

DAC Bond<sup>®</sup>**\$325,185,000****DORMITORY AUTHORITY OF THE STATE OF NEW YORK  
COLUMBIA UNIVERSITY REVENUE BONDS, SERIES 2018**

Consisting of:

**\$150,000,000 Series 2018A****\$175,185,000 Series 2018B****Dated: Date of Delivery****Due: October 1, as shown on the inside cover**

**Payment and Security:** The Columbia University Revenue Bonds, Series 2018A (the "Series 2018A Bonds"), and the Columbia University Revenue Bonds, Series 2018B (the "Series 2018B Bonds" and, together with the Series 2018A Bonds, the "Series 2018 Bonds") are special obligations of the Dormitory Authority of the State of New York ("DASNY"), payable solely from, and secured by a pledge of (i) certain payments to be made under the Amended and Restated Loan Agreement, dated as of September 1, 2011 (the "Loan Agreement"), between The Trustees of Columbia University in the City of New York (the "University") and DASNY, and (ii) all funds and accounts (except the Arbitrage Rebate Fund and any fund established for the payment of the purchase price of Option Bonds tendered for purchase) established under DASNY's Columbia University Revenue Bond Resolution, adopted September 27, 2000, as supplemented and amended (the "Resolution"), the Series 2018A Resolution Authorizing the Issuance of a Series of Columbia University Revenue Bonds, adopted April 11, 2018 (the "Series 2018A Resolution"), the Series 2018B Resolution Authorizing the Issuance of a Series of Columbia University Revenue Bonds, adopted April 11, 2018 (the "Series 2018B Resolution" and, together with the Series 2018A Resolution, the "Series 2018 Resolutions"), the Bond Series Certificate executed by DASNY in connection with the sale and issuance of the Series 2018A Bonds (the "Series 2018A Bond Series Certificate") and the Bond Series Certificate executed by DASNY in connection with the sale and issuance of the Series 2018B Bonds (the "Series 2018B Bond Series Certificate" and, together with the Series 2018A Bond Series Certificate, the "Series 2018 Bond Series Certificates").

The Loan Agreement is a general, unsecured obligation of the University and requires the University to pay, in addition to the fees and expenses of DASNY and the Trustee, amounts sufficient to pay, when due, the principal, Sinking Fund Installments, if any, purchase price and Redemption Price of and interest on all Bonds issued under the Resolution, including the Series 2018 Bonds.

**The Series 2018 Bonds will not be a debt of the State of New York (the "State") nor will the State be liable thereon. DASNY has no taxing power.**

**Description:** The Series 2018 Bonds will be issued as fully registered bonds in denominations of \$5,000 or any integral multiple thereof. Interest (due October 1, 2018 and each April 1 and October 1 thereafter) will be payable by check or draft mailed to the registered owners of the Series 2018 Bonds at their addresses as shown on the registration books held by the Trustee or, at the option of a holder of at least \$1,000,000 in principal amount of Series 2018 Bonds, by wire transfer to the holder of such Series 2018 Bonds, each as of the close of business on the fifteenth day of the month next preceding an interest payment date. The principal or Redemption Price of the Series 2018 Bonds will be payable at the principal corporate trust office of Manufacturers and Traders Trust Company, Buffalo, New York, the Trustee and Paying Agent or, with respect to Redemption Price, at the option of a holder of at least \$1,000,000 in principal amount of Series 2018 Bonds, by wire transfer to the holders of such Series 2018 Bonds as more fully described herein.

The Series 2018 Bonds will be issued initially under a Book-Entry Only System, registered in the name of Cede & Co., as nominee for The Depository Trust Company ("DTC"). Individual purchases of beneficial interests in the Series 2018 Bonds will be made in book-entry form (without certificates). So long as DTC or its nominee is the registered owner of the Series 2018 Bonds, payments of the principal, purchase price and Redemption Price of and interest on the Series 2018 Bonds will be made directly to DTC or its nominee. Disbursement of such payments to DTC participants is the responsibility of DTC and disbursement to beneficial owners is the responsibility of DTC participants. See "PART 3 - THE SERIES 2018 BONDS - Book-Entry Only System" herein.

**Redemption and Purchase:** *The Series 2018 Bonds are subject to redemption and purchase in lieu of optional redemption prior to maturity as more fully described herein.*

**Tax Exemption:** In the opinion of Nixon Peabody LLP, Co-Bond Counsel, under existing law and assuming compliance with the tax covenants described herein, and the accuracy of certain representations and certifications made by DASNY and the University described herein, interest on the Series 2018 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"). Nixon Peabody LLP is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code. Nixon Peabody LLP and Drohan Lee LLP, as Co-Bond Counsel, are further of the opinion that, by virtue of the Act, interest on the Series 2018 Bonds is exempt from personal income taxes of the State of New York and its political subdivisions (including The City of New York and the City of Yonkers). See "PART 11 - TAX MATTERS" herein regarding certain other tax considerations.

The Series 2018 Bonds are offered when, as, and if issued and received by the Underwriters. The offer of the Series 2018 Bonds may be subject to prior sale, or withdrawn or modified at any time without notice. The offer is subject to the approval of legality by Nixon Peabody LLP, New York, New York, and Drohan Lee LLP, New York, New York, Co-Bond Counsel, and to certain other conditions. Certain legal matters will be passed upon for the University by its General Counsel and by Hawkins Delafield & Wood LLP, New York, New York. Certain legal matters will be passed upon for the Underwriters by their counsel, Katten Muchin Rosenman LLP, New York, New York. DASNY expects to deliver the Series 2018 Bonds in definitive form in New York, New York, on or about May 16, 2018.

**Goldman Sachs & Co. LLC****BofA Merrill Lynch  
J.P. Morgan****Drexel Hamilton, LLC  
Ramirez & Co., Inc.**

**\$325,185,000**  
**DORMITORY AUTHORITY OF THE STATE OF NEW YORK**  
**COLUMBIA UNIVERSITY REVENUE BONDS, SERIES 2018**

**\$150,000,000 SERIES 2018A**

**\$50,000,000 5% Term Bond Due October 1, 2028, Price 123.233% Yield 2.45% CUSIP Number<sup>1</sup> 64990C6N6**

**\$100,000,000 5% Term Bond Due October 1, 2048, Price 129.928% Yield 3.41% CUSIP Number<sup>1</sup> 64990C6P1**

**\$175,185,000 SERIES 2018B**

**\$175,185,000 5% Term Bond Due October 1, 2038, Price 117.167%<sup>2</sup> Yield 2.98%<sup>2</sup> CUSIP Number<sup>1</sup> 64990C6Q9**

<sup>1</sup> CUSIP data herein are provided by CUSIP Global Services, which is managed on behalf of American Bankers Association by Standard & Poor's Capital IQ, a division of McGraw Hill Financial, Inc. CUSIP numbers have been assigned by an independent company not affiliated with DASNY and are included solely for the convenience of the holders of the Series 2018 Bonds. DASNY is not responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2018 Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of the Series 2018 Bonds.

<sup>2</sup> Priced at the stated price and yield to the April 1, 2028 optional redemption date at a redemption price of 100% of the principal amount of the Series 2018 Bonds or portions thereof to be redeemed, plus accrued interest to the redemption date.

*No dealer, broker, salesperson or other person has been authorized by DASNY, the University or the Underwriters to give any information or to make any representations with respect to the Series 2018 Bonds, other than the information and representations contained in this Official Statement. If given or made, any such information or representations must not be relied upon as having been authorized by DASNY, the University or the Underwriters.*

*This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor may there be a sale of the Series 2018 Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.*

*Certain information in this Official Statement has been supplied by the University and other sources that DASNY believes are reliable. Neither DASNY nor the Underwriters guarantee the accuracy or completeness of such information, and such information is not to be construed as a representation of DASNY or of the Underwriters.*

*The University has reviewed the parts of this Official Statement describing the University, the 2018A Project, the Refunding Plan, the Estimated Sources and Uses of Funds and Appendix B. It is a condition to the sale of and the delivery of the Series 2018 Bonds that the University certify to the Underwriters and DASNY that, as of the date of this Official Statement and of delivery of the Series 2018 Bonds, such parts do not contain any untrue statements of a material fact and do not omit to state a material fact necessary in order to make the statements made therein, in the light of the circumstances under which the statements are made, not misleading. The University makes no representation as to the accuracy or completeness of any other information included in this Official Statement.*

*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 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.*

*The Trustee has no responsibility for the form and content of this Official Statement and has not independently verified, makes no representation regarding and does not accept any responsibility for the accuracy or completeness of this Official Statement or any information or disclosure contained herein or omitted herefrom.*

*References in this Official Statement to the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement do not purport to be complete. Refer to the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement for full and complete details of their provisions. Copies of the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement are on file with DASNY and the Trustee.*

*The order and placement of material in this Official Statement, including its appendices, are not to be deemed a determination of relevance, materiality or importance, and all material in this Official Statement, including its appendices, must be considered in its entirety.*

*Under no circumstances will the delivery of this Official Statement or any sale made after its delivery create any implication that the affairs of DASNY and the University have remained unchanged after the date of this Official Statement.*

IN CONNECTION WITH THE OFFERING OF THE SERIES 2018 BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICES OF THE SERIES 2018 BONDS AT LEVELS ABOVE THOSE WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE TERMS OF THE OFFERING INCLUDING THE MERITS AND RISKS INVOLVED. THESE SECURITIES HAVE NOT BEEN RECOMMENDED BY ANY FEDERAL OR STATE SECURITIES COMMISSION OR REGULATORY AUTHORITY. FURTHERMORE, THE FOREGOING AUTHORITIES HAVE NOT CONFIRMED THE ACCURACY OR DETERMINED THE ADEQUACY OF THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THIS OFFICIAL STATEMENT CONTAINS STATEMENTS WHICH, TO THE EXTENT THEY ARE NOT RECITATIONS OF HISTORICAL FACT, CONSTITUTE "FORWARD-LOOKING STATEMENTS." IN THIS RESPECT, THE WORDS "ESTIMATE," "PROJECT," "ANTICIPATE," "EXPECT," "INTEND," "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. A NUMBER OF IMPORTANT FACTORS AFFECTING THE UNIVERSITY'S FINANCIAL RESULTS COULD CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE STATED IN FORWARD-LOOKING STATEMENTS.

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**DORMITORY AUTHORITY - STATE OF NEW YORK**  
**GERRARD P. BUSHELL – PRESIDENT**

**515 BROADWAY, ALBANY, N.Y. 12207**  
**ALFONSO L. CARNEY, JR. – CHAIR**

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**OFFICIAL STATEMENT RELATING TO**  
**\$325,185,000**  
**DORMITORY AUTHORITY OF THE STATE OF NEW YORK**  
**COLUMBIA UNIVERSITY REVENUE BONDS, SERIES 2018**

Consisting of:

**\$150,000,000 Series 2018A**                      **\$175,185,000 Series 2018B**

**PART 1 - INTRODUCTION**

**Purpose of the Official Statement**

The purpose of this Official Statement, including the cover page and appendices, is to provide information about DASNY and the University, in connection with the offering by DASNY of \$150,000,000 principal amount of its Columbia University Revenue Bonds, Series 2018A (the “Series 2018A Bonds”), and \$175,185,000 principal amount of its Columbia University Revenue Bonds, Series 2018B (the “Series 2018B Bonds” and, together with the Series 2018A Bonds, the “Series 2018 Bonds”).

The following is a brief description of certain information concerning the Series 2018 Bonds, DASNY and the University. A more complete description of such information and additional information that may affect decisions to invest in the Series 2018 Bonds is contained throughout this Official Statement, which should be read in its entirety. Certain terms used in this Official Statement are defined in Appendix A hereto.

**Purpose of the Issue**

The Series 2018A Bonds are being issued to (i) finance or refinance the Costs of the 2018A Project and (ii) pay certain Costs of Issuance of the Series 2018A Bonds. The Series 2018B Bonds are being issued to (i) refund certain Outstanding Bonds of DASNY issued for the benefit of the University and (ii) pay certain Costs of Issuance of the Series 2018B Bonds. See “PART 5 - THE 2018A PROJECT,” “PART 6 - THE REFUNDING PLAN” and “PART 7 - ESTIMATED SOURCES AND USES OF FUNDS.”

**Authorization of Issuance**

The Series 2018 Bonds will be issued pursuant to the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Act. In addition to the issuance of the Series 2018 Bonds, the Resolution authorizes the issuance of additional Series of Bonds to pay costs of one or more projects, to pay the Costs of Issuance of such Series of Bonds and to refund all or a portion of Outstanding Bonds or other notes or bonds of DASNY issued for the benefit of the University. The Bonds permitted to be issued under the Resolution include Capital Appreciation Bonds, Deferred Income Bonds, Option Bonds and Variable Interest Rate Bonds. All Bonds issued under the Resolution rank on a parity with each other and are secured equally and ratably with each other.

**DASNY**

DASNY is a public benefit corporation of the State, created for the purpose of financing and constructing a variety of public-purpose facilities for certain educational, governmental and not-for-profit institutions. See “PART 8 - DASNY.”

## **The University**

The University is a private, non-sectarian, non-profit institution of higher education chartered by the State Legislature. The University has two campuses in New York City, its main campus in Morningside Heights and its Health Sciences campus in Washington Heights. See “PART 4 - THE UNIVERSITY” and “APPENDIX B - FINANCIAL STATEMENTS OF COLUMBIA UNIVERSITY AND REPORT OF INDEPENDENT AUDITORS.”

## **The Series 2018 Bonds**

The Series 2018 Bonds are dated their date of delivery and bear interest from such date (payable October 1, 2018 and on each April 1 and October 1 thereafter) at the rates and will mature at the times set forth on the inside cover page of this Official Statement. See “PART 3 - THE SERIES 2018 BONDS - Description of the Series 2018 Bonds.”

## **Payment of the Series 2018 Bonds**

The Series 2018 Bonds and all other Bonds issued under the Resolution are special obligations of DASNY payable solely from the Revenues which consist of certain payments to be made by the University under the Loan Agreement, which payments are pledged and assigned to the Trustee. The Loan Agreement is a general, unsecured obligation of the University. See “PART 2 - SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2018 BONDS - Payment of the Series 2018 Bonds.”

## **Security for the Series 2018 Bonds**

The Series 2018 Bonds are secured equally with all other Bonds which have been and may be issued under the Resolution by the pledge of the Revenues, the proceeds of the Bonds and, except as otherwise provided in the Resolution, all funds and accounts established by the Resolution and any Series Resolution other than the Arbitrage Rebate Fund and any fund established for the payment of the purchase price of Option Bonds tendered for purchase.

The Loan Agreement is a general, unsecured obligation of the University. No security interest in any revenues or assets of the University has been granted by the University to DASNY under the Loan Agreement. However, the University has granted security interests in certain revenues and assets of the University to secure certain of the University’s outstanding indebtedness other than the Bonds. In addition, the University may incur additional indebtedness or other obligations secured by a lien and pledge of revenues of the University without granting to DASNY any security interest in any revenues to secure the University’s obligations under the Loan Agreement. See “PART 2 - SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2018 BONDS - Security for the Series 2018 Bonds” and “- Issuance of Additional Bonds” and “PART 4 - THE UNIVERSITY - ANNUAL FINANCIAL STATEMENT INFORMATION - Outstanding Indebtedness; Existing Liens.”

The Series 2018 Bonds will not be a debt of the State nor will the State be liable thereon. DASNY has no taxing power. Neither the State nor DASNY has any responsibility to make payments with respect to the Series 2018 Bonds except for DASNY’s responsibility to make payments from money received from the University pursuant to the Loan Agreement and from amounts held in the funds and accounts under the Resolution and pledged therefor.

## **The 2018A Project**

A portion of the proceeds of the Series 2018A Bonds will be used to finance various construction and renovation projects throughout the University system. See “PART 5 - THE 2018A PROJECT” for a description of the most significant components of the 2018A Project.

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## **PART 2 - SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2018 BONDS**

*Set forth below is a narrative description of certain contractual provisions relating to the sources of payment of and security for the Series 2018 Bonds. These provisions have been summarized and this description does not purport to be complete. Reference should be made to the Act, the Loan Agreement, the Resolution, the Series 2018 Resolutions and the Series 2018 Bond Series Certificates. Copies of the Act, the Loan Agreement, the Resolution, the Series 2018 Resolutions and the Series 2018 Bond Series Certificates are on file with DASNY and the Trustee. See also "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AGREEMENT" and "APPENDIX D - SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION" for a more complete statement of the rights, duties and obligations of the parties thereto.*

### **Payment of the Series 2018 Bonds**

The Series 2018 Bonds and all other Bonds which have been and may be issued under the Resolution will be special obligations of DASNY. The principal, Sinking Fund Installments, if any, and Redemption Price of and interest on the Series 2018 Bonds and all other Bonds issued under the Resolution are payable solely from the Revenues, which consist of payments to be made by the University pursuant to the Loan Agreement on account of the principal, Sinking Fund Installments, if any, and Redemption Price of and interest on the Bonds. The Revenues and the right to receive them have been pledged to the Trustee for the benefit of the Bondholders.

The Loan Agreement is a general, unsecured obligation of the University. The Loan Agreement obligates the University to make payments to satisfy the principal, Sinking Fund Installments, if any, and Redemption Price of and interest on Outstanding Series 2018 Bonds. Payments made by the University in respect of the principal or interest on the Series 2018 Bonds are to be made on the fifth Business Day immediately preceding each date on which such principal or interest is payable, in each case in an amount equal to the principal or interest coming due on such date. The Loan Agreement also obligates the University to pay, at least five Business Days prior to a redemption date or purchase date of Bonds called for redemption or contracted to be purchased in lieu of redemption, the amount, if any, required to pay the purchase price or Redemption Price of such Bonds. See "PART 3 - THE SERIES 2018 BONDS - Redemption and Purchase in Lieu of Optional Redemption."

DASNY has directed the University, and the University has agreed, to make such payments directly to the Trustee. Such payments are to be applied by the Trustee to the payment of the principal and Redemption Price of and interest on the Series 2018 Bonds.

### **Security for the Series 2018 Bonds**

The Series 2018 Bonds are secured equally with all other Bonds which have been and may be issued under the Resolution by the pledge of the Revenues, the proceeds of the Bonds and, except as otherwise provided in the Resolution, all funds and accounts established by the Resolution and any Series Resolution other than the Arbitrage Rebate Fund and any fund established for the payment of the purchase price of Option Bonds tendered for purchase.

The Series 2018 Bonds will not be a debt of the State nor will the State be liable thereon. DASNY has no taxing power. Neither the State nor DASNY has any responsibility to make payments with respect to the Series 2018 Bonds except for DASNY's responsibility to make payments from money received from the University pursuant to the Loan Agreement and from amounts held in the funds and accounts under the Resolution and pledged therefor.

The Loan Agreement and the obligation of the University to make payments under the Loan Agreement are general, unsecured obligations of the University. The obligations of the University to make payments or cause the same to be made under the Loan Agreement are complete and unconditional and the amount, manner and time of making such payments are not to be decreased, abated, postponed or delayed for any cause or by reason of the happening or non-happening of any event, irrespective of any defense or any right of set-off, recoupment or counterclaim which the University may otherwise have against DASNY, the Trustee or any Bondholder for any cause whatsoever.

No security interest in any revenues or assets of the University has been granted by the University to secure its obligations under the Loan Agreement. However, the University has granted security interests in certain revenues and assets of the University to secure certain of the University's outstanding indebtedness other than the Bonds. See "PART 4 - THE UNIVERSITY - ANNUAL FINANCIAL STATEMENT INFORMATION - Outstanding Indebtedness; Existing Liens," for a description of such indebtedness of the University secured by certain pledged revenues. In addition, the University may incur certain additional indebtedness or other obligations secured by a lien and pledge of revenues of the University without granting to DASNY any security interest in any revenues to secure the University's obligations under the Loan Agreement. See "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AGREEMENT." In the event of a default under any debt instrument secured by such

pledged revenues, the holder or trustee under such debt instrument (including DASNY) will have the right to collect a portion or all of such pledged revenues, and apply the revenues so collected to the payment of amounts due under such debt instrument. Any revenues so collected and applied will not be available for satisfying any of the University's obligations under the Loan Agreement.

### **Events of Default and Acceleration**

The following are events of default under the Resolution: (i) a default in the payment of the principal, Sinking Fund Installment, if any, or Redemption Price of or interest on any Bond; (ii) DASNY defaults in the due and punctual performance of the tax covenants contained in the Resolution, and, as a result thereof, the interest on Bonds of a Series is no longer excludable from gross income under the Code; (iii) a default by DASNY in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Bonds or in the Resolution or any Series Resolution on the part of DASNY to be performed and the continuance of such default for 30 days after written notice specifying such default and requiring the same to be remedied has been given to DASNY by the Trustee, which may give such notice in its discretion and must give such notice at the written request of the Holders of not less than 25% in principal amount of the Outstanding Bonds; or (iv) an event of default under the Loan Agreement has been declared and is continuing and all sums payable by the University under the Loan Agreement have been declared immediately due and payable (unless such declaration has been annulled). Unless otherwise specified above, an event of default under the Loan Agreement is not an event of default under the Resolution.

The Resolution provides that if an event of default (other than as described in clause (ii) of the preceding paragraph) occurs and continues, the Trustee may, and upon the written request of Holders of not less than 25% in principal amount of the Bonds Outstanding is required, by notice in writing to DASNY to, declare the principal of and interest on all of the Bonds Outstanding to be due and payable at the expiration of 30 days after such notice is given. At the expiration of 30 days from the giving of such notice, such principal and interest will become immediately due and payable. The Trustee, with the written consent of the Holders of not less than 25% in principal amount of Bonds not yet due by their terms and then Outstanding, will annul such declaration and its consequences under the terms and conditions specified in the Resolution with respect to such annulment.

Notwithstanding any other provision of the Resolution to the contrary, upon DASNY's failure to comply with the covenant described in subclause (ii) of the first paragraph under this heading, upon the direction of the Holders of not less than 25% in principal amount of the Outstanding Bonds of the Series affected thereby, the Trustee is to exercise the rights and remedies provided to the Bondholders under the Resolution. However, the Resolution provides that in no event may the Trustee, whether or not it is acting at the direction of the Holders of 25% or more in principal amount of the Outstanding Bonds of the Series affected thereby, declare the principal of such Series of Bonds, and the interest accrued thereon, to be due and payable immediately as a result of DASNY's failure to comply with such covenant.

The Resolution provides that the Trustee is to give notice in accordance with the Resolution of each event of default known to the Trustee to the Holders of the Bonds within 30 days after knowledge of the occurrence thereof unless such default has been remedied or cured before the giving of such notice. However, except in the case of default in the payment of the principal, Sinking Fund Installment, if any, or Redemption Price of, or interest on, any of the Bonds, the Trustee is protected in withholding such notice thereof from the Holders if the Trustee in good faith determines that the withholding of such notice is in the best interests of the Holders of the Bonds.

### **Issuance of Additional Bonds**

In addition to the Bonds currently Outstanding under the Resolution and the Series 2018 Bonds, the Resolution authorizes the issuance of other Series of Bonds to finance one or more projects and for other specified purposes including to refund Outstanding Bonds or other notes or bonds of DASNY issued on behalf of the University. The Bonds which may be issued include Fixed Interest Rate Bonds, Capital Appreciation Bonds, Deferred Income Bonds, Option Bonds and Variable Interest Rate Bonds.

### **General**

The Series 2018 Bonds will not be a debt of the State nor will the State be liable thereon. DASNY has no taxing power. DASNY has never defaulted in the timely payment of principal or sinking fund installments of or interest on its bonds or notes. See "PART 8 - DASNY."



### **PART 3 - THE SERIES 2018 BONDS**

*Set forth below is a narrative description of certain provisions relating to the Series 2018 Bonds. These provisions have been summarized and this description does not purport to be complete. Reference should be made to the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement, copies of which are on file with DASNY and the Trustee. See also "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AGREEMENT" and "APPENDIX D - SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION" for a more complete description of certain provisions of the Series 2018 Bonds.*

#### **Description of the Series 2018 Bonds**

##### *General*

The Series 2018 Bonds will be issued pursuant to the Resolution. The Series 2018 Bonds will be registered in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York ("DTC"), pursuant to DTC's Book-Entry Only System. Purchases of beneficial interests in the Series 2018 Bonds will be made in book-entry form, without certificates. So long as DTC or its nominee, Cede & Co., is the registered owner of the Series 2018 Bonds, payments of the principal, purchase price and Redemption Price of and interest on the Series 2018 Bonds will be made by the Trustee directly to Cede & Co. Disbursement of such payments to the DTC Participants (as hereinafter defined) is the responsibility of DTC and disbursement of such payments to the Beneficial Owners of the Series 2018 Bonds is the responsibility of the DTC Participants and the Indirect Participants (as hereinafter defined). If at any time the Book-Entry Only System is discontinued for the Series 2018 Bonds, the Series 2018 Bonds will be exchangeable for fully registered Series 2018 Bonds in any authorized denominations of the same maturity without charge except the payment of any tax, fee or other governmental charge to be paid with respect to such exchange, subject to the conditions and restrictions set forth in the Resolution. See "- Book-Entry Only System" and "APPENDIX D - SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION."

The Series 2018 Bonds will be dated the date of their delivery and bear interest from such date (payable October 1, 2018 and on each April 1 and October 1 thereafter) at the rates set forth on the inside cover page of this Official Statement.

The Series 2018 Bonds will be issued as fully registered bonds in denominations of \$5,000 or any integral multiple thereof.

Interest on the Series 2018 Bonds will be payable in immediately available funds by check or draft mailed to the registered owners or, at the option of the registered owner of at least \$1,000,000 of Series 2018 Bonds, by wire transfer to the wire transfer address within the continental United States to which the registered owner has instructed the Trustee to make such payment at least five days prior to the interest payment date. If the Series 2018 Bonds are not registered in the name of DTC or its nominee, Cede & Co., the principal and Redemption Price of the Series 2018 Bonds will be payable in lawful money of the United States of America at the principal corporate trust office of Manufacturers and Traders Trust Company, Buffalo, New York, the Trustee and Paying Agent.

For a more complete description of the Series 2018 Bonds, see "APPENDIX D - SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION."

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## Redemption Provisions

The Series 2018 Bonds are subject to optional and special redemption as described below.

### *Optional Redemption*

The Series 2018B Bonds are subject to optional redemption prior to maturity at the election of DASNY in any order, in whole or in part on or after April 1, 2028, at a price of 100% of the principal amount of Series 2018B Bonds to be redeemed, or portions thereof to be redeemed, plus accrued interest to the redemption date.

The Series 2018A Bonds maturing on October 1, 2028 and October 1, 2048 (the “Make-Whole Call Bonds”) are subject to optional redemption prior to maturity at the election of DASNY in any order, as a whole or in part on any date, at a redemption price (the “Make-Whole Redemption Price”) equal to the greater of:

one hundred percent (100%) of the Amortized Value (as defined below) of the Make-Whole Call Bonds to be redeemed; and

an amount equal to the sum of the present values of the remaining unpaid payments of principal and interest to be paid on the Make-Whole Call Bonds to be redeemed from and including the date of redemption to the stated maturity date of such Make-Whole Call Bonds, discounted to the date of redemption on a semiannual basis at a discount rate equal to the Applicable Tax-Exempt Municipal Bond Rate (as described below) for such Make-Whole Call Bonds (i) with respect to the Make-Whole Call Bonds maturing on October 1, 2028, minus 25 basis points (-0.25%) and (ii) with respect to the Make-Whole Call Bonds maturing on October 1, 2048, minus 15 basis points (-0.15%),

plus, in each case, accrued interest to the date of redemption.

The “Applicable Tax-Exempt Municipal Bond Rate” for such Make-Whole Call Bonds will be the Comparable AAA General Obligations yield curve rate for the stated maturity date of such Make-Whole Call Bonds as published by Municipal Market Data five Business Days prior to the date of redemption. If no such yield curve rate is established for the applicable year, the Comparable AAA General Obligations yield curve rate for the two published maturities most closely corresponding to the applicable year will be determined, and the Applicable Tax-Exempt Municipal Bond Rate will be interpolated or extrapolated from those yield curve rates on a straight-line basis.

In calculating the Applicable Tax-Exempt Municipal Bond Rate, should Municipal Market Data no longer publish the Comparable AAA General Obligations yield curve rate, then the Applicable Tax-Exempt Municipal Bond Rate will equal the Consensus Scale yield curve rate for the applicable year (published by Municipal Market Advisors).

In the further event that Municipal Market Advisors no longer publishes the Consensus Scale, the Applicable Tax-Exempt Municipal Bond Rate will be determined by Goldman Sachs & Co. LLC or a successor determined by the University, as the quotation agent, based upon the rate per annum equal to the semiannual equivalent yield to maturity of those tax-exempt general obligation bonds rated in the highest rating category by Moody’s and S&P with a maturity date equal to the stated maturity date of such Make-Whole Call Bonds having characteristics (other than the ratings) most comparable to those of such Make-Whole Call Bonds in the judgment of the quotation agent. The quotation agent’s determination of the Applicable Tax-Exempt Municipal Bond Rate is final and binding in the absence of manifest error.

The “Amortized Value” will equal the principal amount of the Make-Whole Call Bonds to be redeemed multiplied by the price of such Make-Whole Call Bonds expressed as a percentage, calculated based on the industry standard method of calculating bond prices, with a delivery date equal to the date of redemption, a maturity date equal to the stated maturity date of such Make-Whole Call Bonds and a yield equal to such Make-Whole Call Bonds’ original offering yield as set forth on the cover of this Official Statement.

The Make-Whole Redemption Price will be determined by an independent accounting firm, investment banking firm or financial advisor (which accounting firm, investment banking firm or financial advisor shall be retained by the University at the expense of the University) in order to calculate such redemption price. Each of the Trustee, DASNY and the University may conclusively rely on such accounting firm’s, investment banking firm’s or financial advisor’s determination of such redemption price and will bear no liability for such reliance.

On or prior to the redemption date of Series 2018 Bonds called for redemption, DASNY, at its option may elect that, upon payment of the Redemption Price of the Series 2018 Bonds to have been redeemed, all or a portion of such Series 2018 Bonds may be considered as having been purchased in lieu of redemption, in which case such Series 2018 Bonds will remain outstanding. See “- Purchase in Lieu of Optional Redemption” for a discussion of purchases in lieu of optional redemption.

### *Special Redemption*

The Series 2018 Bonds are also subject to redemption, in whole or in part, at a price of 100% of the principal amount of Series 2018 Bonds to be redeemed, plus accrued interest to the redemption date, at the option of DASNY on any interest payment date, from proceeds of a condemnation or insurance award, which proceeds are not used to repair, restore or replace the portion of the 2018A Project, or any other Project financed or refinanced by the Refunded Bonds, to which such proceeds relate, and from unexpended proceeds of the Series 2018A Bonds upon an abandonment of all or a portion of the 2018A Project, or any other Project financed or refinanced by the Refunded Bonds, to which such proceeds relate due to a legal or regulatory impediment.

### *Selection of Bonds to be Redeemed*

In the case of redemptions of Series 2018 Bonds described above under the headings “Optional Redemption” or “Special Redemption,” DASNY will select the maturities of the Series 2018 Bonds to be redeemed. If less than all of the Series 2018 Bonds of a maturity are to be redeemed, then the Series 2018 Bonds of such maturity to be redeemed will be selected by the Trustee, by lot, using such method of selection as the Trustee shall consider proper in its discretion.

### *Notice of Redemption; Conditional Notices*

The Trustee is to give notice of the redemption of the Series 2018 Bonds in the name of DASNY, which notice is to be given by first-class mail, postage prepaid, not less than 30 days nor more than 60 days prior to the redemption date to the registered owners of any Series 2018 Bonds that are to be redeemed, at their last known addresses appearing on the registration books. The failure of any owner of a Series 2018 Bond to be redeemed to receive notice of redemption thereof will not affect the validity of the proceedings for the redemption of such Series 2018 Bond. If directed in writing by an Authorized Officer of DASNY, the Trustee shall publish or cause to be published such notice in an Authorized Newspaper not less than 30 days nor more than 60 days prior to the redemption date, but such publication is not a condition precedent to such redemption and failure to publish such notice or any defect in such notice or publication will not affect the validity of the proceedings for the redemption of such Series 2018 Bonds.

If, on the redemption date, money for the redemption of the Series 2018 Bonds of like maturity to be redeemed, together with interest thereon to the redemption date, is held by the Trustee so as to be available for payment of the Redemption Price, and if notice of redemption has been mailed, then interest on the Series 2018 Bonds of such maturity will cease to accrue from and after the redemption date and such Series 2018 Bonds will no longer be considered to be Outstanding under the Resolution and the Series 2018 Resolution.

DASNY’s obligation to redeem the Series 2018 Bonds at its option or through Special Redemption may be conditioned upon the availability on the redemption date of sufficient money to pay the Redemption Price, including accrued interest to the redemption date, of the Series 2018 Bonds to be redeemed.

### **Purchase in Lieu of Optional Redemption**

The Series 2018 Bonds shall be subject to purchase in lieu of their optional redemption as provided below.

### *Purchase Dates and Price*

The Series 2018B Bonds are subject to purchase prior to maturity at the election of the University, with the written consent of DASNY, in whole or in part at any time on or after April 1, 2028, at the purchase price of 100% of the principal amount of Series 2018 Bonds to be purchased, plus accrued interest, if any, to the date of purchase.

The Make-Whole Call Bonds are subject to purchase prior to maturity at the election of the University, with the written consent of DASNY, in any order, as a whole or in part on any date, at a purchase price equal to the applicable Make-Whole Redemption Price. See “- Redemption Provisions - Optional Redemption” for a description of the determination of the Make-Whole Redemption Price.

### *Notice of Purchase; Conditional Notices*

If the University elects to purchase Series 2018 Bonds, the University will give written notice to DASNY and the Trustee of such election, which notice shall set forth the maturity dates and the principal amounts of the Series 2018 Bonds to be purchased. The Trustee will cause notice of the purchase of Series 2018 Bonds to be given by mailing a copy of such notice by first-class mail, postage prepaid, not less than 30 days nor more than 60 days prior to the purchase date set forth in such notice. Each notice of purchase of Series 2018 Bonds is to state (i) the conditions, if any, to such purchase, (ii) such other conditions as the University shall prescribe, (iii) the Series 2018 Bonds to be purchased, (iv) the purchase date or dates and (v) that the Series 2018 Bonds to be purchased are to be delivered to

the Trustee on the purchase date and that Series 2018 Bonds to be purchased not so delivered will be deemed duly tendered to the Trustee for purchase on the purchase date.

The University's obligation to purchase the Series 2018 Bonds may be subject to the condition that on the purchase date sufficient money is available for payment of the applicable purchase price, including accrued interest to the purchase date, of the Series 2018 Bonds to be purchased.

#### *Effect of Notice*

If notice of purchase has been given in the manner required by the applicable Series 2018 Bond Series Certificate, then the Series 2018 Bonds to be purchased shall be tendered for purchase on the purchase date and, thereafter, if sufficient money to pay the applicable purchase price of such Series 2018 Bonds is held by the Trustee, the applicable purchase price of the Series 2018 Bonds or portions thereof so called for purchase will become due and payable on the date set for purchase, upon presentation and surrender of such Series 2018 Bonds to be purchased at the office or offices specified in such notice, and, in the case of Series 2018 Bonds presented by other than the registered owner, together with a written instrument of transfer duly executed by the registered owner or his duly authorized attorney. If such money is not available on the purchase date, such Series 2018 Bonds will continue to be registered in the name of the registered owner on the purchase date and the registered owners will be entitled to receive the payments of the principal of and interest on such Series 2018 Bonds in accordance with their respective terms.

#### *Selection of Bonds to be Purchased*

If less than all of the Outstanding Series 2018 Bonds of like maturity are to be purchased, then the Trustee is to select the Series 2018 Bonds to be purchased, by lot, using such method of selection as it deems proper in its discretion in the same manner as prescribed in the Resolution for the selection of Series 2018 Bonds for redemption.

#### **Book-Entry Only System**

The Depository Trust Company ("DTC"), New York, New York, will act as securities depository for the Series 2018 Bonds. The Series 2018 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee), or such other name as may be requested by an authorized representative of DTC. One fully-registered Series 2018 Bond certificate will be issued for each maturity of the Series 2018 Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

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

Purchases of Series 2018 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2018 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2018 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, however, are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2018 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2018 Bonds, except in the event that use of the book-entry system for the Series 2018 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2018 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 Series 2018 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2018 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2018 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the Bonds within a maturity of the Series 2018 Bonds are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 2018 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to DASNY as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2018 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and redemption premium, if any, of and interest payments on the Series 2018 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 DASNY or the Trustee on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Underwriters, the Trustee or DASNY, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, redemption premium, if any, and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of DASNY 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 Direct and Indirect Participants.

DASNY and the Trustee may treat DTC (or its nominee) as the sole and exclusive registered owner of the Series 2018 Bonds registered in its name for the purposes of payment of the principal and redemption premium, if any, of or interest on the Series 2018 Bonds, giving any notice permitted or required to be given to registered owners under the Resolution, registering the transfer of the Series 2018 Bonds or other action to be taken by registered owners and for all other purposes whatsoever. DASNY, the University, the Trustee and the Underwriters have no responsibility or obligation to any Direct or Indirect Participant, any person claiming a beneficial ownership interest in the Series 2018 Bonds under or through DTC or any Direct or Indirect Participant, or any other person that is not shown on the registration books of DASNY (kept by the Trustee) as being a registered owner, with respect to the accuracy of any records maintained by DTC or any Direct or Indirect Participant, the payment by DTC or any Direct or Indirect Participant of any amount in respect of the principal, redemption premium, if any, or interest on the Series 2018 Bonds, any notice that is permitted or required to be given to registered owners thereunder or under the conditions to transfers or exchanges adopted by DASNY or other action taken by DTC as registered owner. Interest, redemption premium, if any, and principal will be paid by the Trustee to DTC, or its nominee. Disbursement of such payments to the Direct or Indirect Participants is the responsibility of DTC and disbursement of such payments to the Beneficial Owners is the responsibility of the Direct or Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 2018 Bonds at any time by giving reasonable notice to DASNY and the Trustee. Under such circumstances, in the event that a successor depository is not obtained, the Series 2018 Bond certificates are required to be printed and delivered.

DASNY may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, the Series 2018 Bond certificates will be printed and delivered to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that DASNY believes to be reliable, but DASNY takes no responsibility for the accuracy thereof.

Each person for whom a Direct or Indirect Participant acquires an interest in the Series 2018 Bonds, as nominee, may desire to make arrangements with such Direct or Indirect Participant to receive a credit balance in the records of such Direct or Indirect Participant, and may desire to make arrangements with such Direct or Indirect Participant to have all notices of redemption or other communications of DTC, which may affect such persons, to be forwarded in writing by such Direct or Indirect Participant and to have notification made of all interest payments. NONE OF DASNY, THE TRUSTEE OR THE UNDERWRITERS WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO SUCH DIRECT OR INDIRECT PARTICIPANTS OR THE PERSONS FOR WHOM THEY ACT AS NOMINEES WITH RESPECT TO THE SERIES 2018 BONDS.

