 Q 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 Q 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 Q 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 Q Bonds other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon as having been authorized by the University. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2019 Series P 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 Official Statement 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 Official Statement 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 Official Statement 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 OFFICIAL STATEMENT. THE UNDERWRITERS HAVE REVIEWED THE INFORMATION IN THIS OFFICIAL STATEMENT 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 Q BONDS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICES OF SUCH THE 2020 SERIES Q 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 Official Statement 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 Q 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 2019 SERIES P BONDS HAVE NOT BEEN REGISTERED UNDER ANY STATE SECURITIES LAW.

THE 2020 SERIES Q 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 Official Statement are made as of the date hereof unless stated otherwise and neither the delivery of this Official Statement 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 Official Statement 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 OFFICIAL STATEMENT AS LEGAL, TAX OR INVESTMENT ADVICE.

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OFFICIAL STATEMENT

Relating to

$17,820,000
RUTGERS, THE STATE UNIVERSITY
(The State University of New Jersey)
General Obligation Refunding Bonds
2020 Series Q
(Tax-Exempt)

INTRODUCTION

The purpose of this Official Statement is to furnish information concerning Rutgers, The State University (the "University" or "Rutgers") and its $17,820,000 aggregate principal amount of General Obligation Refunding Bonds, 2020 Series Q (Tax-Exempt) (the "2020 Series Q Bonds") to be dated the date of delivery. The 2020 Series Q 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 Thirteenth Supplemental Indenture of Trust, dated as of February 1, 2020, by and between the University and the Trustee (the "Thirteenth Supplemental Indenture," and together with the Master Indenture, the "Indenture"). The 2020 Series Q 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 Thirteenth Supplemental Indenture was authorized pursuant to resolution adopted by the Board of Governors of the University (the "Board of Governors"), on July 23, 2019 with the consent and advice of the Board of Trustees of the University (the "Board of Trustees") by resolution adopted on June 19, 2019 (collectively, the "Resolutions").

The 2020 Series Q Bonds will be issued pursuant to the Act. The 2020 Series Q Bonds will be used to provide funds for, among other things, (a) the current refunding of certain outstanding bonds of the University described herein and (b) the financing of certain administrative, legal, financing and incidental expenses relating to the issuance of the 2020 Series Q Bonds (the "2020 Series Q Refunding Project"). See "PLAN OF FINANCE" herein. The information contained in this Official Statement is furnished in connection with the initial sale of the 2020 Series Q Bonds. Capitalized terms not defined herein shall have the meanings ascribed to such terms in the Indenture.

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

As of June 30, 2019, the University had $2.046 billion of outstanding indebtedness under various indentures, including the Indenture, which included $175.711 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 Q BONDS

General

The 2020 Series Q Bonds will be issued as fully registered bonds without coupons in denominations of $5,000 or any integral multiple thereof. The 2020 Series Q 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 May 1, 2020, at the rates, and will mature on May 1 of each of the designated years in the principal amounts, all as set forth on the inside cover pages of this Official Statement.

Redemption Provisions

Optional Redemption

The 2020 Series Q Bonds are not subject to redemption prior to maturity.

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 2019 Series P 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 — CERTAIN PROVISIONS OF THE 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 Bonds 2009 Series G (the "2009 Series G Bonds"), General Obligation Bonds, 2010 Series H (the "2010 Series H Bonds"), General Obligation Bonds, 2010 Series I (the "2010 Series I 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), Housing Authority of New Brunswick Lease Revenue Refunding Bonds (the "2011 Series 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 and General Obligation Bonds 2018 Series O and General Obligation Bonds 2019 Series P (the "2019 Series P Bonds") (collectively, the "Prior General Obligation Bonds"), the payment of principal, Sinking Fund Installments of and interest on the 2020 Series Q Bonds, and the total debt service for the Prior General Obligation Bonds and the 2020 Series Q Bonds.

Fiscal Year Ending June 30	Debt Service on Prior General Obligation Bonds (1) (2)	2020 Series Q Bonds Principal	Interest	Total Debt Service
2020	$143,633,225	-	$212,850	$143,846,075
2021	142,002,804	$1,565,000	891,000	144,458,804
2022	144,428,896	1,575,000	812,750	146,816,646
2023	161,784,397	1,585,000	734,000	164,103,397
2024	139,158,766	3,610,000	654,750	143,423,516
2025	140,627,235	1,860,000	474,250	142,961,485
2026	141,845,838	1,875,000	381,250	144,102,088
2027	141,192,578	1,895,000	287,500	143,375,078
2028	163,301,097	1,915,000	192,750	165,408,847
2029	139,470,779	1,940,000	97,000	141,507,779
2030	141,799,254	-	-	141,799,254
2031	141,413,564	-	-	141,413,564
2032	145,869,524	-	-	145,869,524
2033	142,134,969	-	-	142,134,969
2034	110,161,956	-	-	110,161,956
2035	109,759,908	-	-	109,759,908
2036	112,324,753	-	-	112,324,753
2037	108,684,409	-	-	108,684,409
2038	108,105,382	-	-	108,105,382
2039	107,524,487	-	-	107,524,487
2040	107,656,225	-	-	107,656,225
2041	106,641,540	-	-	106,641,540
2042	106,646,300	-	-	106,646,300
2043	106,649,807	-	-	106,649,807
2044	45,602,857	-	-	45,602,857
2045	45,601,732	-	-	45,601,732
2046	45,605,077	-	-	45,605,077
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	$ 4,588,117,285	$17,820,000	$4,738,100	$ 4,610,675,385

(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 Bonds to be Refunded with the proceeds of the 2020 Series Q 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 BONDS

General

The Indenture provides that the 2020 Series Q 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 Q 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 THIRTEENTH 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 of 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.

The University contemporaneously authorized the issuance and sale of its General Obligation Bonds, 2019 Series P (Federally Taxable) (the "2019 Series P Bonds"), in the amount of $330,000,000 in aggregate principal amount of additional indebtedness, in addition to the 2020 Series Q Bonds, through the issuance of additional bonds. The 2019 Series P Bonds were not offered pursuant to this Official Statement.

BOOK-ENTRY-ONLY SYSTEM

This section describes how ownership of the 2020 Series Q Bonds is to be transferred and how the principal of and interest on the 2020 Series Q Bonds are to be paid to and credited by DTC while the 2020 Series Q Bonds are registered in the name of Cede & Co., its nominee name. The information in this section concerning DTC and the Book-Entry-Only System has been provided by DTC for use in disclosure documents such as this Official Statement. The University believes the source of such information to be reliable but takes no responsibility for the accuracy or completeness thereof.

The University cannot and does not give any assurance that (1) DTC will distribute payments of debt service on the 2020 Series Q 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 Q 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 Official Statement. 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.

DTC and its Participants. DTC, the world's largest depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity, corporate and municipal debt issues, and money market instruments from over 100 countries that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has Standard & Poor's rating: AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. So long as the 2020 Series Q Bonds are maintained in book-entry form, the following procedures will be applicable with respect to the 2020 Series Q Bonds.

Purchase of Ownership Interests. Purchases of 2020 Series Q Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2020 Series Q Bonds on DTC's records. The ownership interest of each actual purchaser of each 2020

Series Q Bond ("Beneficial Owner") is in turn 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 ownership interests in the 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 Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

Payments of Principal, Tender Price, Premium, if any, and Interest. Redemption proceeds and principal and interest payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the University or Trustee on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant and not of DTC (nor its nominee), the Trustee or the University, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds and principal and interest payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the University or 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 and Indirect Participants.

Notices. 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 Q Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the 2020 Series Q Bonds, such as redemptions, tenders, defaults, and proposed amendments to the bond documents. Beneficial Owners of the 2020 Series Q Bonds may wish to ascertain that the nominee holding the 2020 Series Q Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners, or in the alternative, Beneficial Owners may wish to provide their names and addresses to the Trustee and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2020 Series Q Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the 2020 Series Q 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 practicable after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

NEITHER THE UNIVERSITY, NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO SUCH PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE PAYMENT TO, OR THE PROVIDING OF NOTICE FOR, SUCH PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES.

Transfers of 2020 Series Q Bonds. To facilitate subsequent transfers, all 2020 Series Q Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. or such other name as may be requested by an authorized representative of DTC. The deposit of the 2020 Series Q Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in Beneficial Ownership. DTC has no knowledge of the actual Beneficial Owners of the 2020 Series Q Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2020 Series Q 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.

Neither the University nor the Trustee will have any responsibility or obligation, legal or otherwise, to any party other than to the registered owners of any 2020 Series Q Bonds on the registration books of the Trustee.

Discontinuance of Book-Entry-Only System. In the event (i) DTC determines not to continue to act as securities depository for the Bonds, or (ii) the University, with the consent of the University and the Trustee, determines in accordance with the terms of the Indenture that (a) DTC is incapable of discharging its duties, or (b) it is in the best interests of the holders of the Bonds not to continue the Book-Entry-Only System or that interests of the Beneficial Owners of the Bonds might be adversely affected if the Book-Entry-Only System is continued, then the University will discontinue the Book-Entry-Only System with DTC. Upon the occurrence of the event described in (i) or (ii)(a) above, the University will attempt to locate another qualified securities depository. If the University fails to identify another qualified securities depository to replace DTC or makes the determination noted in (ii)(b) above, the Trustee will authenticate and deliver the 2020 Series Q Bonds in accordance with the Indenture.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the University believes to be reliable, but the University does not take any responsibility for the accuracy thereof.

PLAN OF FINANCE

The 2020 Series Q Project

The 2020 Refunding Project consists of the refunding of the University's General Obligation Bonds 2010 Series I (the "Bonds to be Refunded") with proceeds of the 2020 Series Q Bonds. Pursuant to the plan of refunding, on May 1, 2020 ("Redemption Date"), the Bonds to be Refunded will be called for early redemption in whole or in part at the Redemption Price, plus accrued interest to the Redemption Date.

U.S. Bank National Association, acting as escrow trust agent (the "Escrow Agent"), and the University will enter into an Escrow Trust Agreement, dated as of February 1, 2020 (the "Escrow Trust Agreement"), pursuant to which there will be created a special and irrevocable escrow trust account, the "2010 Series I Escrow Account," to be held by the Escrow Agent in trust for the payment of the principal of, and redemption premium, if any, and interest on the Bonds to be Refunded with a portion of the proceeds of the 2020 Series Q Bonds. Upon the issuance of the 2020 Series Q Bonds, such moneys described above shall be deposited with the Escrow Agent and used to acquire certain Investment Securities (as defined in the Indenture), the principal of and interest on which, when due, together with any funds held in the 2010 Series I Escrow Account as cash, will provide moneys sufficient to pay, when due, the principal of and redemption premium, if any, of the Bonds to be Refunded, and the interest on the Bonds to be Refunded to the Redemption Date. See "VERIFICATION OF MATHEMATICAL COMPUTATIONS" and "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE MASTER INDENTURE AND TENTH SUPPLEMENTAL INDENTURE - Defeasance" herein.

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ESTIMATED SOURCES AND USES OF FUNDS

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

Sources of Funds	**2020 Series Q Bonds**
Principal Amount	$17,820,000
Plus Original Issue Premium	3,075,163
Total Sources of Funds	**$20,895,163**
Uses of Funds	
Deposit to Escrow Fund	$20,696,225
Costs of Issuance*	198,938
Total Uses of Funds	**$20,895,163**

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

FORWARD DELIVERY RISKS WITH RESPECT TO THE 2020 SERIES Q BONDS

THE UNIVERSITY EXPECTS THAT THE 2020 SERIES Q BONDS WILL BE ISSUED AND DELIVERED ON OR ABOUT FEBRUARY 5, 2020. THERE ARE NUMEROUS CONDITIONS WHICH MUST BE SATISFIED PRIOR TO ISSUANCE AND DELIVERY OF THE 2020 SERIES Q BONDS AND THE FOLLOWING IS NOT MEANT TO BE AN EXHAUSTIVE LIST OF SUCH CONDITIONS. THERE CAN BE NO ASSURANCE THAT ALL OF THE CONDITIONS TO ISSUANCE AND DELIVERY OF THE 2020 SERIES Q BONDS WILL BE SATISFIED NOR THAT THE 2020 SERIES Q BONDS WILL BE SATISFIED NOR THAT THE 2020 SERIES Q BONDS WILL BE ISSUED.

Risk of Failure of Conditions to Issuance and Delivery of the 2020 Series Q Bonds.

Approximately five months from the date hereof, on or about February 5, 2020 (the "Delivery Date"), the University expects to issue the 2020 Series Q Bonds pursuant to a Forward Delivery Bond Contract of Purchase between the University and the Underwriter and approved by the University (the "Forward Delivery Bond Contract of Purchase"). The Purchaser of the 2020 Series Q Bonds will be required immediately to execute and deliver an Investor Letter Agreement dated the date of the Forward Delivery Purchase Contract (the "Investor Letter Agreement", a form of which is attached hereto as Appendix E) in connection with the Underwriter's obligation to purchase the 2020 Series Q Bonds pursuant to the Forward Delivery Bond Contract of Purchase. See "FORWARD DELIVERY RISKS WITH RESPECT TO THE 2020 SERIES Q BONDS-Investor Letter Agreement" below.

Pursuant to the Forward Delivery Bond Contract of Purchase, delivery of the 2020 Series Q Bonds is contingent upon delivery of certain certificates, reports and legal opinions, and satisfactions of certain conditions as of the Delivery Date for the 2020 Series Q Bonds. The documents required to be delivered under the Forward Delivery Bond Contract of Purchase include, among other things, the opinion of Bond Counsel in substantially the form set forth as APPENDIX D hereto, certain additional opinions of Bond Counsel, and certain certificates of the University as to the completeness and accuracy of the Official Statement, as the same may be amended and/or supplemented prior to the delivery of the 2020 Series Q Bonds.

IF ALL OF THE CONDITIONS TO DELIVERY IN THE FORWARD DELIVERY BOND CONTRACT OF PURCHASE ARE NOT SATISFIED, THE 2020 SERIES Q BONDS WILL NOT BE ISSUED AND DELIVERED UNLESS THE UNDERWRITER WAIVES SUCH CONDITIONS. THE UNDERWRITER HAS THE RIGHT, BUT IS UNDER NO OBLIGATION, TO WAIVE ANY SUCH CONDITION.