So long as Cede & Co. is the registered owner of the Series 2018 Bonds, as nominee for DTC, references herein to the Bondholders or registered owners of the Series 2018 Bonds (other than under the caption "PART 11 - TAX MATTERS" herein) means Cede & Co., as aforesaid, and does not mean the Beneficial Owners of the Series 2018 Bonds.

When reference is made to any action which is required or permitted to be taken by the Beneficial Owners, such reference only relates to those permitted to act (by statute, regulation or otherwise) on behalf of such Beneficial Owners for such purposes. When notices are given, they will be sent by the Trustee to DTC only.

For every transfer and exchange of Series 2018 Bonds, the Beneficial Owner may be charged a sum sufficient to cover any tax, fee or other governmental charge that may be imposed in relation thereto.

DASNY, in its sole discretion and without the consent of any other person, may terminate the services of DTC with respect to the Series 2018 Bonds if DASNY determines that (i) DTC is unable to discharge its responsibilities with respect to the Series 2018 Bonds or (ii) a continuation of the requirement that all of the Outstanding Series 2018 Bonds be registered in the registration books kept by the Trustee in the name of Cede & Co., as nominee of DTC, is not in the best interests of the Beneficial Owners. In the event that no substitute securities depository is found by DASNY or restricted registration is no longer in effect, Series 2018 Bond certificates will be delivered as described in the Resolution.

NONE OF DASNY, THE UNIVERSITY, THE UNDERWRITERS NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT PARTICIPANTS, TO INDIRECT PARTICIPANTS, OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DIRECT PARTICIPANT OR ANY INDIRECT PARTICIPANT, (II) ANY NOTICE THAT IS PERMITTED OR REQUIRED TO BE GIVEN TO THE OWNERS OF THE SERIES 2018 BONDS UNDER THE RESOLUTION, (III) THE SELECTION BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY PERSON TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE SERIES 2018 BONDS, (IV) THE PAYMENT BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE PRINCIPAL OR REDEMPTION PREMIUM, IF ANY, OR INTEREST DUE WITH RESPECT TO THE SERIES 2018 BONDS, (V) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF THE SERIES 2018 BONDS OR (VI) ANY OTHER MATTER.

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## Principal and Interest Requirements

The following table sets forth the amounts, after giving effect to the issuance of the Series 2018A Bonds and the Series 2018B Bonds, required to be paid by the University during each 12-month period ending June 30 of the Bond Years shown for the payment of the principal of and interest on the Series 2018 Bonds, debt service on other outstanding indebtedness of the University and the total debt service on all indebtedness of the University, including the Series 2018A Bonds and the Series 2018B Bonds. See “PART 4 - THE UNIVERSITY - ANNUAL FINANCIAL STATEMENT INFORMATION - Outstanding Indebtedness; Existing Liens.”

| 12-Month<br>Period<br>Ending<br>June 30, | Series 2018A Bonds    |                      |              | Series 2018B Bonds    |                      |              | Debt Service<br>on Other<br>Outstanding<br>Indebtedness <sup>(1)</sup> | Total<br>Debt<br>Service <sup>(1)</sup> |
|--|-----------------------|----------------------|--------------|-----------------------|----------------------|--------------|--|---|
|  | Principal<br>Payments | Interest<br>Payments | Total        | Principal<br>Payments | Interest<br>Payments | Total        |  |   |
| 2019                                     | -                     | \$ 6,562,500         | \$ 6,562,500 | -                     | \$ 7,664,344         | \$ 7,664,344 | \$ 129,355,883   | \$ 143,582,727                          |
| 2020                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 129,305,587  | 145,564,837                             |
| 2021                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 135,292,425  | 151,551,675                             |
| 2022                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 136,427,293  | 152,686,543                             |
| 2023                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 135,775,142  | 152,034,392                             |
| 2024                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 79,289,037   | 95,548,287                              |
| 2025                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 90,020,724   | 106,279,974                             |
| 2026                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 119,039,607  | 135,298,857                             |
| 2027                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 128,048,236  | 144,307,486                             |
| 2028                                     | -                     | 7,500,000            | 7,500,000    | -                     | 8,759,250            | 8,759,250    | 92,943,833   | 109,203,083                             |
| 2029                                     | \$ 50,000,000         | 6,250,000            | 56,250,000   | -                     | 8,759,250            | 8,759,250    | 55,742,745   | 120,751,995                             |
| 2030                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 63,349,495   | 77,108,745                              |
| 2031                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 48,492,120   | 62,251,370                              |
| 2032                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 48,489,871   | 62,249,121                              |
| 2033                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,680,620   | 49,439,870                              |
| 2034                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,680,620   | 49,439,870                              |
| 2035                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,680,620   | 49,439,870                              |
| 2036                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,692,746   | 49,451,996                              |
| 2037                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,680,620   | 49,439,870                              |
| 2038                                     | -                     | 5,000,000            | 5,000,000    | -                     | 8,759,250            | 8,759,250    | 35,680,620   | 49,439,870                              |
| 2039                                     | -                     | 5,000,000            | 5,000,000    | \$ 175,185,000        | 4,379,625            | 179,564,625  | 35,680,620   | 220,245,245                             |
| 2040                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 149,006,342  | 154,006,342                             |
| 2041                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 31,254,510   | 36,254,510                              |
| 2042                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 239,449,005  | 244,449,005                             |
| 2043                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 118,690,000  | 123,690,000                             |
| 2044                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 16,776,500   | 21,776,500                              |
| 2045                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 16,776,500   | 21,776,500                              |
| 2046                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 142,813,250  | 147,813,250                             |
| 2047                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 113,875,000  | 118,875,000                             |
| 2048                                     | -                     | 5,000,000            | 5,000,000    | -                     | -                    | -            | 128,125,000  | 133,125,000                             |
| 2049                                     | 100,000,000           | 2,500,000            | 102,500,000  | -                     | -                    | -            | -  | 102,500,000                             |

(1) Interest on tax-exempt short-term and variable rate bonds is assumed to accrue at the current rate under the University’s swap agreement. Figures do not include DASNY’s Columbia University Revenue Bonds, Series 2008A, which are expected to be refunded with a portion of the proceeds of the Series 2018B Bonds, and the University’s obligations to the New York State Empire State Development Corporation maturing in 2020 and the New York City Economic Development Corporation maturing in 2020, as described in “PART 4 - THE UNIVERSITY - ANNUAL FINANCIAL STATEMENT INFORMATION - Outstanding Indebtedness; Existing Liens.”

## **PART 4 - THE UNIVERSITY**

### **GENERAL INFORMATION**

#### **Introduction**

The University is a privately endowed, nonsectarian, non-profit institution of higher education. Known originally as King's College, the University was founded under a charter which was granted in 1754 by King George II and ratified, amended and confirmed in 1787 by the New York State Legislature.

Today, the University is one of the largest private institutions of higher education in the United States, with a full-time faculty of approximately 4,114 and a student body of approximately 26,444 full-time and 5,985 part-time students. Instruction and research are carried out in 16 component schools located at two primary sites in New York City (the "City") and several additional sites outside the City. The University is formally affiliated with several neighboring institutions, including Barnard College, Teachers College and Union Theological Seminary.

The University offers degree and certificate programs through 16 faculties and schools, consisting of Columbia College, its original school, the School of General Studies (a liberal arts college for non-traditional students), and 14 professional or specialized divisions. The University offers bachelor's degrees in 93 subject areas, master's degrees in 34 subject areas, doctoral degrees in 91 academic fields and 74 certificate programs.

The University's professional and specialized divisions include the schools of Columbia University Herbert and Florence Irving Medical Center (CUIMC), the School of Law founded in 1858, the Fu Foundation School of Engineering and Applied Science founded in 1864, the Graduate School of Arts and Sciences founded in 1820 and the Graduate School of Business founded in 1916. CUIMC comprises the Columbia University Roy and Diana Vagelos College of Physicians and Surgeons founded in 1767 (the second oldest medical school in the country and the first to grant an M.D. degree), the School of Nursing founded in 1892, Mailman School of Public Health founded in 1922 and the College of Dental Medicine founded in 1916. CUIMC's major affiliates are New York-Presbyterian Hospital (Columbia-Presbyterian campus) and the New York State Psychiatric Institute, maintained by the New York State Department of Mental Hygiene, both of which share the CUIMC campus.

The University is a member of numerous professional associations, including the Association of American Universities, and is accredited by the Middle States Commission on Higher Education. In addition, ten of its professional schools hold separate accreditation from their respective professional associations.

#### **University Properties**

The main campus of the University, located in Morningside Heights (in the Borough of Manhattan), contains 88 buildings with approximately 7.2 million gross square feet of floor area. Its central core on 35.5 acres is bounded by 120th Street on the north, Amsterdam Avenue on the east, 114th Street on the south and Broadway on the west, with an eastern annex bounded by 118th Street on the north, Morningside Drive on the east, and 116th Street on the south.

The Medical Center campus, with approximately 5 million gross square feet, is the other primary campus of the University and is located in Washington Heights (in the Borough of Manhattan). The University also maintains approximately 8 million gross square feet of off-campus housing and commercial space near these two campuses. Other facilities, including research, academic, administration and athletic/recreation facilities, are located in the greater New York area and in Paris, France. These include:

- Lamont-Doherty Earth Observatory, which occupies 26 major buildings in the academic plant on approximately 155 acres in Rockland County, New York and provides research facilities in the earth sciences;
- Baker Field, the main outdoor athletic and recreation area for the University, which occupies nearly 26 acres at Broadway and 218th Street in New York City;
- Nevis Laboratories, a high-energy physics research facility located on 68 acres in Westchester County, New York; and
- Reid Hall, a three-building academic facility in Paris, France.

The University is continuing the construction of its Manhattanville campus, just north of the Morningside Heights main campus, which consists primarily of the four large blocks from 125th to 133rd Streets, between Broadway and Twelfth Avenue, as well as several properties on the east side of Broadway from 131st to 134th Streets. The comprehensive plan for this site moves away from past ad-hoc growth of University buildings and is expected to



provide, over the next quarter-century, more than 6.8 million square feet of space for teaching, research, and housing for University affiliates. It will also provide pedestrian-friendly streets and new publicly accessible open spaces, to connect West Harlem to the new Hudson River waterfront park. The University commenced site preparation and construction activity in 2010. The site's first two buildings, the Jerome L. Greene Science Center, home of the Mortimer B. Zuckerman Mind Brain Behavior Institute, and the Lenfest Center for the Arts, were placed in service during 2016 and 2017, respectively. Construction is also underway on the University Forum building, which is expected to be placed in service during 2018, and below grade work for the Columbia Business School buildings has also commenced.

## Governance

The University is governed by a 24-member Board of Trustees. Responsibilities of the Trustees include selecting the President and approving faculty and senior administrative appointments, as well as monitoring the University's budget, controls and financial reporting and oversight of matters relating to the endowment and University property.

The Committee on Trusteeship is responsible for nominating candidates to fill the Trustee positions, six of whom are nominated after consultation with the Executive Committee of the University Senate and six of whom are nominated in a process coordinated with an alumni nominating committee. Each Trustee serves a six-year term and is eligible for re-election to a second six-year term.

The current members of the Board of Trustees, and their current board positions, are listed below. The University announced on April 19, 2018 that Lisa Carnoy and Jonathan Lavine have been elected to serve as co-chairs of the Board of Trustees, succeeding Chair Jonathan Schiller, beginning in September 2018.

**Jonathan D. Schiller**, *Chair*  
Co-Founder, Managing Partner  
Boies, Schiller & Flexner LLP

**A'Lelia Bundles**, *Vice Chair*  
Journalist and Author  
Chair and President of the Board  
Foundation for the National  
Archives

**Lisa Carnoy**, *Vice Chair*  
Finance Executive, Board Member

**Noam Gottesman**, *Vice Chair*  
CEO  
TOMS Capital LLC  
Co-Founder, Co-Chairman  
Nomad Foods Limited

**Jonathan Lavine**, *Vice Chair*  
Co-Managing Partner  
Bain Capital  
Managing Partner, Chief  
Investment Officer  
Bain Capital Credit

**Claire Shipman**, *Vice Chair*  
Journalist and Author

**Rolando Acosta**  
Presiding Justice, Appellate  
Division, First Department  
NY State Supreme Court

**Armen A. Avanesians**<sup>1</sup>  
Managing Director, Goldman Sachs & Co.  
LLC, Global Head  
Quantitative Investment Group  
Goldman Sachs Asset Management

**Andrew F. Barth**  
Retired Chairman  
Capital Guardian Trust Company

**Lee C. Bollinger**  
President  
Columbia University

**Abigail Black Elbaum**  
Co-Founder and Principal  
Ogden CAP Properties

**Kenneth A. Forde**  
Retired Physician  
Columbia University Medical Center

**Mark T. Gallogly**  
Co-Founder, Managing Principal  
Centerbridge Partners

**Joseph A. Greenaway, Jr.**  
Judge  
U.S. Court of Appeals for the Third Circuit

**James T. Harden**  
Senior Vice President,  
Strategic Partnerships  
Memorial Sloan-Kettering Cancer Center

**Wanda M. Holland Green**  
Head of School  
The Hamlin School

**Marc Holliday**  
Chief Executive Officer  
SL Green Realty Corp

**Benjamin Horowitz**  
Co-founder, General Partner  
Andreesen Horowitz

**Charles Li**  
Chief Executive  
Hong Kong Exchanges and  
Clearing Limited

**Lu Li**  
Founder and Chairman  
Himalaya Capital

**Paul J. Maddon**  
Founder  
Progenics Pharmaceuticals, Inc.

**Alexander Navab**  
Founder and Owner Navab  
Holdings

**Kyriakos Tsakopoulos**  
President and CEO  
AKT Development Corp.  
AKT Investments Inc.

<sup>1</sup> Goldman Sachs & Co. LLC, one of the Underwriters of the Series 2018 Bonds, as well as Goldman Sachs Asset Management, are wholly owned subsidiaries of the Goldman Sachs Group, Inc.

## Administration

The President of the University is appointed by the University's Board of Trustees and, as chief executive officer, is principally responsible for administration of the University. All other principal executive officers of the University are nominated by the President and appointed by the Trustees. The principal executive officers of the University are listed below:

| <u>Name</u>           | <u>Position</u>   |
|-----------------------|---|
| • Lee C. Bollinger    | • President   |
| • John H. Coatsworth  | • Provost   |
| • Gerald M. Rosberg   | • Senior Executive Vice President   |
| • Jane E. Booth       | • General Counsel   |
| • Jerome Davis        | • Secretary of the University   |
| • Amelia Alverson     | • Executive Vice President for Development and Alumni Relations   |
| • Suzanne B. Goldberg | • Executive Vice President for University Life  |
| • Lee Goldman         | • Executive Vice President for Health and Biomedical Sciences/ Dean of the Faculties of Health Sciences and of Medicine |
| • David Greenberg     | • Executive Vice President for University Facilities and Operations   |
| • Michael Purdy       | • Executive Vice President for Research   |
| • David M. Stone      | • Executive Vice President for Communications   |
| • Anne R. Sullivan    | • Executive Vice President for Finance and Information Technology/Chief Financial Officer                               |

**Lee C. Bollinger, President.** President Bollinger became the nineteenth President of Columbia University in 2002, after serving as President of the University of Michigan. President Bollinger is Columbia's first Seth Low Professor of the University and a member of the Columbia Law School faculty. As one of the country's leading First Amendment scholars, he has taught and written on freedom of speech and press for over thirty years. Among his many academic and professional associations, President Bollinger is a fellow of both the American Academy of Arts and Sciences and the American Philosophical Society. In recognition of his pivotal role in the twin 2003 Supreme Court case decisions which clarified and upheld affirmative action in higher education, President Bollinger received the National Humanitarian Award, the NAACP's National Equal Justice Award and the Clark Kerr Award – the highest honor conferred by the faculty of the University of California, Berkeley. Additionally, he has received numerous honorary degrees from universities in the U.S. and abroad. President Bollinger's current contract extends through June 2022.

**John H. Coatsworth, Provost.** Dr. Coatsworth is the Provost of Columbia University, as well as Professor of International and Public Affairs and of History. A leading scholar of Latin American economic and international history, Dr. Coatsworth was Dean of the School of International and Public Affairs prior to becoming Provost. Before joining Columbia, Dr. Coatsworth served as the Monroe Gutman Professor of Latin American Affairs at Harvard University and the founding director of Harvard's David Rockefeller Center for Latin American Studies. Prior to his work at Harvard, he was a member of the faculty at the University of Chicago and has held academic posts at several international universities. Dr. Coatsworth is a member of the American Academy of the Arts and Sciences, the Council on Foreign Relations, the Board of Directors of the Tinker Foundation and numerous professional associations. He is also the former president of the American Historical Association and Latin American Studies Association and has served on the editorial boards of scholarly journals. In 1986, Dr. Coatsworth was awarded the John Simon Guggenheim Foundation Fellowship. He has served as Senior Fulbright Lecturer three times and has received numerous research and institutional grants from public agencies and private foundations. Dr. Coatsworth received his B.A. in History from Wesleyan University, and his M.A. and Ph.D. in Economic History from the University of Wisconsin-Madison.

**Gerald M. Rosberg, Senior Executive Vice President of the University.** Mr. Rosberg joined the University as Senior Executive Vice President in July 2016. He works with the President and the University's senior leadership on long-term planning, human resources and other strategic issues, with a particular focus on coordination across

departments. Mr. Rosberg served for 20 years as a senior executive of the Washington Post Company (now Graham Holdings). Before that he was a lawyer in private practice and a professor of law at the University of Michigan Law School.

**Jane E. Booth, General Counsel.** Ms. Booth joined the Office of General Counsel in 2002, and assumed the position of General Counsel in March, 2009. Prior to coming to Columbia, she was Chief of the Civil Division at the United States Attorney's Office. Her previous experience also includes heading the Civil Appeals & Law Reform unit of The Legal Aid Society and litigating complex securities and financial matters for Shearson Lehman. Ms. Booth began her career as a law clerk to U.S. District Court Judge Leonard B. Sand. She earned her B.A. from Fordham University, her M.A. from the University of Toronto and her J.D. from Columbia Law School.

**Jerome Davis, Secretary of the University.** Mr. Davis has served as Secretary of the University since June 2007. Prior to that, he served as Interim Secretary and as Special Assistant to University President Lee C. Bollinger. Before joining Columbia in September 2002, Mr. Davis held several senior level positions in the private sector including Chairman and CEO of Noxtech, President and CEO of Cummins Power Generation, Inc., and Vice President of Chemical Bank. Mr. Davis is a member of the Council on Foreign Relations, the Board of Control of the Eugene Higgins Charitable Trust, and is a former Trustee of Princeton University where he earned his A.B. Mr. Davis also holds an M.A. in Economics from Oxford University and a J.D. from Yale Law School.

**Amelia Alverson, Executive Vice President for University Development and Alumni Relations.** Ms. Alverson is Executive Vice President for University Development and Alumni Relations, leading Columbia's fundraising efforts and outreach to alumni worldwide. Prior to 2014, she served as Senior Vice President for Development at Columbia University Medical Center. Before joining Columbia in 2009, Ms. Alverson was Vice President for Development at Stanford Hospital & Clinics. She has more than 25 years of development experience in academic medicine, including leadership roles at Stanford Medical Center, the Feinberg School of Medicine at Northwestern University and the University of Illinois.

**Suzanne B. Goldberg, Executive Vice President for University Life.** Professor Goldberg, the Herbert and Doris Wechsler Clinical Professor of Law, was appointed to the new position of Executive Vice President for University Life in January 2015. Professor Goldberg is also director of Columbia Law School's Center for Gender and Sexuality Law. Professor Goldberg is a nationally recognized expert on gender and sexuality law and a leading advocate for the rights of LGBT individuals. Professor Goldberg completed her J.D. at Harvard Law School after receiving a B.A. from Brown University.

**Lee Goldman, Executive Vice President for Health and Biomedical Sciences.** Dr. Goldman is the Harold and Margaret Hatch Professor and Executive Vice President for Health and Biomedical Sciences at Columbia University, where he also serves as Dean of the Faculties of Health Sciences and Medicine. He received his BA, MD, and MPH degrees from Yale University. After training in medicine (University of California, San Francisco; Massachusetts General Hospital) and cardiology (Yale), he spent 17 years in Boston where he served as Professor of Medicine at Harvard Medical School, Professor of Epidemiology at Harvard School of Public Health, and Vice Chair of the Department of Medicine and later Chief Medical Officer at the Brigham and Women's Hospital. He then moved to the University of California, San Francisco, where he was the Julius R. Krevans Distinguished Professor and Chair of the Department of Medicine and Associate Dean for Clinical Affairs of the School of Medicine. Dr. Goldman's research has focused on the effectiveness and costs of diagnostic and therapeutic strategies.

**David Greenberg, Executive Vice President for University Facilities and Operations.** Mr. Greenberg is the Executive Vice President for University Facilities and Operations, responsible for new building design and construction, public safety, campus services for students, building and grounds maintenance, oversight of Manhattanville construction and the University's residential portfolio. Prior to joining Facilities and Operations, Mr. Greenberg served as the first Executive Director of Columbia's Zuckerman Institute, where he continues to provide strategic and operational oversight. Mr. Greenberg has worked at the University since 2006 and holds a bachelor's degree from the University of Rochester; a master's of public administration from Syracuse University; and a master's of Construction Administration from Columbia.

**Michael Purdy, Executive Vice President for Research.** Dr. Purdy joined Columbia in 2000 as Director of Lamont-Doherty Earth Observatory and assumed the role of Executive Vice President for Research on February 1, 2011. After receiving his Ph.D. from the University of Cambridge in Marine Geophysics, he joined the Woods Hole Oceanographic Institute (WHOI) in Massachusetts where he built a successful research group specializing in observational ocean bottom seismology. In 1991, Dr. Purdy became Chairman of the Department of Geology and Geophysics at WHOI and gained experience in both national and international marine science planning and

administration. He also served as Director of the Division of Ocean Sciences at the National Science Foundation where he established a new multi-disciplinary research program and built several valuable interagency collaborations. Dr. Purdy is author or co-author of over 60 research articles in peer reviewed journals, over 20 other reports and articles, and over 100 published conference abstracts.

***David M. Stone, Executive Vice President for Communications.*** Mr. Stone was appointed Executive Vice President for Communications in March 2006. Over the past two decades, Mr. Stone served in state and federal government, worked as a writer, public affairs television producer and communications consultant for a variety of media, education, government and mission-driven organizations. Mr. Stone was an advisor to Princeton University's Policy Research Institute and a consultant on strategic communications and community outreach for the University of Pennsylvania, including the University's civic partnerships in West Philadelphia. Previously, he served as deputy chief of staff and communications director for Pennsylvania Governor Robert P. Casey and United States Senator Harris Woffard. A native New Yorker, Mr. Stone graduated from Princeton University and Harvard Law School.

***Anne R. Sullivan, Executive Vice President for Finance and Information Technology.*** Ms. Sullivan was appointed Executive Vice President for Finance in October 2007. Her role was expanded to include responsibility for information technology and her title changed to Executive Vice President for Finance and Information Technology in July 2015. Before joining Columbia, she served as Senior Associate Dean at the Wharton School at the University of Pennsylvania. Prior to that, Ms. Sullivan served at Columbia University as Assistant Vice President of Administrative Planning and Financial Management. Her previous experience includes a management role in a start-up venture funded by Columbia University and positions in Booz Allen Hamilton's insurance and healthcare practice and Kidder, Peabody, Inc.'s investment banking division. She received her B.A. from the University of Virginia, her MBA from Harvard Business School and a Masters in Public Policy from Harvard's John F. Kennedy School of Government.

## **Hospital Affiliations**

Columbia University Herbert and Florence Irving Medical Center (CUIMC), a division of the University, is one of the largest academic medical centers in the United States. It maintains several clinical and education affiliation agreements with other organizations. The most significant affiliation agreements are with New York-Presbyterian Hospital (NYP), Lawrence Hospital and Harlem Hospital.

Through its affiliation with NYP, dating back to 1921, the University is part of the largest academic medical center in New York City. University faculty provide instruction and training to approximately 657 medical students and 942 residents and fellows at NYP and other affiliated teaching hospitals.

NYP reimburses the University for medical, administrative and technical services provided by University faculty and staff, including the teaching and supervision of medical residents. NYP also provides funds to the University for faculty and staff salary support and to develop, expand and support certain clinical programs. The University leases or purchases certain facilities and services (outpatient offices, nursing services, telecommunications, etc.) from NYP, for which the University is invoiced on a monthly basis. The University and NYP also collaborate to fund joint projects and programs subject to specific agreements.

Each year the University and NYP negotiate a joint budget that reflects their affiliation agreement. The fiscal year 2017 joint budget was approximately \$322 million. Payments by the University to NYP for facilities and services for fiscal year 2017 were approximately \$95 million.

The University records both receivables from and payables to NYP on its balance sheet. The University has no liability for obligations or debt incurred by NYP.

## **Labor Relations**

The faculty and administrative officers of the University are not represented by any union. The University has recognized eight unions making up thirteen bargaining units which represent approximately 3,050 of its 18,928 member salaried workforce.

In August of 2016 the National Labor Relations Board (NLRB) reversed its prior position and issued a decision holding that student research and teaching assistants are employees for the purposes of the National Labor Relations Act and as such have the right to be represented by a union. In response to a petition to form a bargaining unit of University student research and teaching assistants represented by the United Auto Workers (UAW), the NLRB scheduled a union election, which took place on the Columbia campuses in December 2016. The majority of the votes cast were in favor of unionization. The NLRB certified the election results in December 2017. In January 2018, the

University announced its decision not to engage in bargaining with union representatives and its intention to seek review by a federal appellate court. Procedurally, such a review would occur in the context of an appeal from an unfair labor practice charge filed by the union. To date, the union has not filed an unfair labor practice charge. The union held a strike authorization vote, with the right to vote limited to those who agreed to sign union cards. The vote authorized a strike, which commenced on April 24. The union announced its intention to continue the strike through April 30. The University does not anticipate a material effect on teaching, research or other University functions to result from the strike.

#### **Financial Advisor**

The Yuba Group LLC, also known as Yuba Group Advisors (the “Financial Advisor”), has been retained by the University to serve as its financial advisor in connection with the issuance of the Series 2018 Bonds. The following three sentences have been provided by the Financial Advisor. The Financial Advisor is not obligated to make, and has not undertaken, an independent verification of any of the information contained in this Official Statement and makes no guarantee as to the accuracy, completeness or fairness of such information. The Financial Advisor is an independent financial advisory and consulting firm and is not engaged in the underwriting or trading of municipal securities or other negotiable instruments. The Financial Advisor does not receive a fee related to or contingent upon the sale and closing of the Series 2018 Bonds.

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## OPERATING INFORMATION

### Enrollment and Admissions

The University's undergraduate enrollment includes Columbia College, the School of Engineering and Applied Science (SEAS), and the School of General Studies. Enrollment during the past five years, based on fall registration, is shown below:

#### ENROLLMENT HEADCOUNT SUMMARY

| <u>Academic<br/>Year</u> | <u>Undergraduate</u> | <u>Graduate and<br/>Professional</u> | <u>Non-Degree</u> | <u>Total</u> |
|--------------------------|----------------------|--------------------------------------|-------------------|--------------|
| 2017-18                  | 8,868                | 20,116                               | 3,445             | 32,429       |
| 2016-17                  | 8,712                | 19,549                               | 3,056             | 31,317       |
| 2015-16                  | 8,613                | 19,157                               | 2,534             | 30,304       |
| 2014-15                  | 8,559                | 18,933                               | 2,378             | 29,870       |
| 2013-14                  | 8,365                | 18,568                               | 2,317             | 29,250       |

The following table sets forth the number of applications received for full-time admission to the University's undergraduate programs in Columbia College and the School of Engineering and Applied Sciences, the number and percentage of those applications accepted and the number and percentage of those accepted who enrolled, for the past five years.

#### UNDERGRADUATE ADMISSIONS STATISTICS

| <u>Academic<br/>Year</u> | <u>Applications</u> | <u>Acceptances</u> | <u>Acceptance<br/>Rate (Selectivity)</u> | <u>New<br/>Enrollment</u> | <u>Yield</u> |
|--------------------------|---------------------|--------------------|--|---------------------------|--------------|
| 2017-18                  | 37,389              | 2,263              | 6.1%                                     | 1,405                     | 62.1%        |
| 2016-17                  | 36,292              | 2,279              | 6.3                                      | 1,420                     | 62.3         |
| 2015-16                  | 36,250              | 2,222              | 6.1                                      | 1,402                     | 63.1         |
| 2014-15                  | 32,967              | 2,291              | 6.9                                      | 1,424                     | 62.2         |
| 2013-14                  | 33,531              | 2,311              | 6.9                                      | 1,416                     | 61.3         |

For the class entering in fall 2017, Columbia College and SEAS received 37,389 applications, a 3% increase above the level of applications received for fall 2016. For the class entering in fall 2018, Columbia College and SEAS received 40,203 applications, a 7.5% increase above the level of applications received for fall 2017; acceptances were 2,214. With an acceptance rate of 5.5% for the class entering in fall 2018, Columbia College and SEAS continue to be among the most highly selective schools in the Ivy League.

Columbia College and SEAS draw matriculants from all 50 states of the nation and nearly 100 countries. As Columbia's applicant pool has grown over the past five years, the enrolled population has continued to be geographically and demographically diverse.

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## Tuition and Fees

Tuition accounts for approximately 23% of the University's total operating revenues. The table below indicates tuition rates and student charges for Columbia College undergraduate students for the past five academic years:

### **UNDERGRADUATE STUDENT CHARGES** **(COLUMBIA COLLEGE AND SEAS)**

|                               | <b><u>Academic Years</u></b> |                       |                       |                       |                       |
|-------------------------------|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                               | <b><u>2013-14</u></b>        | <b><u>2014-15</u></b> | <b><u>2015-16</u></b> | <b><u>2016-17</u></b> | <b><u>2017-18</u></b> |
| Tuition                       | \$46,846                     | \$48,646              | \$50,526              | \$52,478              | \$54,504              |
| Mandatory Fees                | <u>2,292</u>                 | <u>2,362</u>          | <u>2,474</u>          | <u>2,578</u>          | <u>2,704</u>          |
| Tuition and Mandatory Fees    | \$49,138                     | \$51,008              | \$53,000              | \$55,056              | \$57,208              |
| Room and Board                | <u>11,978</u>                | <u>12,432</u>         | <u>12,860</u>         | <u>13,244</u>         | <u>13,618</u>         |
| Total Undergraduate Term Bill | \$61,116                     | \$63,440              | \$65,860              | \$68,300              | \$70,826              |

For the 2017-18 academic year, the undergraduate term bill (including tuition and mandatory fees, as noted above, as well as room and board) is \$70,826 which represents a 3.7% increase over the prior year. Housing and food services are classified as auxiliary enterprises in the University's financial statements and are considered separate cost centers. Dormitory and board charges are determined so that substantially all auxiliary enterprise costs, including related debt service, are expected to be recovered from related fees or charges.

Tuition for the Graduate School of Arts and Sciences for the 2017-18 academic year is \$54,360. Full-time tuition in other graduate and professional schools of the University varies from a low of \$36,000 to a high of \$74,550, depending on the specific degree program. Graduate tuition rates in academic year 2017-18 across schools represent increases ranging from 2.0% to 5.0% over the previous year.

## Financial Aid

The University's admissions and financial aid policies are designed to enable the most qualified students to attend the University, regardless of their financial circumstances. Since 1974, decisions regarding admission to Columbia College and the undergraduate classes of the School of Engineering and Applied Science have been made without regard to financial need, and student aid packages have been made available to meet the needs of every undergraduate student admitted to those schools.

In 2008, the University announced an enhanced undergraduate financial aid program for Columbia College and the School of Engineering and Applied Science effective for incoming and continuing students beginning with the academic year 2008-09. The program eliminated loans for all College and Engineering undergraduate students receiving financial aid, and replaced the loans with University grants; it provided that families with incomes below \$60,000 would be exempt from contribution and for families with incomes between \$60,000 and \$100,000, parental contribution would be reduced. In 2015, financial aid was expanded to include incoming transfer students with demonstrated financial need.

Across all schools, in fiscal year 2017, the University provided \$395 million in financial aid grants and students received approximately \$21 million in tuition waivers through the University's tuition exemption program. In addition, undergraduate, graduate and professional school students finance their education through federal and State grants, loans and employment; in fiscal year 2017 this amount totaled \$423 million.

**COLUMBIA UNIVERSITY  
FINANCIAL AID GRANTS**

| <b><u>Fiscal Year</u></b> | <b><u>Amounts (in thousands)</u></b> |
|---------------------------|--------------------------------------|
| 2017                      | \$395,016                            |
| 2016                      | 361,839                              |
| 2015                      | 344,693                              |
| 2014                      | 320,061                              |
| 2013                      | 315,262                              |

**Faculty**

Total current full-time faculty members at the University number 4,114 of which approximately 20% are tenured. The majority of the University's faculty is appointed within one of the three principal academic ranks: professor, associate professor and assistant professor. Salaries and fringe benefits paid in these ranks are competitive with comparable institutions both regionally and nationally.

The following table sets forth the faculty profile for the current and each of the last four academic years.

**FACULTY PROFILE**

| <b><u>Academic Year</u></b> | <b><u>Full-time Faculty</u></b> | <b><u>Part-time* Faculty</u></b> | <b><u>Total Faculty</u></b> | <b><u>Full-Time Equivalent Faculty**</u></b> | <b><u>Percent of Total Faculty Tenured</u></b> |
|-----------------------------|---------------------------------|----------------------------------|-----------------------------|--|--|
| 2017-18                     | 4,114                           | 1,944                            | 6,058                       | 4,762  | 20%  |
| 2016-17                     | 3,976                           | 1,766                            | 5,742                       | 4,565  | 20   |
| 2015-16                     | 3,876                           | 1,625                            | 5,501                       | 4,418  | 21   |
| 2014-15                     | 3,806                           | 1,613                            | 5,419                       | 4,344  | 20   |
| 2013-14                     | 3,763                           | 1,532                            | 5,295                       | 4,274  | 20   |

\*Salaried only; does not include part-time unsalaried faculty or graduate students.

\*\*Calculated as one (1) for each full-time faculty member and one-third (1/3) for each part-time faculty member.

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## ANNUAL FINANCIAL STATEMENT INFORMATION

### University Finances

The tables that follow are based on the audited financial statements of the University for the fiscal years 2013 through 2017, and should be read in conjunction with the audited financial statements of the University and related footnotes as of June 30, 2017 included in Appendix B to this Official Statement.

### Balance Sheet

The following table provides a summary of the University's assets, liabilities and net assets as of June 30, 2013 through 2017:

| <b>Summary of Balance Sheet Information</b> |                     |                     |                     |                     |                     |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>As of June 30,</b>                       |                     |                     |                     |                     |                     |
| <b>(in thousands)</b>                       |                     |                     |                     |                     |                     |
|   | <u><b>2013</b></u>  | <u><b>2014</b></u>  | <u><b>2015</b></u>  | <u><b>2016</b></u>  | <u><b>2017</b></u>  |
| Total Assets                                | \$14,728,942        | \$16,046,022        | \$16,871,019        | \$16,737,032        | \$18,565,178        |
| Total Liabilities                           | <u>3,028,245</u>    | <u>2,941,210</u>    | <u>3,195,910</u>    | <u>3,456,272</u>    | <u>3,826,636</u>    |
| Total Net Assets                            | <u>\$11,700,697</u> | <u>\$13,104,812</u> | <u>\$13,675,109</u> | <u>\$13,280,760</u> | <u>\$14,738,542</u> |
| Comprised of:                               |                     |                     |                     |                     |                     |
| Unrestricted                                | \$ 5,105,563        | \$ 5,727,139        | \$ 6,024,449        | \$ 5,963,691        | \$ 6,908,365        |
| Temporarily Restricted                      | 4,057,273           | 4,654,194           | 4,770,391           | 4,304,959           | 4,436,575           |
| Permanently Restricted                      | <u>2,537,861</u>    | <u>2,723,479</u>    | <u>2,880,269</u>    | <u>3,012,110</u>    | <u>3,393,602</u>    |
| Total Net Assets                            | <u>\$11,700,697</u> | <u>\$13,104,812</u> | <u>\$13,675,109</u> | <u>\$13,280,760</u> | <u>\$14,738,542</u> |

At June 30, 2017, the University had \$274.4 million of conditional pledges and gifts that had been received but not yet recognized (per GAAP) due to the conditional nature of those commitments.

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## Statement of Activities

The following table provides a summary of the revenues and support, expenses and other changes in net assets for each of the fiscal years ended June 30, 2013 through 2017. Operating income (Change in Net Assets from Operating Activities) of \$407 million provided a 8.5% margin on operating revenues (Total Revenues and Support) of \$4.8 billion in fiscal year 2017.

### Condensed Statement of Activities For the year ended June 30, (in thousands)

|  | <u>2013</u>        | <u>2014</u>        | <u>2015</u>        | <u>2016</u>        | <u>2017</u>        |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|
| Revenues and Support                                 |                    |                    |                    |                    |                    |
| Tuition and fees, net financial aid                  | \$ 822,330         | \$ 895,972         | \$ 941,264         | \$1,003,600        | \$1,085,452        |
| Government grants and contracts                      | 801,018            | 761,825            | 753,366            | 800,463            | 901,057            |
| Private gifts, grants and contracts                  | 417,083            | 346,928            | 353,242            | 433,320            | 583,028            |
| Patient care revenues                                | 874,883            | 937,188            | 1,026,956          | 1,125,031          | 1,199,364          |
| Investment income and gains utilized                 | 463,609            | 497,850            | 522,684            | 564,480            | 616,712            |
| Other sources  | <u>359,763</u>     | <u>403,219</u>     | <u>423,375</u>     | <u>414,999</u>     | <u>406,641</u>     |
| Total revenues and support                           | <u>\$3,738,686</u> | <u>\$3,842,982</u> | <u>\$4,020,887</u> | <u>\$4,341,893</u> | <u>\$4,792,254</u> |
| Expenses   |                    |                    |                    |                    |                    |
| Instruction, research and educational administration | \$1,853,029        | \$1,962,206        | \$2,012,275        | \$2,131,383        | \$2,268,944        |
| Patient care expenses                                | 747,032            | 769,544            | 829,577            | 914,674            | 969,856            |
| Administration, library and plant operations         | 500,287            | 488,299            | 565,090            | 590,259            | 649,513            |
| Other  | <u>359,669</u>     | <u>385,730</u>     | <u>393,949</u>     | <u>408,086</u>     | <u>496,601</u>     |
| Total expenses                                       | <u>\$3,460,017</u> | <u>\$3,605,779</u> | <u>\$3,800,891</u> | <u>\$4,044,402</u> | <u>\$4,384,914</u> |
| Change in net assets from operating activities       | \$ 278,669         | \$ 237,203         | \$ 219,996         | \$297,491          | \$407,340          |
| Change in net assets from non-operating activities   | <u>769,977</u>     | <u>1,166,912</u>   | <u>350,301</u>     | <u>(\$691,840)</u> | <u>\$1,050,442</u> |
| Total change in net assets                           | <u>\$1,048,646</u> | <u>\$1,404,115</u> | <u>\$ 570,297</u>  | <u>(\$394,349)</u> | <u>\$1,457,782</u> |

## Patient Care Revenues and Expenses

Patient Care Revenues accounted for approximately 25% of fiscal year 2017 revenues, and increased 7% from the prior year. In fiscal year 2017, medical faculty practice revenues of \$797 million were the largest component of Patient Care Revenues, followed by revenue from affiliation agreements at \$337 million. The largest component of Patient Care Expenses is physician compensation. All physicians in the University's faculty practice hold faculty appointments with the University.

## Government Grants and Contracts

During the fiscal year ended June 30, 2017, the University recorded, through government grants and contracts, revenues of \$901 million, which accounted for approximately 19% of the University's total operating revenues and support for that fiscal year. Indirect costs on government grants and contracts represent the recovery for overhead costs (library, University and departmental administration, operation and maintenance of plant, interest expense, and building and equipment depreciation) from the projects funded by such grants. Total indirect costs of the University reimbursed from governmental grants and contracts were \$218 million in fiscal year 2017 and \$194 million in fiscal year 2016. In fall 2017, the University entered into a new agreement with the federal government which defines the rate at which the University can be reimbursed for facilities and administrative costs (F&A Costs) applicable to federal on-campus research. This agreed upon indirect cost recovery rate is 60% through fiscal year

2018, the same rate that has been in effect since 2008. Additionally, a provisional rate of 62% was established for fiscal year 2019 and will remain in place until such time that a new agreement is reached. The following table sets forth the revenues from government grants and contracts for each of the last five fiscal years ended June 30. Government grant revenues increased 12.6% from fiscal year 2016 to fiscal year 2017. In fiscal year 2017, the National Institutes of Health provided 42% of the annual revenues from government grants and contracts. Columbia's share of NIH funding continues to be competitive, particularly in the Medical School where award levels have met or exceeded the growth in NIH's total extramural budget in seven of the last eight years.

### GOVERNMENT GRANTS AND CONTRACTS

(in thousands)

| <u>Fiscal Year</u> | <u>Total Grants and Contracts</u> | <u>ARRA Activity</u> | <u>Grants and Contracts, Excluding ARRA Activity</u> |
|--------------------|-----------------------------------|----------------------|--|
| 2017               | \$901,057                         | –                    | \$901,057  |
| 2016               | 800,463                           | –                    | 800,463  |
| 2015               | 753,366                           | \$1,046              | 752,320  |
| 2014               | 761,825                           | 12,229               | 749,596  |
| 2013               | 801,018                           | 42,904               | 758,114  |

The University conducts a significant amount of research funded by outside sponsors, primarily the federal government. The University expects that it will continue to receive considerable federal funding in support of research. However, inasmuch as federally sponsored research is obtained through both grants and contracts, it may vary from year to year, and no assurance can be given that it will continue at the levels experienced in recent years.

#### Private Gifts and Grants

For the fiscal year ended June 30, 2017, total gifts amounted to \$910 million. The total is comprised of unrestricted private gifts, grants, and contracts of \$246 million, temporarily restricted gifts of \$309 million, and permanently restricted endowment gifts of \$355 million. Temporarily restricted and permanently restricted gifts include both pledges and cash gifts received.

The University completed its most recent multi-year capital campaign on December 31, 2013. A total of \$6.12 billion was raised, at the time the largest campaign in the Ivy League. The University launched the “Columbia Commitment” campaign in May 2017, which is one of the most ambitious year-over-year university campaigns in the history of higher education. The Columbia Commitment seeks new levels of alumni and donor engagement through a five-year effort to raise \$5 billion.

#### Endowment

The University's endowment is comprised of two major components, the long-term investment portfolio and the Residential Real Estate Portfolio. The University's long-term investment portfolio includes the corpus of permanently restricted gifts as well as reinvested gains and income and board-designated endowments. For the fiscal year ended June 30, 2017, the distribution from the endowment supported approximately 13% of the University's budget.

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The following table summarizes the endowment at June 30 of each of the years in 2013 through 2017:

**Market Value\* of Endowment  
At June 30,  
(in thousands)**

|                        | <u>2013</u>        | <u>2014</u>        | <u>2015</u>        | <u>2016</u>        | <u>2017</u>        |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Unrestricted           | \$2,951,047        | \$3,206,776        | \$3,296,768        | \$3,060,780        | \$3,428,651        |
| Temporarily Restricted | 2,992,999          | 3,582,047          | 3,751,929          | 3,273,674          | 3,679,663          |
| Permanently Restricted | <u>2,253,834</u>   | <u>2,434,224</u>   | <u>2,590,368</u>   | <u>2,706,573</u>   | <u>2,888,282</u>   |
| Total                  | <u>\$8,197,880</u> | <u>\$9,223,047</u> | <u>\$9,639,065</u> | <u>\$9,041,027</u> | <u>\$9,996,596</u> |

\*Residential Real Estate portfolio within the Endowment is reflected at cost, net of related liabilities.

*Managed Assets*

The largest portion of the long-term investment portfolio is managed by Columbia Investment Management Company, L.L.C. (CIMC), a New York limited liability company formed in 2002 by the University to manage the University's investment assets under the supervision of the Committee on Finance of the Trustees of the University, which retains authority and discretion in determining overall investment policy for the University. The University is the sole member of CIMC, and a majority of the Board of CIMC consists of University Trustees or Trustees emeriti.

Assets under CIMC management totaled \$9.6 billion as of June 30, 2017, with a net total return of 13.7% for fiscal year 2017; assets under CIMC management at June 30, 2016 were \$8.8 billion, with a net total return of -0.9% for fiscal year 2016. Net total returns as reported below reflect the performance of private equity and real assets on a one quarter lag.

|   | <u>1 Year</u> | <u>3 Years</u> | <u>5 Years</u> | <u>10 Years</u> |
|---|---------------|----------------|----------------|-----------------|
| Columbia Managed Assets                   | 13.7%         | 6.6%           | 9.7%           | 7.3%            |
| 70/30MSCI ACWI/Barclays                   |               |                |                |                 |
| Aggregate Bond with Quarterly Rebalancing | 12.8%         | 4.2%           | 8.1%           | 4.4%            |

The above mentioned 70/30 MSCI ACWI Barclays Aggregate Portfolio with Quarterly Rebalancing benchmark represents a portfolio which consists 70% of the Morgan Stanley All Country World Index and 30% of the Barclay's Capital Aggregate Bond Index, rebalanced quarterly.

Asset allocation of the CIMC-managed assets was as follows:

**Asset Allocation (% of Managed Asset Portfolio)  
Based on Market Value at June 30,**

|                 | <u>2013</u> | <u>2014</u> | <u>2015</u> | <u>2016</u> | <u>2017</u> |
|-----------------|-------------|-------------|-------------|-------------|-------------|
| Global equities | 26%         | 26%         | 26%         | 22%         | 23%         |
| Hedge funds     | 32          | 31          | 30          | 36          | 33          |
| Fixed income    | 4           | 4           | 3           | 3           | 3           |
| Private equity  | 20          | 21          | 21          | 22          | 20          |
| Real assets     | 18          | 17          | 16          | 18          | 19          |
| Cash            | <u>0</u>    | <u>1</u>    | <u>3</u>    | <u>-1</u>   | <u>2</u>    |
| Total*          | 100%        | 100%        | 100%        | 100%        | 100%        |

\*Categories may not sum to 100% due to rounding. Cash represents cash balances held within the Managed Assets Portfolio net of the notional value of derivatives exposure. Negative net cash reflects the fact that the gross cash balance is less than the notional value of derivatives exposure.

The market value of the endowment as noted above is as of June 30, 2017; no assurance can be given as to future investment returns. The valuation of the University's managed asset portfolio is further subject to the continuing effects of volatility, limited liquidity, and pricing issues in certain markets.

See Note 6 to the financial statements of the University included in Appendix B to this Official Statement for more information on components of managed assets included within the University's long-term investments.

### **Residential Real Estate Portfolio**

The Residential Real Estate portfolio, which consists of properties proximate to the Morningside Heights and Washington Heights campuses, provides housing to faculty, staff, and graduate students. Income from the rental properties in the portfolio is used to support operating costs and capital investment. The Residential Real Estate portfolio is carried at \$587 million, which represents a historical cost value of \$894 million less related liabilities of \$307 million. The appraised market value of these properties as of June 30, 2017 was \$2.1 billion reflecting the independent appraiser's review of pertinent factors, including the local sales market, capital improvements, and building operating income and expenses.

### **Capital Expenditures and Budgeting**

Columbia has a rolling multi-year capital plan that focuses on the strategic objectives of the University and includes new construction, renovation and major information technology projects. The University's current capital plan for fiscal year 2018 includes completion of the University Forum building and the below grade work for the new Columbia Business School buildings, the Henry R. Kravis building and the Ronald O. Perelman Center for Business Innovation, all in Manhattanville. In calendar years 2016 and 2017, Columbia completed construction of the Jerome L. Greene Science Center, the Lenfest School of the Arts, The School of Nursing and the Roy and Diana Vagelos Education Center.

In fiscal year 2017, the University expended approximately \$456 million on capital construction and renovation and acquisition of property. The University's capital budget anticipates expenditures totaling approximately \$566 million in fiscal year 2018 and approximately \$700 million in fiscal year 2019 which currently represents the peak year in the University's multi-year plan.

### **Future Facilities**

The University continues to plan for future development, including new construction and renovation of existing property on the Morningside Heights, Lamont, Baker Field and CU Medical Center campuses, as well as its continued expansion into the Manhattanville section of West Harlem, just north of the Morningside Heights campus. Expansion and associated expenditures will stretch over a period of several decades. In connection with the Manhattanville campus expansion, Columbia has committed additional support for educational, cultural, health care and civic programs involving the University and the local community.

It is anticipated that the University will continue to access the capital markets from time to time to finance a portion of its future capital costs.

### **Outstanding Indebtedness; Existing Liens**

The long-term debt of the University as of June 30, 2017 totaled \$1.757 billion as shown in the following schedule. A small portion of the University's long-term debt is secured by some type of collateral or other security interest described in footnotes on the next page. Such secured obligations are entitled to payment in full from the collateral pledged thereto before any payments may be made by the University on its obligations under the Bonds.

The University has authorized a \$150 million taxable commercial paper program that it uses on a revolving basis to bridge finance capital projects and to help manage working capital balances. As of June 30, 2017, there was no taxable commercial paper outstanding, and the University's debt portfolio was 90% fixed rate and 88% tax-exempt. In October 2008, the University entered into a notional \$200 million, 67% LIBOR, fixed-payer swap, to hedge interest rates on variable rate debt, which results in a synthetic fixed rate on \$176 million of underlying variable rate debt in fiscal year 2017. The fair value of the swap as of June 30, 2017 was a \$72 million liability. Under the swap agreement with counterparty Goldman Sachs Mitsui Marine Derivative Products, L.P., the University is not required to post collateral at its current ratings levels.

The following table presents a summary of the outstanding indebtedness of the University as of June 30, 2017:

|   | Final<br>Interest Rates <sup>(1)</sup> | Maturity Date-<br>Fiscal Year | Balance<br>Outstanding<br>(in thousands) |
|---|--|-------------------------------|--|
| <b>DASNY Revenue Bonds</b>                          |  |                               |  |
| Series 2017A  | 2.40% to 3.49%                         | 2048                          | \$150,000                                |
| Series 2017B  | 1.96% to 2.61%                         | 2030                          | 40,475                                   |
| Series 2016A-1                                      | 1.67%                                  | 2027                          | 50,000                                   |
| Series 2016A-2                                      | 1.35% to 2.89%                         | 2047                          | 130,000                                  |
| Series 2016B  | 0.57% to 2.04%                         | 2032                          | 209,705                                  |
| Series 2015A  | 1.95% to 3.00%                         | 2046                          | 92,535                                   |
| Series 2015B  | 0.66% to 1.88%                         | 2025                          | 42,930                                   |
| Series 2012A  | 1.07% to 1.92%                         | 2023                          | 137,935                                  |
| Series 2011A  | 2.36% to 4.88%                         | 2042                          | 300,000                                  |
| Series 2009A  | Variable, 0.85%                        | 2039                          | 117,000                                  |
| Series 2008A  | 4.72%                                  | 2038                          | 200,000                                  |
| Series 2003B  | Variable, 0.86%                        | 2028                          | 30,000                                   |
| Series 2002C  | Variable, 0.91%                        | 2027                          | 23,300                                   |
| Taxable Series 2015                                 | 3.46%                                  | 2046                          | 75,000                                   |
| Taxable Series 2012                                 | 3.83%                                  | 2043                          | 100,000                                  |
| Taxable Medium-Term Notes, Series C                 | 6.83%-7.36%                            | 2022                          | 27,826                                   |
| Empire State Development Corporation <sup>(2)</sup> | 9%                                     | 2029                          | 6,447                                    |
| Empire State Development Corporation <sup>(3)</sup> | Interest free                          | 2020                          | 8,100                                    |
| Economic Development Corporation <sup>(3)</sup>     | Interest free                          | 2020                          | 10,000                                   |
| New Jersey Economic Development Corp. Series 2002   | Variable, 0.91%                        | 2028                          | 5,545                                    |
| <b>Total bonds and notes payable</b>                |  |                               | <b>\$1,756,798</b>                       |

(1) All variable interest rates are based on trading ranges for fiscal year 2017.

(2) On March 16, 1989, the New York State Empire State Development Corporation ("ESDC," formerly known as the New York State Urban Development Corporation) provided a \$36 million loan to the University through the sale of Federally Taxable Project Revenue Bonds (Columbia University Center for Computers, Microelectronics and Telecommunications), Series 1989, for the construction of the Center for Engineering and Physical Science Research ("CEPSR"). The loan is secured by a mortgage on the CEPSR. The CEPSR is leased by the University to the State of New York and, in turn, subleased to the University. The sublease is secured by a second mortgage on the CEPSR. Under the lease, New York State is required to make rental payments equal to the total annual debt service less the University's annual rental payments under the sublease. Under the sublease, the University is required to make annual rental payments of \$910,697 for 40 years beginning March 1, 1990. Except as otherwise provided in the financing documents, recourse is limited to the CEPSR and the site of the CEPSR through the mortgage granted to ESDC and the second mortgage granted to New York State. The bonds are not obligations or debts of New York State. Rental payments by New York State are subject to annual appropriation by the New York State legislature. If New York State fails to appropriate sufficient funds and the University does not assume responsibility for New York State's payments, bondholders could cause ESDC to foreclose the mortgage securing the ESDC loan to the University.

(3) The New York City Economic Development Corporation ("EDC") and the ESDC have agreements with the University under which the University received interest-free loans in the amounts of \$10,000,000 and \$7,787,214, respectively, for Phase I of the Audubon Research Park. These agreements include a long-term lease, from the City of New York to the University, of the land on which Phase I is located. Under the lease, the outstanding loan balance is payable without demand in April 2020. Under a subsequent agreement between the University and EDC, EDC will credit the loan balance by \$5,500,000 when certain conditions are fulfilled by the University. Upon repayment by the University of the amount invested by the public parties, the University will have the right to acquire title to the research building site for a nominal sum.

No assurance can be given that additional liens on assets and revenues of the University will not be granted to secure additional obligations of the University.

## Liquidity

The University's total cash and cash equivalents, excluding the endowment portfolio, had an unaudited fair market value of approximately \$1,167 million at the end of fiscal year 2017 and \$1,360 million at December 31, 2017. The monthly average ending balance of cash and cash equivalents during fiscal year 2017 was \$1,079 million. These cash funds are invested in same day and next day funds, consisting almost entirely of Bank Deposits, Overnight

Repurchase Agreements backed by Treasury/Agency/Agency Mortgage collateral and short-term Treasuries. The composition and amount of the liquid funds varies from time to time depending on market conditions and other factors.

The University has \$300 million of committed operating lines of credit with two major financial institutions. The University has not drawn down on these facilities.

The University has also entered into two \$100 million revolving credit agreements with different major financial institutions to provide additional liquidity in the event of a failed remarketing of its variable rate and short-term obligations. The revolving credit agreements, which mature in January 2019 and January 2020, are cancelable at the University's discretion and may be terminated by the financial institution in certain circumstances.

Although the University is not obligated to maintain or renew such agreements, it plans to maintain a combination of bank facilities and liquid investments to support its variable rate bonds and commercial paper.

As of June 30, 2017, the University's variable rate debt outstanding was (in thousands):

|   |              |
|---|--------------|
| DASNY Revenue Bonds Series 2009A                  | \$117,000    |
| DASNY Revenue Bonds Series 2003B                  | 30,000       |
| DASNY Revenue Bonds Series 2002C                  | 23,300       |
| New Jersey Economic Development Corp. Series 2002 | <u>5,545</u> |
| Total   | \$175,845    |

### **Pension Plans and Postretirement Benefits**

Retirement benefits are provided for full-time faculty and officers under a non-contributory defined contribution plan. Contributions are determined as a percentage of each covered employee's salary, factoring in the age and accrued service of each employee. Charges to expenditures under this plan amounted to \$130 million and \$118 million for the years ended June 30, 2017 and 2016, respectively.

The University has five non-contributory pension plans (the "pension plans") for supporting staff employees. Four of the pension plans are subject to collective bargaining agreements. The fifth pension plan covers former employees of the Arden Conference Center, which closed in 2005. Three of the plans include defined benefits plans for past service, and in the case of two plans, defined benefit for future service. Two of the pension plans provide defined benefits for service prior to 1976 (January 1, 1976 in one case, and prior to July 1, 1976, in the other). For these two pension plans, future benefits are provided by defined contribution plans. Charges to expenditures for the defined contribution segments of the plans amounted to \$5.6 million and \$5.7 million for the years ended June 30, 2017 and 2016, respectively. For additional information regarding the University's retirement benefits and pension plans, including the value of plan assets and funding status, see Note 13 to the financial statements of the University included in Appendix B to this Official Statement.

In addition, the University provides postretirement health care and life insurance benefits for certain employees. The University accrues the estimated cost of these benefits over the years that eligible employees render services. As of June 30, 2017, the fair value of the assets in the University's postretirement health care and life insurance plan exceeded the related accumulated benefit obligation. For additional information regarding the University's retirement benefits and pension plans, including the value of plan assets and funding status, see Note 13 to the financial statements of the University included in Appendix B to this Official Statement.

### **Insurance**

The University carries insurance on its buildings and their contents with a blanket policy limit of \$1.0 billion per occurrence covering full replacement value for its multiple campus properties. Liability insurance with substantial limits of liability is also purchased to protect the University and its trustees and officers against third-party claims and suits. The University maintains a self-insurance reserve to fund the deductible obligations of its policies.

## **REGULATORY MATTERS AND LITIGATION**

The University is subject to various suits, audits, investigations and other legal proceedings in the course of its operations. While the University's ultimate liability, if any, is not determinable at present, no proceedings are pending or threatened that, in management's opinion, would be likely to have a material adverse effect on the University's financial position.

## **PART 5 - THE 2018A PROJECT**

A portion of the proceeds from the sale of the Series 2018A Bonds are being used to finance various design, construction and renovation projects throughout the University system (collectively, the “2018A Project”), including expenditures for:

Manhattanville Campus – various properties located within the area bounded by 125/129<sup>th</sup> to 133<sup>rd</sup> Street from Broadway to 12<sup>th</sup> Avenue:

Graduate School of Business – Design, development and construction of all systems required to complete underground foundations for the Business School;

Jerome L. Green Science Center – Design and/or construction of the following buildings and facilities to be used for academic and research purposes a multilevel, interconnected underground Central Below Grade Facility to provide additional space for academic and support services including parking and materials distribution; and

Studebaker Building – renovation of the 600 level and the 100 and 200 level administrative facilities.

Columbia University Medical Campus – renovation of research and support spaces of the Institute for Comparative Medicine Animal Facilities of the William Black and College of Physicians and Surgeons Building;

College of Dental Medicine – expansion and modernization of the Vanderbilt Clinic College of Dental Medicine;

Institute for Genomic Medicine – renovation of the 5<sup>th</sup> and 6<sup>th</sup> floors of the Hammer Health Sciences Building.

Morningside Heights Campus – renovation and expansion of the following facilities used for academic, research and administrative purposes;

Fairchild Hall biological sciences lab 800 level at 1212 Amsterdam Avenue;

Northwest Corner Building physics lab 1100 level at 550 W. 120th Street;

Shared Facilities Clean Room 1000 level in the CEPSR nanoscience building at 530 West 120th Street;

Physics Lab 900 level in the CEPSR nanoscience building at 530 West 120th Street;

Havemeyer Hall Chemistry lab 400 level at 3000 Broadway;

Pupin Hall Physics Theory Center 800 and 900 levels at 538 W. 120th Street;

Watson Hall Statistics Faculty Offices 600 level at 612 West 115th Street, and

Chandler Hall Chemistry Department lab 700 level at 3010 Broadway.

Institutional Real Estate Renovation – Various properties on the Upper West Side of Manhattan and the Bronx, New York:

107th to 108th Streets from Columbus Avenue to Central Park West; and/or

108th to 110th Streets from Amsterdam Avenue to Riverside Drive; and/or

110th to 122nd Streets from Morningside Avenue to Riverside Drives; and/or

122nd to 125th Streets from Broadway to Riverside Drive; and/or

52 West 85th Street, 200 West End Avenue, 258 Riverside Drive, 2700 Broadway, 455 Central Park West, the Morningside Gardens Complex from 122nd to 125th from Amsterdam to Broadway and 3260 Henry Hudson Parkway.



## PART 6 - THE REFUNDING PLAN

A portion of the proceeds of the Series 2018B Bonds will be used to redeem on July 1, 2018 (the “Redemption Date”) DASNY’s Outstanding Columbia University Revenue Bonds, Series 2008A (collectively, the “Refunded Bonds”). Such portion of the proceeds will be set aside and held in trust for payment of the redemption price of and interest on the Refunded Bonds due on the Redemption Date or will be used to acquire non-callable direct obligations of the United States of America maturing on or before the Redemption Date, the principal of and interest on which will be applied to pay the redemption price of and interest on the Refunded Bonds due on the Redemption Date. See “PART 18 - VERIFICATION OF MATHEMATICAL COMPUTATIONS.”

## PART 7 - ESTIMATED SOURCES AND USES OF FUNDS

The estimated sources and uses of funds for the Series 2018A Bonds are as follows:

### Sources of Funds

|  |                      |
|--|----------------------|
| Principal Amount of Series 2018A Bonds ..... | \$150,000,000        |
| Original Issue Premium .....                 | 41,544,500           |
| Total Sources .....                          | <u>\$191,544,500</u> |

### Uses of Funds

|                                    |                      |
|------------------------------------|----------------------|
| Deposit to Construction Fund ..... | \$190,936,623        |
| Costs of Issuance.....             | 275,891              |
| Underwriters’ Discount.....        | 331,986              |
| Total Uses .....                   | <u>\$191,544,500</u> |

The estimated sources and uses of funds for the Series 2018B Bonds are as follows:

### Sources of Funds

|  |                      |
|--|----------------------|
| Principal Amount of Series 2018B Bonds ..... | \$175,185,000        |
| Original Issue Premium .....                 | 30,074,009           |
| Total Sources .....                          | <u>\$205,259,009</u> |

### Uses of Funds

|                             |                      |
|-----------------------------|----------------------|
| Refunding Escrow.....       | \$204,565,374        |
| Costs of Issuance.....      | 302,396              |
| Underwriters’ Discount..... | 391,239              |
| Total Uses .....            | <u>\$205,259,009</u> |

## PART 8 - DASNY

### Background, Purposes and Powers

DASNY is a body corporate and politic constituting a public benefit corporation. DASNY was created in 1944 to finance and build dormitories at State teachers’ colleges to provide housing for the large influx of students returning to college on the G.I. Bill following World War II. Over the years, the State Legislature has expanded DASNY’s scope of responsibilities. Today, pursuant to the Dormitory Authority Act, DASNY is authorized to finance, design, construct or rehabilitate facilities for use by a variety of public and private not-for-profit entities.

DASNY provides financing services to its clients in three major areas: public facilities; not-for-profit healthcare; and independent higher education and other not-for-profit institutions. DASNY issues State-supported debt, including State Personal Income Tax Revenue Bonds and State Sales Tax Revenue Bonds, on behalf of public clients such as The State University of New York, The City University of New York, the Departments of Health and Education of the State, the Office of Mental Health, the Office of People with Developmental Disabilities, the Office of Alcoholism and Substance Abuse Services, the Office of General Services, and the Office of General Services of the State on behalf of the Department of Audit and Control. Other public clients for whom DASNY issues debt include Boards of Cooperative Educational Services (“BOCES”), State University of New York, the Workers’

Compensation Board, school districts across the State and certain cities and counties that have accessed DASNY for the purpose of providing court facilities. DASNY's private clients include independent colleges and universities, private hospitals, certain private secondary schools, special education schools, facilities for the aged, primary care facilities, libraries, museums, research centers and government-supported voluntary agencies, among others.

To carry out its programs, DASNY is authorized to issue and sell negotiable bonds and notes to finance the construction of facilities for such institutions, to issue bonds or notes to refund outstanding bonds or notes and to lend funds to such institutions. At March 31, 2018, DASNY had approximately \$50.5 billion aggregate principal amount of bonds and notes outstanding. DASNY also is authorized to make tax-exempt leases, with its Tax-Exempt Leasing Program (TELP). As part of its operating activities, DASNY also administers a wide variety of grants authorized by the State for economic development, education and community improvement and payable to both public and private grantees from proceeds of State Personal Income Tax Revenue Bonds issued by DASNY.

DASNY is a conduit debt issuer. Under existing law, and assuming continuing compliance with tax law, interest on most bonds and notes issued by DASNY has been determined to be excludable from gross income for federal tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended. All of DASNY's outstanding bonds and notes, both fixed and variable rate, are special obligations of DASNY payable solely from payments required to be made by or for the account of the client institution for which the particular special obligations were issued. DASNY has no obligation to pay its special obligations other than from such payments. DASNY has always paid the principal of and interest on all of its obligations on time and in full; however, as a conduit debt issuer, payments on DASNY's special obligations are solely dependent upon payments made by DASNY's client for which the particular special obligations were issued and the security provisions relating thereto.

DASNY also offers a variety of construction services to certain educational, governmental and not-for-profit institutions in the areas of project planning, design and construction, monitoring project construction, purchasing of furnishings and equipment for projects, interior design of projects and designing and managing projects to rehabilitate older facilities.

In connection with the powers described above, DASNY has the general power to acquire real and personal property, give mortgages, make contracts, operate certain facilities and fix and collect rentals or other charges for their use, contract with the holders of its bonds and notes as to such rentals and charges, borrow money and adopt a program of self-insurance.

DASNY has a staff of approximately 507 employees located in three main offices (Albany, New York City and Buffalo) and at approximately 46 field sites across the State.

## **Governance**

DASNY is governed by an eleven-member board. Board members include the Commissioner of Education of the State, the Commissioner of Health of the State, the State Comptroller or one member appointed by him or her who serves until his or her successor is appointed, the Director of the Budget of the State, one member appointed by the Temporary President of the State Senate, one member appointed by the Speaker of the State Assembly and five members appointed by the Governor, with the advice and consent of the Senate, for terms of three years. The Commissioner of Education of the State, the Commissioner of Health of the State and the Director of the Budget of the State each may appoint a representative to attend and vote at DASNY meetings. The members of DASNY serve without compensation, but are entitled to reimbursement of expenses incurred in the performance of their duties. One of the appointments to the Board by the Governor is currently vacant.

The Governor of the State appoints a Chair from the members appointed by him or her and the members of DASNY annually choose the following officers, of which the first two must be members of DASNY: Vice-Chair, Secretary, Treasurer, Assistant Secretaries and Assistant Treasurers.

The current members of DASNY are as follows:

ALFONSO L. CARNEY, JR., *Chair*, New York.

Alfonso L. Carney, Jr. was reappointed as a Member of DASNY by the Governor on June 19, 2013. Mr. Carney is a principal of Rockwood Partners, LLC, which provides medical consulting services in New York City. He has served as Acting Chief Operating Officer and Corporate Secretary for the Goldman Sachs Foundation in New York where, working with the President of the Foundation, he managed the staff of the Foundation, provided strategic oversight of the administration, communications and legal affairs teams, and developed selected Foundation program

initiatives. Mr. Carney has held senior level legal positions with Altria Group Inc., Philip Morris Companies Inc., Philip Morris Management Corporation, Kraft Foods, Inc. and General Foods Corporation. Mr. Carney holds a Bachelor's degree in philosophy from Trinity College and a Juris Doctor degree from the University of Virginia School of Law. His term expired on March 31, 2016 and by law he continues to serve until a successor shall be chosen and qualified.

JOHN B. JOHNSON, JR., *Vice-Chair*, Watertown.

John B. Johnson, Jr. was reappointed as a Member of DASNY by the Governor on June 19, 2013. Mr. Johnson is Chairman of the Board of the Johnson Newspaper Corporation, which publishes the Watertown Daily Times, Batavia Daily News, Malone Telegram, Catskill Daily Mail, Hudson Register Star, Ogdensburg Journal, Massena-Potsdam Courier Observer, seven weekly newspapers and three shopping newspapers. He holds a Bachelor's degree from Vanderbilt University, and Master's degrees in Journalism and Business Administration from the Columbia University Graduate School of Journalism and Business. Mr. Johnson was awarded an Honorary Doctor of Science degree from Clarkson University. Mr. Johnson's term expired on March 31, 2016 and by law he continues to serve until a successor shall be chosen and qualified.

SANDRA M. SHAPARD, *Secretary*, Delmar.

Sandra M. Shapard was appointed as a Member of DASNY by the State Comptroller on January 21, 2003. Ms. Shapard served as Deputy Comptroller for the Office of the State Comptroller from 1995 until her retirement in 2001, during which time she headed the Office of Fiscal Research and Policy Analysis and twice served as Acting First Deputy Comptroller. Previously, Ms. Shapard held the positions of Deputy Director and First Deputy Director for the New York State Division of the Budget from 1991 to 1994. She began her career in New York State government with the Assembly where she held the positions of Staff Director of the Office of Counsel to the Majority, Special Assistant to the Speaker, and Deputy Director of Budget Studies for the Committee on Ways and Means. A graduate of Mississippi University for Women, Ms. Shapard received a Masters of Public Administration from Harvard University, John F. Kennedy School of Government, where she has served as visiting lecturer, and has completed graduate work at Vanderbilt University.

JONATHAN H. GARDNER, ESQ., Buffalo.

Jonathan H. Gardner was appointed as a Member of DASNY by the Governor on June 17, 2014. Mr. Gardner is a partner of the law firm Kavinoky Cook, LLP in Buffalo, New York. His practice areas include corporate and securities law, commercial transactions, private placements, venture capital financing and business combinations representing private and public companies. Mr. Gardner is also an adjunct professor at the University of Buffalo Law School. He holds a Bachelor of Arts degree from Brown University and a Juris Doctor degree from the University of Chicago Law School. Mr. Gardner's term expired on March 31, 2015 and by law he continues to serve until a successor shall be chosen and qualified.

BERYL L. SNYDER, J.D., New York.

Beryl L. Snyder was reappointed as a member of DASNY by the Governor on June 19, 2013. Ms. Snyder is a principal in HBJ Investments, LLC, an investment company where her duties include evaluation and analysis of a wide variety of investments in, among other areas: fixed income, equities, alternative investments and early stage companies. She holds a Bachelor of Arts degree in History from Vassar College and a Juris Doctor degree from Rutgers University. Her current term expired on August 31, 2016 and by law she continues to serve until a successor shall be chosen and qualified.

GERARD ROMSKI, ESQ., Mount Kisco.

Gerard Romski was reappointed as a Member of DASNY by the Temporary President of the State Senate on May 9, 2016. He is Counsel and Project Executive for "Arverne by the Sea," where he is responsible for advancing and overseeing all facets of "Arverne by the Sea," one of New York City's largest mixed-use developments located in Queens, New York. Mr. Romski is also of counsel to the New York City law firm of Rich, Intelisano & Katz, LLP. Mr. Romski holds a Bachelor of Arts degree from the New York Institute of Technology and a Juris Doctor degree from Brooklyn Law School.

PAUL S. ELLIS, ESQ., New York

Paul S. Ellis was appointed as a Member of DASNY by the Speaker of the State Assembly on September 19, 2016. Mr. Ellis is the Managing Member of Paul Ellis Law Group LLC, a law firm with a corporate/ securities/capital markets practice with emphasis on private placements, mergers and acquisitions, venture capital/ private equity

transactions and joint ventures. He previously worked for Donovan Leisure Newton & Irvine and Winston & Strawn and served in staff positions in the U.S. Senate and the Massachusetts House of Representatives. He co-founded the New York Technology Council and serves on the Board of the NY Tech Alliance and as Chairman of the Housing Committee of Bronx Community Board 8. He holds a Bachelor of Arts degree from Harvard University and a Juris Doctor degree from Georgetown University Law Center.

MARYELLEN ELIA, *Commissioner of Education of the State of New York*, Loudonville; *ex-officio*.

MaryEllen Elia was appointed by the Board of Regents to serve as Commissioner of Education and President of the University of the State of New York effective July 6, 2015. As Commissioner of Education, Ms. Elia serves as Chief Executive Officer of the State Education Department and as President of the University of the State of New York which is comprised of public and non-public elementary and secondary schools, public and independent colleges and universities, libraries, museums, broadcasting facilities, historical repositories, proprietary schools and services for children and adults with disabilities. Prior to her appointment in New York, Ms. Elia served as Superintendent of Schools in Hillsborough County, Florida for 10 years. She began her career in education in 1970 as a social studies teacher in Buffalo's Sweet Home Central School District and taught for 19 years before becoming an administrator. She holds a Bachelor of Arts degree in History from Daemen College in Buffalo, a Master of Education from the University at Buffalo and a Master of Professional Studies from SUNY Buffalo.

HOWARD A. ZUCKER, M.D., J.D., *Commissioner of Health of the State of New York*, Albany; *ex-officio*.

Howard A. Zucker, M.D., J.D., was appointed Commissioner of Health on May 5, 2015 after serving as Acting Commissioner of Health since May 5, 2014. Prior to that, he served as First Deputy Commissioner leading the State Department of Health's preparedness and response initiatives in natural disasters and emergencies. Before joining the State Department of Health, Dr. Zucker was professor of Clinical Anesthesiology at Albert Einstein College of Medicine of Yeshiva University and a pediatric cardiac anesthesiologist at Montefiore Medical Center. He was also an adjunct professor at Georgetown University Law School where he taught biosecurity law. Dr. Zucker earned his medical degree from George Washington University School of Medicine. He also holds a Juris Doctor degree from Fordham University School of Law and a Master of Laws degree from Columbia Law School.

ROBERT F. MUJICA, JR., *Budget Director of the State of New York*, Albany; *ex-officio*.

Robert F. Mujica Jr. was appointed Director of the Budget by the Governor and began serving on January 14, 2016. He is responsible for the overall development and management of the State's fiscal policy, including overseeing the preparation of budget recommendations for all State agencies and programs, economic and revenue forecasting, tax policy, fiscal planning, capital financing and management of the State's debt portfolio. Prior to his appointment, Mr. Mujica was Chief of Staff to the Temporary President and Majority Leader of the Senate and concurrently served as the Secretary to the Senate Finance Committee. For two decades, he advised various elected and other government officials in New York on State budget, fiscal and policy issues. Mr. Mujica received his Bachelor of Arts degree in Sociology from Brooklyn College at the City University of New York. He received his Master's degree in Government Administration from the University of Pennsylvania and holds a Juris Doctor degree from Albany Law School.

The principal staff of DASNY is as follows:

GERRARD P. BUSHHELL is the President and chief executive officer of DASNY. Mr. Bushell is responsible for the overall management of DASNY's administration and operations. Prior to joining DASNY, Mr. Bushell was Director, Senior Institutional Advisor of BNY Mellon's alternative and traditional investment management businesses. Prior thereto, he held a number of senior advisory roles, including Director, Client Partner Group at Kohlberg Kravis Roberts & Co. (KKR), Managing Director, Institutional Sales at Arden Asset Management LLC and Head of Institutional Sales at ClearBridge: a Legg Mason Company (formerly Citi Asset Management). Mr. Bushell previously served as Director of Intergovernmental Affairs for New York State Comptroller H. Carl McCall. Mr. Bushell holds a Bachelor of Arts degree, Master of Arts degree and Ph.D. in Political Science from Columbia University.

MICHAEL T. CORRIGAN is the Vice President of DASNY, and assists the President in the administration and operation of DASNY. Mr. Corrigan came to DASNY in 1995 as Budget Director, and served as Deputy Chief Financial Officer from 2000 until 2003. He began his government service career in 1983 as a budget analyst for Rensselaer County and served as the County's Budget Director from 1986 to 1995. Immediately before coming to DASNY, he served as the appointed Rensselaer County Executive for a short period. Mr. Corrigan holds a Bachelor

of Arts degree in Economics from the State University of New York at Plattsburgh and a Master of Arts degree in Business Administration from the University of Massachusetts.

KIMBERLY J. NADEAU is the Chief Financial Officer and Treasurer of DASNY. As Chief Financial Officer and Treasurer, Ms. Nadeau is responsible for supervising DASNY's investment program, general accounting, accounts payable, accounts receivable, financial reporting functions, budget, payroll, insurance and information services, as well as the development and implementation of financial policies, financial management systems and internal controls for financial reporting. She previously was Vice President-Accounting and Controller for US Light Energy. Prior to that she was Vice President-Accounting and Controller for CH Energy Group, Inc. and held various positions culminating in a director level position at Northeast Utilities. Ms. Nadeau also held various positions with increasing responsibility at Coopers & Lybrand LLP. She holds a Bachelor of Science degree in Accounting, a Master of Business Administration with a concentration in Management and a Juris Doctor degree from the University of Connecticut. She is licensed to practice law in New York and Connecticut.

MICHAEL E. CUSACK is General Counsel to DASNY. Mr. Cusack is responsible for all legal services including legislation, litigation, contract matters, and the legal aspects of all DASNY financings. In addition, he is responsible for the supervision of DASNY's environmental affairs unit. He is licensed to practice law in the State of New York and the Commonwealth of Massachusetts, as well as the United States District Court for the Northern District of New York. Mr. Cusack has over twenty years of combined legal experience, including management of an in-house legal department and external counsel teams (and budgets) across a five-state region. He most recently served as of counsel to the Albany, New York law firm of Young/Sommer, LLC, where his practice included representation of upstate New York municipalities, telecommunications service providers in the siting of public utility/personal wireless service facilities and other private sector clients. He holds a Bachelor of Science degree from Siena College and a Juris Doctor degree from Albany Law School of Union University.