Risk of Cancellation by Underwriter

Under the Forward Delivery Bond Contract of Purchase, the Underwriters are not required to purchase the 2020 Series Q Bonds if, among other conditions, (1) there has been a Change in Law (as defined below); (2) legislation is enacted, or a decision by a court of the United States is rendered, or any action is taken by, or on behalf of the Securities and Exchange

Commission which has the effect of requiring the 2020 Series Q Bonds to be registered under, or the sale thereof to be in violation of, the Securities Act of 1933, as amended or has the effect of requiring the Indenture to be qualified under the Trust Indenture Act of 1939, as amended, or, in each case, any law analogous thereto relating to governmental bodies; (3) as a result of any legislation, regulation, ruling, order, release, court decision or judgment or action by the U.S. Department of Treasury, the Internal Revenue Service, or any agency of the State either enacted, issued, effective, adopted or proposed, or for any other reason, Bond Counsel cannot issue an opinion to the effect that (i) the interest of the 2020 Series Q Bonds is not subject to federal income tax under Section 103 of the Code (or comparable provisions of any successor federal tax laws) and (ii) the interest on the 2020 Series Q Bonds is exempt from the State of New Jersey income taxation; (4) the Official Statement, as of its date, contained any untrue statement or misstatement of material factor or omitted to state a material fact necessary in order to make the statements and information contained therein not misleading in any material respect; the Official Statement as of the date or as of the Closing Date contained an untrue statement or misstatement of information contained therein not misleading in any material respect, or the updated Official Statement to be provided by the University pursuant to the terms of the Forward Delivery Purchase Contract as of the Closing Date contains an untrue statement or misstatement of material fact or omits to state a material fact necessary in order to make the statements and information contained therein not misleading in any material respect; or (5) the declaration of a general banking moratorium by federal or New Jersey authorities, or the general suspension of trading on any national securities exchange.

A "Change in Law" means (1) any change in or addition to applicable federal or state law, whether statutory or as interpreted by the courts or by federal or state agencies, including any changes in or new rules, regulations or other pronouncements or interpretations by federal or state agencies; (2) any legislation enacted by the Congress of the United States (if such enacted legislation has an effective date which is on or before the Closing Date); (3) any law, rule or regulation enacted by any governmental body, department or agency (if such enacted law, rule or regulation has an effective date which is on or before the Closing Date); or (4) any judgment, ruling or order issued by any court or administrative body, which in any such case would, (i) as to the Underwriters, prohibit the Underwriters from completing the underwriting of the 2020 Series Q Bonds, or beneficial ownership interests therein to the public, as provided in the Forward Delivery Purchase Contract, or (ii) as to the University, would make the completion of the issuance, sale or delivery of the 2020 Series Q Bonds illegal.

IF THE UNDERWRITER ELECTS UPON OCCURRENCE OF ANY CANCELLATION EVENT TO CANCEL ITS OBLIGATIONS TO PURCHASE THE 2020 SERIES Q BONDS PURSUANT TO THE FORWARD DELIVERY BOND CONTRACT OF PURCHASE, THE 2020 SERIES Q BONDS WILL NOT BE ISSUED AND DELIVERED. THE UNDERWRITER HAS THE RIGHT, BUT IS NOT OBLIGATED, TO CANCEL SUCH OBLIGATIONS.

THE FORWARD DELIVERY BOND CONTRACT OF PURCHASE DOES NOT PERMIT THE UNDERWRITER TO REFUSE TO ACCEPT DELIVERY OF AND PAY FOR THE 2020 SERIES Q BONDS BECAUSE OF THE LACK OF CONFIRMATION OF ANY

UNDERLYING RATINGS ON THE 2020 SERIES Q BONDS OR ANY SUBSEQUENT ADVERSE CHANGE IN THE BUSINESS OR AFFAIRS OF THE UNIVERSITY.

Occurrence of Material Events or Conditions

During the period between the date hereof and the Delivery Date (the "Forward Delivery Period"), material events or conditions could occur which are not described in this Official Statement and information contained in this Official Statement could change in a material respect. In such event, pursuant to the Forward Delivery Bond Contract of Purchase, the University has agreed to supplement this Official Statement. The University has also agreed to furnish such information relating to the University, as the Underwriter may, from time-to-time reasonably request. The Underwriter intends to provide such supplemental information to prospective purchasers of the 2020 Series Q Bonds on or before the Delivery Date.

Secondary Market Risk

The Underwriter is not obligated to establish a secondary market in the 2020 Series Q Bonds and no assurances can be given that a secondary market will exist for the 2020 Series Q Bonds during the Forward Delivery Period. Prospective purchasers of the 2020 Series Q Bonds should assume that the 2020 Series Q Bonds will not be a liquid investment throughout the Forward Delivery Period.

Market Value Risk

The market value of the 2020 Series Q Bonds as of the Delivery Date may be affected by a variety of factors, including, without limitation, general market conditions, the ratings on the 2020 Series Q Bonds, the financial condition and business operations of the University and MBIA, the prevailing interest rates, federal and state income tax and other laws, including proposed laws, and the relative value of tax-exempt obligations versus other types of investments, such as taxable obligations.

THE MARKET VALUE OF THE 2020 SERIES Q BONDS ON THE DELIVERY DATE COULD BE GREATER OR LESS THAN THE AGREED PURCHASE PRICE THEREFOR BY THE INITIAL PURCHASERS THEREOF, AND THE DIFFERENCE COULD BE SUBSTANTIAL.

NEITHER THE UNIVERSITY NOR THE UNDERWRITER MAKE ANY REPRESENTATION AS TO THE MARKET PRICE OF THE 2020 SERIES Q BONDS AS OF DELIVERY DATE THEREOF.

Issuance of Legal Opinion

It is a condition to the issuance of the 2020 Series Q Bonds at the Delivery Date that Bond Counsel deliver its approving opinion in substantially the form attached hereto as APPENDIX D. The ability of Bond Counsel to deliver such opinion on the Delivery Date is subject to its review and analysis at the time of certain matters, including, among other things, the application of the proceeds of such 2020 Series Q Bonds and pertinent provisions of statutes, regulations, rulings and court decisions including but not necessarily limited to, federal income tax and securities laws then in effect or proposed to be in effect. Bond Counsel has advised the University and the Underwriter that, assuming (i) satisfaction by the University and the Underwriter of their respective obligations to be satisfied in the Forward Delivery Bond Contract of Purchase, (ii) the issuance of the 2020 Series Q Bonds, and (iii) no changes in any applicable law, regulations or rulings, or in interpretations thereof, or in any other facts or circumstances (tax or otherwise) which, in Bond Counsel's view, affect or are material to their opinion (including, without limitation, the existence of any litigation), Bond Counsel expects to be able to issue at the Delivery Date an opinion substantially in the form attached hereto as APPENDIX D. In addition, in order to deliver such opinion, appropriate certifications and representations by or on behalf of the University and others must be delivered and made in connection with the issuance of the 2020 Series Q Bonds. Thus, no assurances can be given that (a) there will be no change in any applicable law, regulations or rulings, or in interpretations thereof, prior to the time of the Delivery Date, (b) the circumstances and facts that are material to such opinion will not differ at the time of the Delivery Date from those currently expected, or (c) such certifications and representations will be delivered and made in connection with the issuance of the 2020 Series Q Bonds. As a consequence of (a), (b) and (c) set forth in the previous sentence, such opinion may not be rendered.

Investor Letter Agreement

As described above, purchasers of the 2020 Series Q Bonds will be required immediately to execute and deliver an Investor Letter Agreement (in the form attached hereto as APPENDIX E) in connection with the Underwriter's obligation to purchase the 2020 Series Q Bonds pursuant to the Forward Delivery Bond Contract of Purchase. The 2020 Series Q Bonds will be issued on the Delivery Date if all of the conditions set forth in the Forward Delivery Bond Contract of Purchase are fulfilled and the Underwriter does not elect to terminate the Forward Delivery Bond Contract of Purchase upon occurrence of any Cancellation Event. If the 2020 Series Q Bonds are issued and purchased by the Underwriter, a purchaser will be unconditionally obligated to purchase the 2020 Series Q Bonds as set forth in the Investor Letter Agreement. See "APPENDIX E - FORM OF INVESTOR LETTER AGREEMENT".

TAX MATTERS

Exclusion of Interest on the 2020 Series Q Bonds from Gross Income for Federal Tax Purposes

The Code imposes certain requirements that must be met on a continuing basis subsequent to the issuance of the 2020 Series Q Bonds in order to assure that interest on the 2020 Series Q Bonds will be excluded from gross income for federal income tax purposes under Section 103 of the Code. Such requirements include requirements relating to private use limitations and the yield restriction of certain funds. Failure of the University to comply with such requirements may cause interest on the 2020 Series Q Bonds to be included in gross income for federal income tax purposes, retroactive to the date of issuance of the 2020 Series Q Bonds. The University will make representations in the Preliminary Tax Certificate with respect to the 2020 Series Q Bonds, as to various tax requirements, which is being delivered as of the Sale Date of the 2020 Series Q Bonds and which will be updated concurrently with the delivery of the

2020 Series Q Bonds by the delivery of the Tax Certificates Recertification (collectively with the Preliminary Tax Certificate, the "Tax Certificates"). The University, in executing the Tax Certificates, will represent that it expects and intends to comply, and to the extent permitted by law, will comply with the provisions and procedures set forth in the Tax Certificates and will do all things necessary to assure that the interest on the 2020 Series Q Bonds will be excluded from gross income under Section 103 of the Code. McCarter & English, LLP, Bond Counsel to the University, will rely upon the representations made in the Tax Certificates and assume continuing compliance by the University with all applicable federal income tax law requirements in rendering its federal income tax opinions with respect to the exclusion of interest on the 2020 Series Q Bonds from gross income for federal income tax purposes.

Tax Opinions

The 2020 Series Q Bonds

The issuance and delivery of the 2020 Series Q Bonds is conditioned upon delivery by McCarter & English, LLP, Bond Counsel to the University, on the Delivery Date, of an opinion with respect to certain federal and state tax matters relating to the 2020 Series Q Bonds. Such opinion is required to state that:

> Assuming compliance by the University with all applicable federal income tax law requirements, McCarter & English, LLP, Bond Counsel to the University, is of the opinion that, under existing law, interest on the 2020 Series Q Bonds is excluded from the gross income of the owners of the 2020 Series Q Bonds for federal income tax purposes pursuant to Section 103 of the Code and interest on the 2020 Series Q Bonds is not an item of tax preference under Section 57 of the Code for purposes of computing the alternative minimum tax.
>
> In the opinion of Bond Counsel, under existing law, interest on the 2020 Series Q Bonds and net gains from the sale of the 2020 series Q Bonds are exempt from the tax imposed by the New Jersey Gross Income Tax Act.

See the Form of Bond Counsel opinion for the 2020 Series Q Bonds attached hereto as Appendix D.

Bond Counsel has advised the University that, as of the Sale Date, it has no reason to believe that it will be unable to deliver the opinion in substantially the form set forth above on the Delivery Date. Such advice assumes (i) the application of current law to the 2020 Series Q Bonds, (ii) no change in applicable federal tax laws, rulings and regulations and no court decisions modifying any current federal tax laws, rulings and regulations prior to the Delivery Date of the 2020 Series Q Bonds, and (iii) the execution and delivery by the University of the Preliminary Tax Certificate and the Tax Certificate Recertification on the Delivery Date.

Additional Federal Income Tax Consequences

Prospective purchasers of the 2020 Series Q Bonds should be aware that ownership of, or accrual or receipt of interest on, or disposition of tax-exempt obligations, such as the 2020 Series Q Bonds, may have additional federal income tax consequences for certain taxpayers, including, without limitation, taxpayers eligible for the earned income credit, recipients of certain Social Security and certain Railroad Retirement benefits, taxpayers that may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations, financial institutions, property and casualty companies, foreign corporations and certain S corporations. Prospective purchasers of the Bonds should also consult with their tax advisors with respect to the need to furnish certain taxpayer information in order to avoid backup withholding.

Bond Counsel expresses no opinion regarding any federal tax consequences other than its opinion with regard to the exclusion of interest on the 2020 Series Q Bonds from gross income pursuant to Section 103 of the Code and interest on the 2020 Series Q Bonds not constituting an item of tax preference under Section 57 of the Code. Prospective purchasers of the 2020 Series Q Bonds should consult their tax advisors with respect to all other tax consequences (including, but not limited to, those listed above) of holding 2020 Series Q Bonds.

The Internal Revenue Service (the "Service") has an ongoing program of auditing state and local government obligations, which may include randomly selecting bond issues for audit, to determine whether interest paid to the holders is properly excludable from gross income for federal income tax purposes. It cannot be predicted whether the 2020 Series Q Bonds will be audited. If an audit is commenced, under current Service procedures the holders of the 2020 Series Q Bonds may not be permitted to participate in the audit process, and the value and liquidity of the 2020 Series Q Bonds may be adversely affected.

Changes in Law

Federal, state or local legislation, administrative pronouncements or court decisions may affect the tax-exempt status of interest on the 2020 Series Q Bonds, gain from the sale or other disposition of the 2020 Series Q Bonds, the market value of the Bonds, or the marketability of the 2020 Series Q Bonds, or otherwise prevent the owners of the 2020 Series Q Bonds from realizing the full current benefit of the exclusion from gross income of the interest thereon. It is not possible to predict whether any legislative or administrative actions or court decisions having an adverse impact on the federal or state income tax treatment of holders of the 2020 Series Q Bonds may occur. Prospective purchasers of the 2020 Series Q Bonds should consult their own tax advisors regarding the impact of any change in law on the 2020 Series Q Bonds.

General Matters

Bond Counsel expects to render its opinion as of the Delivery Date with respect to 2020 Series Q Bonds, and, if rendered, will assume no obligation to update its opinions after the Closing Date or the Delivery Date, as applicable, to reflect any future facts or circumstances, or any future changes in law or interpretation, or otherwise. Moreover, the opinion of Bond Counsel is only an opinion and not a warranty or guaranty of the matters discussed.

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", and "A+", respectively, to the 2020 Series Q 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 Q Bonds.

STATE NOT LIABLE ON THE 2020 SERIES Q BONDS

Nothing in the 2020 Series Q 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 Q BONDS FOR INVESTMENT

The 2020 Series Q 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 Prudent Uniform Management of Institutional Funds Act.

LEGAL MATTERS

All legal matters incident to the authorization and issuance of the 2020 Series Q 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 Q 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.

VERIFICATION OF MATHEMATICAL CALCULATIONS

Causey, Demgen and Moore (the "Verification Agent"), at the time of issuance of the 2020 Series Q Bonds, will verify from the information provided to it the mathematical accuracy as of the date of the closing on the 2020 Series Q Bonds of the computations contained in such information to determine that the cash deposits listed in the applicable schedules to be deposited in the respective escrow trust funds established in connection with the Bonds to be Refunded, will be sufficient, to pay, when due, the principal, interest and call premium payment requirements, if any, of the Bonds to be Refunded, which report will be relied upon by Bond Counsel to the University. The Verification Agent will express no opinion on the assumptions provided to it, nor as to the exemption from taxation of the interest on the 2020 Series Q Bonds.

UNDERWRITING

The 2020 Series Q Bonds are being purchased from the University by Morgan Stanley & Co. LLC as representative of the underwriters listed on the cover page hereof (the "Underwriters"). The Underwriters have agreed, subject to certain conditions, to purchase all of the 2020 Series Q Bonds at an aggregate purchase price equal to $20,814,831.67 (representing the principal amount of $17,820,000, plus an original issue premium of $3,075,162.65, less an underwriters' discount of $80,330.98). The initial public offering prices of the 2020 Series Q Bonds set forth on the inside cover pages may be changed without notice by the Underwriters. The Underwriters may offer and sell the 2020 Series Q Bonds to certain dealers (including dealers depositing 2020 Series Q 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 inside cover pages hereof.

Morgan Stanley & Co. LLC has provided the following three sentences for inclusion in this Official Statement:

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

The University has not been furnished with any documents relating to the Morgan Stanley Distribution Arrangement and makes no representation of any kind with respect thereto. The University is not a party to the Morgan Stanley Distribution Arrangement and has not entered into any agreement or arrangement with Morgan Stanley Smith Barney LLC with respect to the offering and sale of the 2020 Series Q Bonds.

The Underwriters have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

Certain members of the Board of Governors and/or Board of Trustees are employed by Morgan Stanley & Co. LLC or its affiliates, which firms are members of the underwriting team for the sale of the 2020 Series Q Bonds. Such Board Members did not participate in the selection of the underwriters of the 2020 Series Q Bonds.

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 Q Bonds. Although Prager has assisted in the preparation of this Official Statement, 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 Official Statement.

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, 2018, and for the year then ended, included in "APPENDIX B – INDEPENDENT AUDITORS' REPORT AND FINANCIAL STATEMENTS OF RUTGERS, THE STATE UNIVERSITY" to this Official Statement, have been audited by KPMG LLP, independent auditors, as stated in their report appearing therein.

Their report dated March 29, 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 report 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.

LITIGATION

There is not now pending any litigation restraining or enjoining the issuance or delivery of the 2020 Series Q Bonds or questioning or affecting the validity of the 2020 Series Q 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 Official Statement.

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.

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 Q 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, 2020 (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 THIRTEENTH 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 Q Bonds, the University will furnish a certificate executed by its Executive Director of Treasury Services and Assistant Treasurer to the effect that this Official Statement, as of the date of this Official Statement and as of the date of delivery of the 2020 Series Q 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 Executive Director of Treasury Services and Assistant Treasurer.

The execution and delivery of this Official Statement by its Executive Director of Treasury Services and Assistant Treasurer have been duly authorized by the University.

RUTGERS, THE STATE UNIVERSITY

By: /s/ Adam J. Day
Adam J. Day
Executive Director of Treasury Services and Assistant Treasurer

Dated: September 11, 2019

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 2017-18, the University awarded more than 17,800 degrees, including 11,500 baccalaureate degrees, 4,400 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: Highest 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: Higher 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 among "Master's Colleges and Universities: Larger Programs," 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

The University completed a comprehensive strategic plan in February 2014 (the "Strategic Plan"). The Strategic Plan combines an assessment of Rutgers' institutional strengths with a vision of the opportunities for improvement to create a roadmap for excellence.

The Strategic Plan articulated the following overarching goal: Rutgers aspires to be broadly recognized as among the nation's leading public universities: preeminent in research, excellent in teaching, and committed to community.

The Strategic Plan in overview is shown below:

Aspiration

To be broadly recognized as among the nation's leading public universities: preeminent in research, excellent in teaching, and committed to community.

Integrating Themes

- Cultures, Diversity, and Inequality – Local and Global
- Improving the Health and Wellness of Individuals and Populations
- Creating a Sustainable World through Innovation, Engineering, and Technology
- Educating Involved Citizens and Effective Leaders for a Dynamic World
- Creative Expression and the Human Experience

Strategic Priorities

- Envision Tomorrow's University
- Build Faculty Excellence
- Transform the Student Experience
- Enhance Public Prominence

Foundational Elements

- Strong Core of Sciences and Humanities
- Inclusive, Diverse, and Cohesive Culture
- Effective and Efficient Infrastructure and Staff
- Financial Resources Sufficient to Fund Our Aspirations
- Robust Shared Governance, Academic Freedom, and Effective Communication

The University's Strategic Plan includes comprehensive metrics that the administration uses to measure progress; these are regularly reviewed by the Boards. In 2015, each of the University's operating units completed strategic plans aligned with the University-wide Strategic Plan.

Some of the key accomplishments of the University's Strategic Plan to date are as follows:

- Building Faculty Excellence. Rutgers has attracted and retained outstanding faculty. The University increased externally endowed chairs from 41 to 89, while creating 30 new internally funded professorships and term chairs in vital areas, including chemistry, law and African-American studies. Among the faculty, the number of memberships in the National Academies and the American Academy of Arts and Sciences grew from 47 to 68.

- Improving Student Experience. The University recognized the need to remove obstacles to graduating in a timely manner and increasing access and affordability for more students. Financial and academic support increased through programs including Rutgers-Newark's RU-

N to the Top, Rutgers-Camden's Bridging the Gap, Rutgers Future Scholars and Rutgers Educational Opportunity Fund. At the same time, Rutgers aimed to keep tuition and fee increases to a minimum, averaging 2.3 percent a year between 2013 and 2018.

- Raising Rutgers' Profile. Since 2012, Rutgers' national rankings rose, including on *U.S. News & World Report's* national research and regional institutions lists, and more students earned more honors and won major nationwide competitions. Rutgers was a top producer of Fulbright scholars 10 years in a row and celebrated 11 Gates Cambridge Scholarship winners in the past 12 years, to name only a few.

- Preparing for Tomorrow's University. Rutgers Biomedical and Health Sciences and RWJBarnabas Health signed a master affiliation agreement to collaborate to form a top academic health center that, among several goals, will lead to the recruitment of 100 faculty investigators over 10 years to double Rutgers' health sciences research portfolio. The 20-year agreement features RWJBH's initial investment of $100 million in FY2019 and up to $50 million per year in fixed funding mission support for 10 years. Additional variable payments will be largely income-based and will create greater incentives for physicians to keep volumes within the RWJBH system. These will represent higher funds flow to the University. Projections of up to $1 billion is expected to flow from RWJBH over a 20-year period through a combination of fixed and variable mission support.

  Students and faculty are teaching, learning, and working in new, state-of-the-art classroom and research spaces following $2.5 billion in new construction since 2012, including the Rutgers-New Brunswick Chemistry and Chemical Biology Building, Rutgers-Camden's Nursing and Science Building and the Rutgers-Newark Life Sciences Center. State-of-the-art telepresence classrooms allow students at two distinct locations to have a near-in-person learning experience.

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 26 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 2018, the University's faculty and staff who were employed full-time or part-time on a regular basis totaled 25,429, of whom 20,795 were represented, for purposes of collective negotiations, by 7 academic labor organizations, and 16 administrative, clerical, healthcare, service, and technical labor organizations.

As of Fall 2018, there were 4,634 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.

Presidential Transition

In September of 2018, at the request of the Board of Governors, University President Robert Barchi agreed to extend his term for an additional two years beyond his contract end date. On July 23, 2019, Dr. Barchi officially announced that his term will end according to schedule on June 30, 2020. While President Barchi remains fully engaged in his role, the University's Board of Governors has formed a search committee to identify and recruit the next University President, someone who can seamlessly pick up where President Barchi leaves off and lead the University through the next chapter of its story.

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 14^{th} 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 2018, the University enrolled 70,876 students, representing the highest enrollment in its history, exceeding the previous high of 69,198 students in Fall 2017.

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

	2014-15	2015-16	2016-17	2017-18	2018-19
New Brunswick					
Undergraduate	32,206	33,060	33,653	33,274	33,704
Graduate and Professional	8,514	8,639	8,661	9,534	9,650
Newark					
Undergraduate	7,408	7,713	8,170	8,551	9,142
Graduate and Professional	3,906	4,007	4,151	4,217	4,309
Camden					
Undergraduate	4,857	4,899	5,021	5,489	5,776
Graduate and Professional	1,464	1,509	1,454	1,364	1,395
RBHS					
Undergraduate	2,338	2,424	2,515	2,367	2,335
Graduate and Professional	5,320	5,305	5,317	4,402	4,565
Total	**66,013**	**67,556**	**68,942**	**69,198**	**70,876**

* 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 2018, the University received a record 45,153 applications and enrolled 9,183 first-year undergraduate students. The Fall 2018 undergraduate entering class is comprised of 86 percent New Jersey residents, 8 percent international students and 6 percent domestic out-of-state-students. Preliminary projections for Fall 2019 show the University received another record 45,235 applicants and have admitted 34,649 students, with approximately 9,150 matriculants.

TABLE 2
Fall First Year Enrollment
Undergraduate Schools

	2014-15	2015-16	2016-17	2017-18	2018-19
Applicants	33,717	37,641	39,173	41,361	45,153
% Admitted (selectivity)	68.4	67.1	66.5	72.7	70.7
Admitted Students	23,050	25,242	26,054	30,054	31,925
% Enrolled (yield)	34.1	32.6	32.5	27.8	28.8
Enrolled Students	7,856	8,236	8,467	8,351	9,183

TABLE 3
Transfer Students
Undergraduate Schools

	2014-15	2015-16	2016-17	2017-18	2018-19
Enrolled Students	4,544	4,602	4,813	4,716	4,737

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. The preliminary average SAT scores for projected Fall 2019 first-year students for the New Brunswick campus is about 1318. 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 2018 Honors College class of 523 students had an average SAT (M+ERW) score of 1478.

TABLE 4
SAT Scores*

	2014-15	2015-16	2016-17	2017-18	2018-19
New Brunswick	1216	1226	1229	1294	1299
Newark	1043	1031	1012	1088	1109
Camden	1030	1029	1015	1087	1091

* 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 2018 applications from this national application platform currently comprise ten percent of the total applicant pool after just one year of membership.

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.

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 ($)

	2015-16	2016-17	2017-18	2018-19	2019-20
Tuition[1]:					
Undergraduate students:					
Residents	$11,217	$11,408	$11,619	$11,886	$12,230
Non -Residents	26,607	27,059	27,560	28,194	29,012
Room and Board Charges[2]	12,054	12,260	12,452	12,706	13,075
Fees[3]	2,914	2,964	3,019	3,088	3,177
Tuition:					
Graduate students:[4]					
Residents:					
Maximum (12 credits)	16,272	16,536	16,848	17,232	17,736
Minimum (9 credits)	12,204	12,402	12,636	12,924	13,302
Non -Residents:					
Maximum (12 credits)	27,648	28,128	28,656	29,304	30,144
Minimum (9 credits)	20,736	21,096	21,492	21,978	22,608
New Jersey Medical School:					
Residents	38,518	39,288	40,074	40,274	41,281
Non -Residents	59,433	60,622	61,834	62,143	63,697
Robert Wood Johnson Medical School:					
Residents	38,518	39,288	40,074	40,274	41,281
Non -Residents	59,433	60,622	61,834	62,143	63,697
Rutgers School of Dental Medicine:					
Residents	38,883	39,661	44,024	47,766	50,154
Non -Residents	63,001	64,261	71,329	77,392	81,262
Graduate School of Biomedical Sciences (GSBS):[5]					
Residents	9,800	9,996	10,396	-	-
Non -Residents	14,192	14,902	15,498	-	-

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.

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 2018, 52,025 University students (75.2% of the total enrollment) received some form of University administered student aid.

In 2018, University students received $1.03 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 Garden State 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 ending June 30, 2018. 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)

	2013-14	2014-15	2015-16	2016-17	2017-18
Scholarships/Grants:					
Institutional Funds[1]	$146.8	$158.0	$169.9	$183.8	$198.8
State Funds	92.0	98.1	99.9	104.4	116.0
External Funds	7.6	6.9	7.6	7.0	6.7
Federal Funds	73.7	77.1	78.9	81.2	89.9
Total Scholarships/Grants	320.1	340.1	356.3	376.4	411.4
Loans Made To Students:					
University Loan Funds	0.5	0.6	0.6	0.5	0.7
State Loan Funds	19.8	16.7	17.6	17.6	16.1
External Funds	50.0	53.0	62.4	62.9	62.1
Federal Loan Funds	429.5	431.0	442.4	452.3	449.6
Total Loans Made To Students	499.8	501.3	523.0	533.3	528.5
Student Employment:					
Federal Work-Study	4.7	5.2	5.9	5.8	6.6
University Student Payroll	32.8	67.8	73.3	72.0	76.9
Total Student Employment	37.5	73.0	79.2	77.8	83.5
TOTAL	**$857.4**	**$914.4**	**$958.5**	**$987.5**	**$1,023.4**

[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 ending June 30, 2018. Figures shown for FY2014 through FY2018 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. In the Management Discussion and Analysis (MD&A) section of the University's 2018 Annual Report, the University shows comparative data for fiscal years ended June 30, 2017 and 2018. For additional information, see "APPENDIX B- Independent Auditors' Report and Financial Statements of Rutgers, The State University" herein.