PORTIA LEE is the Managing Director of Public Finance and Portfolio Monitoring. She is responsible for supervising and directing DASNY bond issuance in the capital markets, implementing and overseeing financing programs, overseeing DASNY's compliance with continuing disclosure requirements and monitoring the financial condition of existing DASNY clients. Ms. Lee previously served as Senior Investment Officer at the New York State Comptroller's Office where she was responsible for assisting in the administration of the long-term fixed income portfolio of the New York State Common Retirement Fund, as well as the short-term portfolio, and the Securities Lending Program. From 1995 to 2005, Ms. Lee worked at Moody's Investors Service where she most recently served as Vice President and Senior Credit Officer in the Public Finance Housing Group. She holds a Bachelor of Arts degree from the State University of New York at Albany.

STEPHEN D. CURRO is the Managing Director of Construction. Mr. Curro is responsible for DASNY's construction groups, including design, project management, resource acquisition, contract administration, interior design, real property, sustainability and engineering, as well as other technical services. Mr. Curro joined DASNY in 2001 as Director of Technical Services, and most recently served as Director of Construction Support Services. He is a registered Professional Engineer in New York and has worked in the construction industry for more than 30 years. He holds a Bachelor of Science in Civil Engineering from the University of Rhode Island, a Master of Engineering in Structural Engineering from Rensselaer Polytechnic Institute and a Master of Business Administration from Rensselaer Polytechnic Institute's Lally School of Management.

CAROLINE V. GRIFFIN is the Chief of Staff of DASNY. She is responsible for overseeing intergovernmental relations and managing the Communications & Marketing Department, as well as coordinating policy and operations across DASNY's multiple business lines. Ms. Griffin most recently served as the Director of Intergovernmental Affairs for Governor Andrew M. Cuomo where she worked as the Governor's liaison with federal, state and local elected officials and managed staff serving in various capacities in the Governor's Office. Prior to that she served as the Assistant Executive Deputy Secretary for Governor Andrew M. Cuomo overseeing the operations staff and Assistant Secretary for Intergovernmental Affairs for both Governor David A. Paterson and Governor Eliot Spitzer. She holds a Bachelor of Arts degree in Communications from Boston College.

### **Claims and Litigation**

Although certain claims and litigation have been asserted or commenced against DASNY, DASNY believes that such claims and litigation either are covered by insurance or by bonds filed with DASNY, or that DASNY has sufficient funds available or the legal power and ability to seek sufficient funds to meet any such claims or judgments resulting from such matters.

## **Other Matters**

### *New York State Public Authorities Control Board*

The New York State Public Authorities Control Board (the “PACB”) has authority to approve the financing and construction of any new or reactivated projects proposed by DASNY and certain other public authorities of the State. The PACB approves the proposed new projects only upon its determination that there are commitments of funds sufficient to finance the acquisition and construction of the projects. DASNY obtains the approval of the PACB for the issuance of all of its bonds and notes.

### *Legislation*

From time to time, bills are introduced into the State Legislature which, if enacted into law, would affect DASNY and its operations. DASNY is not able to represent whether such bills will be introduced or become law in the future. In addition, the State undertakes periodic studies of public authorities in the State (including DASNY) and their financing programs. Any of such periodic studies could result in proposed legislation which, if adopted, would affect DASNY and its operations.

### *Environmental Quality Review*

DASNY complies with the New York State Environmental Quality Review Act and with the New York State Historic Preservation Act of 1980, and the respective regulations promulgated thereunder to the extent such acts and regulations are applicable.

### *Independent Auditors*

The accounting firm of KPMG LLP audited the financial statements of DASNY for the fiscal year ended March 31, 2017. Copies of the most recent audited financial statements are available upon request at the offices of DASNY.

## **PART 9 - LEGALITY OF THE SERIES 2018 BONDS FOR INVESTMENT AND DEPOSIT**

Under New York State law, the Series 2018 Bonds are securities in which all public officers and bodies of the State and all municipalities and municipal subdivisions, all insurance companies and associations, all savings banks and savings institutions, including savings and loan associations, administrators, guardians, executors, trustees, committees, conservators and other fiduciaries in the State may properly and legally invest funds in their control.

The Series 2018 Bonds may be deposited with the State Comptroller to secure deposits of State money in banks, trust companies and industrial banks.

## **PART 10 - NEGOTIABLE INSTRUMENTS**

The Series 2018 Bonds are negotiable instruments as provided in the Act, subject to the provisions for registration and transfer contained in the Resolution and in the Series 2018 Bonds.

## **PART 11 - TAX MATTERS**

### **Federal Income Taxes**

The Internal Revenue Code of 1986, as amended (the “Code”), imposes certain requirements that must be met subsequent to the issuance and delivery of the Series 2018 Bonds for interest thereon to be and remain excluded from gross income for federal income tax purposes. Noncompliance with such requirements could cause the interest on the Series 2018 Bonds to be included in gross income for federal income tax purposes retroactive to the date of issue of the Series 2018 Bonds. Pursuant to the Resolution, the Series 2018 Resolutions, the Loan Agreement and the Tax Certificate, DASNY and the University have covenanted to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Series 2018 Bonds from gross income for federal income tax purposes pursuant to Section 103 of the Code. In addition, DASNY and the University have made certain representations and certifications in the Resolution, the Series 2018 Resolutions, the Loan Agreement and the Tax Certificate. Nixon Peabody LLP will also rely on the opinion of special counsel to the University as to all matters concerning the status of the University as an organization described in Section 501(c)(3) of the Code and exempt from federal income tax under Section 501(a) of the Code. Neither Nixon Peabody LLP nor Drohan Lee LLP will independently verify the accuracy of those representations and certifications or that opinion.

In the opinion of Nixon Peabody LLP, under existing law and assuming compliance with the aforementioned covenants, and the accuracy of certain representations and certifications made by DASNY and the University described above, interest on the Series 2018 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. Nixon Peabody LLP is also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code.

### **State Taxes**

Nixon Peabody LLP and Drohan Lee LLP, Co-Bond Counsel, are also of the opinion that, by virtue of the Act, interest on the Series 2018 Bonds is exempt from personal income taxes of the State of New York and its political subdivisions, including The City of New York and the City of Yonkers. Co-Bond Counsel express no opinion as to other state or local tax law consequences arising with respect to the Series 2018 Bonds nor as to the taxability of the Series 2018 Bonds or the income derived therefrom under the laws of any state other than the State of New York.

### **Original Issue Premium**

Each maturity of the Series 2018 Bonds (referred to in this paragraph as the “Premium Bonds”) are being offered at prices in excess of their principal amounts. An initial purchaser with an initial adjusted basis in a Premium Bond in excess of its principal amount will have amortizable bond premium which is not deductible from gross income for federal income tax purposes. The amount of amortizable bond premium for a taxable year is determined actuarially on a constant interest rate basis over the term of each Premium Bond based on the purchaser’s yield to maturity (or, in the case of Premium Bonds callable prior to their maturity, over the period to the call date, based on the purchaser’s yield to the call date and giving effect to any call premium). For purposes of determining gain or loss on the sale or other disposition of a Premium Bond, an initial purchaser who acquires such obligation with an amortizable bond premium is required to decrease such purchaser’s adjusted basis in such Premium Bond annually by the amount of amortizable bond premium for the taxable year. The amortization of bond premium may be taken into account as a reduction in the amount of tax-exempt income for purposes of determining various other tax consequences of owning such Premium Bonds. Owners of the Premium Bonds are advised that they should consult with their own tax advisors with respect to the state and local tax consequences of owning such Premium Bonds.

### **Ancillary Tax Matters**

Ownership of the Series 2018 Bonds may result in other federal tax consequences to certain taxpayers, including, without limitation, certain S corporations, foreign corporations with branches in the United States, property and casualty insurance companies, individuals receiving Social Security or Railroad Retirement benefits and individuals seeking to claim the earned income tax credit. Ownership of the Series 2018 Bonds may also result in other federal tax consequences to taxpayers (including banks, thrift institutions and other financial institutions) who may be deemed to have incurred or continued indebtedness to purchase or to carry the Series 2018 Bonds. Prospective investors are advised to consult their own tax advisors regarding these rules.

Interest paid on tax-exempt obligations such as the Series 2018 Bonds is subject to information reporting to the Internal Revenue Service (the “IRS”) in a manner similar to interest paid on taxable obligations. In addition, interest on the Series 2018 Bonds may be subject to backup withholding if such interest is paid to a registered owner that (a) fails to provide certain identifying information (such as the registered owner’s taxpayer identification number) in the manner required by the IRS, or (b) has been identified by the IRS as being subject to backup withholding.

Nixon Peabody LLP is not rendering any opinion as to any federal tax matters other than those described in the opinion attached as Appendix F to this Official Statement. Prospective investors, particularly those who may be subject to special rules described above, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the Series 2018 Bonds, as well as any tax consequences arising under the laws of any state or other taxing jurisdiction.

### **Changes in Tax Law and Post-Issuance Events**

Legislative or administrative actions and court decisions, at either the federal or state level, could have an adverse impact on the potential benefits of the exclusion from gross income of the interest on the Series 2018 Bonds for federal or state income tax purposes, and thus on the value or marketability of the Series 2018 Bonds. This could result from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), repeal of the exclusion of the interest on the Series 2018 Bonds from gross income for federal or state income tax purposes, or otherwise. It is not possible to predict whether any legislative or administrative actions or court decisions having an adverse impact on the federal, state or local income tax treatment

of holders of the Series 2018 Bonds may occur. Prospective purchasers of the Series 2018 Bonds should consult their own tax advisors regarding such matters.

Co-Bond Counsel have not undertaken to advise in the future whether any events after the date of issuance and delivery of the Series 2018 Bonds may affect the tax status of interest on the Series 2018 Bonds. Co-Bond Counsel express no opinion as to any federal, state or local tax law consequences with respect to the Series 2018 Bonds, or the interest thereon, if any action is taken with respect to the Series 2018 Bonds or the proceeds thereof upon the advice or approval of other counsel.

#### **PART 12 - STATE NOT LIABLE ON THE SERIES 2018 BONDS**

The Act provides that notes and bonds of DASNY are not a debt of the State, that the State is not liable on them and that such notes and bonds are not payable out of any funds other than those of DASNY. The Resolution specifically provides that the Series 2018 Bonds are not a debt of the State and that the State is not liable on the Series 2018 Bonds.

#### **PART 13 - COVENANT BY THE STATE**

The Act states that the State pledges and agrees with the holders of DASNY's notes and bonds that the State will not limit or alter the rights vested in DASNY to provide projects, to establish and collect rentals therefrom and to fulfill agreements with the holders of DASNY's notes and bonds or in any way impair the rights and remedies of the holders of such notes or bonds until such notes or bonds and interest thereon and all costs and expenses in connection with any action or proceeding by or on behalf of the holders of such notes or bonds are fully met and discharged. Notwithstanding the State's pledges and agreements contained in the Act, the State may in the exercise of its sovereign power enact or amend its laws which, if determined to be both reasonable and necessary to serve an important public purpose, could have the effect of impairing these pledges and agreements with DASNY and with the holders of DASNY's notes or bonds.

#### **PART 14 - LEGAL MATTERS**

Certain legal matters incidental to the authorization and issuance of the Series 2018 Bonds by DASNY are subject to the approval of Nixon Peabody LLP, New York, New York, and Drohan Lee LLP, New York, New York, Co-Bond Counsel, whose approving opinions will be delivered with the Series 2018 Bonds. The proposed forms of Co-Bond Counsel's opinions are set forth in Appendix F hereto.

Certain legal matters will be passed upon for the University by its General Counsel and by Hawkins Delafield & Wood LLP, New York, New York. Certain legal matters will be passed upon for the Underwriters by their counsel, Katten Muchin Rosenman LLP, New York, New York.

There is not now pending any litigation restraining or enjoining the issuance or delivery of the Series 2018 Bonds or questioning or affecting the validity of the Series 2018 Bonds or the proceedings and authority under which they are to be issued. There is no litigation pending which in any manner questions the right of DASNY to finance the 2018A Project in accordance with the provisions of the Act, the Resolution and the Loan Agreement.

#### **PART 15 - UNDERWRITING**

Goldman Sachs & Co. LLC ("Goldman Sachs"), as representative of the Underwriters, has agreed, subject to certain conditions, to purchase the Series 2018A Bonds from DASNY at an aggregate purchase price of \$191,212,513.95 (which represents the par amount of the Series 2018A Bonds, less aggregate Underwriters' discount of \$331,986.05 on the Series 2018A Bonds, plus aggregate net premium of \$41,544,500.00 on the Series 2018A Bonds) and to make a public offering of the Series 2018A Bonds at prices that are not in excess of the public offering price or prices stated on the inside cover page of this Official Statement. The Underwriters will be obligated to purchase all such Series 2018A Bonds if any are purchased.

Goldman Sachs, as representative of the Underwriters, has agreed, subject to certain conditions, to purchase the Series 2018B Bonds from DASNY at an aggregate purchase price of \$204,867,770.23 (which represents the par amount of the Series 2018B Bonds, less aggregate Underwriters' discount of \$391,238.72 on the Series 2018B Bonds, plus aggregate net premium of \$30,074,008.95 on the Series 2018B Bonds) and to make a public offering of the Series 2018B Bonds at prices that are not in excess of the public offering price or prices stated on the inside cover page of this Official Statement. The Underwriters will be obligated to purchase all such Series 2018B Bonds if any are purchased.



The Series 2018 Bonds may be offered and sold to certain dealers (including the Underwriters) at prices lower than such public offering prices, and such public offering prices may be changed, from time to time, by the Underwriters.

Armen Avanesians, an employee of Goldman Sachs or an affiliate thereof, is a member of the University's Board of Trustees.

Each of the following paragraphs in this section has been provided by one or more of the Underwriters identified therein.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, advisory, investment management, principal investment, hedging, financing and brokerage activities. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for the University, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of the University.

J.P. Morgan Securities LLC ("JPMS"), one of the Underwriters of the Series 2018 Bonds, has entered into negotiated dealer agreements (each, a "Dealer Agreement") with each of Charles Schwab & Co., Inc. ("CS&Co.") and LPL Financial LLC ("LPL") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, if applicable to this transaction, each of CS&Co. and LPL will purchase Series 2018 Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Series 2018 Bonds that such firm sells.

#### **PART 16 - CONTINUING DISCLOSURE**

In order to assist the Underwriters in complying with Rule 15c2-12 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended ("Rule 15c2-12"), the University will enter into a written agreement (the "Agreement to Provide Continuing Disclosure") for the benefit of the Holders of the Series 2018 Bonds with Digital Assurance Certification L.L.C. ("DAC"), as disclosure dissemination agent, the Trustee. The proposed form of the Agreement to Provide Continuing Disclosure is attached as Appendix E hereto.

#### **PART 17 - RATINGS**

Moody's Investors Service ("Moody's") has assigned a rating of "Aaa" to the long-term obligations of the University, including the Series 2018 Bonds. Standard & Poor's Ratings Services, a division of McGraw Hill Financial, Inc. ("S&P") has assigned a rating of "AAA" to the long-term obligations of the University, including the Series 2018 Bonds. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings should be obtained from the rating agencies at the following addresses: S&P, 55 Water Street, New York, New York 10041; and Moody's, 7 World Trade Center, 250 Greenwich Street, New York, New York 10007. There is no assurance that such ratings will prevail for any given period of time or that they will not be revised downward or withdrawn entirely by any or all of such rating agencies if, in the judgment of any or all of them, circumstances so warrant. Any such downward revision or withdrawal of such rating or ratings may have an adverse effect on the market price of the Series 2018 Bonds.

#### **PART 18 - VERIFICATION OF MATHEMATICAL COMPUTATIONS**

Causey Demgen & Moore P.C. (the "Verification Agent") will provide at the time of delivery of the 2018B Bonds a report to the effect that such firm has verified the arithmetic accuracy of certain schedules provided to it with respect to the adequacy of the cash and the maturing principal of and interest on the non-callable direct obligations of the United States of America to pay when due the redemption price of, and the interest on, the Refunded Bonds. The Verification Agent will express no opinion as to any assumptions provided to it.

#### **PART 19 - MISCELLANEOUS**

References in this Official Statement to the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement do not purport to be complete. Refer to the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement for full and complete

details of their provisions. Copies of the Act, the Resolution, the Series 2018 Resolutions, the Series 2018 Bond Series Certificates and the Loan Agreement are on file with DASNY and the Trustee.

The agreements of DASNY with Holders of the Series 2018 Bonds are fully set forth in the Resolution. Neither any advertisement of the Series 2018 Bonds nor this Official Statement is to be construed as a contract with purchasers of the Series 2018 Bonds.

Any statements in this Official Statement involving matters of opinion, whether or not expressly stated, are intended merely as expressions of opinion and not as representations of fact.

The information regarding the University was supplied by the University. DASNY believes that this information is reliable, but DASNY makes no representations or warranties whatsoever as to the accuracy or completeness of this information.

The information regarding DTC and DTC's book-entry only system has been furnished by DTC. DASNY believes that this information is reliable, but makes no representations or warranties whatsoever as to the accuracy or completeness of this information.

"APPENDIX A - DEFINITIONS," "APPENDIX C - SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AGREEMENT," "APPENDIX D - SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION" and "APPENDIX F - FORM OF APPROVING OPINIONS OF CO-BOND COUNSEL" have been prepared by Nixon Peabody LLP, New York, New York, and Drohan Lee LLP, New York, New York, Co-Bond Counsel.

The consolidated balance sheets of the University as of June 30, 2017 and 2016, the related consolidated statement of activities for the year ended June 30, 2017, and the related consolidated statements of cash flows for the years ended June 30, 2017 and 2016, included in Appendix B, have been audited by PricewaterhouseCoopers LLP, independent accountants, as stated in their report appearing herein.

The University has reviewed the parts of this Official Statement describing the University, the 2018A Project, the Refunding Plan, the Estimated Sources and Uses of Funds and Appendix B. The University shall certify as of the dates of sale and delivery of the Series 2018 Bonds that such parts do not contain any untrue statement of a material fact and do not omit to state any material fact necessary to make the statements made therein, in the light of the circumstances under which the statements are made, not misleading.

The University has agreed to indemnify DASNY, the Underwriters and certain others against losses, claims, damages and liabilities arising out of any untrue statements or omissions of statements of any material fact as described in the preceding paragraph.

The execution and delivery of this Official Statement by an Authorized Officer have been duly authorized by DASNY.

**DORMITORY AUTHORITY OF  
THE STATE OF NEW YORK**

By: /s/ Gerrard P. Bushell  
Authorized Officer

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**DEFINITIONS**

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## DEFINITIONS

The following are definitions of certain terms used and not defined elsewhere in this Official Statement.

*Accreted Value* means with respect to any Capital Appreciation Bond (i) as of any Valuation Date, the amount set forth for such date in the Series Resolution authorizing such Capital Appreciation Bond or the Bond Series Certificate relating thereto and (ii) as of any date other than a Valuation Date, the sum of (a) the Accreted Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from the preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date, calculated based on the assumption that Accreted Value accrues during any semi-annual period in equal daily amounts on the basis of a year of twelve (12) thirty-day months, and (2) the difference between the Accreted Values for such Valuation Dates.

*Act* means the Dormitory Authority Act (being Chapter 524 of the Laws of 1944 of the State, as amended, and constituting Title 4 and Title 4-B of Article 8 of the Public Authorities Law of the State, as amended).

*Annual Administrative Fee* means the fee payable during each Bond Year for the general administrative and supervisory expenses of the Authority in an amount equal to .05% of the aggregate principal amount of Bonds issued by the Authority; *provided, however*, the amount payable with respect to a Series of Bonds for the Bond Year during which such Series of Bonds are issued shall be the amount determined as provided above multiplied by a fraction, the numerator of which is the number of complete calendar months remaining in such Bond Year and the denominator of which is twelve (12).

*Appreciated Value* means with respect to any Deferred Income Bond (i) as of any Valuation Date, the amount set forth for such date in the Series Resolution authorizing such Deferred Income Bond or the Bond Series Certificate relating thereto and (ii) as of any date other than a Valuation Date, the sum of (a) the Appreciated Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from such preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date, calculated based on the assumption that Appreciated Value accrues during any semi-annual period in equal daily amounts on the basis of a year of twelve thirty-day months, and (2) the difference between the Appreciated Values for such Valuation Dates, and (iii) as of any date of computation on and after the Interest Commencement Date, the Appreciated Value on the Interest Commencement Date.

*Arbitrage Rebate Fund* means the fund so designated, created and established pursuant to the Resolution.

*Authority* means the Dormitory Authority of the State of New York, a body corporate and politic constituting a public benefit corporation of the State created by the Act, or any body, agency or instrumentality of the State which succeeds to the rights, powers, duties and functions of the Authority.

*Authority Fee* means a fee payable to the Authority consisting of all the Authority's internal costs and overhead expenses attributable to the issuance of a Series of Bonds and the construction of the Projects, as more particularly described in the Loan Agreement.

*Authorized Newspaper* means *The Bond Buyer* or any other newspaper of general circulation printed in the English language and customarily published at least once a day for at least five days (other than legal holidays) in each calendar week in the Borough of Manhattan, City and State of New York, designated by the Authority.

*Authorized Officer* means (i) in the case of the Authority, the Chair, the Vice-Chair, the Treasurer, an Assistant Treasurer, the Secretary, an Assistant Secretary, the Executive Director, the Deputy Executive Director, the Chief Financial Officer, the Managing Director of Construction, the Managing Director of Public Finance, the Deputy Chief Financial Officer, the Assistant Director, the Managing Director of Public Policy and Program Development and the General Counsel, and when used with reference to any act or document also means any other person authorized by a resolution or the by-laws of the Authority to perform such act or

## *Appendix A*

execute such document; (ii) in the case of an Institution, the person or persons authorized by a resolution or the by-laws of such Institution to perform any act or execute any document; and (iii) in the case of the Trustee, the President, a Vice President, an Assistant Vice President, a Corporate Trust Officer, an authorized signatory, a Trust Officer or an Assistant Trust Officer of the Trustee, and when used with reference to any act or document also means any other person authorized to perform any act or sign any document by or pursuant to a resolution of the Board of Directors of such Trustee or the by-laws of such Trustee.

*Bond* or *Bonds* means any of the bonds of the Authority authorized pursuant to the Resolution and issued pursuant to the Resolution and to a Series Resolution.

*Bond Counsel* means Nixon Peabody LLP or an attorney or a law firm, appointed by the Authority, having a national reputation in the field of municipal law whose opinions are generally accepted by purchasers of municipal bonds.

*Bond Series Certificate* means the certificate of an Authorized Officer of the Authority fixing terms, conditions and other details of Bonds in accordance with the delegation of power to do so under the Resolution or under a Series Resolution.

*Bond Year* means a period of twelve (12) consecutive months beginning July 1 in any calendar year and ending on June 30 of the succeeding calendar year.

*Bondholder* or *Holder of Bonds* or *Holder* or any similar term, when used with reference to a Bond or Bonds, means the registered owner of any Bond.

*Book Entry Bond* means a Bond authorized to be issued, and issued to and registered in the name of a Depository for the participants in such Depository or the beneficial owner of such Bond.

*Business Day* means when used in connection with any particular Series 2018 Bonds any day which is not a Saturday, Sunday or a day on which the Trustee or banking institutions chartered by the State or the United States of America are legally authorized to close in The City of New York.

*Capital Appreciation Bond* means any Bond as to which interest is compounded on each Valuation Date therefor and is payable only at the maturity or prior redemption thereof.

*Code* means the Internal Revenue Code of 1986, as amended, and the applicable regulations thereunder.

*Contract Documents* means any general contract or agreement for the construction of a Project, notice to bidders, information for bidders, form of bid, general conditions, supplemental general conditions, general requirements, supplemental general requirements, bonds, plans and specifications, addenda, change orders, and any other documents entered into or prepared by or on behalf of the University relating to the construction of a Project, and any amendments to the foregoing.

*Construction Fund* means the fund so designated, created and established for a Project pursuant to a Series Resolution.

*Cost* or *Costs of Issuance* means the items of expense incurred in connection with the authorization, sale and issuance of the Bonds, which items of expense shall include, but not be limited to, document printing and reproduction costs, filing and recording fees, costs of credit ratings, initial fees and charges of the Trustee or a Depository, legal fees and charges, professional consultants' fees, fees and charges for execution, transportation and safekeeping of Bonds, premiums, fees and charges for insurance on Bonds, commitment fees or similar charges relating to a Credit Facility, or a Liquidity Facility, an Interest Rate Exchange Agreement or a Remarketing Agent, costs and expenses of refunding Bonds or other bonds or notes of the Authority, costs and expenses incurred pursuant to a remarketing agreement and other costs, charges and fees, including those of the Authority, in connection with the foregoing.



*Cost or Costs of a Project* means when used in relation to a Project the costs and expenses or the refinancing of costs and expenses determined by the Authority to be necessarily or appropriately incurred in connection with the Project, including, but not limited to, (i) costs and expenses of the acquisition of the title to or other interest in real property, including easements, rights-of-way and licenses, (ii) costs and expenses incurred for labor and materials and payments to contractors, builders and materialmen, for the acquisition, construction, reconstruction, rehabilitation, repair and improvement of the Project, (iii) the cost of surety bonds and insurance of all kinds, including premiums and other charges in connection with obtaining title insurance, that may be required or necessary prior to completion of the Project, which is not paid by a contractor or otherwise provided for, (iv) the costs and expenses for design, environmental inspections and assessments, test borings, surveys, estimates, plans and specifications and preliminary investigations therefor, and for supervising construction of the Project, (v) costs and expenses required for the acquisition and installation of equipment or machinery, (vi) all other costs which the University shall be required to pay or cause to be paid for the acquisition, construction, reconstruction, rehabilitation, repair, improvement and equipping of the Project, (vii) any sums required to reimburse the University or the Authority for advances made by them for any of the above items or for other costs incurred and for work done by them in connection with the Project (including interest on moneys borrowed from parties other than the University), (viii) interest on the Bonds, bonds, notes or other obligations issued to finance Costs of the Project prior to, during and for a reasonable period after completion of the acquisition, construction, reconstruction, rehabilitation, repair, improvement or equipping of the Project, and (ix) fees, expenses and liabilities of the Authority incurred in connection with the Project or pursuant to the Resolution or to the Loan Agreement, a Credit Facility, a Liquidity Facility, or a remarketing agreement in connection with Option Bonds or Variable Interest Rate Bonds.

*Credit Facility* means an irrevocable letter of credit, surety bond, loan agreement, or other agreement, facility or insurance or guaranty arrangement issued or extended by a bank, a trust company, a national banking association, an organization subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956 or any successor provisions of law, a federal branch pursuant to the International Banking Act of 1978 or any successor provisions of law, a domestic branch or agency of a foreign bank which branch or agency is duly licensed or authorized to do business under the laws of any state or territory of the United States of America, a savings bank, a saving and loan association, an insurance company or association chartered or organized under the laws of any state of the United States of America, the Government National Mortgage Association or any successor thereto, the Federal National Mortgage Association or any successor thereto, or any other federal agency or instrumentality approved by the Authority, pursuant to which the Authority is entitled to obtain moneys to pay the principal, Redemption Price of Bonds due in accordance with their terms of Redemption or tendered for purchase or redemption, plus accrued interest thereon to the date of payment or redemption thereof in accordance with the Resolution and with the Series Resolution authorizing such Bonds or a Bond Series Certificate, whether or not the Authority is in default under the Resolution.

*Debt Service Fund* means the fund so designated, created and established pursuant to the Resolution.

*Defeasance Security* means (a) a Government Obligation of the type described in clauses (i), (ii), (iii) or (iv) of the definition of Government Obligations, (b) Federal Agency Obligations described in clauses (i) or (ii) of the definition of Federal Agency Obligations and (c) an Exempt Obligation, provided such Exempt Obligation (i) is not subject to redemption prior to maturity other than at the option of the holder thereof or as to which irrevocable instructions have been given to the trustee of such Exempt Obligation by the obligor thereof to give due notice of redemption and to call such Exempt Obligation for redemption on the date or dates specified in such instructions and such Exempt Obligation is not otherwise subject to redemption prior to such specified date other than at the option of the holder thereof, (ii) is secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash or Government Obligations, which fund may be applied only to the payment of such principal of and interest and redemption premium, if any, on such Exempt Obligation on the maturity date thereof or the redemption date specified in the irrevocable instructions referred to in clause (i) above, (iii) as to which the principal of and interest on the direct obligations of the United States of America which have been deposited in such fund, along with any cash on deposit in such fund, are sufficient to pay the principal of and interest and redemption premium, if any, on such Exempt Obligation on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in clause (i) above, and (iv) is rated by at least two Rating Services in the highest rating category for such Exempt

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Obligation; *provided, however*, that (1) such term shall not include any interest in a unit investment trust or mutual fund or (2) any obligation that is subject to redemption prior to maturity other than at the option of the holder thereof.

*Deferred Income Bond* means any Bond as to which interest accruing thereon prior to the Interest Commencement Date of such Bond is compounded on each Valuation Date for such Deferred Income Bond, and as to which interest accruing after the Interest Commencement Date is payable semi-annually on the dates specified in the Series resolution authorizing such Bond or the Bond Series Certificate relating to such Bond.

*Depository* means The Depository Trust Company, New York, New York, a limited purpose trust company organized under the laws of the State, or its nominee, or any other person, firm, association or corporation designated in the Series Resolution authorizing a Series of Bonds or a Bond Series Certificate relating to a Series of Bonds to serve as securities depository for the Bonds of such Series.

*Exempt Obligation* means (i) an obligation of any state or territory of the United States of America, any political subdivision of any state or territory of the United States of America, or any agency, authority, public benefit corporation or instrumentality of such state, territory or political subdivision, the interest on which is excludable from gross income under Section 103 of the Code, which is not a “specified private activity bond” within the meaning of Section 57(a)(5) of the Code, and which, at the time an investment therein is made or such obligation is deposited in any fund or account under the Resolution, is rated, without regard to qualification of such rating by symbols such as “+” or “-” and numerical notation, no lower than the second highest rating category for such obligation by at least two Rating Services, (ii) a certificate or other instrument which evidences the beneficial ownership of, or the right to receive all or a portion of the payment of the principal of, or interest on any of the foregoing and (iii) a share or interest in a mutual fund, partnership or other fund wholly comprised of any of the foregoing obligations.

*Federal Agency Obligation* means (i) an obligation issued by any federal agency or instrumentality approved by the Authority, (ii) an obligation the principal of and interest on which are fully insured or guaranteed as to payment by a federal agency approved by the Authority, (iii) a certificate or other instrument which evidences the beneficial ownership of, or the right to receive all or a portion of the payment of the principal of or interest on any of the foregoing and (iv) a share or interest in a mutual fund, partnership or other fund wholly comprised of any of the foregoing obligations.

*Fitch* means Fitch Inc., a corporation organized and existing under the laws of the State of Delaware, or its successors and assigns.

*Government Obligation* means (i) a direct obligation of the United States of America, (ii) an obligation the principal of and interest on which are fully insured or guaranteed as to payment by the United States of America, (iii) an obligation to which the full faith and credit of the United States of America are pledged, (iv) a certificate or other instrument which evidences the beneficial ownership of, or the right to receive all or a portion of the payment of the principal of or interest on any of the foregoing and (v) a share or interest in a mutual fund, partnership or other fund wholly comprised of any of the foregoing obligations.

*Investment Agreement* means a repurchase agreement or other agreement for the investment of moneys with a Qualified Financial Institution.

*Liquidity Facility* means an irrevocable letter of credit, surety bond, loan agreement, standby purchase agreement, line of credit or other agreement or arrangement issued or extended by a bank, a trust company, a national banking association, an organization subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956 or any successor provisions of law, a federal branch pursuant to the International Banking Act of 1978 or any successor provisions of law, a domestic branch or agency of a foreign bank which branch or agency is duly licensed or authorized to do business under the laws of any state or territory of the United States of America, a savings bank, a savings and loan association, an insurance company or association chartered or organized under the laws of any state of the United States of America, the Government National Mortgage Association or any successor thereto, the Federal National Mortgage Association or any successor thereto, or any other federal agency or instrumentality approved by the Authority, pursuant to which the

Authority is entitled to obtain moneys upon the terms and conditions contained therein for the purchase of Bonds tendered for purchase in accordance with the terms of the Resolution and of the Series Resolution authorizing such Bonds or a Bond Series Certificate relating to such Bonds.

*Maximum Interest Rate* means, with respect to any particular Variable Interest Rate Bond, the numerical rate of interest, if any, set forth in the Series Resolution authorizing such Bond or the Bond Series Certificate relating to such Bond, as the maximum rate at which such Bond may bear interest at any time.

*Minimum Interest Rate* means, with respect to any particular Variable Interest Rate Bond, a numerical rate of interest, if any, set forth in the Series Resolution authorizing such Bond or the Bond Series Certificate relating to such Bonds, as the minimum rate at which such Bond may bear interest at any time.

*Moody's* means Moody's Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, and its successors and assigns.

*Option Bond* means any Bond which by its terms may be or is required to be tendered by and at the option of the Holder thereof for redemption by the Authority prior to the stated maturity thereof or for purchase thereof, or the maturity of which may be extended by and at the option of the Holder thereof in accordance with the Series Resolution authorizing such Bonds or the Bond Series Certificate related to such Bonds.

*Outstanding*, when used in reference to Bonds, means, as of a particular date, all Bonds authenticated and delivered under the Resolution and under any applicable Series Resolution except (i) any Bond canceled by the Trustee at or before such date; (ii) any Bond deemed to have been paid in accordance with the Resolution; (iii) any Bond in lieu of or in substitution for which another Bond shall have been authenticated and delivered pursuant to the Resolution; and (iv) any Option Bond tendered or deemed tendered in accordance with the provisions of the Series Resolution authorizing such Bond or the Bond Series Certificate relating to such Bond on the applicable adjustment or conversion date, if interest thereon shall have been paid through such applicable date and the purchase price thereof shall have been paid or amounts are available for such payment as provided in the Resolution authorizing such Bond or the Bond Series Certificate relating to such Bond.

*Paying Agent* means, with respect to the Bonds of any Series, the Trustee and any other bank or trust company and its successor or successors, appointed pursuant to the provisions of the Resolution or of a Series Resolution, a Bond Series Certificate or any other resolution of the Authority adopted prior to authentication and delivery of the Series of Bonds for which such Paying Agent or Paying Agents shall be so appointed.

*Permitted Collateral* means (i) Government Obligations described in clauses (i), (ii) or (iii) of the definition of Government Obligations, (ii) Federal Agency Obligations described in clauses (i) or (ii) of the definition of Federal Agency Obligations, (iii) commercial paper that (a) matures within two hundred seventy (270) after its day of issuance, (b) is rated in the highest short term rating category by at least one Rating Service and (c) is issued by a domestic corporation whose unsecured senior debt is rated by at least one Rating Service no lower than in the second highest rating category or (iv) financial guaranty agreements, surety or other similar bonds or other instruments of an insurance company that has an equity capital of at least \$125,000,000 and is rated by Bests Insurance Guide or a Rating Service in the highest rating category.

*Permitted Investments* means any of the following: (i) Government Obligations; (ii) Federal Agency Obligations; (iii) Exempt Obligations; (iv) Uncollateralized certificates of deposit that are fully insured by the Federal Deposit Insurance Corporation and issued by a banking organization authorized to do business in the State; (v) Collateralized certificates of deposit that are (a) issued by a banking organization authorized to do business in the State that has an equity capital of not less than \$125,000,000, whose unsecured senior debt, or debt obligations fully secured by a letter of credit, contract, agreement or surety bond issued by it, are rated by at least one Rating Services in at least the second highest rating category, and (b) are fully collateralized by Permitted Collateral; and (vi) Investment Agreements that are fully collateralized by Permitted Collateral.

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*Project* means a “dormitory” as defined in the Act, which may include more than one part, financed in whole or in part from the proceeds of the sale of Bonds, as more particularly described in the Series Resolution authorizing the issuance of Bonds in connection with such Project.

*Provider* means the issuer of a Credit Facility or a Liquidity Facility.

*Provider Payment* means the amount, certified by a Provider to the Trustee, payable to such Provider by University on account of amounts advanced by it under a Credit facility or a Liquidity Facility, including interest on amounts advanced and fees and charges with respect thereto.

*Qualified Financial Institution* means any of the following entities that has an equity capital of at least \$125,000,000 or whose obligations are unconditionally guaranteed by an affiliate or parent having an equity capital of at least \$125,000,000:

(i) a securities dealer, the liquidation of which is subject to the Securities Investors Protection Corporation or other similar corporation, and (a) that is on the Federal Reserve Bank of New York list of primary government securities dealers and (b) whose senior unsecured long term debt is at the time an investment with it made rated by at least one Rating Service no lower than in the second highest rating category, or, in the absence of a rating on long term debt, whose short term debt is rated by at least one Rating Service no lower than in the highest rating category for such short term debt; *provided, however*, that no short term rating may be utilized to determine whether an entity qualifies under this paragraph as a Qualified Financial Institution if the same would be inconsistent with the rating criteria of any Rating Service or credit criteria of an entity that provides a Credit Facility or financial guaranty agreement in connection with Outstanding Bonds;

(ii) a bank, a trust company, a national banking association, a corporation subject to registration with the Board of Governors of the Federal Reserve System under the Bank Holding Company Act of 1956 or any successor provisions of law, a federal branch pursuant to the International Banking Act of 1978 or any successor provisions of law, a domestic branch or agency of a foreign bank which branch or agency is duly licensed or authorized to do business under the laws of any state or territory of the United States of America, a savings bank, a savings and loan association, an insurance company or association chartered or organized under the laws of the United States of America, any state of the United States of America or any foreign nation, whose senior unsecured long term debt is at the time an investment with it made is rated by at least one Rating Service no lower than in the second highest rating category, or, in the absence of a rating on long term debt, whose short term debt is rated by at least one Rating Service no lower than in the highest rating category for such short term debt; *provided, however*, that no short term rating may be utilized to determine whether an entity qualifies under this paragraph as a Qualified Financial Institution if the same would be inconsistent the rating criteria of any Rating Service or credit criteria of an entity that provides a Credit Facility or financial guaranty agreement in connection with Outstanding Bonds;

(iii) a corporation affiliated with or which is a subsidiary of any entity described in (i) or (ii) above or which is affiliated with or a subsidiary of a corporation which controls or wholly owns any such entity, whose senior unsecured long term debt is at the time an investment with it made rated by at least one Rating Service no lower than in the second highest rating category, or, in the absence of a rating on long term debt, whose short term debt is rated by at least one Rating Service no lower than in the highest rating category for such short term debt; *provided, however*, that no short term rating may be utilized to determine whether an entity qualifies under this paragraph as a Qualified Financial Institution if the same would be inconsistent the rating criteria of any Rating Service or credit criteria of an entity that provides a Credit Facility or financial guaranty agreement in connection with Outstanding Bonds;

(iv) the Government National Mortgage Association or any successor thereto, the Federal National Mortgage Association or any successor thereto, or any other federal agency or instrumentality approved by the Authority; or

(v) a corporation whose obligations, including any investments of any moneys held under the Resolution purchased from such corporation, are insured by an insurer that meet the applicable rating requirements set forth above.

*Rating Service* means each of Moody's Investors Service, Inc., Standard & Poor's Rating Services, a division of the McGraw-Hill Companies, Inc., and Fitch, Inc., in each case which has assigned a rating to Outstanding Bonds at the request of the Authority, or their respective successors and assigns.

*Record Date* means, unless a Series Resolution authorizing Variable Interest Rate Bonds or Option Bonds or a Bond Series Certificate relating thereto provides otherwise with respect to such Variable Interest Rate Bond or Options Bonds the fifteenth (15th) day (whether or not a Business Day) of the calendar month next preceding an interest payment date.

*Redemption Price*, when used with respect to a Bond, means the principal amount of such Bond plus the applicable premium, if any, payable upon redemption prior to maturity thereof pursuant to the Resolution or to the applicable Series Resolution or Bond Series Certificate.

*Refunding Bonds* means all Bonds, whether issued in one or more Series of Bonds, authenticated and delivered on original issuance pursuant to the Resolution and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Resolution.

*Resolution* means the Columbia University Revenue Bond Resolution, adopted by the Authority on September 27, 2000, as from time to time amended or supplemented by Supplemental Resolutions or Series Resolutions in accordance with the terms and provisions of the Resolution.

*Revenues* means all payments received or receivable by the Authority pursuant to the Loan Agreement, which are to be paid to the Trustee (except payments to the Trustee for the administrative costs and expenses or fees of the Trustee and payments to the Trustee for deposit to the Arbitrage Rebate Fund).

*S&P* means Standard & Poor's Rating Group, a division of McGraw-Hill, Inc., a corporation organized and existing under the laws of the State of New York, and its successors and assigns.

*Serial Bonds* means the Bonds so designated in a Series Resolution or a Bond Series Certificate.

*Series* means all of the Bonds authenticated and delivered on original issuance and pursuant to the Resolution and to the Series Resolution authorizing such Bonds as a separate Series of Bonds or a Bond Series Certificate, and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Resolution, regardless of variations in maturity, interest rate, Sinking Fund Installments or other provisions.

*Series Resolution* means a resolution of the Authority authorizing the issuance of a Series of Bonds adopted by the Authority pursuant to the Resolution.

*Sinking Fund Installment* means, as of any date of calculation, when used with respect to any Bonds of a Series, so long as such Bonds are Outstanding, the amount of money required by the Resolution or by the Series Resolution pursuant to which such Bonds were issued or by the Bond Series Certificate relating to such Bonds, to be paid on a single future date for the retirement of any Outstanding Bonds of said Series which mature after said future date, but does not include any amount payable by the Authority by reason only of the maturity of a Bond, and said future date is deemed to be the date when a Sinking Fund Installment is payable and the date of such Sinking Fund Installment and said Outstanding Bonds are deemed to be Bonds entitled to such Sinking Fund Installment.

*Standby Purchase Agreement* means an agreement by and between the Authority and another person or by and among the Authority, the University and another person, pursuant to which such person is obligated to purchase an Option Bond or a Variable Interest Rate Bond tendered for purchase;

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*State* means the State of New York.

*Supplemental Resolution* means any resolution of the Authority amending or supplementing the Resolution, any Series Resolution or any Supplemental Resolution adopted and becoming effective in accordance with the terms of the Resolution.

*Tender Agent* means the Trustee, in its capacity as Tender Agent, having the duties, responsibilities and rights provided for the Tender Agent in the Bond Series Certificate, and its successor or successors and any successor Trustee which may at any time be substituted in its place.

*Term Bonds* means the Bonds so designated in a Series Resolution or a Bond Series Certificate and payable from Sinking Fund Installments.

*Trustee* means the bank or trust company appointed as Trustee for the Bonds pursuant to the Resolution and having the duties, responsibilities and rights provided for in the Resolution, and its successor or successors and any other bank or trust company which may at any time be substituted in its place pursuant to the Resolution.

*Valuation Date* means (i) with respect to any Capital Appreciation Bond, the date or dates set forth in the Series Resolution authorizing such Capital Appreciation Bond or in the Bond Series Certificate relating to such Bond on which specific Accreted Values are assigned to such Capital Appreciation Bond, and (ii) with respect to any Deferred Income Bond, the date or dates prior to the Interest Commencement Date and the Interest Commencement Date set forth in the Series Resolution authorizing such Bond or in the Bond Series Certificate relating to such Bond on which specific Appreciated Values are assigned to such Deferred Income Bond.

*Variable Interest Rate* means a rate or rates of interest to be borne by a Series of Bonds or any one or more maturities within a Series of Bonds, which is or may be varied from time to time in accordance with the method of computing such interest rate or rates specified in the Series Resolution authorizing such Bonds or a Bond Series Certificate relating to such Bonds and which shall be based on (i) a percentage or percentages or other function of an objectively determinable interest rate or rates (e.g., a prime lending rate) which may be in effect from time to time or at a particular time or times; *provided, however*, that such variable interest rate may be subject to a Maximum Interest Rate and may be subject to a Minimum Interest Rate and that there may be an initial rate specified in each case as provided in such Series Resolution or a Bond Series Certificate or (ii) a stated interest rate that may be changed from time to time as provided in the Series Resolution authorizing such Bonds or a Bond Series Certificate; *provided further*, that such Series Resolution or Bond Series Certificate shall also specify either (x) the particular period or periods of time or manner of determining such period or periods of time for which each variable interest note shall remain in effect or (y) the time or times at which any change in such variable interest rate shall become effective or the manner of determining such time or times.

*Variable Interest Rate Bond* means any Bond which bears a Variable Interest Rate, provided that a Bond the interest rate on which shall have been fixed for the remainder of the term thereof shall no longer be a Variable Interest Rate Bond.

**FINANCIAL STATEMENTS OF  
COLUMBIA UNIVERSITY AND  
REPORT OF INDEPENDENT AUDITORS**

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**The Trustees of  
Columbia University  
in the City of New York**  
Consolidated Financial Statements  
June 30, 2017 and 2016



## Report of Independent Auditors

To The Trustees of Columbia University in the City of New York

We have audited the accompanying consolidated financial statements of The Trustees of Columbia University in the City of New York (the "University"), which comprise the consolidated balance sheets as of June 30, 2017 and 2016 and the related consolidated statements of activities for the year ended June 30, 2017 and of cash flows for the years ended June 30, 2017 and 2016.

### *Management's Responsibility for the Consolidated Financial Statements*

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

### *Auditors' Responsibility*

Our responsibility is to express an opinion on the consolidated financial statements based on our audit. 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 consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the University's preparation and fair presentation of the consolidated 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 University'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 consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of The Trustees of Columbia University in the City of New York at June 30, 2017 and 2016, and the changes in their net assets for the year ended June 30, 2017 and their cash flows for the years ended June 30, 2017 and 2016 in accordance with accounting principles generally accepted in the United States of America.

### *Other Matter*

We previously audited the consolidated balance sheet as of June 30, 2016, and the related consolidated statements of activities and cash flows for the year then ended (not presented herein), and in our report dated October 11, 2016, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2016 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

*PricewaterhouseCoopers LLP*

November 8, 2017

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, NY 10017

**The Trustees of Columbia University in the City of New York**  
**Consolidated Balance Sheets**  
**At June 30, 2017 and 2016**  
(in thousands of dollars)

|   | June<br>2017        | June<br>2016        |
|---|---------------------|---------------------|
| <b>Assets</b>   |                     |                     |
| Cash and cash equivalents   | \$1,145,566         | \$901,494           |
| Accounts receivable, net:   |                     |                     |
| Government agencies   | 143,855             | 131,499             |
| Patient receivables   | 115,246             | 108,784             |
| Other   | 320,389             | 294,402             |
| Investment income receivable, net   | 4,029               | 2,006               |
| Receivable for securities sold  | 8,249               | 80,938              |
| Cash and securities held in trust by others   | 87,050              | 100,744             |
| Pledges receivable, net   | 848,687             | 627,259             |
| Student loans receivable, net   | 99,667              | 104,231             |
| Investments, at fair value  | 10,038,376          | 8,954,996           |
| Institutional real estate   | 894,395             | 893,960             |
| Land, buildings, and equipment, net   | 4,345,547           | 4,058,667           |
| Other assets  | 306,863             | 256,437             |
| Net assets held by CPMC Fund, Inc.  | 35,051              | 52,169              |
| Interest in perpetual trusts held by others   | 172,208             | 169,446             |
| <b>Total assets</b>   | <b>\$18,565,178</b> | <b>\$16,737,032</b> |
| <b>Liabilities</b>  |                     |                     |
| Accounts payable and accrued expenses   | \$353,994           | \$293,969           |
| Liabilities for securities purchased  | 65,375              | 8,305               |
| Prepaid tuition and other deferred credits  | 111,142             | 97,045              |
| Deferred revenue  | 45,975              | 49,828              |
| Refundable advances   | 101,948             | 99,752              |
| Capital lease obligations   | 122,904             | 122,947             |
| Conditional asset retirement obligations  | 116,272             | 121,420             |
| Accrued employee benefit liabilities  | 325,743             | 210,126             |
| Federal student loan funds  | 84,190              | 85,039              |
| Actuarial liability for split-interest agreements   | 59,955              | 56,169              |
| Bonds and notes payable (including bond premium and issuance costs<br>of \$199,125 and \$167,112) (see Note 16) | 1,955,923           | 1,796,904           |
| Other long-term liabilities   | 483,215             | 514,768             |
| <b>Total liabilities</b>  | <b>3,826,636</b>    | <b>3,456,272</b>    |
| <b>Net assets</b>   |                     |                     |
| Unrestricted  | 6,908,365           | 5,963,691           |
| Temporarily restricted  | 4,436,575           | 4,304,959           |
| Permanently restricted  | 3,393,602           | 3,012,110           |
| <b>Total net assets</b>   | <b>14,738,542</b>   | <b>13,280,760</b>   |
| <b>Total liabilities and net assets</b>   | <b>\$18,565,178</b> | <b>\$16,737,032</b> |

See accompanying notes to the consolidated financial statements.

**The Trustees of Columbia University in the City of New York**  
**Consolidated Statements of Activities**  
**For the Year Ended June 30, 2017, with Summarized Comparative 2016 Totals**  
(in thousands of dollars)

|   | Unrestricted       | Temporarily Restricted | Permanently Restricted | June 2017           | June 2016           |
|---|--------------------|------------------------|------------------------|---------------------|---------------------|
| <b>Operating activities</b>                                 |                    |                        |                        |                     |                     |
| <b>Revenues and support</b>                                 |                    |                        |                        |                     |                     |
| Tuition and fees  | \$1,480,468        |                        |                        | \$1,480,468         | \$1,365,766         |
| Less financial aid grants                                   | (395,016)          |                        |                        | (395,016)           | (361,839)           |
| Net tuition and fees  | 1,085,452          |                        |                        | 1,085,452           | 1,003,927           |
| Government grants and contracts:                            |                    |                        |                        |                     |                     |
| Direct  | 683,176            |                        |                        | 683,176             | 606,056             |
| Indirect  | 217,881            |                        |                        | 217,881             | 194,407             |
| Private gifts, grants and contracts:                        |                    |                        |                        |                     |                     |
| Direct  | 246,005            | \$309,289              |                        | 555,294             | 405,726             |
| Indirect  | 27,734             |                        |                        | 27,734              | 27,594              |
| Revenue from other educational and research activities      | 230,608            |                        |                        | 230,608             | 248,460             |
| Patient care revenue  | 1,199,364          |                        |                        | 1,199,364           | 1,125,031           |
| Investment income and gains utilized                        | 426,872            | 189,840                |                        | 616,712             | 564,480             |
| Sales and services of auxiliary enterprises                 | 175,747            |                        |                        | 175,747             | 165,833             |
| Other sources   | 286                |                        |                        | 286                 | 379                 |
| Net assets released from restrictions                       | 744,451            | (744,451)              |                        |                     |                     |
| <b>Total operating revenues and support</b>                 | <b>5,037,576</b>   | <b>(245,322)</b>       |                        | <b>4,792,254</b>    | <b>4,341,893</b>    |
| <b>Expenses</b>   |                    |                        |                        |                     |                     |
| Instruction and educational administration                  | 1,693,396          |                        |                        | 1,693,396           | 1,592,412           |
| Research  | 575,548            |                        |                        | 575,548             | 538,971             |
| Patient care expense  | 969,856            |                        |                        | 969,856             | 914,674             |
| Library   | 68,831             |                        |                        | 68,831              | 67,487              |
| Operation and maintenance of plant                          | 260,529            |                        |                        | 260,529             | 232,736             |
| Institutional support                                       | 320,153            |                        |                        | 320,153             | 290,036             |
| Auxiliary enterprises                                       | 143,724            |                        |                        | 143,724             | 137,043             |
| Depreciation expense  | 271,379            |                        |                        | 271,379             | 207,114             |
| Interest expense  | 60,838             |                        |                        | 60,838              | 44,116              |
| Other   | 20,660             |                        |                        | 20,660              | 19,813              |
| <b>Total expenses</b>                                       | <b>4,384,914</b>   |                        |                        | <b>4,384,914</b>    | <b>4,044,402</b>    |
| <b>Change in net assets from operating activities</b>       | <b>652,662</b>     | <b>(245,322)</b>       |                        | <b>407,340</b>      | <b>297,491</b>      |
| <b>Nonoperating activities</b>                              |                    |                        |                        |                     |                     |
| Endowment gifts   |                    |                        | \$354,909              | 354,909             | 125,041             |
| Current year realized and unrealized capital gains (losses) | 416,365            | 693,214                | (10)                   | 1,109,569           | (321,972)           |
| Endowment appreciation utilized                             | (168,347)          | (315,245)              |                        | (483,592)           | (428,823)           |
| Change in net assets held by CPMC Fund, Inc.                | 148                | (13,897)               | (3,369)                | (17,118)            | (18,273)            |
| Change in funds held by others in perpetuity                |                    |                        | 2,762                  | 2,762               | (14,245)            |
| Present value adjustment to split-interest agreements       | 692                | 2,250                  | 5,855                  | 8,797               | (11,566)            |
| Changes in pension and post retirement obligations          | 56,211             |                        |                        | 56,211              | (37,466)            |
| Other   | (1,053)            | 16,168                 | 3,789                  | 18,904              | 15,464              |
| Reclassification  | (12,004)           | (5,552)                | 17,556                 |                     |                     |
| <b>Change in net assets from nonoperating activities</b>    | <b>292,012</b>     | <b>376,938</b>         | <b>381,492</b>         | <b>1,050,442</b>    | <b>(691,840)</b>    |
| <b>Change in net assets</b>                                 | <b>944,674</b>     | <b>131,616</b>         | <b>381,492</b>         | <b>1,457,782</b>    | <b>(394,349)</b>    |
| <b>Net assets at beginning of year</b>                      | <b>5,963,691</b>   | <b>4,304,959</b>       | <b>3,012,110</b>       | <b>13,280,760</b>   | <b>13,675,109</b>   |
| <b>Net assets at end of period</b>                          | <b>\$6,908,365</b> | <b>\$4,436,575</b>     | <b>\$3,393,602</b>     | <b>\$14,738,542</b> | <b>\$13,280,760</b> |

See accompanying notes to the consolidated financial statements.

**The Trustees of Columbia University in the City of New York**  
**Consolidated Statements of Cash Flows**  
**For the Years Ended June 30, 2017 and 2016**  
(in thousands of dollars)

|  | June<br>2017       | June<br>2016     |
|--|--------------------|------------------|
| <b>Cash flows from operating activities</b>  |                    |                  |
| (Includes adjustments to reconcile change in net assets to net cash provided by operating activities): |                    |                  |
| Change in net assets   | \$1,457,782        | (\$394,349)      |
| Depreciation expense   | 271,379            | 207,114          |
| Interest on capital lease obligations and CARO   | 11,829             | 11,579           |
| Institutional real estate depreciation   | 29,037             | 28,296           |
| Realized and unrealized (gains) losses   | (1,109,569)        | 321,972          |
| Partnership distributions  | 512,261            | 484,487          |
| Contributions restricted for permanent investment,<br>plant, and split-interest agreements             | (266,327)          | (187,291)        |
| Contributions other than cash  | (52)               | (55)             |
| Present value adjustments and<br>actuarial liability for split-interest agreements                     | (8,797)            | 11,566           |
| Accreted interest on bonds   | 580                | 606              |
| Change in unamortized bond premium and issuance costs  | 32,013             | 89,866           |
| Change in fair value of net assets held by CPMC Fund, Inc.   | 17,118             | 18,273           |
| Change in fair value of interest in perpetual trusts held by others                                    | (2,762)            | 14,245           |
| Change in operating assets and liabilities:  |                    |                  |
| Accounts receivable, net   | (44,805)           | (12,880)         |
| Investment income receivable, net  | (2,023)            | (297)            |
| Pledges receivable, net  | (221,428)          | 8,833            |
| Other assets   | (52,125)           | (16,360)         |
| Accounts payable and accrued expenses  | (22,940)           | (17,107)         |
| Prepaid tuition and other deferred credits   | 14,097             | 2,964            |
| Deferred revenue and Refundable advances   | (1,657)            | 19,836           |
| Accrued employee benefit liabilities   | 115,617            | 31,234           |
| CARO and other long-term liabilities   | (12,045)           | 14,699           |
| <b>Net cash provided by operating activities</b>   | <b>717,183</b>     | <b>637,231</b>   |
| <b>Cash flows from investing activities</b>  |                    |                  |
| Proceeds from sales of investments   | 2,307,747          | 1,763,758        |
| Purchases of investments   | (2,679,246)        | (1,935,377)      |
| Collections from student notes   | 17,023             | 14,985           |
| Student notes issued   | (12,459)           | (17,033)         |
| Proceeds from / (Investment in) cash and securities held in trust by others                            | 13,694             | (60,256)         |
| Purchases of institutional real estate   | (29,632)           | (43,647)         |
| Purchases of plant and equipment   | (469,793)          | (531,015)        |
| <b>Net cash used by investing activities</b>   | <b>(852,666)</b>   | <b>(808,585)</b> |
| <b>Cash flows from financing activities</b>  |                    |                  |
| Proceeds from contributions for:   |                    |                  |
| Investment in endowment  | 186,362            | 128,552          |
| Investment in plant  | 73,175             | 48,139           |
| Investment in split-interest agreements  | 6,790              | 10,600           |
| Investment income on split-interest agreements   | 3,218              | 3,108            |
| Payments on split-interest agreements  | (4,897)            | (5,178)          |
| Payments on capital lease obligations  | (10,670)           | (9,964)          |
| Repayment of bonds and notes payable   | (64,049)           | (302,274)        |
| Proceeds from bond issuance  | 190,475            | 389,705          |
| Net change in federal student loan funds   | (849)              | 5,244            |
| <b>Net cash provided by financing activities</b>   | <b>379,555</b>     | <b>267,932</b>   |
| Net change in cash and cash equivalents  | 244,072            | 96,578           |
| Cash and cash equivalents at beginning of year   | 901,494            | 804,916          |
| Cash and cash equivalents at end of year   | <b>\$1,145,566</b> | <b>\$901,494</b> |
| Supplemental disclosure of cash flow information:  |                    |                  |
| Equipment and space acquired through capital leases  | \$5,217            | \$4,834          |
| Cash paid during the year for interest   | \$78,987           | \$76,627         |

See accompanying notes to the consolidated financial statements.

**The Trustees of Columbia University in the City of New York**  
**Notes to the Consolidated Financial Statements**  
**For the Years Ended June 30, 2017 and 2016**  
**(in thousands of dollars)**

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**1. Organization**

The Trustees of Columbia University in the City of New York (the “University”) is a private, nonsectarian, nonprofit institution of higher education whose activities are concentrated at two locations in New York City and extend around the globe. The University provides instruction through sixteen undergraduate, graduate, and professional schools. It operates a variety of research institutes and a library system to support its teaching, learning, and research activities. The University performs research, training, and other services under grants and contracts with agencies of the federal government and other sponsoring organizations. The University enrolls approximately 31,317 full-time and part-time students and employs approximately 16,613 full-time employees, including 6,036 full-time faculty members and research staff. Of these, 1,542 hold positions in the arts and sciences; 3,612 hold health science positions; and the remainder hold positions in the other professional schools.

The University is a New York nonprofit corporation recognized as tax exempt under Section 501(c)(3) of the Internal Revenue Code.

**2. Columbia University Medical Center**

Columbia University Medical Center (“CUMC”), a division of the University, located in the Washington Heights section of northern Manhattan, is one of the largest academic medical centers in the United States. It is composed of four schools: College of Physicians and Surgeons, Mailman School of Public Health, College of Dental Medicine, and School of Nursing.

CUMC has three primary areas of focus: patient care, scientific research, and education. CUMC offers a wide variety of degrees, certifications, and continuing education in health sciences. Faculty patient care services, sponsored research, tuition, endowment income, patent royalties, and gifts provide the majority of CUMC’s revenues. Approximately 4,376 students are enrolled at CUMC, with a full-time faculty of 2,413, of whom approximately 309 are tenured. Additionally, CUMC’s staff includes 2,509 part-time faculty instructors, 1,115 full-time and 202 part-time researchers, 199 post-doctoral research trainees, and 1,017 post-doctoral clinical trainees. Approximately 64 percent of the full-time faculty and 32 percent of the part-time faculty hold clinical appointments and have admitting privileges at New York-Presbyterian (“NYP”)/CUMC Campus.

Patient care activities include patient visits performed by Columbia full-time faculty through its medical faculty practice plan, as well as clinical, educational and administration services provided to hospitals and other health care institutions through contractual agreements for services.

CUMC maintains several clinical and education affiliation agreements with other organizations. The most significant affiliation agreements are with NYP, Lawrence Hospital, and Harlem Hospital. Certain faculty physicians also provide patient care and supervision of residents at NYP network hospitals and other affiliates. In addition, through interinstitutional “professional service agreements” and “medical service agreements,” CUMC faculty provide patient care in specialty and subspecialty areas at hospitals in the tristate area and occasionally in other parts of the country and the world.

# The Trustees of Columbia University in the City of New York

## Notes to the Consolidated Financial Statements

### For the Years Ended June 30, 2017 and 2016

(in thousands of dollars)

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In fiscal 2017, the clinical faculty handled approximately 2.2 million outpatient and emergency room visits and participated in instruction and supervision of 657 University medical students and 942 residents and fellows at NYP. CUMC physicians generated approximately 62,000 NYP hospital admissions during the year.

Payments for patient-care services provided by the full-time faculty in both institutional and private office settings are derived mainly from third-party payers, including managed care companies (54 percent), Medicare (17 percent), Medicaid (13 percent), commercial insurance (6 percent), and other (1 percent). Direct patient payments comprise 9 percent of total payments.

### 3. Summary of Significant Accounting Policies

The significant accounting policies of the University are as follows:

#### **Basis of Consolidation**

The accompanying consolidated financial statements of the University include the accounts of all academic and administrative departments of the University. Additionally, the consolidated financial statements include the net assets and activities of the following entities, for which the University maintains managerial and financial control:

- Columbia Investment Management Company, LLC—Columbia Investment Management Company, LLC is a New York limited liability company formed by the University to manage the University's investment assets under the supervision of a Board appointed by the Trustees of the University and subject to the oversight of the Committee on Finance of the Trustees.
- Columbia University Press—Columbia University Press is a not-for-profit corporation formed to promote the study of economic, historical, literary, philosophical, scientific, and other subjects and to encourage and promote the publication of literary works embodying original research in such subjects. The operations of the Press were integrated into the University operations effective January 1, 2016.
- Reid Hall, Inc.—Reid Hall, located in Paris, France, was donated to the University in 1964. Reid Hall, Inc., a corporation organized under New York membership corporation law as an educational and charitable organization, operates Reid Hall to promote, facilitate, and aid the educational, cultural, and social interests of students studying in France.
- The University holds a number of other limited liability companies, not-for-profit corporations, and international organizations, which are established to facilitate various program and research objectives.

The University provides investment custodial services and manages all of the assets of Columbia Presbyterian Medical Center Fund, Inc. ("CPMC Fund, Inc."), a not-for-profit corporation that was created to hold and receive gifts for the University and NYP. The consolidated financial statements reflect the University's interest in the net assets of CPMC Fund, Inc. as well as the assets and amounts due NYP.

The University is also the sole corporate member of a not-for-profit practice entity, Columbia University Healthcare, Inc., and two professional corporations, Columbia Doctors of New Jersey, P.C. and Columbia Doctors of Bergen County, P.C. and as such, consolidates these entities into the University's consolidated financial statements.

**The Trustees of Columbia University in the City of New York**  
**Notes to the Consolidated Financial Statements**  
**For the Years Ended June 30, 2017 and 2016**  
**(in thousands of dollars)**

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All significant intercompany accounts have been eliminated in consolidation.

**Accrual Basis**

The consolidated financial statements of the University have, in all material respects, been prepared on an accrual basis.

**Basis of Presentation**

The University maintains its accounts in accordance with the principles of fund accounting. Under this method of accounting, resources for various purposes are classified into funds that are consistent with activities or objectives specified by donors. Separate accounts are maintained for each fund.

For reporting purposes, the University prepares its consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (“GAAP”) that requires resources be classified for reporting purposes based on the existence or absence of donor-imposed restrictions. This is accomplished by classification of fund balances into three categories of net assets – unrestricted, temporarily restricted, and permanently restricted. Periodically, donor redesignations may result in reclassifications of net assets. Descriptions of the three net asset categories and the type of transactions affecting each category follow.

*Unrestricted*—Net assets that are not subject to donor-imposed restrictions. This category includes unrestricted gifts, certain endowment income balances, certain board-designated endowment principal balances, including capital appreciation on such balances, certain plant funds, University-designated loan funds, and other unrestricted designated and undesignated current funds.

*Temporarily restricted*—Net assets that are subject to legal or donor-imposed stipulations that will be satisfied either by actions of the University, the passage of time, or both. These net assets include gifts donated for a particular purpose, certain other balances with donor-imposed restrictions, amounts subject to time restrictions such as funds pledged for future payment, or amounts subject to legal restrictions, such as the portion of a donor-restricted permanent endowment fund that is not classified as permanently restricted net assets, as required by the New York Prudent Management of Institutional Funds Act (“NYPMIFA”). Once the time and purpose restriction are satisfied, or have been deemed to have been satisfied, those temporarily restricted net assets are released from restrictions.

*Permanently restricted*—Net assets that are subject to donor-imposed stipulations that will be invested to provide a perpetual source of income to the University. Donors of these assets require the University to maintain an endowment fund in perpetuity. The University classifies as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) realized and unrealized gains and losses to the permanent endowment when stipulated by the donor gift instrument.

**Revenues and Expenses**

Revenues are reported as increases in unrestricted net assets unless the use of those assets is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments are reported as increases or decreases in unrestricted net assets, unless their use is restricted by explicit donor stipulation or by law.



**The Trustees of Columbia University in the City of New York**  
**Notes to the Consolidated Financial Statements**  
**For the Years Ended June 30, 2017 and 2016**  
**(in thousands of dollars)**

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**Tuition and Fees and Financial Aid**

Tuition and fees are derived from degree programs as well as executive and continuing education programs. Tuition and fee revenue is recognized as operating income in the period in which it is earned. Tuition and fee receipts received in advance are recorded as deferred revenue. Net tuition and fees are computed after deducting certain scholarships and fellowships awarded to students. In order to assist students in meeting tuition and other costs of attendance, the University administers a variety of federal, state, institutional, and private programs. Financial aid packages to students may include direct grants, loans, and employment.

**Contributions**

Contributions for University operations and plant, including unconditional promises to give (“pledges”), are recognized as operating revenue in the period earned. Contributions to endowment are recognized as nonoperating revenue in the period earned. Pledges that are expected to be collected within one year are recorded net of an allowance for uncollectable pledges. Amounts expected to be collected in future years are recorded at the present value of estimated future cash flows. The discounts on those pledges are computed using an interest rate for the year in which the promise was received and considers market and credit risk as applicable. Subsequent years’ accretion of the discount is included in contribution revenue. Conditional promises to give are not recognized as revenue until such time as the conditions are substantially met.

**Patient Care Revenue and Expense**

Patient care activities relate to three distinct areas: medical faculty practice plans, affiliation agreements, and medical and professional service agreements.

Patient Care expenses include direct expenses associated with providing patient care services, as well as administrative functions within the University’s faculty practice organization. Patient Care expense does not include rent or utilities in clinical space, as those costs are aggregated with all University space costs within “Operations and Maintenance of plant”.

The University provides medical care to patients via its faculty practice through CUMC, primarily under agreements with third-party payors. Agreements with third-party payors, including health maintenance organizations, provide payment for medical services at amounts different from rates established by the University. Medical faculty practice plan revenue is reported net of two items: (a) contractual allowances from third-party payors for services rendered and (b) estimates of uncollectible amounts. Included within the faculty practice revenues and expenses are financial arrangements associated with two physician professional corporations.

The University maintains several clinical and education affiliation agreements with other organizations. The University provides medical, professional, and supervisory staff as well as other technical assistance. Revenues and expenses from these agreements are accounted for in patient care and education categories of the operating activity in the Consolidated Statement of Activities.

**Grant and Contract Income**

The University receives grant and contract income from governmental and private sources. The University recognizes revenue associated with the direct costs of sponsored programs as the related costs are incurred. Recovery of facilities and administrative costs of federally sponsored programs are at reimbursement rates negotiated with the University’s cognizant agency, the Department of Health and Human Services. The University and the federal government operated under a provisional agreement that provided for facilities and administrative cost rates under federal grants

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and contracts through October 24, 2017, when a new agreement was finalized. The provisional rates were based on the agreement that was in place through June 30, 2014.

**Research and Development**

The University engages in numerous research and development projects, partially or fully sponsored by governmental and private funds. These costs are charged to operating expense as incurred. The University periodically funds and develops patents for certain technologies, then licenses the usage of these patents to companies for a specified period of time. The revenue, net of payments due to third parties, is recorded in "Revenue from other educational and research activities" in the Consolidated Statement of Activities. Costs incurred with developing and maintaining these patents are expensed as incurred.

**Institutional Support**

Institutional Support expense includes central administrative functions and expenses that support the management of the University. This category also includes any net operating surplus or deficit of the University's benefit pool, as recoveries from units across the University may be less than or greater than benefits paid in a given year.

**Cash and Cash Equivalents**

Cash and cash equivalents are recorded at fair value and include several depository accounts, checking accounts, institutional money market funds, and similar temporary investments with maturities of three months or less at the date of purchase.

**Investments**

The University's investments, consisting primarily of publicly traded fixed income and equity securities, alternative investments, and cash held for reinvestment, are stated at fair value as of June 30, 2017 and 2016. Alternative investments include investments in absolute return strategy funds, private equity funds, and real asset funds (collectively, the 'funds'). The management of the respective fund provides the fair value of the investment. The University reflects its share of the partnerships or corporations in the consolidated financial statements.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The University believes that the net asset value of its alternative investments is a reasonable estimate of fair value as of June 30, 2017 and 2016. Because alternative investments are not marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investment existed. Such differences could be material. The amount of gain or loss associated with these investments is reflected in the accompanying consolidated financial statements based on the University's proportionate share in the net assets of these investments.

The University's presentation in the Consolidated Statement of Cash Flows for limited liability partnerships, limited liability corporations, and other similarly structured investments is consistent with the accounting for equity method investments as it represents the underlying nature of these investments in which the University has a capital account.

The University records purchases and sales of securities on a trade-date basis. Realized gains and losses are determined on the basis of average cost of securities sold and are reflected in the

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Consolidated Statement of Activities. Dividend income is recorded on the ex-dividend date, and interest income is recorded on an accrual basis.

**Split-Interest Agreements**

The University's split-interest agreements with donors consist primarily of charitable gift annuities, pooled income funds, and irrevocable charitable remainder trusts for which the University serves as custodian and trustee. Assets are invested and payments are made to donors and/or other beneficiaries in accordance with the respective agreements. In the case of irrevocable split-interest agreements whose assets are held in trusts not administered by the University (third-party charitable trusts), the University will recognize its beneficial interest when it is provided sufficient reliable information and documentation that establishes the trust's existence, the University's beneficial interest, and the value of that interest.

Contribution revenues for split-interest agreements are recognized at the dates the agreements are established net of the present value of the estimated future payments to be made to the beneficiaries, if applicable, under these agreements. The discounts on those agreements are computed using an interest rate for the year in which the promise was received and considers market and credit risk as applicable. Assets related to these agreements are recorded in "Investments, at fair value." The liability for the present value of the estimated future payments to be made to the beneficiaries is recorded in "Actuarial liability for split-interest agreements." Adjustments to the fair value of these agreements are recorded in the Consolidated Statement of Activities under "Present value adjustment to split-interest agreements."

**Institutional Real Estate**

Institutional real estate consists primarily of properties proximate to the University's Morningside and Washington Heights campuses, the primary purpose of which is to house faculty, staff, and graduate students. The income earned on this investment is used primarily to finance operating expenditures. The properties are valued at cost and depreciated over useful lives ranging from twelve and one half to fifty years.

**Land, Buildings, and Equipment**

Land, buildings, and equipment are stated at cost net of accumulated depreciation. Depreciation is calculated on a straight-line basis over useful lives ranging from ten to one hundred years for buildings and improvements and three to twenty years for equipment, consistent with the method used for government cost reimbursement purposes. Capitalized software costs are amortized over seven years. Upon disposal of assets, the costs and accumulated depreciation are removed from the accounts, and the resulting gain or loss is included in operations.

**Collections**

Collections at the University include works of art, literary works, historical treasures, and artifacts that are maintained in the University's galleries, libraries, and buildings. These collections are protected and preserved for public exhibition, education, research, and the furtherance of public service and, therefore, are not recognized as assets on the Consolidated Balance Sheet. Costs associated with purchasing additions to and maintaining these collections are recorded as operating expenses in the period in which the items are acquired.

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**Interest in Perpetual Trusts Held by Others**

The University is the beneficiary of certain perpetual trusts administered by others. These trusts are recognized as permanently restricted contributions upon receipt of documentation evidencing that the trust has been established and a statement of its assets, and adjusted to fair value each year. The fair value of the interest in the perpetual trust is based on the University's share of the income generated by the trust, ascribed to the fair value of assets reported by the trust. Gains and losses resulting from the change in fair value of trust assets are reported as nonoperating activity in the Consolidated Statement of Activities.

**Capital Lease Obligations**

Capital lease obligations are recognized for equipment and space where substantially all of the risks of ownership have been transferred to the University. The obligations extend up to seven years for equipment and up to fifty years for space.

**Conditional Asset Retirement Obligations**

Conditional asset retirement obligations ("CARO") are recognized for remediation or disposal of asbestos, underground storage tanks, soil, and radioactive sources and equipment as required by law. The fair value of the liability for a conditional asset retirement obligation is recognized in the period in which it occurred, provided that it can be reasonably estimated.

**Other Long Term Liabilities**

Other long term liabilities are obligations that extend beyond one year, or operating cycle, whichever is longer. The obligations for the medical malpractice liabilities, self-insurance reserves, the fixed payor swap agreement and other commitments are categorized in other long term liabilities.

**Use of Estimates**

The preparation of consolidated financial statements in conformity with GAAP 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 consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. The most significant estimates include valuation of investments without readily determinable public markets, estimated useful life of land, buildings and equipment, actuarially determined costs associated with split-interest agreements, pension, postemployment and postretirement benefits, contractual allowances for patient receivables, allowances for doubtful accounts, insurance obligations and conditional asset retirement obligations.

**2016 Presentation**

While comparative information is not required under GAAP, the University believes that this information is useful and has included comparative financial information from the consolidated financial statements for 2016. Within the Statement of Activities prior year presentation of restricted asset categorization has been condensed for comparative purposes. There has been no change in total by net asset class. This summarized information is not intended to be a full presentation in conformity with GAAP, which would require certain additional information. Accordingly, such information should be read in conjunction with the University's audited consolidated financial statements for the year ended June 30, 2016. In addition, certain amounts in the summarized consolidated financial statements for fiscal year 2016 have been reclassified to conform to the fiscal year 2017 presentation.

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**New Authoritative Pronouncements**

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606) and Other Assets and Deferred Costs - Contracts with Customers (Subtopic 340-40). This ASU implements a single framework for revenue recognition ensuring that revenue is recognized in a manner which reflects the consideration to which the entity expects to be entitled to in exchange for goods and services. The ASU is effective for fiscal years beginning after December 15, 2017. The University is evaluating the impact on the University consolidated financial statements.

In April 2015, the FASB issued ASU No. 2015-03 (Subtopic 835-30) Imputation of Interest - Simplifying the Presentation of Debt Issuance Costs. This ASU requires all premium received, discount given and costs of issuance to be presented as an adjustment to the carrying value of the associated debt liability. The University has adopted the ASU for the fiscal year ended June 30, 2017. The changes are reflected in Note 16.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The new ASU establishes a right-of-use (“ROU”) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. The ASU is effective for fiscal years beginning after December 15, 2018 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In August 2016, the FASB issued ASU 2016-14, Presentation of Financial Statements for Not-for-Profit Entities. The ASU amends the financial reporting requirements in Topic 958, Not-for-Profit Entities. Changes include revisions to the classification of net assets and expanded liquidity disclosures. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, Classification of Certain Cash Receipts and Cash Payments. The ASU amends the financial reporting requirements in Topic 230, Statement of Cash Flows. Changes include revisions to the presentation of cash flows related to the settlement of debt instruments with coupon rates that are insignificant in relation to the effective interest rate of the borrowing and distributions received from equity method investees. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

In March 2017, the FASB issued ASU 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The ASU requires that in instances where an operating measure is included in the Consolidated Statement of Activities, the service cost component of the net periodic cost be included as a component of the operating measure and other components of net periodic costs be presented separately in the nonoperating section of the Consolidated Statement of Activities. The ASU is effective for fiscal years beginning after December 15, 2017 with early adoption permissible. The University is evaluating the impact of the new standard on the University consolidated financial statements.

**4. Operating Measurement**

The University divides its Consolidated Statement of Activities into operating and nonoperating activities. The operating activities of the University include all income and expenses related to

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carrying out its educational and research mission. Operating revenues include investment income and endowment appreciation utilized to fund current operations, the largest portion of which is the distribution of funds budgeted in accordance with the endowment spending rule.

Nonoperating activities include current year realized and unrealized gains and losses on investments, including realized gain distributions from fund investments, less amounts withdrawn from endowment appreciation to fund operations. Nonoperating activities also include new gifts to permanently restricted endowments, changes in net assets held by CPMC Fund, Inc., changes in perpetual trusts held by others, present value adjustments to split-interest agreements, changes in pension and postretirement obligations, other items and reclassifications.

**5. Patient Care Revenue**

The University's affiliation agreements with area hospitals generated \$337.2 million and \$320.0 million of revenue for the years ended June 30, 2017 and 2016, respectively. As of June 30, 2017 and 2016, Accounts receivable, net - other includes \$96.0 million and \$91.2 million, respectively, relating to these agreements.