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	2014	2015	2016	2017	2018
Operating Revenues:					
Student Tuition & Fees[1]	$820,229	$863,051	$905,762	$965,567	$976,705
Grants & Contracts	579,695	584,867	575,198	597,691	608,426
Auxiliary Enterprises[1]	291,460	306,260	317,429	247,544	237,757
Net Patient Services Revenues	487,578	518,019	533,932	206,276	232,591
Health Service Contract Revenues	-	-	-	520,305	549,432
Other	126,880	130,439	163,661	133,472	126,729
Total operating revenues	2,305,842	2,402,636	2,495,982	2,670,855	2,731,640
Operating Expenses:					
Education & General	1,694,218	1,601,024	1,681,099	2,224,076	2,231,210
Sponsored Research	522,675	660,879	649,903	436,186	529,402
Patient Care Services	613,492	653,446	684,222	636,343	656,475
Auxiliary Enterprises	292,991	288,869	288,680	260,895	261,402
Scholarships & Fellowships	52,517	54,201	58,596	79,708	73,310
Depreciation	147,629	152,525	151,254	184,782	180,969
OPEB Expenses[2]	-	-	-	-	276,630
Other	494	784	398	228	-
Total operating expenses	3,324,016	3,411,728	3,514,152	3,822,218	4,209,398
Operating loss	(1,018,174)	(1,009,092)	(1,018,170)	(1,151,363)	(1,477,758)
Nonoperating revenues/(expenses):					
State Appropriations	455,188	455,194	439,930	435,175	428,800
Fringe Benefits Paid Directly by the State of New Jersey	322,205	326,690	335,736	372,336	385,111
OPEB Paid by the State	-	-	-	-	276,630
Federal Appropriations	8,463	7,346	7,429	6,371	6,592
Governmental Student Aid	174,104	188,707	188,625	198,552	214,126
Contributions	40,625	52,416	51,367	32,560	37,723
Investment Income (including Net Increase/(Decrease) in Fair Value of Investment)	118,609	47,499	19,380	152,395	128,863
Interest on Capital Asset Related Debt	(83,053)	(80,214)	(83,866)	(88,010)	(83,672)
Loss on Disposal of Capital Assets	(1,539)	(928)	(206)	(1,807)	(1,018)
Other	10,836	5,297	1,386	(60,616)	9,315
Net nonoperating revenues	1,045,438	1,002,007	959,781	1,046,956	1,402,470
Income/(Loss) before other revenues	27,264	(7,085)	(58,389)	(104,407)	(75,288)
Capital Grants & Gifts	13,221	112,994	124,702	101,484	68,282
Additions to Permanent Endowments	27,756	20,721	34,709	27,573	32,926
Increase in Net Position	**$68,241**	**$126,630**	**$101,022**	**$24,650**	**$25,920**

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

Student Tuition and Fees	$191,513	$205,331	$215,188	$237,246	$259,233
Auxiliary Enterprises	41,987	43,307	46,110	42,282	46,201
Total Scholarships & Fellowships	$233,500	$248,638	$261,298	$279,528	$305,434

[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 FY2020 Operating Balanced Budget as adopted by the Board of Governors. This information is presented on a budgetary basis.

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

[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
Auxiliary Enterprises	41,703	50,537	51,841
Total (Scholarships & Fellowships)	$293,212	$319,700	$331,851

[2] FY2018 State Paid Fringe Benefits revenue and Fringe Benefits expense were budgeted using the composite rate. FY2019 and FY2020 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.

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 2017, annual research and other sponsored expenditures at Rutgers exceeded $681.7 million, which ranked the University among the top 20 public universities nationally. In 2018, the University's annual research and other sponsored expenditures were $736.6

million. Total awards for sponsored research and programs in 2018 were $610.9 million. Federal awards remain the most significant source of research funding for the University totaling $299.6 million in 2018. In 2018, the University received $178.4 million in Department of Health and Human Services funding, which includes the National Institutes of Health funding and $57.8 million in National Science Foundation funding. The University also receives substantial research funding from the State, foundations, and corporations.

Notable research items include:

- In 2018, Rutgers' innovation has led to 74 U.S. and 172 global patents, 187 new inventions, and two new startups formed, with 82 active start-ups moving ahead

- Rutgers received 3,444 research awards, 74 of which were valued at more than one million dollars, in 2018.

- 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, 2018 are shown below.

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

	2014	2015	2016	2017	2018
Federal	$272.1	$303.2	$335.5	$301.3	$299.6
State of New Jersey	130.0	177.8	148.9	146.0	152.9
Corporate	23.8	31.0	39.7	49.6	47.3
Foundations/Other	91.5	99.8	113.8	111.8	111.1
Total	**$517.4**	**$611.8**	**$637.9**	**$608.7**	**$610.9**

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" herein.

During the five years ended June 30, 2018, 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
2014	$455,188	$322,205	$777,393
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
TOTAL	**$2,214,287**	**$1,742,078**	**$3,956,365**

The State's 2019 budget provided $435.8 million in State appropriations and $443.8 million in fringe benefits paid directly by the State for a total of $879.6 million. The State's 2020 budget provides $440.0 million in State appropriations and $447.2 million in fringe benefits paid directly by the State. There can be no assurance that State appropriations will be received in amounts equal to the approved budgeted amount for any given year.

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 2018, 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 $232.6 million, up from $206.3 million in 2017. In addition, RBHS health service contract revenue, including affiliate revenue and reimbursements for graduate medical education residency programs, was $549.4 million in 2018, up from $520.3 million in 2017.

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 10 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, 2018.

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

Fiscal Year	Total Receipts
2014	$124,892
2015	150,958
2016	140,015
2017	164,945
2018	159,318

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, 2018. As of June 30, 2019, the University's endowment and similar funds had an approximate market value of $1.3 billion (unaudited).

TABLE 11
Endowment and Similar Funds
($ in thousands)

Fiscal Year	Estimated Fair Value
2014	$879,131
2015	916,227
2016	999,469
2017	1,139,605
2018	1,230,346

The above table does not include funds held in trust by others, which at June 30, 2018 had a market value of $68.4 million. The approximate value of funds held in trust by others was $68.1 million as of June 30, 2019 (unaudited).

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, 2018.

TABLE 12
Asset Allocation

Fund	Allocation
US Equity	19.9%
International Large Stocks	19.1%
International Emerging Stocks	4.1%
Private Equity	11.6%
Fixed Income	10.8%
Cash	2.8%
Hedge Funds	17.9%
Real Assets	13.8%
Total	**100.0%**

TABLE 13
Long-Term Investment Pool Performance

The LTIP's performance for the period ended June 30, 2018 is as follows:

	Return
1-Year	9.3%
3-Year	7.1%
5-Year	8.0%
10-Year	6.2%

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 June 30, 2019 (unaudited). Of this amount, approximately $687.0 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 the next 15 years, 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 funds made available from the State, by University bond funds, and by creative partnerships with the public sector.

In November 2012, the voters of New Jersey approved the Building Our Future Bond Act which authorized the State to issue bonds totaling $750 million to help increase academic capacity at New Jersey institutions of higher education. In addition to the Building Our Future Bond Act, the State has also authorized the issuance of bonds to fund several higher education initiatives including the Higher Education Facilities Trust Fund Act for the purpose of the construction, reconstruction, development, extension, and improvement of instructional, laboratory, communication and research facilities and the Higher Education Capital Improvement Fund Act 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.

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 completed or in progress include:

- Construction of a 57,000 square foot addition to the existing William Levine Hall Building for the School of Pharmacy, which houses two 300-seat auditoriums, four 60-seat classrooms, four collaborative practice simulation laboratories, a community practice patient interaction simulation suite, small group study rooms, a centralized student commons as well as administrative pharmacy space.

- Construction of 104,000 square feet at a new facility for the Richard Weeks Hall of Engineering, which features an advanced infrastructure of classrooms, laboratories, and common space to facilitate key research and educational advancements.

- The construction of 10,500 square feet at the Waksman Institute of Microbiology on the Busch Campus that will feature both wet and dry laboratories, associated support space, conferencing space, administrative offices, and a collaborative break room.

- 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.

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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 June 30, 2019 (unaudited).

	Final Maturity	Outstanding
General Obligation Bonds, 2009 Series G	2039	$62,820
General Obligation Bonds, 2010 Series H (Federally Taxable – Build America Bonds)	2040	386,275
General Obligation Refunding Bonds, 2010 Series I	2029	21,670
General Obligation Refunding Bonds, 2013 Series J	2036	296,135
General Obligation Refunding Bonds, 2013 Series K	2033	97,965
General Obligation Bonds, 2013 Series L	2043	319,350
General Obligation Refunding Bonds, 2016 Series M	2039	164,610
General Obligation Bonds, 2018 Series N	2028	44,045
General Obligation Bonds, 2018 Series O	2048	100,655
General Obligation Commercial Paper		175,711
Long-Term Notes		333
Other Long-Term Obligations		56,070
Capital Lease Obligations		317,881
Loan Payable		2,200
Total Indebtedness		**$2,045,720**

General Obligation Bonds

The University has outstanding four series of General Obligation Refunding Bonds and five 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 and the Eleventh 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.

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" 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.

The University had $175.7 million aggregate principal amount of General Obligation Commercial Paper, Series A, C and E (the "Commercial Paper") outstanding at June 30, 2019 (unaudited). The University entered into a Standby Commercial Paper Purchase Agreement (the "Standby Commercial Paper Purchase Agreement") with Wells Fargo Bank, National Association (the "Commercial Paper Liquidity Provider") under which the Commercial Paper Liquidity Provider is obligated to purchase newly issued Commercial Paper issued to pay the principal of other Commercial Paper, subject to suspension or termination upon the occurrence of certain events. The Standby Commercial Paper Purchase Agreement will terminate on April 10, 2021 unless terminated prior to such date in accordance with its terms. The University is currently negotiating for a replacement facility.

As of August 1, 2017, the University entered into a Revolving Credit Agreement with Bank of America, N.A. to provide liquidity to support its General Obligation Commercial Paper Series E by making available a revolving line of credit. The Revolving Credit Agreement will expire on July 31, 2020.

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 $11.6 million in collateral to secure its exposure related to certain swaps at June 30, 2019 (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	$9,505	5/1/2027	SIFMA	3.824%	($840)
Merrill Lynch	$100,000	11/1/2038	100% 3MO LIBOR	4.080%	($30,462)

[1] As of June 30, 2019 (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 $0.1 million at June 30, 2019 (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 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 the 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.

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APPENDIX B

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

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RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

Financial Report
2017-2018

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

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RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

Governors and Trustees

During the Year Ended June 30, 2018

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

RUTGERS

University Finance and Administration
Rutgers, The State University of New Jersey
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J. Michael Gower
Executive Vice President for Finance
and Administration
University Treasurer

March 29, 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, 2018. 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

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 year ended June 30, 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 audit. We did not audit the financial statements of University Physicians Associates of New Jersey, Inc. and Affiliate (UPA), which represent approximately 36%, 20%, and 47%, 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.

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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 audit 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, 2018, and the respective changes in financial position thereof for the year 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 respective financial position of the business-type activities of the University as of June 30, 2018, and the respective changes in financial position and cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

Adoption of New Accounting Pronouncements

As discussed in Note 2 to the financial statements, as of July 1, 2017, the University adopted Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. Our opinions are not modified with respect to this matter.

As discussed in Note 19 to the financial statements, as of July 1, 2017, Rutgers University Foundation adopted GASB Statement No. 81, *Irrevocable Split-Interest Agreements*. Our opinions are not modified with respect to this matter.

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 schedule 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 GASB 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

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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
March 29, 2019

Management's Discussion and Analysis (unaudited)

June 30, 2018

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, 2018, and its changes in financial position for the fiscal year 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 2018, the financial reporting entity of Rutgers included over 29 degree granting schools and colleges, offering more than 150 undergraduate majors, more than 200 graduate programs and degrees, with approximately 69,000 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.

Implementation of GASB 75

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.

Accordingly, for fiscal year 2018, the financial statements and footnotes are in a single-year presentation as opposed to a comparative year format. For MD&A purposes in order to provide a comparison of 2018 to the prior year, 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 year 2018 only.

Financial Highlights

The University's financial condition at June 30, 2018, improved modestly with an increase in net position of $25.9 million. Total operating revenues increased by $60.8 million, or 2.3%, with increases of 1.2% in net student tuition and fees, 12.8% in net patient service revenues, 5.6% in health service contract revenues and 1.8% in grants and contracts revenue partially offset by decreases of 4.0% in auxiliary net revenues and of 5.1% in other operating revenues. Operating expenses increased by $387.2 million, or 10.1%, while net non-operating revenues increased by $355.5 million, or 34.0% primarily due to the implementation of GASB 75.

Tuition revenue is a significant source of funding for the University. In fiscal 2018, the enrollment peak was 69,198 students compared to 68,942 students in fiscal 2017. Approved increases in tuition and fee rates of about 1.85% were offset by increases in scholarship allowances.

Annual appropriations from the State represent a vital part of the University's funding. In fiscal 2018, State appropriations, including operating aid and fringe benefits paid on-behalf of Rutgers by the State, increased as a result of higher pension and health care costs to $813.9 million, or 0.8% over fiscal 2017. State appropriations, including OPEB Paid by the State, as well as contributions, investment income, and governmental student aid, are shown as non-operating revenue.

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.

	2018	GASB 68 Adjustment	2018 Net of GASB 68 Adjustment	2017	GASB 68 Adjustment	2017 Net of GASB 68 Adjustment
Assets:						
Current assets	$1,088,315	$ -	$1,088,315	$1,189,075	$ -	$1,189,075
Noncurrent assets:						
Endowment, restricted and other noncurrent cash, and investments	1,465,684	-	1,465,684	1,287,235	-	1,287,235
Capital assets, net	3,772,242	-	3,772,242	3,575,173	-	3,575,173
Other assets	88,733	-	88,733	112,374	-	112,374
Total Assets	6,414,974	-	6,414,974	6,163,857	-	6,163,857
Deferred Outflows of Resources	467,634	(374,409)	93,225	583,172	(474,654)	108,518
Total Assets and Deferred Outflows of Resources	6,882,608	(374,409)	6,508,199	6,747,029	(474,654)	6,272,375
Liabilities:						
Current liabilities	688,561	-	688,561	701,401	-	701,401
Noncurrent liabilities	3,846,586	(1,772,533)	2,074,053	3,988,425	(2,057,977)	1,930,448
Total Liabilities	4,535,147	(1,772,533)	2,762,614	4,689,826	(2,057,977)	2,631,849
Deferred Inflows of Resources	281,383	(281,383)	-	17,045	(17,045)	-
Total Liabilities and Deferred Inflows of Resources	4,816,530	(2,053,916)	2,762,614	4,706,871	(2,075,022)	2,631,849
Net Position (Deficit):						
Net investment in capital assets	1,905,842	-	1,905,842	1,750,777	-	1,750,777
Restricted – nonexpendable	713,327	-	713,327	646,363	-	646,363
Restricted – expendable	511,414	-	511,414	459,394	-	459,394
Unrestricted	(1,064,505)	1,679,507	615,002	(816,376)	1,600,368	783,992
Total Net Position	$2,066,078	$1,679,507	$3,745,585	$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 $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 at year end. 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 a normal two months. These receivables noted have subsequently been 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 decreased $12.8 million from $701.4 million in 2017 to $688.6 million in 2018. The decrease is primarily related to a decrease of 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 1.6 times in 2018 and 1.7 times in 2017. Despite the slight decrease, it 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 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 2018, deferred outflows of resources decreased $115.5 million primarily as a result of 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 decreased $15.3 million in 2018 which is primarily a result of the change in 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 9.3% and 12.7% in fiscal years 2018 and 2017, respectively. The average annual return over the 5-year period ending June 30, 2018 and 2017, was 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 $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 $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 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 $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 $286.5 million, or 23.3%, can be classified as unrestricted net position 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 $30.7 million in revenue from this program 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. In 2018, the University recorded $3.9 million in revenue from the HEFT program. In 2017, the University recorded $14.6 million from this program.