Medical faculty practice revenue is reported at the estimated net realizable amounts from patients, third-party payors, and others for services rendered. Medical faculty practice revenues are \$797.4 million and \$747.9 million for the years ended June 30, 2017 and 2016, respectively. As of June 30, 2017 and 2016, patient accounts receivable amounts to \$115.2 million and \$108.8 million, respectively. Medical service agreements generated \$22.3 million and \$22.5 million of revenue for the years ended June 30, 2017 and 2016, respectively and other patient care activities generated \$42.5 million and \$34.6 million of revenue for the years ended June 30, 2017 and 2016, respectively.

**6. Long-Term Investments and Fair Value**

The University values its investments in accordance with GAAP and consistent with the FASB official pronouncement on *Fair Value Measurements* for financial assets and liabilities. The pronouncement defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. GAAP establishes a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Observable inputs reflect market data obtained from sources independent of the reporting entity. Unobservable inputs reflect the entities own assumptions about how market participants would value an asset or liability based on the best information available. Valuation techniques used to measure fair value utilize relevant observable inputs and minimize the use of unobservable inputs.

The University follows a fair value hierarchy based on three levels of inputs, described below:

Fair value for Level 1 is based upon quoted prices in active markets that the University has the ability to access for identical assets and liabilities. Market price data is generally obtained from exchange or dealer markets. The University does not adjust the quoted price for such assets and liabilities.

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Fair value for Level 2 is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, or inputs other than quoted prices that are observable.

Fair value for Level 3 is based on valuation techniques that use significant inputs that are unobservable as they are not actively traded.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. In determining the categorization of the University's investments within the fair value hierarchy, the University has considered market information, including observable net asset values, and the length of time until the investment will become redeemable. Investments for which fair value is measured using net asset values (NAV) as a practical expedient are excluded from the hierarchy and have been reported separately within the table below. The categorization of a financial instrument within the hierarchy is based upon the pricing transparency of that instrument and does not necessarily correspond to the University's perceived risk of that instrument.

From time to time, the University may hold direct real estate investments. These investments are categorized as Level 3 within the fair value hierarchy. Valuation for material directly held real estate investments is determined from periodic valuations prepared by independent appraisers or broker opinions.

The University holds certain investments for which fair value is determined by using the unadjusted net asset value per share (NAV) as provided by the fund as a practical expedient. Investments categorized as NAV include the University's ownership in funds that invest in alternative assets (i.e. absolute return strategy funds, private equity funds, and real asset funds) and funds that invest in equity and fixed income strategies for which observable net asset values are not available. The value of the University's investments in these funds represents the University's ownership interest in the net asset value of the respective fund. Items classified as NAV do not have a quoted price in an active market place. As a practical expedient, the University is permitted under GAAP to estimate the fair value of an investment at the measurement date using the NAV reported by the fund without further adjustment, provided the NAV has been calculated in accordance with or in a manner consistent with GAAP, and provided further that the University does not expect to sell the investment at a value other than NAV. The University has various processes and controls in place to ensure investment fair value is reasonable and performs additional procedures and due diligence procedures of its investments including an assessment of applicable accounting policies, a review of the valuation procedures employed, and consideration of redemption features and price transparency.

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The following tables present assets and liabilities measured at fair value and NAV at June 30, 2017 and June 30, 2016.

| <b>Assets</b>                               | <b>2017</b>         |                   |                   |                     | <b>Total</b>         |
|---|---------------------|-------------------|-------------------|---------------------|----------------------|
|   | <b>Level 1</b>      | <b>Level 2</b>    | <b>Level 3</b>    | <b>NAV</b>          |                      |
| <b>Investments:</b>                         |                     |                   |                   |                     |                      |
| Cash and cash equivalents                   | \$ 77,731           | \$ 586,932        |                   |                     | \$ 664,663           |
| Global equities                             | 932,083             | 65,023            | \$ 1,726          | \$ 940,126          | 1,938,958            |
| Fixed income                                | 22,677              | 36                | 30                | 287,639             | 310,382              |
| Absolute return strategies                  | 102,247             | 16,028            |                   | 3,039,484           | 3,157,759            |
| Private equity                              | 21,669              |                   | 92,436            | 1,980,967           | 2,095,072            |
| Real assets                                 | 98,303              | 2,122             | 13,008            | 1,758,109           | 1,871,542            |
| Investments, at fair value                  | <u>1,254,710</u>    | <u>670,141</u>    | <u>107,200</u>    | <u>8,006,325</u>    | <u>10,038,376</u>    |
| Interest in perpetual trusts held by others |                     |                   | 160,732           | 11,476              | 172,208              |
| Total assets at fair value                  | <u>\$ 1,254,710</u> | <u>\$ 670,141</u> | <u>\$ 267,932</u> | <u>\$ 8,017,801</u> | <u>\$ 10,210,584</u> |
| <b>Liabilities</b>                          |                     |                   |                   |                     |                      |
| Swaps payable                               |                     | \$ 71,962         |                   |                     | \$ 71,962            |
| Total liabilities at fair value             |                     | <u>\$ 71,962</u>  |                   |                     | <u>\$ 71,962</u>     |

| <b>Assets</b>                               | <b>2016</b>         |                   |                   |                     | <b>Total</b>        |
|---|---------------------|-------------------|-------------------|---------------------|---------------------|
|   | <b>Level 1</b>      | <b>Level 2</b>    | <b>Level 3</b>    | <b>NAV</b>          |                     |
| <b>Investments:</b>                         |                     |                   |                   |                     |                     |
| Cash and cash equivalents                   | \$ 145,924          | \$ 268,848        |                   |                     | \$ 414,772          |
| Global equities                             | 742,646             | 45,248            | \$ 1,047          | \$ 706,709          | 1,495,650           |
| Fixed income                                | 20,746              | 35                | 51                | 287,284             | 308,116             |
| Absolute return strategies                  | 98,826              | 19,678            |                   | 2,965,256           | 3,083,760           |
| Private equity                              |                     |                   | 79,311            | 1,901,644           | 1,980,955           |
| Real assets                                 | 61,318              |                   | 13,462            | 1,596,963           | 1,671,743           |
| Investments, at fair value                  | <u>1,069,460</u>    | <u>333,809</u>    | <u>93,871</u>     | <u>7,457,856</u>    | <u>8,954,996</u>    |
| Interest in perpetual trusts held by others |                     |                   | 158,704           | 10,742              | 169,446             |
| Total assets at fair value                  | <u>\$ 1,069,460</u> | <u>\$ 333,809</u> | <u>\$ 252,575</u> | <u>\$ 7,468,598</u> | <u>\$ 9,124,442</u> |
| <b>Liabilities</b>                          |                     |                   |                   |                     |                     |
| Swaps payable                               |                     | \$ 99,818         |                   |                     | \$ 99,818           |
| Total liabilities at fair value             |                     | <u>\$ 99,818</u>  |                   |                     | <u>\$ 99,818</u>    |

**Cash and cash equivalents**

Cash and cash equivalents includes government securities and money market instruments and are valued at amortized cost which approximates fair value.



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**Global Equities and Fixed Income**

Global equities and fixed income consists of investments in publicly traded U.S. and foreign common and preferred equities, funds that invest in equity and fixed income based strategies, and cash held in separate accounts committed to these strategies. The fair value of these investments is based on quoted market prices. Investments that are listed on an exchange are valued, in general, at the last reported sale price (or, if there is no sales price, at the last reported bid price, or, in the absence of reported bid prices, at the mean between the last reported bid and asked prices thereof). Fund investments in equity and fixed income based strategies are valued in accordance with NAV provided by the investment managers of the underlying funds. If the University has valued the investment based on NAV as a practical expedient, the investment has been excluded from the fair value hierarchy and will be categorized as NAV. If the valuation does not meet the practical expedient criteria and the University has the ability to redeem from a fund up to 180 days beyond the measurement date, the investment is categorized as Level 2. If the redemption period extends beyond 180 days, the investment is categorized as Level 3.

**Alternative Investments**

Alternative investments include interests in absolute return strategy funds, private equity funds, and real asset funds. These private equity funds include large market, leveraged buyout and venture capital based strategies. The University values these investments in accordance with valuations provided by the investment managers of the underlying funds. These funds may make investments in securities that are publicly traded, which are generally valued based on observable market prices, unless a restriction exists. In addition, interests in a private equity fund may be publicly traded and valued based on observable market prices. As a general rule, managers of funds invested in alternative investments value those investments based upon the best information available for a given circumstance and may incorporate assumptions that are the investment manager's best estimates after consideration of a variety of internal and external factors. If no public market exists for the investments, the fair value is determined by the investment manager taking into consideration, among other things, the cost of the investment, prices of recent significant placements of similar investments of the same issuer, and subsequent developments concerning the companies to which the investments relate. The University's management may consider other factors in assessing the fair value of these investments. If the University has valued the absolute return strategy fund based on NAV as a practical expedient, the investment is excluded from the fair value hierarchy and will be categorized as NAV. If the valuation does not meet the practical expedient criteria and the University has the ability to redeem from an absolute return strategy fund up to 180 days beyond the measurement date, the investment is categorized as Level 2. If the redemption period extends beyond 180 days, the investment is categorized as Level 3. All private equity funds and real asset funds, with the exception of directly-held public securities, are categorized as Level 3 given that the University does not have discretion for timing of withdrawal.

The fair value of the alternative investment funds in the table above represents the amount the University would expect to receive at June 30, 2017 and 2016, if it had liquidated its investments in the funds on these dates. The University has performed due diligence around these investments and believes that the NAV of its alternative investments is a reasonable estimate of fair value as of June 30, 2017 and 2016. Alternative investments may allocate a high percentage of their assets in specific sectors of the market in order to achieve a potentially greater investment return. As a result, the investments may be susceptible to economic, political, and regulatory developments in a particular sector of the market, positive or negative, and may experience increased volatility in net asset values.

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Absolute return strategies also include separate accounts with direct investments in fixed income (which include mortgage back securities, collateralized mortgage obligations, and convertible bonds) and cash committed to these strategies. The fair value of these investments is based on the last reported bid price obtained from pricing sources or broker quotes and is categorized as Level 2.

**Perpetual Trusts**

The fair value of interest in perpetual trust held by third parties is based on the University's share of the income generated by the trust, ascribed to the fair value of the assets reported by the trust.

**Derivatives**

Investment fund managers may invest in derivatives, and the value of these positions is reflected in the NAV of the respective funds. Separately, the University employs derivatives primarily to hedge its risks and to rebalance its market exposures. Derivatives used may include futures, swaps, options, and forward contracts and are reflected at fair value following the definition of Level 1 and Level 2 assets as described above. Certain derivative positions held within the endowment portfolio are subject to master netting agreements included within an International Swap and Derivatives Association, Inc. ("ISDA") master agreement with each of the counterparties.

These positions are reflected on a net basis within Investments, at fair value on the Consolidated Balance Sheet and are summarized below:

| Derivative Instruments | Notional Exposure |             | Gross     |            | Net Fair Value | Collateral Posted |
|------------------------|-------------------|-------------|-----------|------------|----------------|-------------------|
|                        | Long              | Short       | Asset     | Liability  |                |                   |
| June 30, 2017          |                   |             |           |            |                |                   |
| Equity                 | \$ 478,462        | \$ (21,737) | \$ 49,897 | \$ (4,506) | \$ 45,391      |                   |
| Commodity              |                   | (307,458)   | 89,301    |            | 89,301         |                   |
| Currency*              |                   |             | 3,830     | (30,849)   | (27,019)       |                   |
| June 30, 2016          |                   |             |           |            |                |                   |
| Equity                 | \$ 595,630        | \$ (35,648) | \$ 3,858  | \$ (287)   | \$ 3,571       | \$ 10,000         |
| Commodity              |                   | (240,492)   | 55,114    |            | 55,114         |                   |
| Currency*              |                   |             | 11,202    | (171)      | 11,031         |                   |

\*The University held currency derivative contracts with an aggregate notional amount of \$1,620.4 million and \$1,467.1 million as of June 30, 2017 and 2016, respectively.

Outside of the endowment portfolio, the University entered into a fixed payor interest rate swap as described in Note 16. The estimated fair value of the agreement were liabilities of \$72.0 million and \$99.8 million at June 30, 2017 and 2016, respectively, and is included in "Swaps payable" in the preceding tables. The derivatives are reflected as a receivable or payable, as appropriate, on the Consolidated Balance Sheet. Unrealized gain or loss from derivative investments is a component of the current year realized and unrealized capital gains (losses) in the Consolidated Statement of Activities.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, 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.

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The following table is a rollforward of the Consolidated Balance Sheet amounts for financial instruments classified by the University within Level 3 of the fair value hierarchy defined above at June 30, 2017 and 2016.

|                           | June 30,<br>2016 | Transfers<br>In/Out | Purchases | Sales      | Realized<br>gain/loss | Unrealized<br>gain/loss | June 30,<br>2017 |
|---------------------------|------------------|---------------------|-----------|------------|-----------------------|-------------------------|------------------|
| Global equities           | \$ 1,047         | \$ 2                | \$ 700    |            |                       | \$ (23)                 | \$ 1,726         |
| Fixed income              | 51               |                     |           | (21)       |                       |                         | 30               |
| Private equity            | 79,311           |                     | 2,875     | (5,291)    | 1,219                 | 14,322                  | 92,436           |
| Real assets               | 13,462           |                     | 1,474     | (2,148)    | (8,762)               | 8,982                   | 13,008           |
| Total level 3 investments | \$ 93,871        | \$ 2                | \$ 5,049  | \$ (7,460) | \$ (7,543)            | \$ 23,281               | \$ 107,200       |

|   | June 30,<br>2016 | Transfers<br>In/Out | Disburse-<br>ments | Realized/<br>Unrealized<br>gain/loss, net | June 30,<br>2017 |
|---|------------------|---------------------|--------------------|---|------------------|
| Interest in perpetual trusts held by others | \$ 158,704       | \$ (7,206)          | \$ (7,021)         | \$ 16,255                                 | \$ 160,732       |

|                           | June 30,<br>2015 | Transfers<br>In/Out | Purchases | Sales       | Realized<br>gain/loss | Unrealized<br>gain/loss | June 30,<br>2016 |
|---------------------------|------------------|---------------------|-----------|-------------|-----------------------|-------------------------|------------------|
| Global equities           | \$ 34,392        | \$ (28,726)         |           | \$ (74)     | \$ 20                 | \$ (4,565)              | \$ 1,047         |
| Fixed income              | 70               |                     |           | (19)        |                       |                         | 51               |
| Private equity            | 88,130           |                     | \$ 591    | (1,388)     | (4,633)               | (3,389)                 | 79,311           |
| Real assets               | 53,261           | 28,105              |           | (54,600)    |                       | (13,304)                | 13,462           |
| Total level 3 investments | \$ 175,853       | \$ (621)            | \$ 591    | \$ (56,081) | \$ (4,613)            | \$ (21,258)             | \$ 93,871        |

|   | June 30,<br>2015 | Transfers<br>In/Out | Disburse-<br>ments | Realized/<br>Unrealized<br>gain/loss, net | June 30,<br>2016 |
|---|------------------|---------------------|--------------------|---|------------------|
| Interest in perpetual trusts held by others | \$ 182,028       | \$ (8,943)          | \$ (6,820)         | \$ (7,561)                                | \$ 158,704       |

All net realized and unrealized gains (losses) in the tables above are reflected in the Consolidated Statement of Activities. Net unrealized gains (losses) relate to those financial instruments held by the University at June 30, 2017 and 2016. The University's policy is to recognize transfers in and transfers out as of the end of the period. Transfers between Level 3 and Level 1, Level 3 and Level 2 as well as between Level 3 and NAV are reported at gross, due to the criteria described above. There were no significant transfers between Level 1 and Level 2 for the years ended June 30, 2017 and 2016.

Certain investments in global equities and alternative investments may be subject to restrictions that i) limit the University's ability to withdraw capital after such investment and ii) limit the amount that may be withdrawn as of a given redemption date. The redemption terms of the University's investments in absolute return strategy funds vary from daily to triennial, with a portion of these investments designated as "illiquid" in "sidepockets" and that portion may not be available for withdrawal until liquidated by the investing fund and redemption notice periods range from 0 days to 180 days. Generally, as noted above, the University has no discretion as to withdrawal with respect to its investment in private equity and real asset funds; distributions are made when sales of

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assets are made within the funds. The remaining life of these private equity and real asset funds is up to 12 years.

The University is obligated under certain investment fund agreements to advance additional funding up to specified levels over a period of several years. These commitments have fixed expiration dates and other termination clauses. At June 30, 2017, the University had unfunded commitments of approximately \$2.0 billion as displayed in the table below.

| <b>Asset class<br/>(\$ in millions)</b> | <b>Remaining life</b> | <b>Unfunded<br/>commitments</b> | <b>Timing to draw<br/>commitments</b> |
|---|-----------------------|---------------------------------|---------------------------------------|
| Global equities                         | N/A                   | \$ 1                            | 1 to 8 years                          |
| Absolute return strategies              | N/A                   | 143                             | 1 to 5 years                          |
| Private equity                          | 1 to 12 years         | 760                             | 1 to 12 years                         |
| Real assets                             | 1 to 12 years         | 1,094                           | 1 to 12 years                         |
| Total                                   |                       | <u>\$ 1,998</u>                 |                                       |

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, cash equivalents, marketable debt and equity securities and lines of credit, which are available to fund the committed drawdowns.

**Investment Return**

Investment income and gains utilized on the Consolidated Statement of Activities contains interest and dividend income net of fees, institutional real estate revenue net of operating expenses and depreciation, other investment income, and endowment appreciation utilized to fund the spending rule. Endowment appreciation utilized was \$483.6 million and \$428.8 million during 2017 and 2016, respectively. The nonoperating section of the Consolidated Statement of Activities contains realized and unrealized gains reduced by endowment appreciation utilized to fund the spending rule.

**7. Endowment Funds**

The University's endowment consists of approximately almost 5,300 separate funds established over many years for a wide variety of purposes. The endowment includes permanent endowments, term endowments, and funds designated by the Board of Trustees to function as endowments. As required by GAAP, net assets associated with endowment funds, including funds designated by the Board of Trustees to function as endowments, are classified and reported based on the existence or absence of donor-imposed restrictions.

The University employs a market value unit method of accounting for pooled general investments. Each participating fund enters and withdraws from the pooled investment account based on monthly unit market values. Changes in the market value of investments are distributed proportionately to each fund that participates in the investment pool. Net investment income distributed during the year is allocated on a per unit basis to each participating fund.

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**Relevant Law**

Under NYPMIFA, the University may appropriate so much of an endowment fund as it deems prudent, considering the specific factors set forth in NYPMIFA and subject to the intent of the donor as expressed in the gift instrument. Unless stated otherwise in the gift instrument, the earnings in an endowment fund are donor-restricted assets until appropriated.

The University continues to classify as permanently restricted net assets (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) realized and unrealized gains and losses to the permanent endowment when stipulated by the donor gift instrument. In accordance with NYPMIFA and authoritative guidance, the remaining portion of the donor-restricted endowment funds not classified in permanently restricted net assets is classified as temporarily restricted net assets.

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The composition and changes in the University's endowment net assets as of June 30, 2017 and 2016, are as follows:

|   | 2017                       |   |   | Total               |
|---|----------------------------|---|---|---------------------|
|   | Unrestricted<br>Net Assets | Temporarily<br>Restricted<br>Net Assets | Permanently<br>Restricted<br>Net Assets |                     |
| <b>Changes in University endowment net assets</b> |                            |   |   |                     |
| Opening balance - June 30, 2016                   |                            |   |   |                     |
| Investment return:                                | \$ 3,060,780               | \$ 3,273,674                            | \$ 2,706,573                            | \$ 9,041,027        |
| Investment income                                 | 65,909                     | 1,497                                   |   | 67,406              |
| Net appreciation / (depreciation)                 | 333,274                    | 695,635                                 | 3,172                                   | 1,032,081           |
| Total investment return                           | 399,183                    | 697,132                                 | 3,172                                   | 1,099,487           |
| New gifts   | 1,483                      | 26,807                                  | 164,017                                 | 192,307             |
| Appropriation for expenditure                     | (228,660)                  | (327,116)                               |   | (555,776)           |
| Other Changes:                                    |                            |   |   |                     |
| Transfers to create endowments                    | 207,115                    | 13,120                                  | 2,436                                   | 222,671             |
| Other / Reclassifications                         | (11,250)                   | (3,954)                                 | 12,084                                  | (3,120)             |
|   | 195,865                    | 9,166                                   | 14,520                                  | 219,551             |
| Closing balance - June 30, 2017                   | <u>\$ 3,428,651</u>        | <u>\$ 3,679,663</u>                     | <u>\$ 2,888,282</u>                     | <u>\$ 9,996,596</u> |
| <b>University endowment composition</b>           |                            |   |   |                     |
| Endowment funds                                   |                            | \$ 3,396,369                            | \$ 2,697,737                            | \$ 6,094,106        |
| Funds functioning as endowment:                   |                            |   |   |                     |
| Departmental funds                                | \$ 1,352,893               | 266,580                                 |   | 1,619,473           |
| University funds                                  | 1,488,658                  |   |   | 1,488,658           |
| Institutional real estate, net                    | 587,100                    |   |   | 587,100             |
| CPMC Fund, Inc.                                   |                            | 16,714                                  | 18,337                                  | 35,051              |
| Interests in perpetual trusts held by others      |                            |   | 172,208                                 | 172,208             |
| University's endowment value                      | <u>\$ 3,428,651</u>        | <u>\$ 3,679,663</u>                     | <u>\$ 2,888,282</u>                     | <u>\$ 9,996,596</u> |

Note: The tables above do not include split-interest agreements, net of \$91,289 and pledges receivable, net of \$468,280.

**Reconciliation to Investments, at fair value**

|  |                     |
|--|---------------------|
| Investments, at fair value                   | \$ 10,038,376       |
| Add:   |                     |
| Interests in perpetual trusts held by others | 172,208             |
| CPMC Fund, Inc.                              | 35,051              |
| Institutional real estate, net               | 587,100             |
| Investment receivables and payables          | (47,238)            |
| Subtract:                                    |                     |
| Other long-term investments                  | (555,416)           |
| Split-interest agreements                    | (151,511)           |
| Funds held on behalf of others               | (81,974)            |
| University's endowment value                 | <u>\$ 9,996,596</u> |

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|   | 2016                       |   |   | Total        |
|---|----------------------------|---|---|--------------|
|   | Unrestricted<br>Net Assets | Temporarily<br>Restricted<br>Net Assets | Permanently<br>Restricted<br>Net Assets |              |
| <b>Changes in University endowment net assets</b> |                            |   |   |              |
| Opening balance - June 30, 2015                   |                            |   |   |              |
| Investment return:                                | \$ 3,296,768               | \$ 3,751,929                            | \$ 2,590,368                            | \$ 9,639,065 |
| Investment income                                 | 84,429                     | 1,346                                   |   | 85,775       |
| Net appreciation / (depreciation)                 | (96,214)                   | (193,081)                               | (14,706)                                | (304,001)    |
| Total investment return                           | (11,785)                   | (191,735)                               | (14,706)                                | (218,226)    |
| New gifts   | 2,586                      | 9,780                                   | 108,896                                 | 121,262      |
| Appropriation for expenditure                     | (240,215)                  | (315,951)                               |   | (556,166)    |
| Other Changes:                                    |                            |   |   |              |
| Transfers to create endowments                    | 22,308                     | 25,966                                  | 6,811                                   | 55,085       |
| Other / Reclassifications                         | (8,882)                    | (6,315)                                 | 15,204                                  | 7            |
|   | 13,426                     | 19,651                                  | 22,015                                  | 55,092       |
| Closing balance - June 30, 2016                   | \$ 3,060,780               | \$ 3,273,674                            | \$ 2,706,573                            | \$ 9,041,027 |
| <b>University endowment composition</b>           |                            |   |   |              |
| Endowment funds                                   | \$ (4,675)                 | \$ 3,023,759                            | \$ 2,515,420                            | \$ 5,534,504 |
| Funds functioning as endowment:                   |                            |   |   |              |
| Departmental funds                                | 1,218,238                  | 219,453                                 |   | 1,437,691    |
| University funds                                  | 1,395,294                  |   |   | 1,395,294    |
| Institutional real estate, net                    | 451,923                    |   |   | 451,923      |
| CPMC Fund, Inc.                                   |                            | 30,462                                  | 21,707                                  | 52,169       |
| Interests in perpetual trusts held by others      |                            |   | 169,446                                 | 169,446      |
| University's endowment value                      | \$ 3,060,780               | \$ 3,273,674                            | \$ 2,706,573                            | \$ 9,041,027 |

Note: The tables above do not include split-interest agreements, net of \$81,913 and pledges receivable, net of \$275,353.

**Reconciliation to Investments, at fair value**

|  |              |
|--|--------------|
| Investments, at fair value                   | \$ 8,954,996 |
| Add:   |              |
| Interests in perpetual trusts held by others | 169,446      |
| CPMC Fund, Inc.                              | 52,169       |
| Institutional real estate, net               | 451,923      |
| Investment receivables and payables          | 79,550       |
| Subtract:                                    |              |
| Other long-term investments                  | (444,399)    |
| Split-interest agreements                    | (138,353)    |
| Funds held on behalf of others               | (84,305)     |
| University's endowment value                 | \$ 9,041,027 |

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**Return Objectives and Risk Parameters**

Endowment assets include those assets of donor-restricted funds that the University must hold in perpetuity or for a donor-specified period(s) as well as Board-designated funds. Under the University's investment policies, as approved by the Board of Trustees, the endowment assets are invested in a manner that is intended to produce performance which exceeds that of relevant indices for each asset class while assuming a moderate level of investment risk.

**Strategies Employed for Achieving Objectives**

The University relies on a total return strategy in which investment returns are achieved through both capital appreciation (realized and unrealized) and current yield (interest and dividends). The University targets a diversified asset allocation to achieve its long-term return objectives within prudent risk constraints.

**Endowment Spending Rule**

The endowment spending rule utilized by the University is designed to be directly responsive to both investment returns and the current level of price inflation. Its long-term objectives are:

- To protect the corpus of the endowment by spending no more than the real investment return;
- To cushion spending against market volatility; and
- To provide specific spending instructions and multiyear spending projections based on explicit future investment return assumptions.

The current endowment spending rule is based on two factors: first, the market value multiplied by a 5 percent target spending rate, which provides a response to investment market conditions; and second, the prior year's spending plus inflation, which ties spending increases to operating needs and cushions spending against market volatility. This allows the University to maintain the purchasing power of the endowment assets held in perpetuity or for a specified term as well as to provide additional real growth through new gifts and investment return.

As a general policy, each fiscal year's distribution is calculated by adding together the following:

- a. The market value of the endowment at a point twelve months prior to the beginning of the given fiscal year, multiplied by the 5 percent target spending rate, multiplied by a 40 percent weighting; and
- b. Endowment spending in the year immediately preceding the given fiscal year, grown or reduced by an inflation factor, which is defined as the Higher Education Price Index ("HEPI"), multiplied by a 60 percent weighting.

The Trustees conduct a special review in any year in which either projected endowment distributions are 0.5 percent higher or lower than the 5 percent target spending rate, or if the increase in endowment distributions over the previous year is more than 3 percentage points higher or lower than HEPI. Additionally, from time to time, management may recommend, and the Trustees may approve, a temporary override of the spending rule to ensure the University's ability to sustain the permanent nature of the endowment.

In addition to the base spending rate described above, two additional payout components were approved as temporary measures by the Trustees in 2008. The first is an increase in annual



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spending of up to 1.75 percent of the prior year beginning market value of endowments that are designated for undergraduate financial aid support. This increase began in fiscal 2009 and will be phased out as new endowments substitute for this funding source. The amount of the incremental payout for the coming year is approved annually by the Trustees' Committee on Finance as part of the budget process. The second component is 0.70 percent of the prior year beginning market value for certain endowments in categories key to the University's current development efforts, primarily unrestricted endowment and endowments for financial aid and faculty support. This second component is reviewed by the Trustees regularly and has currently been extended through the end of fiscal year 2018.

**8. Accounts Receivable**

Accounts receivable, net, consists of the following as of June 30:

|  | <b>2017</b>       | <b>2016</b>       |
|--|-------------------|-------------------|
| Patient receivables, net of contractual allowances | \$ 186,073        | \$ 195,497        |
| Government agencies                                | 153,774           | 141,423           |
| NewYork-Presbyterian Hospital                      | 114,283           | 103,652           |
| Patent and licensing                               | 8,459             | 6,339             |
| Student receivables                                | 64,308            | 68,372            |
| Other receivables, gross                           | <u>148,347</u>    | <u>131,339</u>    |
|  | 675,244           | 646,622           |
| Less: Allowance for doubtful accounts              | <u>(95,754)</u>   | <u>(111,937)</u>  |
| Accounts receivable, net                           | <u>\$ 579,490</u> | <u>\$ 534,685</u> |

Patient receivables for medical services are net of an allowance for contractual reserves in the amount of \$195.9 million and \$186.8 million at June 30, 2017 and 2016, respectively.

**9. Student Loans Receivable and Financial Aid**

The University participates in various federal loan programs, in addition to administering institutional loan programs. Loans receivable from students as of June 30 are as follows:

|  | <b>2017</b>      | <b>2016</b>       |
|--|------------------|-------------------|
| Government revolving loans               | \$ 72,485        | \$ 76,434         |
| Institutional loans                      | <u>29,726</u>    | <u>29,955</u>     |
| Gross student loans                      | 102,211          | 106,389           |
| Less: Allowance for doubtful collections | <u>(2,544)</u>   | <u>(2,158)</u>    |
| Student loans receivable, net            | <u>\$ 99,667</u> | <u>\$ 104,231</u> |

Government revolving loans are funded principally with federal advances to the University under the Perkins Loan Program and certain other programs. Advances under the Perkins Loan Program totaled \$70.1 million and \$70.3 million and advances under the other federally sponsored loan programs are \$14.0 million and \$14.7 million as of June 30, 2017 and 2016, respectively. These advances are classified as liabilities on the Consolidated Balance Sheet. Interest earned on the revolving and institutional loan programs is reinvested to support additional loans. The repayment and interest rate terms of the institutional loans vary considerably.

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Management regularly assesses the adequacy of the allowance for credit losses by performing ongoing evaluation of the student loan and student accounts receivable portfolios. Loans receivable under federally guaranteed student loan programs are subject to significant restrictions.

In addition to the loans identified above, the University processes and authorizes loans to students through the William D. Ford Federal Direct Loan Program. The amounts due under this loan are not recorded in the University's consolidated financial statement since the University does not guarantee any federal loan funds related to these programs. The amount of loans issued under these programs was \$312.5 million and \$278.0 million for the years ended June 30, 2017 and 2016, respectively.

Undergraduate financial aid represents packages for all or part of a student's tuition, fees, room, and board. Graduate financial aid represents packages for all or part of a student's tuition and fees. Funding from external sources is obtained through government and private grants and contracts as well as private gifts and payout from certain endowment funds.

|                            | 2017               |                   |                     | 2016               |                   |                     |
|----------------------------|--------------------|-------------------|---------------------|--------------------|-------------------|---------------------|
|                            | University Sources | External Sources  | Total Financial Aid | University Sources | External Sources  | Total Financial Aid |
| Undergraduate              | \$ 114,716         | \$ 53,779         | \$ 168,495          | \$ 105,941         | \$ 55,292         | \$ 161,233          |
| Graduate                   | 152,979            | 73,542            | 226,521             | 135,677            | 64,929            | 200,606             |
| Total financial aid grants | <u>\$ 267,695</u>  | <u>\$ 127,321</u> | <u>\$ 395,016</u>   | <u>\$ 241,618</u>  | <u>\$ 120,221</u> | <u>\$ 361,839</u>   |

Agency activities such as tuition aid grants and federal Pell grant program are not included in the University's consolidated financial statements. Receipts from agency transactions were \$10.9 million and \$11.1 million, and disbursements were \$10.9 million and \$11.1 million in fiscal year 2017 and 2016, respectively.

**10. Pledges Receivable**

Unconditional promises to give appear as pledges receivable and revenue of the appropriate net asset category. Pledges are recorded after recognizing an allowance for uncollectible contributions and a discount to reflect the net present value based on projected cash flows. Periodically unconditional promises to give are reviewed for collectability. As a result, the allowance for uncollectible contributions may be adjusted and some contributions may be adjusted or cancelled. Such changes will be reflected in the consolidated financial statements.

The June 30 balances of unconditional promises to give are:

| Unconditional promises to give expected to be collected in: | 2017              | 2016              |
|---|-------------------|-------------------|
| Less than one year  | \$ 244,432        | \$ 169,195        |
| One to five years   | 563,018           | 392,264           |
| More than five years  | 200,719           | 196,666           |
| Total unconditional promises                                | <u>1,008,169</u>  | <u>758,125</u>    |
| Less: Allowance for doubtful contributions                  | (37,235)          | (25,362)          |
| Less: Net present-value discount                            | <u>(122,247)</u>  | <u>(105,504)</u>  |
| Net pledges receivable                                      | <u>\$ 848,687</u> | <u>\$ 627,259</u> |

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New pledges recorded in 2017 and 2016 were discounted at an average annual rate of 2.41 percent and 1.45 percent, respectively, using a rate that considers market and credit risk. Credit risk is also considered in the allowance for doubtful contributions.

Pledges receivable are intended for the following purposes:

|  | 2017              | 2016              |
|--|-------------------|-------------------|
| Endowment for educational and general purposes | \$ 468,280        | \$ 275,353        |
| New construction and modernization of plant    | 201,247           | 171,219           |
| Support of University operations               | 179,160           | 180,687           |
| Net pledges receivable                         | <u>\$ 848,687</u> | <u>\$ 627,259</u> |

The University also has other outstanding pledges of \$274.4 million as of June 30, 2017. These pledges represent either conditional gifts for which the probability of meeting the conditions is uncertain, verbal pledges, or other pledges that have not met the requirements for recognition.

**11. Land, Buildings, and Equipment**

Investments in land, buildings, and equipment, net, consisted of the following at June 30:

|                                    | 2017                |                             |                     | 2016                |                             |                     |
|------------------------------------|---------------------|-----------------------------|---------------------|---------------------|-----------------------------|---------------------|
|                                    | Total<br>Assets     | Accumulated<br>Depreciation | Net<br>Assets       | Total<br>Assets     | Accumulated<br>Depreciation | Net<br>Assets       |
| Land                               | \$ 459,366          |                             | \$ 459,366          | \$ 460,168          |                             | \$ 460,168          |
| Building and building improvements | 5,889,827           | \$ 2,587,274                | 3,302,553           | 4,405,779           | \$ 2,362,120                | 2,043,659           |
| Construction in progress           | 372,060             |                             | 372,060             | 1,377,881           |                             | 1,377,881           |
| Equipment                          | 499,225             | 287,657                     | 211,568             | 422,901             | 245,942                     | 176,959             |
|                                    | <u>\$ 7,220,478</u> | <u>\$ 2,874,931</u>         | <u>\$ 4,345,547</u> | <u>\$ 6,666,729</u> | <u>\$ 2,608,062</u>         | <u>\$ 4,058,667</u> |

The University uses componentized depreciation to calculate depreciation expense for buildings and building improvements for research facilities included in operations. The costs of research facilities are separated into the building shell, building service systems, and fixed equipment, and each component is separately depreciated.

Equipment includes physical assets owned by the University as well as capitalized software costs and moveable equipment acquired through capitalized leases.

Building and building improvements include physical assets owned by the University as well as leasehold improvements, capitalized space leases, and construction in progress. Capital space leases at June 30, 2017 and 2016 were \$75.8 million and \$78.4 million, respectively.

**12. Accrued Employee Benefit Liabilities**

Accrued employee benefit liabilities arise from employment at the University. These include liabilities for pension, postretirement benefits, postemployment benefits, unused vacation, and deferred compensation.

Postemployment benefits relating to workers' compensation, short-term disability, and continuation of medical benefits for those on long-term disability are provided to former or inactive employees after employment but before retirement. The University records the costs of such benefits on an

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accrual basis if the employee has provided the services from which those benefits are derived. In 2017 and 2016, the University recognized actuarially computed liabilities of \$54.2 million and \$48.0 million, respectively.

**13. Pension and Other Postretirement Benefit Costs**

**Pension Plan Benefits**

The University has five non-contributory pension plans (the “pension plans”) for supporting staff employees. Four of the pension plans are subject to collective bargaining agreements. The fifth pension plan covers former employees of the Arden Conference Center, which closed in 2005. Three of the plans include defined benefits plans for past service, and in the case of two plans, defined benefit for past and future service. Two of the pension plans provide defined benefits for service prior to 1976 (January 1, in one case, and prior to July 1, 1976, in the other). For these two pension plans, future benefits are provided by defined contribution plans. Charges to expenditures for the defined contribution segments of the plans amounted to \$5.6 million and \$5.7 million for the years ended June 30, 2017 and 2016, respectively.

In addition, the University provides retirement benefits for full-time faculty, officers, and certain other employees under a separate defined contribution plan (the “officer plan”). Charges to expenditures for the officer plan amounted to \$129.6 million and \$118.4 million for the years ended June 30, 2017 and 2016, respectively.

**Postretirement Health Care and Life Insurance Benefits**

The University provides postretirement health care and life insurance benefits for certain employees. The University accrues the estimated cost of these benefits over the years that eligible employees render service.

**Obligations and Funded Status**

The University adopted authoritative guidance, which requires recognition on the Consolidated Balance Sheet of the difference between benefit obligations and any plan assets of the University’s defined benefit and other postretirement benefit plans. In addition, the authoritative guidance requires unamortized amounts (e.g., net actuarial gains or losses and prior service cost or credits) to be recognized as changes to unrestricted net assets and that those amounts be adjusted as they are subsequently recognized as components of net periodic pension cost.