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. In 2018, the University recorded $10.4 million, and $21.0 million in revenue from these bonds in 2017.

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 $0.1 million and $6.6 million in revenue from this program in 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 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. In 2017, the University issued taxable commercial paper in the amount of $25.0 million to provide interim financing for certain capital projects.

The funds received from these State programs, University bonds and other funds received by the University have resulted in the $197.1 million increase in fiscal 2018 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 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 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.

Several major projects completed during fiscal 2017 include:

- Construction of the first new academic building on College Avenue in more than 50 years. The Rutgers Academic Building is an approximately 175,000 square foot academic building for the Rutgers University School of Arts and Sciences consisting of approximately 2,500 seats of classroom space in the form of modern lecture halls as well as departmental office space.
- Renovation of 45,000 square feet of the former Hahne & Co. department store for the "Express Newark" program. The program will support cross-unit, cross-sector, cross-institutional publicly engaged scholarships collaborating with Newark artists, schools, and institutions. The renovated space will include portrait studios, print studios, galleries, and media laboratories.
- Renovation of 24,500 square feet of clinical teaching space for the School of Dental Medicine at the existing Oral Health Pavilion building. This project features 87 state-of-the-art clinical operatories that represent the environment in which students would ultimately practice.
- Renovation of 364,000 square feet of existing practice field space for the Marco Battaglia Football Practice Complex. The outdoor practice fields adjacent to High Point Solutions Stadium support the football team and men's and women's lacrosse programs. The complex includes all new, natural grass fields, new drainage and irrigation systems and a service building with restrooms.

In addition, as of June 30, 2018, the University had various projects under construction or in the design stage. Significant projects include:

- Construction of a 57,000 square foot addition to the existing William Levine Hall Building for the School of Pharmacy, which will house two 300-seat auditoriums, four 60-seat classrooms, four collaborative practice simulation laboratories, a community practice patient interaction simulation suite, small group study rooms, a centralized student commons as well as administrative pharmacy space.
- 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.
- The construction of 10,500 square feet at the Waksman Institute of Microbiology on the Busch Campus that will feature both wet and dry laboratories, associated support space, conferencing space, administrative offices, and a collaborative break room.
- 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.

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 $374.4 million and $474.7 million, a net pension liability of $1,772.5 million and $2,058.0 million and a deferred inflow of resources of $281.4 million and $17.0 million in 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 deteriorated 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 $105.1 million in 2018.

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 $155.1 million in fiscal 2018, resulted primarily from the various construction projects listed above.

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 $67.0 million in fiscal 2018.

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 $52.0 million in fiscal 2018.

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 $169.0 million in unrestricted net assets for 2018. Subsequent to the GASB 68 adjustment, unrestricted net assets decreased $248.1 million.

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, 2018 and 2017 is as follows (dollars in thousands).

	2018	GASB 68 & 75 Adjustments	2018 net of GASB 68 & 75 Adjustments	2017	GASB 68 Adjustment	2017 net of GASB 68 Adjustment
Operating revenues:						
Student tuition and fees (net of scholarship allowances)	$976,705	$ -	$976,705	$965,567	$ -	$965,567
Grants and contracts	608,426	-	608,426	597,691	-	597,691
Auxiliary enterprises (net of scholarship allowances)	237,757	-	237,757	247,544	-	247,544
Net patient service revenues	232,591	-	232,591	206,276	-	206,276
Health service contract revenues	549,432	-	549,432	520,305	-	520,305
Other operating revenues	126,729	-	126,729	133,472	-	133,472
Total operating revenues	2,731,640	-	2,731,640	2,670,855	-	2,670,855
Operating expenses	4,209,398	(355,769)	3,853,629	3,822,218	(156,063)	3,666,155
Operating loss	(1,477,758)	355,769	(1,121,989)	(1,151,363)	156,063	(995,300)
Non-operating revenues (expenses):						
State appropriations (including fringe benefits paid directly by the state)	813,911	-	813,911	807,511	-	807,511
OPEB Paid by the State	276,630	(276,630)	-	-	-	-
Contributions	37,723	-	37,723	32,560	-	32,560
Endowment and investment income	44,820	-	44,820	34,349	-	34,349
Net increase in fair value of investments	84,043	-	84,043	118,046	-	118,046
Governmental student aid	214,126	-	214,126	198,552	-	198,552
Interest on capital asset related debt	(83,672)	-	(83,672)	(88,010)	-	(88,010)
Net other non-operating revenues/(expenses)	14,889	-	14,889	(56,052)	-	(56,052)
Net non-operating revenues	1,402,470	(276,630)	1,125,840	1,046,956	-	1,046,956
Income/(Loss) before other revenues	(75,288)	79,139	3,851	(104,407)	156,063	51,656
Other revenues	101,208	-	101,208	129,057	-	129,057
Increase in net position	25,920	79,139	105,059	24,650	156,063	180,713
Net position at beginning of year	2,040,158	1,600,368	3,640,526	2,015,508	1,444,305	3,459,813
Net position at end of year	$2,066,078	$1,679,507	$3,745,585	$2,040,158	$1,600,368	$3,640,526

Operating revenues represent 64.5% and 69.0% of total revenues in 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 $305.4 million of a total $400.3 million of student aid directly to student accounts. The remaining $94.9 million was paid to students and is reflected as grant aid to students expense. Scholarship allowances allocated to tuition and fees amounted to $259.2 million. Another $46.2 million was allocated to residence fees, which are included in auxiliary revenues. Tuition and fees, net of scholarship allowances, increased $11.1 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 (68,492 in 2017) offset by an increase in scholarship allowances. In fiscal year 2018, management made a decision to record mandatory student fees that were applicable to auxiliary units as tuition and fee revenues. In previous years, these fees were recorded as auxiliary revenues. In fiscal year 2017, $34.8 million of these mandatory auxiliary fees were reclassed to tuition and fees.

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 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%. This increase is 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 $237.8 million and $247.5 million in fiscal years 2018 and 2017, respectively, net of scholarship allowances of $46.2 million and $44.9 million in fiscal years 2018 and 2017, respectively. Housing and dining revenues, gross of scholarship allowances, totaled $220.3 million, or 92.6%, of total auxiliary revenues in fiscal year 2018. Housing and dining rates both increased by 1.85% in 2018. As noted earlier in the MD&A, certain revenues previously reported as auxiliary revenues are now classified in student tuition and fees revenue. These amounts primarily related to mandatory student fees related to New Brunswick intercollegiate athletics and University-wide student and recreation centers. Auxiliary net revenues decreased slightly in 2018 by $9.8 million or 4%. The decrease is primarily a result of fewer dining meal plans purchased 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, cancer center and contract activities, under contractual arrangements with governmental payers and private insurers. In fiscal 2018, Net Patient Services revenue 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 2018, Health Service Contract revenue was $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 support for programs at CINJ.

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 $428.8 million and $435.2 million in 2018 and 2017, respectively. Fringe benefits paid on-behalf of Rutgers by the State totaled $385.1 million and $372.3 million in fiscal 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 $92.4 million in 2018 from federal programs or a 6.6% increase over the $86.7 million received in 2017. The University also received $121.7 million from the State in 2018 or an increase of 8.8% over the $111.9 million received in 2017. The increases are primarily due to an increase 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 $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 following table summarizes the University's operating expenses by natural classification.

Operating Expenses by Natural Classification
(dollars in thousands):

	2018	GASB 68 & 75 Adjustments	2018 net of GASB 68 & 75 Adjustments	2017	GASB 68 Adjustment	2017 net of GASB 68 Adjustment
Salaries and Wages	$2,053,071	$ -	$2,053,071	$1,982,858	$ -	$1,982,858
Fringe Benefits	690,278	(79,139)	611,139	778,438	(156,063)	622,375
OPEB Expenses	276,630	(276,630)	-	-	-	-
Supplies and Services	913,592	-	913,592	805,550	-	805,550
Grant Aid to Students	94,858	-	94,858	70,590	-	70,590
Depreciation	180,969	-	180,969	184,782	-	184,782
Total Operating Expenses	$4,209,398	($355,769)	$3,853,629	$3,822,218	($156,063)	$3,666,155

The natural classification of expenses demonstrates that the major expenditure of the University in 2018 is salaries and wages accounting for 48.8% of total operating expenses with GASB 68 and 75 adjustments (51.9% in 2017) and 53.3% without the GASB 68 and 75 adjustments in 2018 (54.1% in 2017). Negotiated and other staff salary and wage increases for both 2017 and 2018 were approximately 2.0%. Pension expense for the GASB 68 adjustment was $156.1 million in 2017 and decreased by $76.9 million to $79.1 million in 2018. OPEB expense for the GASB 75 adjustment was $276.6 million in 2018 the first year of implementation.

Economic Factors that will affect the future

In the fall of 2018, the University welcomed the largest first-year class in its history, a third of whom are the first in their family to attend college. And those students were drawn from a record number of applications. Rutgers is attracting, educating, and graduating more students than ever before—and generating more gifts from friends who value and want to support our mission.

The University continues to face financial challenges, including a flat state appropriation for the current year that actually represents a 6.0% decrease in spendable dollars after adjusting for inflation over the past six years. At the same time, many of the University's expenses, particularly personnel costs, continue to rise at contractually mandated rates that exceed inflation. Because of these factors, Rutgers is continually looking for ways to reduce operating expenses, to operate more efficiently, and to develop additional sources of revenue.

In order to keep a Rutgers education affordable, the University has made a commitment to hold tuition increases to a minimum. Over the past six years, the average annual increase in tuition at Rutgers has been 2.3%, a significant reduction as compared with the increases of the previous decade.

The establishment of Rutgers Biomedical and Health Sciences five years ago moved Rutgers to a new level of research activity. Rutgers University now stands among the top 20 public universities in the country with more than $650.0 million in annual research expenditures. The University brings more research dollars to the state than all other New Jersey colleges and universities combined. Since fiscal year 2014, our corporate research funding has increased by 28.0%, and we now have attracted more than 200 industry partners to work with our faculty researchers on discoveries that will have positive benefits for the New Jersey economy.

Near the top of our list of major achievements over the past year—especially in terms of its potential to change lives and to transform our University's position in the academic firmament of the nation—is the partnership with RWJBarnabas Health (RWJBH) that will bring an initial investment of $100.0 million to the development of Rutgers' academic and research initiatives in the health sciences, and will provide $50.0 million per year in mission support over the next twenty years. Announced in late July of 2018, this new partnership will create New Jersey's largest and most comprehensive academic health system, bringing together Rutgers' medical education and research expertise and the skills of Rutgers Health clinical faculty with the clinical care delivery capability of RWJBH to provide world-class care to the residents of New Jersey.

More broadly, the University will be monitoring demographic changes that may impact the student-age population, geopolitical circumstances that may affect international student demand, economic trends that may impact demand for graduate and professional schools and overall economic conditions that could impact other aspects of the University's financial position.

RUTGERS
THE STATE UNIVERSITY OF NEW JERSEY

STATEMENT OF NET POSITION
June 30, 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
	2018	2018	2018
ASSETS:			
Current Assets			
Cash and Cash Equivalents	$130,830	$2,640	$10,119
Cash and Cash Equivalents - Restricted	158	15,788	1,562
Short-Term Investments	410,511	-	66,659
Short-Term Investments - Restricted	-	16,383	-
Accounts Receivable, net	534,421	5,585	-
Contributions Receivable, net - Current Portion	-	41,524	-
Inventories	4,466	-	-
Prepaid Expenses and Other Assets	7,929	786	10
Total Current Assets	1,088,315	82,706	78,350
Noncurrent Assets			
Cash and Cash Equivalents	2,271	-	-
Cash and Cash Equivalents - Restricted	131,486	-	-
Long-Term Investments	433,048	2,095	-
Long-Term Investments - Restricted	898,879	5,965	-
Accounts Receivable, net	88,733	-	-
Contributions Receivable, net - Noncurrent Portion	-	48,822	-
Cash Surrender Value of Whole Life Insurance Policies	-	745	-
Other Noncurrent Assets	-	137	-
Capital Assets, net	3,772,242	-	44
Total Noncurrent Assets	5,326,659	57,764	44
TOTAL ASSETS	6,414,974	140,470	78,394
DEFERRED OUTFLOWS OF RESOURCES:			
Loss on Refunding	74,980	-	-
Pension Related	374,409	-	-
Interest Rate Swaps	18,245	-	-
TOTAL DEFERRED OUTFLOWS OF RESOURCES	467,634	-	-
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	6,882,608	140,470	78,394

(Continued)

STATEMENT OF NET POSITION
June 30, 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
	2018	2018	2018
LIABILITIES:			
Current Liabilities			
Accounts Payable and Accrued Expenses	365,822	4,328	36,969
Payable to Rutgers, The State University of New Jersey	-	-	11,526
Unearned Revenue	93,919	393	-
Payroll Withholdings	26,313	-	-
Other Payables	3,486	-	-
Beneficial Interest Payable - Current Portion	-	715	-
Commercial Paper	130,704	-	-
Long-Term Liabilities - Current Portion	68,317	-	-
Total Current Liabilities	688,561	5,436	48,495
Noncurrent Liabilities			
Other Noncurrent Liabilities	56,632	525	-
Unearned Revenue	58,029	-	-
Derivative Instruments	18,245	-	-
Beneficial Interest Payable - Noncurrent Portion	-	7,405	-
Net Pension Liability	1,772,533	-	-
Long-Term Liabilities - Noncurrent Portion	1,941,147	-	-
Total Noncurrent Liabilities	3,846,586	7,930	-
TOTAL LIABILITIES	4,535,147	13,366	48,495
DEFERRED INFLOWS OF RESOURCES:			
Pension Related	281,383	-	-
Irrevocable Split Interest Agreements	-	3,882	-
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	4,816,530	17,248	48,495
NET POSITION (DEFICIT):			
Net Investment in Capital Assets	1,905,842	-	-
Restricted for			
Nonexpendable			
Instruction	286,279	1,498	-
Scholarships and Fellowships	295,882	2,724	-
Other	131,166	2,216	-
Expendable			
Instruction	167,486	3,387	-
Research	48,797	35,888	-
Scholarships and Fellowships	90,186	8,102	-
Loans	70,019	1	-
Capital Projects	54,737	45,901	-
Debt Service Reserve	13,556	-	-
Healthcare and Professional Services	11,638	601	-
Other	54,995	16,379	-
Unrestricted	(1,064,505)	6,525	29,899
TOTAL NET POSITION	$2,066,078	$123,222	$29,899

See accompanying notes to the financial statements.