Amounts recognized in unrestricted net assets are as follows:

|                               | Pension Plan Benefits |                  | Other Postretirement Benefits |                  |
|-------------------------------|-----------------------|------------------|-------------------------------|------------------|
|                               | 2017                  | 2016             | 2017                          | 2016             |
| Net actuarial (gain) / loss   | \$ 56,635             | \$ 77,024        | \$ (23,545)                   | \$ 14,123        |
| Prior service (credit) / cost | 377                   | 442              |                               | (1,911)          |
| Total amount recognized       | <u>\$ 57,012</u>      | <u>\$ 77,466</u> | <u>\$ (23,545)</u>            | <u>\$ 12,212</u> |

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The components of accrued benefit costs for pension benefits and other postretirement benefits are as follows:

|   | <b>Pension Plan Benefits</b> |                    | <b>Other Postretirement Benefits</b> |                   |
|---|------------------------------|--------------------|--------------------------------------|-------------------|
|   | <b>2017</b>                  | <b>2016</b>        | <b>2017</b>                          | <b>2016</b>       |
| <b>Change in benefit obligation:</b>    |                              |                    |                                      |                   |
| Benefit obligation, beginning of year   | \$ 213,770                   | \$ 179,781         | \$ 165,449                           | \$ 156,784        |
| Service cost                            | 7,924                        | 5,921              | 6,990                                | 6,243             |
| Interest cost                           | 8,131                        | 8,435              | 5,830                                | 7,039             |
| Plan participants' contributions        |                              |                    | 5,510                                | 5,836             |
| Actuarial (gain) / loss                 | (12,826)                     | 26,167             | (25,619)                             | 3,836             |
| Federal subsidy                         |                              |                    | 233                                  | 195               |
| Net disbursements and transfers         | (6,715)                      | (6,534)            | (11,685)                             | (14,484)          |
| Benefit obligation, end of year         | <u>\$ 210,284</u>            | <u>\$ 213,770</u>  | <u>\$ 146,708</u>                    | <u>\$ 165,449</u> |
| <b>Change in plan assets:</b>           |                              |                    |                                      |                   |
| Fair value of assets, beginning of year | \$ 151,593                   | \$ 141,867         | \$ 171,619                           | \$ 173,742        |
| Actual return on plan assets            | 11,624                       | 8,793              | 22,489                               | 3,336             |
| Employer contributions                  | 9,208                        | 7,467              | 4,407                                | 3,189             |
| Plan participants' contributions        |                              |                    | 5,510                                | 5,836             |
| Net disbursements and transfers         | (6,715)                      | (6,534)            | (11,685)                             | (14,484)          |
| Fair value of assets, end of year       | <u>\$ 165,710</u>            | <u>\$ 151,593</u>  | <u>\$ 192,340</u>                    | <u>\$ 171,619</u> |
| Net amount recognized                   | <u>\$ (44,574)</u>           | <u>\$ (62,177)</u> | <u>\$ 45,632</u>                     | <u>\$ 6,170</u>   |

**Weighted-average assumptions used to determine end of year benefit obligation**

|                               | <b>2017</b>    | <b>2016</b>    |
|-------------------------------|----------------|----------------|
| Discounted rate               | 3.35% to 3.95% | 2.95% to 3.75% |
| Rate of compensation increase | 3.00% to 3.25% | 2.00% to 3.25% |

The accumulated benefit obligations for the underfunded pension plans at June 30, 2017 and 2016 were \$182.7 and \$182.7 million, respectively.

At the end of 2017 and 2016, the projected benefit obligation exceeded the pension plan assets for three of the five plans. The projected benefit obligation for the pension plans with a benefit obligation in excess of plan assets were as follows:

| <b>End of year</b>           | <b>2017</b> | <b>2016</b> |
|------------------------------|-------------|-------------|
| Projected benefit obligation | \$ 202,767  | \$ 203,093  |
| Fair value of plan assets    | 154,512     | 139,750     |

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The accumulated postretirement benefit obligation for the other postretirement benefit plan and the fair value of plan assets with plan assets in excess of the accumulated postretirement benefit obligation was as follows:

| <b>End of year</b>                            | <b>2017</b> | <b>2016</b> |
|---|-------------|-------------|
| Accumulated postretirement benefit obligation | \$ 146,708  | \$ 165,449  |
| Fair value of plan assets                     | 192,340     | 171,619     |

A 6.5 percent annual rate of increase in the per capita cost of covered health care benefits for the other postretirement benefit plan was assumed for 2018. The rate was assumed to decrease gradually to 5 percent for 2022 and remain at that level thereafter. Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A one-percentage-point change in assumed health care cost trend rates would have the following effect:

|   | <b>1-%-point<br/>increase</b> | <b>1-%-point<br/>decrease</b> |
|---|-------------------------------|-------------------------------|
| Effect on accumulated postretirement benefit obligation | \$ 19,590                     | \$ (15,691)                   |

The asset allocation for the two defined benefit plans for both past and future service at June 30, 2017 and 2016, and the target allocation for 2018, by asset category, follows:

| <b>Asset category</b>                         | <b>Target<br/>allocation<br/>2018</b> | <b>Percentage of plan<br/>assets at year's end</b> |             |
|---|---------------------------------------|--|-------------|
|   |                                       | <b>2017</b>  | <b>2016</b> |
| U.S. large cap equity and global equity funds | 24%                                   | 22%  | 19%         |
| International equities (non-U.S.)             | 14%                                   | 18%  | 10%         |
| High yield fixed income securities            | 10%                                   | 15%  | 17%         |
| U.S. core fixed income                        | 50%                                   | 45%  | 54%         |
| Other assets                                  | 2%                                    |  |             |
|   | <u>100%</u>                           | <u>100%</u>  | <u>100%</u> |

The asset allocation for the two defined benefit plans for prior service only at June 30, 2017 and 2016, and the target allocation for 2018, by asset category, follows:

| <b>Asset category</b>              | <b>Target<br/>allocation<br/>2018</b> | <b>Percentage of plan<br/>assets at year's end</b> |             |
|------------------------------------|---------------------------------------|--|-------------|
|                                    |                                       | <b>2017</b>  | <b>2016</b> |
| U.S. large cap equity              | 10%                                   | 4%   | 4%          |
| International equities (non-U.S.)  | 5%                                    | 8%   | 9%          |
| High yield fixed income securities | 5%                                    | 11%  | 11%         |
| U.S. core fixed income             | 80%                                   | 77%  | 76%         |
|                                    | <u>100%</u>                           | <u>100%</u>  | <u>100%</u> |

The retirement plan for the employees of Arden Conference Center was invested in equity securities, including mutual funds, 33 percent, and debt securities, 67 percent as of June 30, 2017.

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The following presents investments of the pension plans as of June 30, 2017. The Plans' investments in mutual funds are included as Level 1 because fair value is based on quoted prices. The Plans' investments in common collective trusts are valued at NAV as a practical expedient and are therefore excluded from the fair value hierarchy and are reported as NAV. Level 3 assets represent fixed income related investment contracts with a major life insurance company.

|                                   | <u>Level 1</u>  | <u>Level 2</u> | <u>Level 3</u>  | <u>NAV</u>        | <u>Total</u>      |
|-----------------------------------|-----------------|----------------|-----------------|-------------------|-------------------|
| Common collective trust funds     |                 |                |                 |                   |                   |
| Global equity                     |                 |                |                 | \$ 61,787         | \$ 61,787         |
| Fixed income                      |                 |                |                 | 100,715           | 100,715           |
| Mutual funds                      | \$ 1,050        |                |                 |                   | 1,050             |
| Fixed income investment contracts |                 |                | \$ 2,158        |                   | 2,158             |
| Investments, at fair value        | <u>\$ 1,050</u> | <u></u>        | <u>\$ 2,158</u> | <u>\$ 162,502</u> | <u>\$ 165,710</u> |

The following table is a roll forward of the amounts for investments classified within Level 3 as described above.

|                           | <u>June 30,<br/>2016</u> | <u>Purchases<br/>(Gross)</u> | <u>Sales<br/>(Gross)</u> | <u>Investment<br/>gain/(loss)</u> | <u>June 30,<br/>2017</u> |
|---------------------------|--------------------------|------------------------------|--------------------------|-----------------------------------|--------------------------|
| Investment contracts      | \$ 2,187                 | \$46                         | \$ (141)                 | \$ 66                             | \$ 2,158                 |
| Total level 3 investments | <u>\$ 2,187</u>          | <u>\$46</u>                  | <u>\$ (141)</u>          | <u>\$ 66</u>                      | <u>\$ 2,158</u>          |

The following presents investments of the pension plans as of June 30, 2016.

|                                   | <u>Level 1</u> | <u>Level 2</u> | <u>Level 3</u>  | <u>NAV</u>        | <u>Total</u>      |
|-----------------------------------|----------------|----------------|-----------------|-------------------|-------------------|
| Common collective trust funds     |                |                |                 |                   |                   |
| Global equity                     |                |                |                 | \$ 40,881         | \$ 40,881         |
| Fixed income                      |                |                |                 | 107,606           | 107,606           |
| Mutual funds                      | \$ 919         |                |                 |                   | 919               |
| Fixed income investment contracts |                |                | \$ 2,187        |                   | 2,187             |
| Investments, at fair value        | <u>\$ 919</u>  | <u></u>        | <u>\$ 2,187</u> | <u>\$ 148,487</u> | <u>\$ 151,593</u> |

The following table is a roll forward of the amounts for investments classified within Level 3 as described above.

|                           | <u>June 30,<br/>2015</u> | <u>Purchases<br/>(Gross)</u> | <u>Sales<br/>(Gross)</u> | <u>Investment<br/>gain/(loss)</u> | <u>June 30,<br/>2016</u> |
|---------------------------|--------------------------|------------------------------|--------------------------|-----------------------------------|--------------------------|
| Investment contracts      | \$ 2,166                 | \$                           | \$ (144)                 | \$ 165                            | \$ 2,187                 |
| Total level 3 investments | <u>\$ 2,166</u>          | <u>\$</u>                    | <u>\$ (144)</u>          | <u>\$ 165</u>                     | <u>\$ 2,187</u>          |

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The asset allocation for the other postretirement benefit plan at June 30, 2017 and 2016, and the target allocation for 2018, by asset category, follows:

| <b>Asset category</b>                         | <b>Target allocation</b> | <b>Percentage of plan assets at year's end</b> |             |
|---|--------------------------|--|-------------|
|   | <b>2018</b>              | <b>2017</b>                                    | <b>2016</b> |
| U.S. large cap equity and global equity funds | 42%                      | 59%  | 60%         |
| International equities (non-U.S.)             | 16%                      | 16%  | 16%         |
| U.S. fixed income                             | 32%                      | 25%  | 24%         |
| Other assets                                  | 10%                      |  |             |
|   | <u>100%</u>              | <u>100%</u>                                    | <u>100%</u> |

The following presents investments of the other postretirement benefit plan as of June 30, 2017. The Plans' investments in common collective trusts are valued at NAV as a practical expedient and are therefore excluded from the fair value hierarchy and reported as NAV.

|                               | <u>Level 1</u> | <u>Level 2</u> | <u>Level 3</u> | <u>NAV</u>        | <u>Total</u>      |
|-------------------------------|----------------|----------------|----------------|-------------------|-------------------|
| Common collective trust funds |                |                |                |                   |                   |
| Global equity                 |                |                |                | \$ 144,418        | \$ 144,418        |
| Fixed income                  |                |                |                | 47,922            | 47,922            |
| Investments, at fair value    |                |                |                | <u>\$ 192,340</u> | <u>\$ 192,340</u> |

The following presents investments of the other postretirement benefit plan as of June 30, 2016.

|                               | <u>Level 1</u> | <u>Level 2</u> | <u>Level 3</u> | <u>NAV</u>        | <u>Total</u>      |
|-------------------------------|----------------|----------------|----------------|-------------------|-------------------|
| Common collective trust funds |                |                |                |                   |                   |
| Global equity                 |                |                |                | \$ 130,242        | \$ 130,242        |
| Fixed income                  |                |                |                | 41,377            | 41,377            |
| Investments, at fair value    |                |                |                | <u>\$ 171,619</u> | <u>\$ 171,619</u> |



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**Net Periodic Pension Cost**

The components of net periodic benefit cost for pension benefits and other postretirement benefits are as follows:

|  | <b>Pension Plan Benefits</b> |                  | <b>Other Postretirement Benefits</b> |                  |
|--|------------------------------|------------------|--------------------------------------|------------------|
|  | <b>2017</b>                  | <b>2016</b>      | <b>2017</b>                          | <b>2016</b>      |
| <b>Components of net periodic benefit cost</b>   |                              |                  |                                      |                  |
| Service cost   | \$ 7,924                     | \$ 5,921         | \$ 6,990                             | \$ 6,243         |
| Interest cost on projected benefit obligation  | 8,131                        | 8,435            | 5,829                                | 7,039            |
| Expected return on assets  | (8,561)                      | (7,907)          | (10,646)                             | (10,744)         |
| Amortization of prior service cost/(credit)  | 65                           | 65               | (1,911)                              | (4,513)          |
| Amortization of unrecognized net losses/(gain)   | 4,500                        | 3,196            |                                      |                  |
| Net periodic benefit cost  | <u>12,059</u>                | <u>9,710</u>     | <u>262</u>                           | <u>(1,975)</u>   |
| <b>Other changes in plan assets and benefit obligations recognized in the Consolidated Statement of Activities</b> |                              |                  |                                      |                  |
| Current year actuarial (gain)/loss   | (15,889)                     | 25,281           | (37,668)                             | 10,933           |
| Amortization of actuarial gain/(loss)  | (4,500)                      | (3,196)          |                                      |                  |
| Amortization of prior service credit/(cost)  | (65)                         | (65)             | 1,911                                | 4,513            |
| Total recognized in nonoperating   | <u>(20,454)</u>              | <u>22,020</u>    | <u>(35,757)</u>                      | <u>15,446</u>    |
| Total recognized in net periodic benefit cost and nonoperating   | <u>\$ (8,395)</u>            | <u>\$ 31,730</u> | <u>\$ (35,495)</u>                   | <u>\$ 13,471</u> |

Amounts in net unrestricted assets expected to be recognized in net periodic pension cost in fiscal 2018 are as follows:

|                             | <b>Pension Plan Benefits</b> | <b>Other Postretirement Benefits</b> |
|-----------------------------|------------------------------|--------------------------------------|
| Actuarial (gain)/loss       | \$ 3,012                     | \$ (390)                             |
| Prior service (credit)/cost | 65                           |                                      |
|                             | <u>\$ 3,077</u>              | <u>\$ (390)</u>                      |

**Weighted-average assumptions used to determine net periodic pension cost**

|                                | <b>2017</b>    | <b>2016</b>    |
|--------------------------------|----------------|----------------|
| Discount rate                  | 2.95% to 3.75% | 3.75% to 4.65% |
| Expected return on plan assets | 3.75% to 6.50% | 3.75% to 6.50% |
| Rate of compensation increase  | 3.00% to 3.25% | 2.39% to 3.25% |

To arrive at assumptions for expected long term rates of return on assets in the pension plan and the postretirement benefit plan, the University considered historical returns and future expectations for returns in each asset class in the asset allocation for the previously described pension and postretirement benefit portfolios.

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Assumed health care cost trend rates have a significant effect on the amounts reported for the other postretirement benefit plan. A one-percentage-point change in the assumed health care cost trend rates would have had the following effect:

|   | <b>1-%-point<br/>increase</b> | <b>1-%-point<br/>decrease</b> |
|---|-------------------------------|-------------------------------|
| Effect on total service and interest cost | \$ 2,528                      | \$ (1,930)                    |

**Expected Cash Flows**

Information about the expected cash flows for the plans is as follows:

|                                   | <b>Pension Benefits</b> | <b>Other Postretirement<br/>Pension Benefits</b> |
|-----------------------------------|-------------------------|--|
| <b>University contributions:</b>  |                         |  |
| 2018 (expected)                   | \$ 11,798               |  |
| <b>Expected benefit payments:</b> |                         |  |
| 2018                              | 6,767                   | \$ 7,018   |
| 2019                              | 7,125                   | 6,990  |
| 2020                              | 7,544                   | 6,910  |
| 2021                              | 8,026                   | 7,081  |
| 2022                              | 8,522                   | 7,229  |
| 2023-2027                         | 50,717                  | 38,869   |
| Total                             | <u>\$ 88,701</u>        | <u>\$ 74,097</u>                                 |

Total benefits expected to be paid include both the University's share of the benefit cost net of Medicare subsidies and the participants' share of the cost, which is funded by participant contributions to the other postretirement benefit plan. The University receives a Medicare Part D subsidy from the federal government as reimbursement for certain retiree health benefits paid to plan participants, which was approximately \$0.4 million in fiscal 2017.

**14. Lease Obligations**

The University is the lessee of various equipment and space under noncancelable operating and capital leases. Capital lease obligations at June 30, 2017 and 2016, were \$122.9 million and \$122.9 million, respectively. Operating lease rental expense for the years ended June 30, 2017 and 2016 were approximately \$42.4 million and \$36.9 million, respectively. Space leases contain customary escalation clauses, which are included in annual aggregate minimum rentals.

Future aggregate minimum rental payments under operating and capital leases are as follows:

|  | <b>Operating</b> | <b>Capital</b>    |
|--|------------------|-------------------|
| <b>Future minimum rental payments:</b>         |                  |                   |
| 2018   | \$ 41,168        | \$ 9,513          |
| 2019   | 30,918           | 8,295             |
| 2020   | 28,053           | 6,969             |
| 2021   | 25,119           | 6,709             |
| 2022   | 23,380           | 6,231             |
| Thereafter                                     | 256,933          | 228,065           |
| Less: Interest at 1.45 percent to 5.31 percent |                  | (142,878)         |
| Capital lease obligations at June 30, 2017     |                  | <u>\$ 122,904</u> |

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**15. Conditional Asset Retirement Obligations**

Conditional asset retirement obligations are a legal obligation to perform an asset retirement activity in which the timing and/or method of settlement are conditional on a future event that may or may not be within the control of the University. Uncertainty with respect to the timing and/or method of settlement of the asset retirement obligation does not defer recognition of a liability. GAAP requires that the fair value of a liability for a conditional asset retirement obligation be recognized in the period in which it occurred if a reasonable estimate of fair value can be made.

Conditional asset retirement obligations related to remediation or disposal of asbestos, underground storage tanks, soil, radioactive sources, and equipment were \$116.3 million and \$121.4 million at June 30, 2017 and 2016, respectively.

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**16. Bonds and Notes Payable**

Bonds and notes payable outstanding at June 30, 2017 and 2016, are as follows:

|  | <b>2017</b>         | <b>2016</b>         |
|--|---------------------|---------------------|
| Dormitory Authority of the State of New York, tax exempt revenue bonds, Columbia University issues |                     |                     |
| Series 2017 A, 2.40% to 3.49%, maturing FY2028 to FY2048   | \$ 150,000          |                     |
| Series 2017 B, 1.96% to 2.61%, maturing FY2025 to FY2030   | 40,475              |                     |
| Series 2016 A-1, 1.67%, maturing FY2027  | 50,000              | \$ 50,000           |
| Series 2016 A-2, 1.35 to 2.89%, maturing FY2024 to FY2047  | 130,000             | 130,000             |
| Series 2016 B, 0.57% to 2.04%, maturing FY2018 to FY2032   | 209,705             | 209,705             |
| Series 2015 A, 1.95% to 3.00%, maturing FY2026 to FY2046   | 92,535              | 92,535              |
| Series 2015 B, 0.66% to 1.88%, maturing FY2018 to FY2025   | 42,930              | 47,780              |
| Series 2012 A, 1.07% to 1.92%, maturing FY2019 to FY2023   | 137,935             | 137,935             |
| Series 2011 A, 2.36% to 4.88%, maturing FY2018 to FY2042   | 300,000             | 300,000             |
| Series 2009 A, variable rate, 0.85%, maturing FY2039   | 117,000             | 117,000             |
| Series 2008 A, 4.72%, maturing FY2038  | 200,000             | 200,000             |
| Series 2004 C, 4.40% to 4.46%, maturing FY2024 to FY2029   |                     | 48,270              |
| Series 2003 B, variable rate, 0.86%, maturing FY2028   | 30,000              | 30,000              |
| Series 2002 C, variable rate, 0.91%, maturing FY2027   | 23,300              | 23,300              |
| Taxable Series 2015, 3.46%, maturing FY2046  | 75,000              | 75,000              |
| Taxable Series 2012, 3.83%, maturing FY2043  | 100,000             | 100,000             |
| New Jersey Economic Development Corporation  |                     |                     |
| Series 2002, variable rate, 0.91%, maturing FY2028   | 5,545               | 5,965               |
| Medium-Term Notes, Taxable Series C 6.83% to 7.36%, maturing FY2021 to FY2022                      | 27,826              | 37,435              |
| Empire State Development Corporation Issues:   |                     |                     |
| 9.00%, maturing FY2029   | 6,447               | 6,767               |
| Interest-free, maturing FY2020   | 8,100               | 8,100               |
| Economic Development Corporation   |                     |                     |
| Interest-free, maturing FY2020   | 10,000              | 10,000              |
| <b>Total bonds and notes payable principal payments</b>  | <u>1,756,798</u>    | <u>1,629,792</u>    |
| Unamortized bond premium   | 204,718             | 172,833             |
| Unamortized cost of issuance   | (5,593)             | (5,721)             |
|  | <u>199,125</u>      | <u>167,112</u>      |
| <b>Total bonds and notes payable</b>   | <u>\$ 1,955,923</u> | <u>\$ 1,796,904</u> |

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Estimated principal payments on bonds and certificates are summarized below:

| <b>Fiscal Year</b>        | <b>Principal</b>    |
|---------------------------|---------------------|
| 2018                      | \$ 48,032           |
| 2019                      | 60,830              |
| 2020                      | 81,933              |
| 2021                      | 73,326              |
| 2022                      | 78,347              |
| Thereafter (through 2048) | 1,414,330           |
| Total                     | <u>\$ 1,756,798</u> |

The University issues most of its tax-exempt debt through the Dormitory Authority of the State of New York (“DASNY”). On March 1, 2017, the University issued \$150 million of Series 2017A and \$40.5 million of Series 2017B, all tax-exempt fixed rate bonds. Series 2017A was issued at a premium of \$41.3 million which will be amortized over 10 and 30 years based on the maturity of the underlying bonds. Series 2017B was issued at a premium of \$9.1 million which will be amortized between 7 and 10 years based on the maturities and optional redemption date. The proceeds from Series 2017A will be used to finance various construction and renovation projects. The proceeds from Series 2017B were used to redeem outstanding Series 2004C Bonds. The redeemed bonds were legally defeased and, as such, are not reflected in “Bonds and Notes Payable” at June 30, 2017.

On April 27, 2016, the University issued \$50 million of Series 2016A-1 green bonds, \$130 million of Series 2016A-2, and \$209.7 million of Series 2016B, all tax-exempt fixed rate bonds. Series 2016A-1 was issued at a premium of \$14.4 million which will be amortized over 10 years based on the maturity of the underlying bond. Series 2016A-2 was issued at a premium of \$45 million, \$36.9 million of which will be amortized based on the maturity of the underlying bonds which ranges from 8 to 30 years and \$8.1 million of which will be amortized over 10 years based on the optional redemption date. Series 2016B was issued at a premium of \$42.4 million which will be amortized over 10 years based on the optional redemption date. The proceeds from Series 2016A-1 and 2016A-2 will be used to finance various construction and renovation projects. The proceeds from Series 2016B were used to redeem outstanding Series 2006A and 2006B Bonds. The redeemed bonds were legally defeased and, as such, are not reflected in “Bonds and Notes Payable” at June 30, 2016.

The University recorded amortization of bond premium and issuance costs, net, of \$17.6 million and \$10.7 million for the fiscal years ended June 30, 2017 and 2016, respectively, as a reduction to interest expense.

The University has a \$150 million taxable commercial paper program. As of June 30, 2017 and 2016 there was no commercial paper outstanding under this program.

As of June 30, 2017, the University had a \$100 million operating line of credit, which expires in December, 2017. Additionally, as of June 30, 2017, the University had two \$100 million standby lines of credit supporting self-liquidity for variable rate debt outstanding, one that expires in January, 2020 and a second that expires in January, 2019. Each of the lines is with a different lending institution and, as of June 30, 2017, no balances were outstanding on the lines of credit.

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On October 1, 2008, the University entered into a \$200 million notional value forward starting, fixed payor swap agreement to protect against the risk of interest rate changes. The estimated fair value of the swap liability was (\$72.0) million and (\$99.8) million at June 30, 2017 and 2016, respectively. The fair value of the swap is obtained by taking the present value of all future cash flows on the swap implied by the forward curve.

The University has administrative covenants with which it was in compliance as of June 30, 2017 and 2016.

**17. Insurance**

In connection with managing financial risks through various third-party insurance programs, the University is self-insured in certain areas. Funded self-insurance liabilities primarily cover deductibles on general liability and property insurance claims. Self-insurance liabilities are actuarially calculated on an annual basis. The University's core liability coverage is purchased through Pinnacle RRG, a Vermont-based risk retention group with fifteen other universities.

The University obtains medical malpractice insurance through MCIC and MLMIC. MCIC is a group-captive insurance company owned by the University, The Johns Hopkins Hospital, The Johns Hopkins University, University of Rochester Medical Center, Weill Cornell Medical College, Yale New Haven Health, Yale University School of Medicine, and NYP. MLMIC is a mutual company where policyholders are owners, with full voting rights to elect the company's Board of Directors, thereby having direct input into vital areas of operation. The governing Board is comprised primarily of practicing physicians, dentists, and hospital administrators. More than 1,783 of the University's faculty physicians and dentists are enrolled in MCIC or MLMIC. The University has recorded self-insurance and medical malpractice liabilities of approximately \$285.1 million and \$275.3 million as of June 30, 2017 and 2016, respectively. The medical malpractice liabilities of approximately \$177.2 million and \$177.5 million as of June 30, 2017 and 2016, respectively, are reported gross with an offsetting receivable for anticipated recoveries of \$120.6 million and \$118.5 million, respectively, recorded in Other assets.

**18. Related Party Transactions**

The University maintains several clinical and education affiliation agreements with other organizations. Revenues and expenses from these agreements are accounted for in the operating activities segment of the Consolidated Statement of Activities. The most significant affiliation agreement is with NYP.

The University has an alliance dating back to 1921 with Presbyterian Hospital, which merged with New York Hospital effective January 1, 1998, and formed the new corporate entity now called New York-Presbyterian. The University receives reimbursement from NYP for the provision of medical, professional, and supervisory staff services as well as other technical assistance. NYP provides funding to clinical departments for specific purposes, including administration, supervision, and teaching of the NYP resident staff and salary support for faculty and staff providing services to NYP. In addition, NYP provides funding for clinical programs that the University and NYP would like to see developed or expanded. NYP also provides the departments with certain facilities and services (outpatient faculty practice offices, nursing, telecommunications, etc.) for which the University is invoiced on a monthly basis. Finally, the University and NYP collaborate and fund joint projects for which specific agreements are negotiated.

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**(in thousands of dollars)**

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In addition, the University and NYP negotiate a joint budget, which forms the basis for the affiliation agreement. The fiscal year 2017 joint budget was approximately \$321.9 million. The payments to NYP for goods and services were \$95.1 million. The majority of revenues received pursuant to this agreement are reflected in the consolidated financial statements as a portion of "Patient care revenue." The majority of the expenses related to this agreement are reflected in "Patient care expense."

The University records both receivables from and payables to NYP on the Consolidated Balance Sheet. The University has no liability for obligations and debt incurred by NYP.

In fiscal 2017 and 2016, the University had a financial arrangement with a physician professional corporation ("PC"), whereby the University provides facilities and other services to the PC for a negotiated fee. This PC provides clinical services to patients and is owned and controlled by physicians who are also faculty members of the University. The non-controlled PC generated revenue of approximately \$42.1 million and \$42.5 million during fiscal year 2017 and 2016, respectively, which has not been consolidated into the University's consolidated financial statements.

The University also controls two not-for-profit practice entities and two professional corporations and as such, consolidates these entities into the University's consolidated financial statements.

Pursuant to the consent of the Trustees of the CPMC Fund, Inc., during fiscal 2017, the CPMC Fund, Inc. transferred to the University twelve endowments previously held by CPMC Fund, Inc. for the University. The value of the endowments at the time of transfer was \$20.0 million, with \$3.8 million being permanently restricted.

**19. Contingencies and Commitments**

From time to time, various claims and suits generally incident to the conduct of normal business are pending or may arise against the University.

In the opinion of counsel and management of the University, after taking into account insurance coverage, losses, if any, from the resolution of pending litigation should not have a material effect on the University's financial position or results of operations.

All funds expended in connection with government grants and contracts are subject to audit by government agencies. While the ultimate liability, if any, from audits of government grants and contracts by government agencies, claims, and suits is presently not determinable, it should not, in the opinion of counsel and management, have a material effect on the University's financial position or results of activities.

The University is subject to laws and regulations concerning environmental remediation and will, from time to time, establish reserves for potential obligations that management considers probable and for which reasonable estimates can be made. As of June 30, 2017, the University has recorded \$116.3 million for conditional asset retirement obligations. These estimates may change depending upon the nature and extent of contamination, appropriate remediation technologies, and regulatory approvals. The University is not aware of any existing conditions that it currently believes are likely to have a material adverse effect on the University's financial position, changes in net assets, or cash flows.

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The University's capital improvement program and related commitments includes projects that address the major strategic objectives of the University. As part of the capital improvement program, the University has entered into contracts to purchase properties with an aggregate value of \$37.7 million. As of June 30, 2017 approximately \$1.4 million is still outstanding.

The University has made commitments related to its expansion in Manhattanville, certain of which are based upon events in the future which would result in cash and in-kind payments from the University.

During fiscal year 2010, a private lending institution offered a loan program for certain students and families to pay tuition, fees and other costs. These loans are guaranteed by the University. Accordingly, in the event of default by the borrower, the University is required to pay all or a portion of the outstanding loan balance. The amount of guaranteed loans outstanding under this program was \$0.7 million and \$1.1 million as of June 30, 2017 and 2016, respectively.

The University has performed an evaluation of subsequent events through November 8, 2017, which is the date the consolidated financial statements were issued.

**20. Expense Allocation by Program**

Expenses are reported for the University's primary program activities. The consolidated financial statements also report certain categories of expenditures that support more than one major program of the University. These expenses include operation and maintenance of plant, depreciation expense, and interest expense.

These costs are allocated to the applicable program activities as indicated in the following chart:

|  | 2017                                 |            |                          | 2016                                 |            |                          |
|--|--------------------------------------|------------|--------------------------|--------------------------------------|------------|--------------------------|
|  | Expenses per Statement of Activities | Allocation | Final Allocated Expenses | Expenses per Statement of Activities | Allocation | Final Allocated Expenses |
| Instruction and educational administration | \$ 1,693,396                         | \$ 220,122 | \$ 1,913,518             | \$ 1,592,412                         | \$ 174,654 | \$ 1,767,066             |
| Research                                   | 575,548                              | 93,174     | 668,722                  | 538,971                              | 83,954     | 622,925                  |
| Patient care expense                       | 969,856                              | 103,823    | 1,073,679                | 914,674                              | 102,857    | 1,017,531                |
| Library                                    | 68,831                               | 53,007     | 121,838                  | 67,487                               | 41,400     | 108,887                  |
| Operation and maintenance of plant         | 260,529                              | (260,529)  |                          | 232,736                              | (232,736)  |                          |
| Institutional support                      | 320,153                              | 25,144     | 345,297                  | 290,036                              | 21,166     | 311,202                  |
| Auxiliary enterprise                       | 143,724                              | 97,476     | 241,200                  | 137,043                              | 59,935     | 196,978                  |
| Depreciation expense                       | 271,379                              | (271,379)  |                          | 207,114                              | (207,114)  |                          |
| Interest expense                           | 60,838                               | (60,838)   |                          | 44,116                               | (44,116)   |                          |
| Other                                      | 20,660                               |            | 20,660                   | 19,813                               |            | 19,813                   |
|  | <u>\$ 4,384,914</u>                  |            | <u>\$ 4,384,914</u>      | <u>\$ 4,044,402</u>                  |            | <u>\$ 4,044,402</u>      |

The allocation of operation and maintenance of plant is based on square footage occupancy with the exception of certain rent costs directly attributable to patient care expense. Depreciation expense includes depreciation of buildings, building improvements, and equipment. The allocation of depreciation on buildings and building improvements is based on square footage occupancy. Depreciation on equipment is allocated to the programs for which the equipment was purchased. Interest expense is allocated according to the same methodologies used for building depreciation.



**SUMMARY OF CERTAIN PROVISIONS  
OF THE LOAN AGREEMENT**

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## **SUMMARY OF CERTAIN PROVISIONS OF THE LOAN AGREEMENT**

The following is a brief summary of certain provisions of the Loan Agreement pertaining to the Bonds and the Project. Such summary does not purport to be complete and reference is made to the Loan Agreement for full and complete statements of such and all provisions. Defined terms used herein shall have the meanings ascribed to them in Appendix A.

### **Construction of Projects**

The University agrees that, whether or not there are sufficient moneys available to it under the provisions of the Resolution and under the Loan Agreement, the University shall complete the acquisition, design, construction, reconstruction, rehabilitation and improving or otherwise providing and furnishing and equipping of each Project, substantially in accordance with the Contract Documents relating thereto. Subject to the conditions of the Loan Agreement, the Authority will, to the extent of moneys available in the applicable Construction Fund, cause the University to be reimbursed for, or pay, any costs and expenses incurred by the University which constitute Costs of the Project, provided such costs and expenses are approved by an Authorized Officer of the Authority.

*(Section 5)*

### **Amendment of a Project; Cost Increases; Additional Bonds**

A Project may be amended by the University with the prior written consent of an Authorized Officer of the Authority to decrease, increase or otherwise modify the scope thereof. Any such increase may provide for the addition of any further acquisition, design, construction, reconstruction, rehabilitation, improving, or otherwise providing furnishing and equipping of a Project which the Authority is authorized to undertake.

*(Section 6)*

### **Financial Obligations of the University; General and Unconditional Obligation; Voluntary Payments**

Except to the extent that moneys are available therefor under the Resolution or the Loan Agreement, including moneys in the Debt Service Fund (other than moneys required to pay the Redemption Price or purchase price of Outstanding Bonds theretofore called for redemption or contracted to be purchase, plus interest accrued to the date of redemption or purchase), and excluding interest accrued but unpaid on investments held in the Debt Service Fund, the University pursuant to the Loan Agreement unconditionally agrees to pay, so long as Bonds are Outstanding, to or upon the order of the Authority, from its general funds or any other moneys legally available to it:

(a) On or before the date of delivery of the Bonds of a Series, the Authority Fee agreed to by the Authority and the University in connection with the issuance of the Bonds of such Series;

(b) On or before the date of delivery of Bonds of a Series, such amount, if any, as is required, in addition to the proceeds of such Bonds available therefore, to pay the Costs of Issuance of the Bonds of such Series, and other costs in connection with the issuance of such Bonds of such Series;

(c) Three days (or the preceding Business Day if such day is not a Business Day) prior to an interest payment date on Outstanding Variable Interest Rate Bonds, the interest coming due on such Variable Interest Rate Bonds on such interest payment date, assuming that such Bonds will, from and after the next succeeding date on which the rates at which such Bonds bear interest are to be determined, bear interest at a rate per annum equal to the rate per annum for such Bonds on the immediately preceding Business Day, plus one percent (1%) per annum;

(d) On the fifth Business Day immediately preceding the date on which interest becomes due on Outstanding Bonds, other than Variable Interest Rate Bonds, the interest becoming due on such interest payment date for such Bonds;

## *Appendix C*

(e) On the fifth Business Day of the month immediately preceding the date on which the principal or Sinking Fund Installments of any Outstanding Bonds becomes due, the principal and Sinking Fund Installments on such Bonds coming due on such date;

(f) At least five Business Days prior to any date on which the Redemption Price of Bonds or purchase price of Bonds previously called for redemption or contracted to be purchased is to be paid, the amount required to pay the Redemption Price or purchase price of such Bonds;

(g) On December 10 of each Bond Year, one-half (1/2) of the Annual Administrative Fee payable during such Bond Year in connection with each Series of Bonds, and on June 10 of each Bond Year the balance of the Annual Administrative Fee payable during such Bond Year; provided, however, that the Annual Administrative Fee with respect to any Series of Bonds payable during the Bond Year during which such Annual Administrative Fee became effective shall be equal to the Annual Administrative Fee with respect to such Series of Bonds multiplied by a fraction the numerator of which is the number of calendar months or parts thereof remaining in such Bond Year and the denominator of which is twelve (12);

(h) Promptly after notice from the Authority, but in any event not later than fifteen (15) days after such notice is given, the amount set forth in such notice as payable to the Authority (i) for the Authority Fee then unpaid, (ii) to reimburse the Authority for payments made pursuant to the Loan Agreement and any expenses or liabilities incurred by the Authority pursuant to the Loan Agreement, (iii) to reimburse the Authority for any external costs and expenses incurred by it attributable to the issuance of a Series of Bonds or the financing or construction of a Project, including but not limited to any fees or other amounts payable by the Authority under the Remarketing Agreement, a Credit Facility or a Liquidity Facility, (iv) for the costs and expenses incurred by the Authority to compel full and punctual performance by the University of all the provisions of the Loan Agreement or of the Resolution in accordance with the terms thereof and (v) for the fees and expenses of the Trustee and any Paying Agent in connection with performance of their duties under the Resolution;

(i) Promptly upon demand by an Authorized Officer of the Authority (a copy of which shall be furnished to the Trustee), all amounts required to be paid by the University as a result of an acceleration pursuant to the Loan Agreement;

(j) Promptly upon demand by an Authorized Officer of the Authority, the difference between the amount on deposit in the Arbitrage Rebate Fund available to be rebated in connection with the Bonds of a Series or otherwise available therefor under the Resolution and the amount required to be rebated to the Department of the Treasury of the United States of America in accordance with the Code in connection with the Bonds of such Series;

(k) The amount, in immediately available funds, required to pay the purchase price of any Option Bonds tendered for purchase for which it has received notice from the Remarketing Agent or the Tender Agent for such Option Bonds of the principal amount of such Option Bonds for which a remarketing has not been confirmed or which were remarketed at a price that is less than the principal amount thereof, which amount shall be paid, in immediately available funds: (x) if such notice is given to the University by 11:15 A.M., New York City time, by 1:45 P.M., New York City time; (y) if such notice is given to the University after 11:15 A.M., New York City time but not later than 1:15 P.M., New York City time, by 2:30 P.M., New York City time; and (z) if such notice is given to the University after 1:15 P.M., New York City time, by 10:00 A.M., New York City time, on the next succeeding Business Day; and

(l) Promptly upon demand by an Authorized Officer of the Authority, all amounts required to be paid by the Authority to a Counterparty in accordance with an Interest Rate Exchange Agreement or to reimburse the Authority for any amounts paid to a Counterparty in accordance with an Interest Rate Exchange Agreement.

Subject to the provisions of the Resolution and the Loan Agreement, the University shall receive a credit against the amount required to be paid by the University during a Bond Year pursuant to paragraph (e) above on account of any Sinking Fund Installments if, prior to the date notice of redemption is given pursuant to the Resolution with respect to Bonds to be redeemed through Sinking Fund Installments during the next succeeding Bond Year, either (i) the University delivers to the Trustee for cancellation one or more Bonds of the Series and maturity to be so redeemed, or (ii) the Trustee, at the direction of the Authority, has purchased one or more Bonds of the maturity to

be so redeemed from amounts on deposit in the Debt Service Fund in accordance with the Resolution. The amount of the credit shall be equal to the principal amount of the Bonds so delivered.

The Authority directs the University, and the University agrees, to make the payments required by paragraphs (c), (d), (e), (f), (i) and (j) above directly to the Trustee for deposit in the Debt Service Fund and application in accordance with the Resolution, the payments required by paragraph (b) above directly to the Trustee for deposit in a Construction Fund or other fund established under the Resolution as directed by an Authorized Officer of the Authority, the payments required by paragraphs (a), (g) and (h) above directly to the Authority and the payments required by paragraphs (k) and (l) above to or upon the order of the Authority.