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the Year Ended June 30, 2018
(dollars in thousands)

		Component Unit	Component Unit
	Rutgers, The State University of New Jersey	Rutgers University Foundation	University Physician Associates of New Jersey, Inc., and Affiliates
	2018	2018	2018
OPERATING REVENUES:			
Student Tuition and Fees (net of scholarship allowances of $259,233 in 2018)	$976,705	$ -	$ -
Federal Grants and Contracts	381,847	-	-
State and Municipal Grants & Contracts	121,705	-	-
Nongovernmental Grants & Contracts	104,874	36,486	-
Auxiliary Enterprises (net of scholarship allowances of $46,201 in 2018)	237,757	-	-
Net Patient Service Revenues	232,591	-	131,008
Health Service Contract Revenues	549,432	-	-
Other Operating Revenues	126,729	4,613	-
Total Operating Revenues	2,731,640	41,099	131,008
OPERATING EXPENSES:			
Salaries and Wages	2,053,071	15,384	4,528
Fringe Benefits	690,278	6,002	722
OPEB Expenses	276,630	-	-
Supplies and Services	913,592	10,056	130,848
Grant Aid to Students	94,858	-	-
Depreciation	180,969	-	25
Distributions to Rutgers, The State University of New Jersey	-	116,802	-
Total Operating Expenses	4,209,398	148,244	136,123
Operating Loss	(1,477,758)	(107,145)	(5,115)

(Continued)

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
For the Year Ended June 30, 2018
(dollars in thousands)

		Component Unit	Component Unit
	Rutgers, The State University of New Jersey	Rutgers University Foundation	University Physician Associates of New Jersey, Inc., and Affiliates
	2018	2018	2018
NON-OPERATING REVENUES (EXPENSES):			
State Appropriations	428,800	-	-
State Paid Fringe Benefits	385,111	-	-
OPEB Paid by the State	276,630	-	-
Administrative Fees and Support from Rutgers, The State University of New Jersey	-	24,459	-
Noncash Support from Rutgers, The State University of New Jersey	-	2,008	-
Federal Appropriations	6,592	-	-
Federal Student Aid	92,387	-	-
State Student Aid	121,739	-	-
Contributions	37,723	42,947	-
Endowment and Investment Income (net of investment management fees for the University of $3,648 in 2018)	44,820	80	1,710
Net Increase in Fair Value of Investments	84,043	39	26
Interest on Capital Asset Related Debt	(83,672)	-	-
Loss on Disposal of Capital Assets	(1,018)	-	-
Other Non-operating Revenues	9,315	14	11,367
Total Net Non-operating Revenues	1,402,470	69,547	13,103
Income/(Loss) before Other Revenues	(75,288)	(37,598)	7,988
Capital Grants and Gifts	68,282	22,382	-
Additions to Permanent Endowments	32,926	29,391	-
Increase in Net Position	25,920	14,175	7,988
Net Position - Beginning of the Year	2,040,158	109,047	21,911
Net Position - End of the Year	$2,066,078	$123,222	$29,899

See accompanying notes to the financial statements.

STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2018
(dollars in thousands)

	Rutgers, The State University of New Jersey 2018
Cash Flows from Operating Activities:	
Student Tuition and Fees	$990,984
Research Grants and Contracts	614,000
Services to Patients	229,514
Health Service Contract Receipts	503,118
Payments to Employees and for Benefits	(2,302,701)
Payments to Suppliers	(892,460)
Payments for Grant Aid to Students	(94,858)
Collection of Loans to Students and Employees	15,526
Loans to Students and Employees	(20,094)
Auxiliary Enterprises Receipts	254,766
Other Receipts	134,037
Net Cash Used by Operating Activities	(568,168)
Cash Flows from Noncapital Financing Activities:	
State Appropriations	402,003
Federal Appropriations	6,592
Contributions for other than Capital Purposes	37,723
Federal and State Student Aid	202,837
Contributions for Endowment Purposes	32,926
Net Cash Provided by Noncapital Financing Activities	682,081
Cash Flows from Financing Activities:	
Proceeds from Capital Debt and Leases	201,799
Capital Grants and Gifts Received	80,995
Purchases of Capital Assets and Construction in Progress	(379,578)
Principal Paid on Capital Debt and Leases	(60,729)
Interest Paid on Capital Debt and Leases	(86,321)
Net Cash Used by Financing Activities	(243,834)
Cash Flows from Investing Activities:	
Proceeds from Sales and Maturities of Investments	1,175,599
Investment Income	44,820
Purchase of Investments	(1,275,628)
Net Cash Used by Investing Activities	(55,209)
Net Decrease in Cash and Cash Equivalents	(185,130)
Cash and Cash Equivalents - Beginning of the year	449,875
Cash and Cash Equivalents - End of the year	264,745

(Continued)

RUTGERS
THE STATE UNIVERSITY
OF NEW JERSEY

STATEMENT OF CASH FLOWS
For the Year Ended June 30, 2018
(dollars in thousands)

Reconciliation of Operating Loss to Net Cash Used by Operating Activities:	**2018**
Operating Loss	(1,477,758)
Adjustments to Reconcile Operating Loss to Net Cash Used by Operating Activities:	
State Paid Fringe Benefits	385,111
OPEB Paid by the State	276,630
Depreciation	180,969
Provision for Bad Debts	19,918
Changes in Assets and Liabilities:	
Receivables	(98,257)
Inventories	(599)
Prepaid Expenses and Other Assets	620
Accounts Payable and Accrued Expenses	30,940
Unearned Revenue	27,123
Payroll Withholdings	6,781
Other Payables	1,215
Net Pension Liability	79,139
Net Cash Used by Operating Activities	($568,168)

Non-Cash Investing and Financing Activities	**2018**
Net Increase in Accrued Capital Assets	$5,136
Change in Fair Value of Derivatives	10,233
Net Increase in Fair Value of Investments	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 2018, this amount totaled \$21.0 million. 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 statement 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 statement of net position. The year-to-year change in the fair value of investments is reported in the statement 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 \$68.4 million at June 30, 2018. Income derived from such irrevocable trust funds held by others, aggregating approximately \$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.* (See Note 2).

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 6.3 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, capital State grants, including the Capital Improvement Fund (CIF), the Equipment Leasing Fund (ELF), the Higher Education Technology Infrastructure (HETI), and the Higher Education Facilities Trust (HEFT), for which all eligibility requirements for revenue recognition have not been met, are included as noncurrent 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 statement 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, and (4) net patient services. 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 $84.0 million during the year ended June 30, 2018, from the Federal Pell Grant program, and $109.8 million during the year ended June 30, 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, 2018, the University disbursed $419.0 million under the Federal Direct Loan Program. Direct student loans receivable is not included in the University's statement 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.

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

In November 2016, GASB issued 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. This GASB Statement is effective for financial reporting periods beginning after June 15, 2018, which is fiscal year 2019. The University is evaluating the impact of this new statement.

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 March 2018, GASB issued 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. GASB 88 will be effective for reporting periods beginning after June 15, 2018, which is fiscal year 2019. 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 interst 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.

NOTE 2 – ADOPTION OF ACCOUNTING PRONOUNCEMENTS

The University adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75). 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. The State is legally required to pay for the OPEB benefit coverage for eligible retirees of the various state colleges and universities under N.J.S.A 52:14-17.32. Therefore, the University is considered to be in a special funding situation as defined by GASB 75 and the State is treated as a nonemployer contributing entity. Since the University does not contribute directly to the plan, there is no total OPEB liability, deferred outflows of resources, or deferred inflows of resources to report in the University's financial statements. However, the University was required to record OPEB expense and a related revenue for the amount of the State's proportionate share of OPEB expense that was associated with the University. In addition, Note 14 Employee Benefits discloses the portion of the University's share of the total OPEB liability.

The University adopted GASB Statement No. 81, *Irrevocable Split-Interest Agreements* (GASB 81). This statement was issued to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. This statement requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement and that a government recognizes revenue when the resources become applicable to the reporting period. There is no impact to the University's financial statements.

The University also adopted GASB issued Statement No. 85, *Omnibus* (GASB 85). This statement addresses practice issues that have been identified during implementation and application of certain GASB statements. This statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and post-employment benefits (pensions and other post-employment benefits). There is no impact to the University's financial statements.

Finally, the University adopted GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*, (GASB 86), effective for the University's fiscal year beginning July 1, 2017. This Statement establishes standards of accounting and financial reporting for in-substance defeasance transactions in which cash and other monetary assets acquired with resources other than the proceeds of the refunding debt are placed in an irrevocable trust for the sole purpose of extinguishing debt. In addition, this Statement revises existing standards for prepaid insurance associated with extinguished debt. There is no impact to the University 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, 2018:

	2018
Money Market Funds	$165,615
Cash and Deposits	99,130
Total Cash and Cash Equivalents	$264,745

The University's net cash and cash equivalents balance at June 30, 2018, includes a cash book balance of $99.1 million. The actual amount of cash on deposit in the University's bank accounts at June 30, 2018, was $105.7 million. Of this amount, $1.0 million was insured by the Federal Deposit Insurance Corporation at June 30, 2018. At June 30, 2018, $77.3 million 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 2018, the University's annual spending policy was an amount not to exceed 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 statement of net position.

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

	2018
Common Stock	$ 157,584
Commercial Paper	33,985
U.S. Government Agencies	3,994
U.S. Government Bonds	22,372
Certificates of Deposits (CD's)	45,994
Corporate Bonds	202,679
Mutual Funds - Common Stock	484,834
Mutual Funds - Fixed Income	240,363
Fixed Income Funds	30,997
Hedge Funds	251,799
Private Equity	149,616
Real Estate	49,498
Real Assets	64,354
Other	4,369
Total	$ 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 statement 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 – Equity Securities, and Mutual Funds – Fixed Income Securities.

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 – Equity Securities, Corporate Bonds, Commercial Paper, Certificates of Deposit, Mutual Funds – Fixed Income Securities, 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, 2018 (dollars in thousands):

	2018			
		Investments Measured at Fair Value		
Investment Type	Fair Value	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, 2018 (dollars in thousands):

Investment Type	**2018 Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Private Equity	$ 95,467	Illiquid	N/A
Real Estate	52,982	Illiquid	N/A
Real Assets	46,947	Illiquid	N/A
Venture Capital	12,944	Illiquid	N/A
Fixed Income Funds	6,522	Illiquid	N/A
Credit Hedge Funds	N/A	Quarterly, Annually	45 - 90 days
Global Macro Hedge Funds	N/A	Quarterly	90 days
Long/Short Hedge Funds	N/A	Daily, Monthly, Quarterly, Annually	6 - 60 days
Multi-Strategy Hedge Funds	N/A	Quarterly, Semi-Annually, Annually, Rolling Two-years	60 - 90 days
Total	$ 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.

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 Funds– Include funds that invest throughout capital structure. Typical investments may include senior secured, unsecured, subordinated or mezzanine loans, corporate credit, non-performing loans, and various other credit investments. One strategy is implemented through an illiquid vehicle and cannot be redeemed. The remaining term of the investment is 4 - 6 years, including extensions.

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. Within this portfolio there is one position that currently has a redemption restriction until December 31, 2018 and will revert to quarterly liquidity once that restriction has passed.

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.

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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, 2018 (dollars in thousands):

	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, 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	2018
U.S. Government Agencies and Bonds	AA+	$24,366
U.S. Government Agencies and Bonds	AAA	$2,000
Certificates of Deposits (CD's)	AAA	11,994
Certificates of Deposits (CD's)	A+	34,000
Commercial Paper	AAA	15,483
Commercial Paper	A+	18,502
Corporate Bonds	AAA	51,429
Corporate Bonds	AA+	31,064
Corporate Bonds	AA	1,805
Corporate Bonds	AA–	10,508
Corporate Bonds	A+	20,329
Corporate Bonds	A	20,736
Corporate Bonds	A–	15,977
Corporate Bonds	BBB+	12,646
Corporate Bonds	BBB	14,357
Corporate Bonds	BB+	995
Corporate Bonds	BBB-	11,926
Corporate Bonds	Not Rated	10,907
Mutual Funds - Fixed Income	Not Rated	240,363
Money Market Funds	AAA	165,615
Total		$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, 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, 2018, the fair value of the Long-Term Investment Pool was $1,194.6 million. In addition, the aggregate endowment market value of funds separately invested was $35.8 million at June 30, 2018. The investment appreciation was $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, 2018 (dollars in thousands):

	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	40,617	14,010	26,607
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	30,653	1,905	28,748
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, 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 are comprised of the following at June 30, 2018 (dollars in thousands):

	2018
Gross Charges	$553,529
Deductions from Gross Charges	
Contractual and Other Allowances	(300,932)
Provision for Bad Debts	(20,006)
Net Patient Service Revenues	$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 house staff, 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. Health Service Contract Revenues totaled $549.4 million, which included reimbursement for House Staff salaries, fringe benefits and insurance of $107.0 million, and billings under other contractual arrangements of $442.4 million.

NOTE 6 – CAPITAL ASSETS

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

	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 statement of net position.

NOTE 7 – ACCOUNTS PAYABLE AND ACCRUED EXPENSES

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

	2018
Vendors	$177,806
Accrued Salaries and Benefits	62,130
Compensated Absences	52,610
Workers Compensation	19,929
Interest Payable	12,910
Other Accrued Expenses	40,437
Total Accounts Payable and Accrued Expenses	$365,822

NOTE 8 – NONCURRENT LIABILITIES

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

	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	1,772,533	2,057,977	1,772,533	–
Unearned Revenue	153,662	107,268	108,982	151,948	93,919
Long-Term Liabilities	1,917,953	151,799	60,288	2,009,464	68,317
Total	$4,175,884	$2,041,940	$2,227,247	$3,990,577	$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 20, 2021 and Bank of America, N.A up to $100.0 million until July 31, 2020.

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

	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

NOTE 10 – LONG-TERM LIABILITIES

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.

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, 2018, no funds have been drawn against this agreement.

Debt service to maturity for all General Obligation Bonds, using variable rates as of June 30, 2018, and using the net interest rate swap payments as of June 30, 2018 (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
2019	$41,900	$72,414	$2,030	$986	$1,234	$118,564
2020	37,570	70,098	2,110	955	1,191	111,924
2021	38,760	68,442	2,195	923	1,146	111,466
2022	42,990	66,676	2,280	889	1,099	113,934
2023	62,295	64,711	2,370	855	1,050	131,281
2024-2028	275,535	285,660	13,325	3,704	4,440	582,664
2029-2033	327,590	209,844	16,245	2,607	3,052	559,338
2034-2038	237,160	135,989	19,830	1,268	1,484	395,731
2039-2043	308,150	69,669	4,465	68	79	382,431
2044-2048	100,655	14,859	–	–	–	115,514
Total	$1,472,605	$1,058,362	$64,850	$12,255	$14,775	$2,622,847

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
2019	$8,843	$2,359	$11,202
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
2024-2028	9,211	4,542	13,753
2029-2033	11,538	2,326	13,864
2034-2037	3,831	208	4,039
Total	$64,912	$16,163	$81,075

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
2019	$9,717	$14,793	$24,510
2020	10,124	14,361	24,485
2021	7,283	13,906	21,189
2022	7,561	13,596	21,157
2023	7,905	13,272	21,177
2024-2028	38,449	61,173	99,622
2029-2033	63,257	50,778	114,035
2034-2038	46,035	38,458	84,493
2039-2043	58,718	25,782	84,500
2044-2048	43,275	10,384	53,659
2049-2053	1,575	5,826	7,401
2054-2058	1,931	5,470	7,401
2059-2063	2,368	5,033	7,401
2064-2068	2,903	4,498	7,401
2069-2073	3,560	3,842	7,402
2074-2078	4,364	3,037	7,401
2079-2083	5,351	2,050	7,401
2084-2088	6,560	841	7,401
2089	1,482	–	1,482
Total	$322,418	$287,100	$609,518

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, 2018 (dollars in thousands):

	2018
Cost	$1,578
Accumulated Depreciation	(720)
Net Book Value	$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, 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 the fiscal year.

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. As of June 30, 2018, the University's defeased debt is as follows (dollars in thousands):

	Amount Defeased	Final Maturity/Call Date	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 year ended June 30, 2018, the University had two derivative instruments outstanding (dollars in thousands).

Swap #	Type	Objective	Notional Amount 2018	Effective Date	Termination Date	Terms	Counterparty Credit Rating (Moody's/S&P)	Fair Value 2018	Change in Fair Value from 2017
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	5/1/2008	11/1/2038	Pay fixed 4.080%, receive 100% of 3-Month LIBOR	Aa3/AA	($17,102)	$9,121
2	Pay fixed, receive variable interest rate swap	Hedge of changes in cash flows on variable-rate General Obligation Bond	10,440	5/1/2007	5/1/2027	Pay fixed 3.824%, receive SIFMA swap index	Aa2/AA−	(1,143)	649
			$110,440					($18,245)	$9,770

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

Credit Risk:
As of June 30, 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, 2018, the University's credit ratings by Moody's and S&P was Aa3 and A+, respectively, and was not required to post collateral.

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, 2018, the estimated cost of capital projects under construction and/or in the design stage with approved sources of funding, aggregated approximately $705.4 million. The additional funding required at June 30, 2018 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, 2018	**Additional Funding Required at June 30, 2018**	**Estimated Total Cost**
Borrowing	$177,931	$151,314	$329,245
State	13,749	13,568	27,317
Gifts and Other Sources	226,496	122,301	348,797
Total	$418,176	$287,183	$705,359

The University leases certain space used in general operations. Rental expense was approximately $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
2019	$18,187
2020	12,940
2021	10,103
2022	9,109
2023	8,021
2024-2028	25,490
2029-2033	10,491
2034-2038	8,163
2039-2043	5,379
2044-2048	404
Total	$108,287

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, 2018, are as follows (dollars in thousands):

	2018
Instruction	$904,652
Sponsored Research	345,687
Other Separately Budgeted Research	183,715
Extension and Public Service	224,918
Academic Support	439,761
Student Services	144,498
Operations and Maintenance of Plant	243,656
General Administration and Institutional	273,725
Scholarships and Fellowships	73,310
Depreciation	180,969
Patient Care Services	656,475
Auxiliary Enterprises	261,402
OPEB Expenses	276,630
Total Operating Expenses	$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 **state.nj.us/treasury/pensions/annrprts.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, 2018, the PERS contribution rate will be 7.5%. Covered University employees were required by PERS to contribute 7.34% of their annual compensation during fiscal year 2018. 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 state.nj.us/treasury/pensions/annrpts.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 2018.

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, 2018, the University reported a liability of $1,703.5 million and $69.0 million for PERS and PFRS, respectively, 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, 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 2017, which was 6.6% and 1.6% for PERS and PFRS, respectively. The University's proportionate share of the respective net pension liabilities for the plan was 3.5% and 0.3% for PERS and PFRS, respectively.

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

	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 plan actuary's modified MP-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 and a one-year static projection based on mortality improvement Scale AA. In addition, the tables for service retirements and beneficiaries of former members provide for future improvements in mortality from the base year of 2013 using a generational approach based on the plan actuary's modified MP-2014 projection scale. 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 Pre-Retirement tables projected thirteen years using Projection Scale BB and then projected on a generational basis using the plan actuary's modified 2014 projection scales. Post-retirement mortality rates for male service retirements and beneficiaries are based on the RP-2000 Combined Healthy Mortality Tables projected one year using Projection Scale AA and three years using the plan actuary's modified 2014 projection scales, which was further projected on a generational basis using the plan actuary's modified 2014 projection scales. Post-retirement mortality rates for female service retirements and beneficiaries were based on the RP-2000 Combined Healthy Mortality Tables projected thirteen years using Projection Scale BB and then three years using the plan actuary's modified 2014 projection scales, which was further projected on a generational basis using the plan actuary's modified 2014 projection scales. Disability mortality rates were based on special mortality tables used for the period after disability retirement.

The actuarial assumptions used in the July 1, 2016, valuation 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, 2017 are summarized in the following table:

	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 5.00% as of June 30, 2017. The discount rate used to measure the total pension liability for PFRS was 6.14% as of June 30, 2017. 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 3.58% as of June 30, 2017, 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 2040 for PERS and 2057 for PFRS. Therefore, the long-term expected rate of return on plan investments was applied to projected benefit payments through 2040 for PERS and 2057 for PFRS, 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, 2017, the discount rate increased 1.02% to 5.00% and 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% and 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, 2017, 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):

	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, 2018 (dollars in thousands):

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 $49.1 million 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, 2019. 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
2019	$36,334	($1,987)	$34,347
2020	46,478	(1,642)	44,836
2021	27,997	(2,132)	25,865
2022	(29,457)	(3,305)	(32,762)
2023	(26,580)	(1,770)	(28,350)
Total	$54,772	($10,836)	$43,936

Annual Pension Expense – The University's annual pension expense for PERS and PFRS for the year ended June 30, 2018, was approximately $130.7 million and $3.3 million, respectively.

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, 2018 was $1,138.2 million.

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 2018. Additional voluntary contributions may be made on a tax-deferred basis, subject to limits within the Internal Revenue Code. Employer contributions for the year ended June 30, 2018, were $91.7 million. Employee contributions for the year ended June 30, 2018, were $63.1 million.

Effective July 1, 2010, Governor Christie signed Chapter 31, P.L. 2010 into law, which only allowed employer contributions to the Alternate Benefits Program (ABP) for salaries up to $141,000. 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 $141,000, up to the Federal IRC Annual Compensation limit of $270,000 for calendar year 2017 and $275,000 for calendar year 2018.

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 covered dependents. 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, 2018, the State recorded a liability of $4,702.3 million, 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, 2018, the University's share was 57.5% and 16.73% of the special funding situation and of the Plan, respectively.

For the year ended June 30, 2018, the University recognized OPEB expense of $276.6 million. 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 $276.6 million.

Actuarial assumptions and other inputs – The State's liability associated with 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:

	2017
Inflation Rate	2.50%
Discount Rate	3.58%
Salary Increases:	
Through 2026	1.55 – 8.98%
Thereafter	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.

Preretirement mortality rates were 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, 2016 valuation were based on the results of actuarial experience studies of the State's defined benefit 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 5.9% and decreases to a 5.0% long-term trend rate after nine years. For self-insured post-65 PPO and HMO medical benefits, the trend rate is 4.5%. For prescription drug benefits, the initial trend rate is 10.5% decreasing to a 5.0% long-term trend rate after eight years. For the Medicare Part B reimbursement, the trend rate is 5.0%. The Medicare Advantage trend rate is 4.5% 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 $52.6 million at June 30, 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 $18.8 million at June 30, 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 $3.0 million at June 30, 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, 2018, for these items is $34.9 million. The reserve balance recorded at June 30, 2018, is $38.0 million. 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 $24.2 million in 2018. Contributions to the Fund from the State totaled $14.2 million in 2018, while contributions from RBHS affiliates, DOC, and faculty practice plans totaled $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.

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 year ended June 30, 2018 is presented below.

CONDENSED STATEMENT OF NET POSITION
(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	$2,142,172	($76,094)	$2,066,078

CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
(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)	$976,705	$ -	$976,705
Grants and Contracts	556,592	51,834	608,426
Auxiliary Enterprises (net of scholarship allowances)	237,757	-	237,757
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	3,260,559	767,870	4,028,429
Depreciation Expense	179,293	1,676	180,969
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 at Beginning of Year	2,040,158	-	2,040,158
Net Position at End of Year	$2,142,172	($76,094)	$2,066,078

CONDENSED STATEMENT OF CASH FLOWS
(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

Adoption of Accounting Pronouncements

In fiscal year 2018, the Foundation implemented GASB Statement No. 81, *Irrevocable Split-Interest Agreements* (GASB 81). GASB 81 requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities and deferred inflows of resources at the inception of the agreement. GASB 81 also requires that a government recognize revenue when the resources become applicable to the reporting period. Each of the Foundation's charitable gift annuity agreements meet the definition of an irrevocable split-interest agreement under GASB 81.
The provisions of GASB 81 have been applied to the beginning net position of fiscal year 2018. The following is a reconciliation of the total net position as previously reported at July 1, 2017 to the total restated net position:

Total net position as previously reported as of July 1, 2017	$114,397
Restatement to beginning of year net position	(5,350)
Total net position as of July 1, 2017, restated	$109,047

Cash, Cash Equivalents, and Investments

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

	2018
Money Market Account	$850
Cash and Deposits	17,578
	$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, 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, 2018, the amount on deposit with the banks was $17.7 million. As of June 30, 2018, the Foundation had insured deposits up to the Federal Deposit Insurance Corporation (FDIC) coverage limits totaling $0.3 million. Cash and cash equivalents in excess of those balances are uncollateralized.

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

Investment Type	Quality Rating	2018 Amount
Municipal Bonds	AAA	$4
U.S. Treasury Securities	AA+	116
Mortgage-backed Securities	AA+	1
Preferred Stock	A-	1
Preferred Stock	BBB-	96
Preferred Stock	BB+	83
Preferred Stock	BB	39
Preferred Stock	Not Rated	24
Fixed Income Mutual Funds	Not Rated	17,349
Total		$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, 2018 (dollars in thousands):

		2018			
		Investment Maturities (in years)			
Investment Type	**Fair Value**	**Less than 1**	**1 – 5**	**6 – 10**	**More than 10**
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, 2018 were as follows (dollars in thousands):

	2018
Administrative Fees and Support:	
Endowment Administrative Fee	$9,879
University Support	14,580
	$24,459
Noncash Support:	
Fair Rental Value of Space Occupied	$453
University-Paid Payroll Taxes and Benefits	1,555
	2,008
Total	$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, 2018, assessment fees totaling $3.9 million were recorded.

Restricted Contributions Receivable

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

	2018
Year Ending June 30:	
Within One Year	$45,926
Two to Five Years	51,502
	97,428
Less Allowance for Uncollectible Contributions Receivable	(7,082)
	$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 $88.0 million as of June 30, 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, 2018 were $16.8 million.

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

Cash and Cash Equivalents – Restricted

This amount represents funds held in one depository account for the repayment of liabilities to the New Jersey Medical School Deans' Fund.

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

	2018
Cash and Cash Equivalents – Restricted	$1,562
	$1,562

Investments

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

	2018
Cash and Cash Equivalents	$2,966
Marketable Equity Securities	14,417
U.S. Government Securities	3,593
Bonds	45,683
Total Short-term Investments	$66,659

The fair value of UPA's financial assets that are measured on a recurring basis at June 30, 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**	**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, 2018, there was approximately $3 million 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, 2018, are as follows (dollars in thousands):

	2018
Payable to Rutgers University Medical Malpractice Fund	$653
Payable to New Jersey Medical School Mandatory Department Account	3,817
Payable to New Jersey Medical School Deans' Fund	3,154
Payable to Voluntary Department Account	2,133
Payable to Voluntary Division Account	1,769
Payable to Voluntary Group Account	109
Payable to Voluntary Practice Group Account	36,860
Total Current Liabilities	$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 2018 was $0.5 million.

NOTE 21 – SUBSEQUENT EVENTS

On July 27, 2018, RWJBarnabas Health (RWJBH) and Rutgers University announced plans 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.

Through this agreement, RWJBH has committed an initial investment of $100.0 million to the development of Rutgers' academic and research initiatives in the health sciences, and will provide $50.0 million per year in mission support over the next twenty years. Within this support commitment, Rutgers Biomedical and Health Sciences and RWJBH will grow Rutgers' academic and research programs in RBHS and recruit approximately 100 new faculty investigators over the coming decade. As part of its investment, RWJBH will set aside $10.0 million to retain top students who establish their clinical practices within the new entity after completing their residency. These funds will strengthen Rutgers' ability to recruit and retain outstanding medical students, residents, and fellows.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

Schedules of Employer Contributions*
For the Four Years Ended June 30, 2018
(dollars in thousands)

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

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

Schedules of Proportionate Share of the Net Pension Liability*
For the Four Years Ended June 30, **2018**
(dollars in thousands)

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

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

Schedule of Proportionate Share of the Total OPEB Liability*
For the Year Ended June 30, **2018**
(dollars in thousands)

	2018
University's proportion of the total OPEB liability	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	$4,702,301
Total OPEB liability	$4,702,301
University's covered-employee payroll	$1,558,444
University's proportionate share of the total OPEB liability as a percentage of the University's covered-employee payroll	0%

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.

* 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

Changes in benefit terms – There were no significant changes in benefits for any of the acturarial 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 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 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%.

University Administrative Officers

Robert L. Barchi, M.D., Ph.D.
President

Nancy E. Cantor, Ph.D.
Chancellor, Rutgers University–Newark

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

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

Brian L. Strom, M.D., M.P.H.
Chancellor, Rutgers Biomedical and Health Sciences and Executive Vice President for Health Affairs

Antonio M. Calcado, M.P.A.
Executive Vice President for Strategic Planning and Operations and Chief Operating Officer

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

Nevin E. Kessler, M.A.
President of the Rutgers University Foundation and Executive Vice President for Development and Alumni Relations

Vivian Fernández, M.B.A.
Senior Vice President for Human Resources and Organizational Effectiveness

Timothy J. Fournier, Ed.D., M.B.A.
Senior Vice President for Enterprise Risk Management, Ethics, and Compliance

John J. Hoffman, J.D.
Senior Vice President and General Counsel

Barbara A. Lee, Ph.D., J.D.
Senior Vice President for Academic Affairs

Peter J. McDonough, Jr., B.A.
Senior Vice President for External Affairs

David Kimball, Ph.D.
Interim Senior Vice President for Research and Economic Development

Michele L. Norin, M.Ed.
Senior Vice President and Chief Information Officer

Patrick E. Hobbs, J.D.
Director of Intercollegiate Athletics

Kimberlee M. Pastva, J.D.
Secretary of the University

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APPENDIX C

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

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APPENDIX C

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

The statements made herein concerning the Master Indenture and the Thirteenth Supplemental Indenture are summaries and do not purport to be complete. Such statements use certain terms defined in the Master Indenture and the Thirteenth Supplemental Indenture and are qualified in their entirety by reference to the detailed provisions of the Master Indenture and the Thirteenth 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 Thirteenth 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 Q Bonds dated September 11, 2019 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 and the General Obligation Refunding Bonds, 2020 Series Q (Tax-Exempt), 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 Thirteenth Supplemental Indenture to execute any such Certificate of Determination for the purpose of determining certain matters with respect to the 2020 Series Q Bonds, subject to and in compliance with all applicable requirements of the Indenture and the Thirteenth 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 Q 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 Q 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 Q 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 Q 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 Thirteenth 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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______________, 2020

Rutgers, The State University
New Brunswick, New Jersey

Re: Rutgers, The State University
General Obligation Refunding Bonds, 2020 Series Q (Tax-Exempt)

Ladies and Gentlemen:

McCarter & English, LLP
Four Gateway Center
100 Mulberry Street
Newark, NJ 07102-4056
T. 973.622.4444
F. 973.624.7070
www.mccarter.com

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 Q (Tax-Exempt) in the original principal amount of $17,820,000 (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 February 5, 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 July 23, 2019, and a resolution adopted by the Board of Trustees of the University on June 19, 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 Thirteenth Supplemental Indenture of Trust dated as of February 1, 2020 (the "Thirteenth 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 current refunding of certain outstanding bonds of the University (as more fully described in the Thirteenth Supplemental Indenture); and (ii) financing certain administrative, legal, financing and incidental expenses relating to the issuance of the Bonds.

BOSTON
HARTFORD
STAMFORD
NEW YORK
NEWARK
EAST BRUNSWICK
PHILADELPHIA
WILMINGTON
WASHINGTON, DC

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 Thirteenth 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, including, without limitation, a Preliminary Tax Certificate and a Tax Certificate Recertification (collectively, the “Tax Certificate”) pursuant to Section 148 of the Internal Revenue Code of 1986, as amended (the “Code”) relating to the Bonds; 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.

The Code imposes certain requirements that must be met on a continuing basis subsequent to the issuance of the Bonds in order to assure that interest on the Bonds will be excluded from gross income for federal income tax purposes under Section 103 of the Code. Failure of the University to comply with such requirements may cause interest on the Bonds to lose the exclusion from gross income for federal income tax purposes, retroactive to the date of issuance of the Bonds. The University has made representations in the Tax Certificate as to various tax requirements. In addition, the University has covenanted to comply with the provisions of the Code applicable to the Bonds and has covenanted not to take any action or fail to take any action that would cause the interest on the Bonds to lose the exclusion from gross income under Section 103 of the Code.

With your permission, we have assumed (i) continuing compliance by the University with the above covenants in rendering our federal income tax opinion with respect to the exclusion of interest on the Bonds from gross income for federal income tax purposes and with respect to interest on the Bonds not constituting an item of tax preference, (ii) that the Master Indenture and the Supplemental Indentures thereto, other than the Thirteenth Supplemental Indenture, have been duly authorized, executed and delivered by the parties thereto, and (iii) that the Thirteenth 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 Thirteenth Supplemental Indenture.

2. The Master Indenture and the Thirteenth 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 is excluded from gross income of the owners thereof for federal income tax purposes pursuant to Section 103 of the Code, and interest on the Bonds is not an item of tax preference under Section 57 of the Code for purposes of computing the alternative minimum tax. We express no opinion regarding any other federal income tax consequences arising with respect to the Bonds.

6. 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,

APPENDIX E

FORM OF INVESTOR LETTER AGREEMENT

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APPENDIX E

FORM OF DELAYED DELIVERY INVESTOR AGREEMENT

________ __, 2019

Morgan Stanley & Co. LLC
New York, New York

Re: $17,820,000 Rutgers, The State University General Obligation Refunding Bonds, 2020 Series Q (Tax Exempt) (the "2020 Series Q Bonds")

Ladies and Gentleman:

The undersigned (the "**Purchaser**") hereby agrees to purchase from Morgan Stanley & Co. LLC (the "**Underwriter**"), when, as and if issued and delivered to the Underwriter by Rutgers, The State University (the "**Issuer**"):

Par Amount	Maturity Date (May 1)	Interest Rate	CUSIP Number	Yield	Price
$_________	20_____	_____%	___________	______%	______%

of the above-referenced 2020 Series Q Bonds (the "**Purchased Bonds**") offered by the Issuer under the Preliminary Official Statement, dated September 3, 2019 (the "**Preliminary Official Statement**"), and the Official Statement, dated September 11, 2019 (the "**Official Statement**") (receipt and review of copies of which is hereby acknowledged), at a purchase price (plus accrued interest, if any, from the date of initial delivery of the 2020 Series Q Bonds), with the interest rates and maturity dates, and in the principal amounts, shown above, and on the further terms and conditions set forth in this Delayed Delivery Investor Agreement. The 2020 Series Q Bonds are being purchased by the Underwriter pursuant to a Forward Delivery Contract of Purchase (the "**Forward Delivery Contract of Purchase**") between the Issuer and the Underwriter.

The Purchaser hereby confirms that it has reviewed the Preliminary Official Statement and the Official Statement (including, without limitation, the section entitled "FORWARD DELIVERY RISKS WITH RESPECT TO THE 2020 SERIES Q BONDS"), has considered the risks associated with purchasing the Purchased Bonds and is duly authorized to purchase the Purchased Bonds. The Purchaser acknowledges and agrees that the Purchased Bonds are being sold on a "forward" basis, and the Purchaser hereby purchases and agrees to accept delivery of the Purchased Bonds from the Underwriter on or about February 5, 2020 (the "Settlement Date") as they may be issued and delivered in accordance with the Forward Delivery Contract of Purchase.

Payment for the Purchased Bonds which the Purchaser has agreed to purchase on the Settlement Date shall be made to the Underwriter or upon its order by wire transfer to a bank account specified by the Underwriter, on the Settlement Date upon delivery to the Purchaser of the 2020 Series Q Bonds then to be purchased by the Purchaser through the book-entry system of The Depository Trust Company.

Upon issuance by the Issuer of the 2020 Series Q Bonds and purchase thereof by the Underwriter, the obligation of the Purchaser to take delivery of the Purchased 2020 Series Q Bonds hereunder shall be unconditional except in the event that between the date of this Delayed Delivery Investor Agreement and the Settlement Date, (a) there has been a Change in Law (as defined below), (b) legislation shall be enacted, or a decision by a court of the United States shall be rendered, or any action shall be taken by, or on behalf of, the Securities and Exchange Commission which has the effect of requiring the 2020 Series Q Bonds to be registered under, or the sale thereof to be in violation of, the Securities Act of 1933, as amended, or has the effect of requiring the Resolution to be qualified under the Trust Indenture Act of 1939, as amended, or, in each case, or any law analogous thereto relating to governmental bodies; (c) as a result of any legislation, regulation, ruling, order, release, court decision or judgment or action by the U.S. Department of Treasury, the Internal Revenue Service, or any agency of the State either enacted, issued, effective, adopted or proposed, or for any other reason Bond Counsel cannot issue an opinion to the effect that (i) the interest on the 2020 Series Q Bonds is not subject to federal income tax under Section 103 of the Code (or comparable provisions of any successor federal tax laws) and (ii) the interest on the 2020 Series Q Bonds is not exempt from the State of New Jersey income taxation; (d) the Official Statement, as amended, if applicable, as of the Closing Date (as defined in the Forward Delivery Contract of Purchase Agreement) (which is expected to occur on or about September 25, 2019) contained any untrue statement or misstatement of material fact or omitted to state a material fact necessary in order to make the statements and information contained therein not misleading in any material respect; or an updated Official Statement (as amended, if applicable) as of its date or as of the Settlement Date, contained or contains any untrue statement or misstatement of material fact or omitted or omits to state a material fact necessary in order to make the statements and information contained therein not misleading in any material respect; (e) the declaration of a general banking moratorium by federal, New York or New Jersey authorities, or the general suspension of trading on any national securities exchange, (f) the evidence of ratings on the 2020 Series Q Bonds required to be delivered on the Settlement Date pursuant to the Forward Delivery Contract of Purchase is not delivered or (g) the Underwriter waives, without prior written consent of the Purchaser, any material condition precedent to the Underwriter's obligation to purchase the 2020 Series Q Bonds from the Issuer under the Forward Delivery Contract of Purchase.

A "***Change in Law***" means (i) any change in or addition to applicable federal or state law, whether statutory or as interpreted by the courts or by federal or state agencies, including any changes in or new rules, regulations or other pronouncements or interpretations by federal or state agencies; (ii) any legislation enacted by the Congress of the United States (if such enacted legislation has an effective date which is on or before the Settlement Date), (iii) any law, rule or regulation enacted by any governmental body, department or agency (if such enacted law, rule or regulation has an effective date which is on or before the Settlement Date) or (iv) any judgment, ruling or order issued by any court or administrative body, which in any such case would, (A) as to the Underwriter prohibit the Underwriter from completing the underwriting of the 2020 Series

Q Bonds or selling the 2020 Series Q Bonds or beneficial ownership interests therein to the public, or (B) as to the District, would make the completion of the issuance, sale or delivery of the 2020 Series Q Bonds illegal.

If the Change of Law involves the enactment of legislation which only diminishes the value of, as opposed to eliminating the exclusion from gross income for federal income tax purposes of interest payable on "state or local bonds," the Issuer may, nonetheless, be able to satisfy the requirements for the delivery of the 2020 Series Q Bonds. In such event, the Underwriter would be obligated to purchase the 2020 Series Q Bonds from the Issuer and the Purchaser would be required to accept delivery of the Purchased Bonds from the Underwriter.

The Purchaser acknowledges and agrees that the 2020 Series Q Bonds are being sold on a "forward" or "delayed delivery" basis for delivery on the Settlement Date and that, except as described above, the Purchaser is obligated to take up and pay for the Purchased Bonds on the Settlement Date unless the Underwriter terminates the Forward Delivery Contract of Purchase as described herein. The Purchaser is not a third party beneficiary under the Forward Delivery Contract of Purchase and has no rights to enforce, or cause the Underwriter to enforce, any of the terms thereof. The Purchaser acknowledges that it will not be able to withdraw its order as described herein, and will not otherwise be excused from performance of its obligations to take up and pay for the Purchased Bonds on the Settlement Date because of market or credit changes, including specifically, but not limited to (a) changes in the ratings assigned to the 2020 Series Q Bonds between the Closing Date and the Settlement Date or changes in the credit associated with the 2020 Series Q Bonds generally, and (b) changes in the financial condition, operations, performance, properties or prospects of the Issuer from the date hereof to the Settlement Date. The Purchaser acknowledges and agrees that it will remain obligated to purchase the Purchased Bonds in accordance with the terms hereof, even if the Purchaser decides to sell Purchased Bonds following the date hereof, unless the Purchaser sells Purchased Bonds to another institution with the prior written consent of the Underwriter and such institution provides a written acknowledgment of confirmation of purchase order and a Delayed Delivery Investor Agreement in the same respective forms as that executed by the Purchaser.

The Purchaser represents and warrants that, as of the date of this Delayed Delivery Investor Agreement, the Purchaser is not prohibited from purchasing the Purchased Bonds hereby agreed to be purchased by it under the laws of the jurisdiction to which the Purchaser is subject. Each of the undersigned parties represents and warrants that it has the power and authority to enter into this Delayed Delivery Investor Agreement and to perform its obligations hereunder.

This Delayed Delivery Investor Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors, but will not be assignable by either party without the written consent of the other.

The Purchaser acknowledges that the Underwriter is entering into the Forward Delivery Contract of Purchase with the Issuer to purchase the 2020 Series Q Bonds in reliance in part on the performance by the Purchaser of its obligations hereunder.

This Delayed Delivery Investor Agreement may be executed by either of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

It is understood that the acceptance by the Underwriter of any Delayed Delivery Investor Agreement (including this one) is in the Underwriter's sole discretion and that, without limiting the foregoing, acceptances of such contracts need not be on a first-come, first-served basis. If this Delayed Delivery Investor Agreement is acceptable to the Underwriter, it is requested that the Underwriter sign the form of acceptance below and mail, e-mail or otherwise deliver one of the counterparts hereto to the Purchaser at its address set forth below. This will become a binding contract between the Underwriter and the Purchaser when such counterpart is so mailed, e-mailed or otherwise delivered by the Underwriter. This Delayed Delivery Investor Agreement does not constitute a customer confirmation pursuant to Rule G-15 of the Municipal Securities Rulemaking Board.

(Remainder of this page intentionally left blank)

This Delayed Delivery Investor Agreement shall be construed and administered under the laws of the State of New York.

[PURCHASER]

By: ____
Name: ______________________________________
Title: ______________________________________

Notice Address:

____
____
Attention: ___________________________________
Telephone: __________________________________
Facsimile ___________________________________
E-mail: _____________________________________

Accepted: _______________, 2019

MORGAN STANLEY & CO. LLC

By: __________________________________
Name: ________________________________
Title: _________________________________

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RUTGERS, THE STATE UNIVERSITY (THE STATE UNIVERSITY OF NEW JERSEY) • GENERAL OBLIGATION REFUNDING BONDS, 2020 SERIES Q (TAX-EXEMPT)

RUTGERS

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