Notwithstanding any provision in the Loan Agreement or in the Resolution or the Series Resolution to the contrary (except as otherwise specifically provided for in the provisions described under this caption), (i) all moneys paid by the University to the Trustee pursuant to paragraphs (c), (d), (e), (f), (i) and (j) above held by the Trustee shall be applied in reduction of the University's indebtedness to the Authority under the Loan Agreement, first, with respect to interest and then, with respect to the principal amount on such indebtedness, such moneys are applied by the Trustee for the payment of interest on Outstanding Bonds, and, with respect to the principal of such indebtedness, such moneys have been applied to, or are held for, payments in reduction of the principal amount of Outstanding Bonds and as a result thereof Bonds have been paid or deemed to have been paid in accordance with the Resolution. Except as otherwise provided in the Resolution, the Trustee shall hold such moneys in trust in accordance with the applicable provisions of the Resolution for the sole and exclusive benefit of the Holders of Bonds, regardless of the actual due date or applicable payment date of any payment to the Holders of Bonds.

The obligations of the University to make payments or cause the same to be made under the Loan Agreement shall be complete and unconditional and the amount, manner and time of making such payments shall not be decreased, abated, postponed or delayed for any cause or by reason of the happening or non-happening of any event, irrespective of any defense or any right of set-off, recoupment or counterclaim which the University may otherwise have against the Authority, the Trustee or any Bondholder for any cause whatsoever including, without limiting the generality of the foregoing, failure of the University to complete a Project or the completion thereof with defects, failure of the University to occupy or use a Project, any declaration or finding that the Bonds or any Series of Bonds are, or the Resolution is, invalid or unenforceable or any other failure or default by the Authority or the Trustee; provided, however, that nothing in the Loan Agreement shall be construed to release the Authority from the performance of any agreements on its part contained in the Loan Agreement or any of its other duties or obligations, and in the event the Authority shall fail to perform any such agreement, duty or obligation, the University may institute such action as it may deem necessary to compel performance or recover damages for non-performance. Notwithstanding the foregoing, the Authority shall have no obligation to perform its obligations under the Loan Agreement to cause advances to be made to reimburse the University for, or to pay, the Costs of the Projects relating to a Project, beyond the extent of moneys available in the Construction Fund established for such Project.

The Loan Agreement and the obligations of the University to make payments under the Loan Agreement are general obligations of the University.

An Authorized Officer of the Authority, for the convenience of the University, shall furnish to the University statements of the due date, purpose and amount of payments to be made pursuant to the Loan Agreement. The failure to furnish such statements shall not excuse non-payment of the amounts payable under the Loan Agreement at the time and in the manner provided in the Loan Agreement. The University shall notify the Authority as to the amount and date of each payment made to the Trustee by the University.

The Authority shall have the right in its sole discretion to make on behalf of the University any payment required pursuant to the Loan Agreement which has not been made by the University when due. No such payment by the Authority shall limit, impair or otherwise affect the rights of the Authority under the Loan Agreement arising out of the University's failure to make such payment and no payment by the Authority shall be construed to be a waiver of any such right or of the obligation of the University to make such payment.

The University, if it is not then in default under the Loan Agreement, shall have the right to make voluntary payments in any amount to the Trustee. In the event of a voluntary payment, the amount so paid shall be deposited in accordance with the directions of an Authorized Officer of the Authority in the Debt Service Fund or held by the

## *Appendix C*

Trustee for the payment of Bonds in accordance with the Resolution. In making a voluntary payment to be held by the Trustee in accordance with the Resolution, the University may effect such payment by the delivery of Defeasance Securities. Upon any voluntary payment by the University, the Authority agrees to direct the Trustee to purchase or redeem Bonds in accordance with the Resolution or to give the Trustee irrevocable instructions in accordance with the Resolution with respect to such Series of Bonds; provided, however, that in the event such voluntary payment is in the sole judgment of the Authority sufficient to pay all amounts then due under the Loan Agreement and under the Resolution, including the purchase or redemption of all Bonds Outstanding, or to pay or provide for the payment of all Bonds Outstanding in accordance with the Resolution, the Authority agrees, in accordance with the instructions of the University, to direct the Trustee to purchase or redeem all Bonds Outstanding, or to cause all Bonds outstanding to be paid or to be deemed paid in accordance with the Resolution.

*(Section 9)*

### **Consent to Pledge and Assignment**

The University consents to and authorizes the assignment, transfer or pledge by the Authority to the Trustee of the Authority's rights to receive certain of the payments required to be made pursuant to the Loan Agreement, any or all security interests granted by the University under the Loan Agreement. All funds and accounts established by the Resolution and pledged thereby to secure any payment or the performance of any obligation of the University under the Loan Agreement or arising out of the transactions contemplated by the Loan Agreement shall be specifically assigned by the Authority to the Trustee. The University further agrees that the Authority may pledge and assign to the Trustee any and all of the Authority's rights and remedies under the Loan Agreement. Upon any pledge and assignment by the Authority to the Trustee authorized by the Loan Agreement, the Trustee shall be fully vested with all of the rights of the Authority so assigned and pledged and may thereafter exercise or enforce, by any remedy provided therefor by the Loan Agreement or by law, any of such rights directly in its own name. Any such pledge and assignment shall be limited to securing the University's obligation to make all payments required by the Loan Agreement and to performing all other obligations required to be performed by the University under the Loan Agreement. Any realization upon any pledge made or security interest granted by the Loan Agreement shall not, by operation of law or otherwise, result in cancellation or termination of the Loan Agreement or the obligations of the University under the Loan Agreement.

*(Section 10)*

### **Management Consultant**

If at any time the rating on any Outstanding Bonds or on any of the University's long term unsecured, unenhanced debt obligations is reduced by Moody's to "A1" or by Fitch or S&P to "A+", the Authority may request the University to engage, at the University's expense, a Management Consultant, which the University hereby agrees to engage within sixty days after such request is made; and, if at any time the rating on any Outstanding Bonds or on any of the University's long term unsecured, unenhanced debt obligations is reduced by Moody's to less than "A1" or by Fitch or S&P to less than "A+" or if any rating is suspended or withdrawn by Moody's, Fitch or S&P, the University, at the University's expense, has agreed to engage a Management Consultant within sixty (60) days after such reduction, suspension or withdrawal, unless the Authority has waived such obligation which it may do in its sole discretion. The Management Consultant shall review the fees and tuition, operations and management of the University and any other matter deemed appropriate by the Authority and make such recommendations with respect to such fees and tuition, operations, management and other matters. Copies of the report and recommendations of the Management Consultant shall be filed with the Authority, the Trustee, the Board of Trustees of the University and an Authorized Officer of the University no later than one hundred twenty (120) days following the date of engagement of such Management Consultant. The Board of Trustees of the University and such Authorized Officer of the University shall each deliver to the Authority no later than sixty (60) days following the date of filing with the Authority of the report and recommendations of the Management Consultant a written report setting forth their respective comment and reaction to the report and recommendations of the Management Consultant. The University shall, to the extent feasible, promptly upon its receipt of such recommendations, and subject to applicable requirements or restrictions imposed by law or regulation, revise its tuition, fees and charges, its methods of operation or collections or its debt and investment management and shall take such other action as shall be in conformity with such recommendations. The University shall deliver to the Authority and the Trustee:

(i) within forty-five (45) days of receipt of such Management Consultant's report (x) a report setting forth in reasonable detail the steps the University proposes to take to implement the recommendations of such Management Consultant, and (y) a certified copy of a resolution adopted by the Board of Trustees of the University accepting both the Management Consultant's report and the report prepared by the University as required in clause (x) hereof; and

(ii) within thirty (30) days after the end of each calendar quarter a report demonstrating the progress made by the University in implementing the recommendations of the Management Consultant.

Notwithstanding the foregoing provisions of this Section, the University may elect in lieu of engaging a Management Consultant to provide security in form and substance acceptable to the Authority in its sole discretion for the University's obligations under the Loan Agreement.

*(Section 15)*

### **Tax-Exempt Status of the University**

The University represents that: (i) it is an organization described in Section 501(c)(3) of the Code, or corresponding provisions of prior law and is not a "private foundation," as such term is defined under Section 509(a) of the Code; (ii) it has received a letter or other notification from the Internal Revenue Service to that effect; (iii) such letter or other notification has not been modified, limited or revoked; (iv) it is in compliance with all terms, conditions and limitations, if any, contained in such letter or other notification; (v) the facts and circumstances which form the basis of such letter or other notification as represented to the Internal Revenue Service continue to exist; and (vi) it is exempt from federal income taxes under Section 501(a) of the Code.

*(Section 16)*

### **Use and Control of Projects; Restrictions on Religious Use**

Subject to the rights, duties and remedies of the Authority under the Loan Agreement, the University shall have sole and exclusive control of, possession of and responsibility for (i) the Projects; (ii) the operation of the Projects and supervision of the activities conducted therein or in connection with any part thereof; and (iii) the maintenance, repair and replacement of the Projects; provided, however, that, except as otherwise limited hereby, the foregoing shall not prohibit use of a Project by person other than the University or its students, staff and employees in furtherance of the University's corporate purposes if such use will not adversely affect the exclusion of interest on any Bonds from gross income for federal income tax purposes.

The University agrees that with respect to any Project or portion thereof, so long as such Project or portion thereof exists and unless and until such Project or portion thereof is sold for the fair market value thereof, such Project or portion thereof shall not be used for sectarian religious instruction or as a place of religious worship or in connection with any part of a program of a school or department of divinity for any religious denomination; provided, however, that the foregoing restriction shall not prohibit the free exercise of any religion; and provided, further, that if at any time hereafter, in the opinion of Bond Counsel, the then applicable law would permit a Project or portion thereof to be used without regard to the above stated restriction, said restriction shall not apply to such Project and each portion thereof. The Authority and its agents may conduct such inspections as an Authorized Officer of the Authority deems necessary to determine whether any Project or any portion or real property thereof financed by Bonds is being used for any purpose proscribed by the Loan Agreement. The University further agrees that prior to any disposition of any portion of a Project for less than fair market value, it shall execute and record in the appropriate real property records an instrument subjecting, to the satisfaction of the Authority, the use of such portion of such Project to the restriction that (i) so long as such portion of such Project (and, if included in the Project, the real property on or in which such portion of such Project is situated) shall exist and (ii) until such portion of such Project is sold or otherwise transferred to a person who purchases the same for the fair market value thereof at the time of such sale or transfer, such portion of such Project shall not be used for sectarian religious instruction or as a place of religious worship or used in connection with any part of the program of a school or department of divinity of any religious denomination. The instrument containing such restriction shall further

## ***Appendix C***

provide that such restriction may be enforced at the instance of the Authority or the Attorney General of the State, by a proceeding in any court of competent jurisdiction, by injunction, mandamus or by other appropriate remedy. The instrument containing such restriction shall also provide that if at any time thereafter, in the opinion of Bond Counsel, the then applicable law would permit such portion of a Project, or the real property on or in which such portion is situated, to be used without regard to the above stated restriction, then said restriction shall be without any force or effect. For the purposes of this heading an involuntary transfer or disposition of a Project or a portion thereof, upon foreclosure or otherwise, shall be considered a sale for the fair market value thereof.

*(Sections 20 and 21)*

### **Covenant as to Insurance**

The University agrees to maintain or cause to be maintained insurance with insurance companies or by means or self-insurance, insurance of such type, against such risks and in such amounts as are customarily carried by private colleges and universities located in the State of a nature similar to that of the University, which insurance shall include property damage, fire and extended coverage, public liability and property damage liability insurance in amounts estimated to indemnify the reasonably anticipated damage, loss or liability, subject to reasonable deductible provisions. The University shall at all times also maintain worker's compensation coverage as required by the laws of the State.

*(Section 23)*

### **Financial Information**

The University shall, if and when requested by an Authorized Officer of the Authority, render to the Authority and the Trustee reports with respect to all repairs, replacements and maintenance made to each Project. In addition, the University shall, if and when requested by an Authorized Officer of the Authority, render such other reports concerning the condition of each Project as an Authorized Officer of the Authority may request. The University shall also furnish annually, not later than one hundred sixty-five (165) days after the end of the University's fiscal year, to the Trustee, the Authority and to such other parties as an Authorized Officer of the Authority may designate, including Rating Services, (i) a certificate stating whether the University is in compliance with the provisions of the Loan Agreement, (ii) copies of its financial statements audited by a nationally recognized independent public accountant selected by the University and acceptable to an Authorized Officer of the Authority and prepared in conformity with generally accepted accounting principles applied on a consistent basis, except that such audited financial statements may contain such changes as are concurred in by such accountants, and (iii) such other statements, reports and schedules describing the finances, operation and management of the University and such other information reasonably required by an Authorized Officer of the Authority.

*(Section 26)*

### **Defaults and Remedies**

(a) As used in the Loan Agreement the term "Event of Default" shall mean:

(i) the University shall default in the timely payment of any amount payable pursuant to the Loan Agreement or the payment of any other amounts required to be delivered or paid in accordance with the Loan Agreement or the Resolution, and such default continues for a period in excess of seven (7) days or default in the timely payment of any amount payable with respect to an interest payment date on Outstanding Variable Interest Rate Bonds and such default continues for a period in excess of (1) day or default in timely payment of Option Bonds or Variable Rate Bonds which are tendered for purchase by the Holders thereof;

(ii) the University defaults in the due and punctual performance of any other covenant contained in the Loan Agreement and such default continues for thirty (30) days after written notice requiring the same to be remedied shall have been given by the Authority or the Trustee, provided that, if in the determination of the Authority such default cannot be corrected within such thirty (30) day period but can be corrected by appropriate action, it shall not



constitute an Event of Default if corrective action is instituted by the University within such period and is diligently pursued until the default is corrected;

(iii) as a result of any default in payment or performance required of the University or any Event of Default under the Loan Agreement, whether or not declared, continuing or cured, the Authority shall be in default in the payment or performance of any of its obligations under the Resolution or an “Event of Default” (as defined in the Resolution) shall have been declared under the Resolution so long as such default or Event of Default shall remain uncured or the Trustee, a Provider or Holders of the Bonds shall be seeking the enforcement of any remedy under the Resolution as a result thereof;

(iv) the University shall be in default under any agreement entered into with the issuer of or in connection with a Liquidity Facility or a Credit Facility (which default has not been waived or cured) if the University’s obligations thereunder are secured by a lien upon or pledge which is equal or prior to the lien created by the Loan Agreement thereon or the pledge thereof made by the Loan Agreement and, upon such default, (A) the principal of any indebtedness thereunder may be declared to be due and payable or (B) the lien upon or pledge may be foreclosed or realized upon;

(v) the University shall (a) be generally not paying its debts as they become due, (b) file, or consent by answer or otherwise to the filing against it of, a petition under the United States Bankruptcy Code or under any other bankruptcy or insolvency law of any jurisdiction, (c) make a general assignment for the benefit of its general creditors, (d) consent to the appointment of a custodian, receiver, trustee or other officer with similar powers of itself or of any substantial part of its property, (e) be adjudicated insolvent or be liquidated, or (f) take corporate action for the purpose of any of the foregoing;

(vi) a court or governmental authority of competent jurisdiction shall enter an order appointing, without consent by the University, a custodian, receiver, trustee or other officer with similar powers with respect to it or with respect to any substantial part of its property, or an order for relief shall be entered in any case or proceeding for liquidation or reorganization or otherwise to take advantage of any bankruptcy or insolvency law of any jurisdiction, or ordering the dissolution, winding-up or liquidation of the University, or any petition for any such relief shall be filed against the University and such petition shall not be dismissed within ninety (90) days;

(vii) the charter of the University shall be suspended or revoked;

(viii) a petition shall be filed by the University with the Board of Regents of the State or other governmental authority having jurisdiction over the University to dissolve the University;

(ix) an order of dissolution of the University shall be made by the Board of Regents of the State, the legislature of the State of New York or other governmental authority having jurisdiction over the University which order shall remain undismissed or unstayed for an aggregate of thirty (30) days;

(x) a petition shall be filed with a court having jurisdiction for an order directing the sale, disposition or distribution of all or substantially all of the property belonging to the University which petition shall remain undismissed or unstayed for an aggregate of ninety (90) days;

(xi) an order of a court having jurisdiction shall be made directing the sale, disposition or distribution of all or substantially all of the property belonging to the University, which order shall remain undismissed or unstayed for the earlier of (a) three (3) business days prior to the date provided for in such order for such sale, disposition or distribution or (b) an aggregate of thirty (30) days from the date such order shall have been entered; or

(xii) a final judgment for the payment of money which in the reasonable judgment of the Authority will materially adversely affect the rights of the Holders of the Bonds shall be rendered against the University and at any time after thirty (30) days from the entry thereof, (a) such judgment shall not have been discharged, or (b) the University shall not have taken and be diligently prosecuting an appeal therefrom or from the order, decree or process upon which or pursuant to which such judgment shall have been granted or entered, and shall not have

## *Appendix C*

caused, within thirty (30) days, the execution of or levy under such judgment, order, decree or process or the enforcement thereof to have been stayed pending determination of such appeal.

(b) Upon the occurrence of an Event of Default the Authority may take any one or more of the following actions:

(i) declare all sums payable by the University under the Loan Agreement immediately due and payable;

(ii) direct the Trustee to withhold any and all payments, advances and reimbursements from the proceeds of Bonds or any Construction Fund or otherwise to which the University may otherwise be entitled under the Loan Agreement and in the Authority's sole discretion apply any such proceeds or moneys for such purposes as are authorized by the Resolution;

(iii) withhold any or all further performance under the Loan Agreement; and

(iv) maintain an action against the University under the Loan Agreement to recover any sums payable by the University or to require its compliance with the terms of the Loan Agreement.

All rights and remedies given or granted to the Authority in the Loan Agreement are cumulative, non-exclusive and in addition to any and all rights and remedies that the Authority may have or may be given by reason of any law, statute, ordinance or otherwise, and no failure to exercise or delay in exercising any remedy shall effect a waiver of the Authority's right to exercise such remedy thereafter.

At any time before the entry of a final judgment or decree in any suit, action or proceeding instituted on account of any Event of Default or before the completion of the enforcement of any other remedies under the Loan Agreement, the Authority may annul any declaration made or action taken pursuant to the Loan Agreement and its consequences if such Events of Default shall be cured. No such annulment shall extend to or affect any subsequent default or impair any right consequent thereto.

*(Section 29)*

### **Termination**

The Loan Agreement shall remain in full force and effect until no Bonds are Outstanding and until all other payments, expenses and fees payable under the Loan Agreement by the University shall have been made or provision made for the payment thereof; provided, however, that certain liabilities and obligations of the University under the Loan Agreement shall nevertheless survive any such termination. Upon such termination, an Authorized Officer of the Authority shall deliver such documents as may be reasonably requested by the University to evidence such termination and the discharge of its duties under the Loan Agreement, and the release or surrender of any security interests granted by the University to the Authority pursuant to the Loan Agreement.

*(Section 43)*

**SUMMARY OF CERTAIN PROVISIONS  
OF THE RESOLUTION**

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## **SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION**

The following is a brief summary of certain provisions of the Resolution pertaining to the Bonds and the Project. Such summary does not purport to be complete and reference is made to the Resolution for full and complete statements of such and all provisions. Defined terms used herein shall have the meanings ascribed to them in Appendix A.

### **Contract with Bondholders**

With respect to the Bonds, in consideration of the purchase and acceptance of any and all of the Bonds authorized to be issued under the Resolution by those who shall hold or own the same from time to time, the Resolution shall be deemed to be and shall constitute a contract among the Authority, the Trustee and the Holders from time to time of such Bonds, and the pledge and assignment to the Trustee made in the Resolution and the covenants and agreements set forth to be performed by or on behalf of the Authority shall be for the equal and ratable benefit, protection and security of the Holders of any and all of such Bonds, all of which, regardless of the time or times of their issue or maturity, shall be of equal rank without preference, priority or distinction of any such Bonds, over any other Bonds except as expressly provided in or permitted by the Resolution.

*(Section 1.03)*

### **Refunding Bonds and Additional Obligations**

All or any portion of one or more Series of Refunding Bonds may be authenticated and delivered upon original issuance to refund all Outstanding Bonds, one or more Series of Outstanding Bonds, a portion of a Series of Outstanding Bonds or a portion of a maturity of a Series of Outstanding Bonds. The Authority may issue Refunding Bonds in an aggregate principal amount sufficient, together with other moneys available therefor, to accomplish such refunding and to make such deposits required by the provisions of the Resolution and of the Series Resolution authorizing such Series of Refunding Bonds.

The proceeds, including accrued interest, of Refunding Bonds shall be applied simultaneously with the delivery of such Refunding Bonds in the manner provided in or as determined in accordance with the Series Resolution authorizing such Refunding Bonds or the Bond Series Certificate relating to such Series of Refunding Bonds.

The Authority reserves the right to issue bonds, notes or any other obligations or otherwise incur indebtedness pursuant to other and separate resolutions or agreements of the Authority, so long as such bonds, notes or other obligations are not, or such other indebtedness is not, except as provided in the Resolution, entitled to a charge or lien or right prior or equal to the charge or lien created by the Resolution, or prior or equal to the rights of the Authority and Holders of Bonds as provided by the Resolution.

*(Sections 2.04 and 2.05)*

### **Pledge of Revenues**

The proceeds from the sale of the Bonds, the Revenues and all funds and accounts, other than the Arbitrage Rebate Fund, established by the Resolution and any Series Resolution, are pledged and assigned to the Trustee as security for the payment of the principal, Sinking Fund Installments, if any, and Redemption Price of and interest on the Bonds and as security for the performance of any other obligation of the Authority under the Resolution and any Series Resolution, all in accordance with the provisions of the Resolution and any Series Resolution. The pledge made by the Resolution is valid, binding and perfected from the time when the pledge attaches and the proceeds from the sale of the Bonds, the Revenues and the funds and accounts established by the Resolution and any Series Resolution shall immediately be subject to the lien of such pledge without any physical delivery thereof or further act, and the lien of such pledge shall be valid, binding and perfected as against all parties having claims of any kind in tort, contract or otherwise against the Authority irrespective of whether such parties have notice thereof. No instrument by which such pledge is created nor any financing statement need be recorded or filed. The Bonds shall be special obligations of the Authority payable solely from and secured by a pledge of the proceeds from the sale of

## ***Appendix D***

the Bonds, the Revenues and the funds and accounts established by the Resolution, which pledge shall constitute a first lien thereon.

*(Section 5.01)*

### **Establishment of Funds and Accounts**

The following funds and separate accounts within funds are established by the Resolution and shall be held and maintained by the Trustee:

Construction Fund;

Debt Service Fund; and  
Arbitrage Rebate Fund.

In addition to the accounts and subaccounts, if any, required to be established by the Resolution or by any Series Resolution or any Bond Series Certificate, the Authority may establish such other accounts or subaccounts it considers necessary or desirable. All moneys at any time deposited in any fund, account or subaccount created and pledged by the Resolution, or by any Series Resolution or required thereby to be created shall be held in trust for the benefit of the Holders of Bonds, but shall nevertheless be disbursed, allocated and applied solely for the uses and purposes provided in the Resolution; provided, however, that the proceeds derived from the remarketing of Option Bonds tendered or deemed to have been tendered for purchase in accordance with the Series Resolution authorizing the issuance of such Bonds or the Bond Series Certificate relating to such Bonds or derived from a Liquidity Facility relating to such Bonds, and any fund or account established by or pursuant to such Series Resolution for the payment of the purchase price or of Option Bonds so tendered or deemed to have been tendered, shall not be held in trust for the benefit of the Holders of the Bonds other than such Option Bonds and are pledged hereby for the payment of the purchase price of such Option Bonds.

*(Section 5.02)*

### **Application of Bond Proceeds and Allocation Thereof**

Upon the receipt of the proceeds from the sale of a Series of Bonds, the Authority shall apply such proceeds as specified in the Resolution and in the Series Resolution authorizing such Series or the Bond Series Certificate relating to such Series.

Accrued interest, if any, received upon the delivery of a Series of Bonds shall be deposited in the Debt Service Fund unless all or any portion of such amount is to be otherwise applied as specified in the Series Resolution authorizing such Series or the Bond Series Certificate relating to such Series.

*(Section 5.03)*

### **Application of Moneys in the Construction Fund**

As soon as practicable after the delivery of each Series of Bonds, there shall be deposited in the Construction Fund or Funds established for the Project or Projects in connection with which such Series of Bonds was issued the amount required to be deposited therein pursuant to the Series Resolution authorizing the issuance of such Series or the Bond Series Certificate relating to such Series. Except as otherwise provided in the Resolution and in any applicable Series Resolution or Bond Series Certificate, moneys deposited in the Construction Fund shall be used only to pay the Costs of Issuance and the Costs of the Project for which such fund was established.

Upon receipt by the Trustee of a certificate relating to the completion of a Project, the moneys, if any, then remaining in the Construction Fund relating to such Project, after making provision in accordance with the direction of an Authorized Officer of the Authority for the payment of any Costs of Issuance and Costs of the Projects in

connection with such Project then unpaid, shall be paid or applied by the Trustee as follows and in the following order of priority:

First: Upon the direction of an Authorized Officer of the Authority, to the Arbitrage Rebate Fund, the amount set forth in such direction; and

Second: To the Debt Service Fund, to be applied in accordance with the Resolution, any balance remaining.

*(Section 5.04)*

### **Deposit and Allocation of Revenues**

The Revenues and any other moneys, which by any of the provisions of the Loan Agreement are required to be paid to the Trustee, shall upon receipt by the Trustee be deposited or paid to the Trustee as follows in the following order of priority:

First: To the Debt Service Fund:

(i) in the case of Revenues received during the period from the beginning of each Bond Year until December 31 thereof, the amount, if any, necessary to make the amount in the Debt Service Fund equal to

(a) the interest on Outstanding Bonds payable on or prior to the next succeeding January 1, including the interest estimated by the Authority to be payable on any Variable Interest Rate Bond on and prior to the next succeeding January 1, assuming that such Variable Interest Rate Bond will bear interest, from and after the next date on which the rate at which such Variable Interest Rate Bond bears interest is to be adjusted, at a rate per annum equal to the rate per annum at which such Bonds then bear interest, plus one percent (1%) per annum, and

(b) the Sinking Fund Installments of Outstanding Bonds and Variable Interest Rate Bonds payable on or prior to the next succeeding January 1 and

(c) the purchase price or Redemption Price of Outstanding Bonds theretofore contracted to be purchased or called for redemption pursuant to the paragraphs under the heading "Debt Service Fund" below on or prior to the next succeeding January 1, plus accrued interest thereon to the date of purchase or redemption; and

(ii) in the case of Revenues received thereafter and until the end of such Bond Year, the amount, if any, necessary to make the amount in the Debt Service Fund equal to

(a) the interest on and the principal and Sinking Fund Installments of Outstanding Bonds payable on and prior to the next succeeding July 1, including the interest estimated by the Authority to be payable on any Variable Interest Rate Bond on and prior to the next succeeding July 1, assuming that such Variable Interest Rate Bond will bear interest, from and after the next date on which the rate at which such Variable Interest Rate Bond bears interest is to be adjusted, at a rate per annum equal to the rate per annum at which such Bonds then bear interest, plus one percent (1%) per annum, and

(b) the purchase price or Redemption Price of Outstanding Bonds theretofore contracted to be purchased or called for redemption pursuant to the paragraphs under the heading "Debt Service Fund" below on or prior to the next succeeding July 1, plus accrued interest thereon to the date of purchase or redemption;

Second: To reimburse, pro rata, each Provider for Provider Payments which are then unpaid, in proportion to the respective Provider Payments then unpaid to each Provider; and

## ***Appendix D***

Third: To the Authority, unless otherwise paid, such amounts as are payable to the Authority for: (i) any expenditures of the Authority for fees and expenses of auditing, and fees and expenses of the Trustee and Paying Agents, all as required by the Resolution, (ii) all other expenditures reasonably and necessarily incurred by the Authority in connection with the financing of the Projects, including expenses incurred by the Authority to compel full and punctual performance of all the provisions of the Loan Agreement in accordance with the terms thereof, and (iii) any fees of the Authority; but only upon receipt by the Trustee of a certificate signed by an Authorized Officer of the Authority, stating in reasonable detail the amounts payable to the Authority pursuant to this paragraph Third.

The Trustee shall notify the Authority and the University promptly after making the payments of any balance of Revenues then remaining. After making the above required payments, the balance, if any, of the Revenues then remaining shall, upon the direction of an Authorized Officer of the Authority, be paid by the Trustee to the Construction Fund or the Debt Service Fund, or paid to the University, in the respective amounts set forth in such direction. Any amounts paid to the University shall be free and clear of any pledge, lien, encumbrance or security interest created by the Resolution or by the Loan Agreement.

*(Section 5.05)*

### **Debt Service Fund**

The Trustee shall on or before the Business Day preceding each interest payment date pay to itself and any other Paying Agents out of the Debt Service Fund:

- (a) the interest due and payable on all Outstanding Bonds on such interest payment date;
- (b) the principal amount due and payable on all Outstanding Bonds on such interest payment date; and
- (c) the Sinking Fund Installments or other amounts related to a mandatory redemption, if any, due and payable on all Outstanding Bonds on such interest payment date.

The amounts paid out pursuant to this subdivision shall be irrevocably pledged to and applied to such payments.

Notwithstanding the provisions of this subdivision, the Authority may, at any time subsequent to July 1 of any Bond Year but in no event less than forty-five (45) days prior to the succeeding date on which a Sinking Fund Installment is scheduled to be due, direct the Trustee to purchase, with moneys on deposit in the Debt Service Fund, at a price not in excess of par plus interest accrued and unpaid to the date of such purchase, Term Bonds to be redeemed from such Sinking Fund Installment. In addition, the University, pursuant to the Loan Agreement may deliver, at any time subsequent to July 1 of any Bond Year, but in no event less than forty-five (45) days prior to the succeeding date on which a Sinking Fund Installment is scheduled to be due, to the Trustee for cancellation one or more Term Bonds of the Series and maturity to be so redeemed on such date from such Sinking Fund Installment. Any Term Bond so purchased and any Term Bond delivered to the Trustee shall be canceled upon receipt thereof by the Trustee and evidence of such cancellation shall be given to the Authority. The principal amount of each Term Bond so canceled shall be credited against the Sinking Fund Installment due on such date; provided, however, that such Term Bond is canceled by the Trustee prior to the date on which notice of redemption is given.

Any Term Bond so delivered to the Trustee shall be canceled upon receipt thereof by the Trustee and evidence of such cancellation shall be given to the Authority. The principal amount of each Term Bond so canceled shall be credited against the Sinking Fund Installment due on such date; provided, however, that such Term Bond is canceled by the Trustee prior to the date on which notice of redemption is given.

Moneys in the Debt Service Fund in excess of the amount required to pay the principal and Sinking Fund Installments of Outstanding Bonds payable on and prior to the next succeeding July 1, the interest on Outstanding Bonds payable on and prior to the earlier of the next succeeding interest payment date January 1 or July 1 assuming that a Variable Interest Rate Bond will bear interest, from and after the next date on which the rate at which such Variable Interest Rate Bond bears interest is to be adjusted, at a rate per annum equal to the rate per annum at which such Bonds then bear interest, plus one percent (1%) per annum, and the purchase price or Redemption Price of



Outstanding Bonds theretofore contracted to be purchased or called for redemption, plus accrued interest thereon to the date of purchase or redemption, shall be applied by the Trustee in accordance with the direction of an Authorized Officer of the Authority to the purchase of Outstanding Bonds of any Series at purchase prices not exceeding the Redemption Price applicable on the next interest payment date on which such Bonds are redeemable, plus accrued and unpaid interest to such date, at such times, at such purchase prices and in such manner as an Authorized Officer of the Authority shall direct. If sixty (60) days prior to the end of a Bond Year an excess, calculated as aforesaid, exists in the Debt Service Fund, such moneys shall be applied by the Trustee in accordance with the direction of an Authorized Officer of the Authority given pursuant to the Resolution to the redemption of Bonds as provided in the Resolution, at the Redemption Prices specified in the applicable Series Resolution authorizing the issuance of the Bonds to be redeemed or the Bond Series Certificate relating to such Bonds.

*(Section 5.06)*

### **Arbitrage Rebate Fund**

The Trustee shall deposit to the Arbitrage Rebate Fund any moneys delivered to it by the University for deposit therein and, notwithstanding any other provisions of the Resolution, shall transfer to the Arbitrage Rebate Fund, in accordance with the directions of an Authorized Officer of the Authority, moneys on deposit in any other funds held by the Trustee under the Resolution at such times and in such amounts as set forth in such directions.

Moneys on deposit in the Arbitrage Rebate Fund shall be applied by the Trustee in accordance with the direction of an Authorized Officer of the Authority to make payments to the Department of the Treasury of the United States of America at such times and in such amounts as the Authority shall determine to be required by the Code to be rebated to the Department of the Treasury of the United States of America. Moneys which an Authorized Officer of the Authority determines to be in excess of the amount required to be so rebated shall, first, be applied to reimburse pro rata, each Provider for moneys advanced under a Credit Facility or a Liquidity Facility, including interest thereon, which is then unpaid in proportion to the respective amounts advanced by each Provider, and, then be deposited to any fund or account established hereunder in accordance with the directions of such Authorized Officer.

The Authority shall periodically determine the amount which may be required by the Code to be rebated to the Department of the Treasury of the United States of America with respect to each Series of Bonds and direct the Trustee to (i) transfer from any other of the funds and accounts held by the Trustee under the Resolution and deposit to the Arbitrage Rebate Fund such amount as the Authority shall have determined to be necessary in order to enable it to comply with its obligation to rebate moneys to the Department of the Treasury of the United States of America with respect to each Series of Bonds and (ii) if and to the extent required by the Code, pay out of the Arbitrage Rebate Fund to the Department of the Treasury of the United States of America the amount, if any, required by the Code to be rebated thereto.

*(Section 5.07)*

### **Application of Moneys in Certain Funds for Retirement of Bonds**

Notwithstanding any other provisions of the Resolution, if at any time the amounts held in the Debt Service Fund are sufficient to pay the principal or Redemption Price of all Outstanding Bonds and the interest accrued and unpaid and to accrue on such Bonds to the next date on which all such Bonds are redeemable, or to make provision pursuant to the Resolution for the payment of the Outstanding Bonds at the maturity or redemption dates thereof, the Trustee shall so notify the Authority and the University. Upon receipt of such notice, the Authority may (i) direct the Trustee to redeem all such Outstanding Bonds, whereupon the Trustee shall proceed to redeem or provide for the redemption of such Outstanding Bonds in the manner provided for redemption of such Bonds by the Resolution and by each Series Resolution as provided in the Resolution, or (ii) give the Trustee irrevocable instructions in accordance with the Resolution and make provision for the payment of the Outstanding Bonds at the maturity or redemption dates thereof in accordance therewith.

*(Section 5.08)*

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### **Tax Exemption; Rebates**

In order to maintain the exclusion from gross income for purposes of federal income taxation of interest on the Bonds of such Series as the Authority may designate, the Authority shall comply with the provisions of the Code applicable to the Bonds of such Series, including without limitation the provisions of the Code relating to the computation of the yield on investments of the Gross Proceeds of the Bonds of such Series, reporting of earnings on the Gross Proceeds of the Bonds of such Series, and rebates on such gross proceeds to the Department of the Treasury of the United States of America. In furtherance of the foregoing, the Authority shall comply with the provisions of the Tax Certificate with respect to such Series of Bonds.

The Authority shall not take any action or fail to take any action, which would cause the Bonds of such Series to be “arbitrage bonds” within the meaning of Section 148(a) of the Code; nor shall any part of the proceeds of the Bonds of such Series or any other funds of the Authority be used directly or indirectly to acquire any securities or obligations the acquisition of which would cause any Bond of such Series to be an “arbitrage bond” within the meaning of Section 148(a) of the Code.

The Authority shall make any and all payments required to be made to the United States Department of the Treasury in connection with the Bonds of such Series pursuant to Section 148(f) of the Code from amounts on deposit in the Arbitrage Rebate Fund and available therefor.

*(Section 5.01, Series 2018 Resolutions)*

### **Investment of Funds and Accounts**

Moneys held under the Resolution by the Trustee, if permitted by law, shall, as nearly as may be practicable, be invested by the Trustee, upon direction of the Authority given or confirmed in writing, signed by an Authorized Officer of the Authority (which direction shall specify the amount thereof to be so invested), in Government Obligations, Federal Agency Obligations or Exempt Obligations; provided that each such investment shall permit the moneys so deposited or invested to be available for use at the times at which the Authority reasonably believes such moneys will be required for the purposes of the Resolution.

In lieu of the investments of moneys in obligations authorized in the preceding paragraph, the Trustee shall, to the extent permitted by law, upon direction of the Authority given or confirmed in writing, signed by an Authorized Officer of the Authority, invest moneys in the Construction Fund in any Permitted Investment; provided that (w) each such investment shall permit the moneys so deposited or invested to be available for use at the times at which the Authority reasonably believes such moneys will be required for the purposes of the Resolution; provided, further, that (x) any Permitted Collateral required to secure any Permitted Investment shall have a market value, determined by the Trustee or its agent periodically, but not less frequently than weekly, at least equal to the amount deposited or invested including interest accrued thereon, (y) the Permitted Collateral shall be deposited with and held by the Trustee or an agent of the Trustee approved by an Authorized Officer of the Authority, and (z) the Permitted Collateral shall be free and clear of claims of any other person.

Permitted Investments purchased as an investment of moneys in any fund or account held by the Trustee under the provisions of the Resolution shall be deemed at all times to be a part of such fund or account and the income or interest earned, profits realized or losses suffered by a fund or account due to the investment thereof shall be retained in, credited or charged, as the case may be, to such fund or account.

In computing the amount in any fund or account held by the Trustee under the provisions of the Resolution, each Permitted Obligation shall be valued at par or the market value thereof, plus accrued interest, whichever is lower.

Notwithstanding anything to the contrary in the Resolution, the Authority, in its discretion, may direct the Trustee to, and the Trustee upon receipt of such direction shall, sell, present for redemption or exchange any investment held by the Trustee pursuant to the Resolution and the proceeds thereof may be reinvested as provided in the Resolution. Except as otherwise provided in the Resolution, the Trustee shall sell at the best price obtainable, or

present for redemption or exchange, any investment held by it pursuant to the Resolution whenever it shall be necessary in order to provide moneys to meet any payment or transfer from the fund or account in which such investment is held. The Trustee shall advise the Authority and the University in writing, on or before the fifteenth (15th) day of each calendar month, of the amounts required to be on deposit in each fund and account under the Resolution and of the details of all investments held for the credit of each fund and account in its custody under the provisions of the Resolution as of the end of the preceding month and as to whether such investments comply with the provisions of the Resolution. The details of such investments shall include the par value, if any, the cost and the current market value of such investments as of the end of the preceding month. The Trustee shall also describe all withdrawals, substitutions and other transactions occurring in each such fund and account in the previous month.

*(Section 6.02)*

### **Creation of Liens**

Except as permitted by the Resolution, the Authority shall not create or cause to be created or suffer or permit the creation of any lien or charge prior or equal to that of the Bonds on the proceeds from the sale of the Bonds, the Revenues, the rights of the Authority to receive payments to be made under the Loan Agreement that are to be deposited with the Trustee or the funds and accounts established by the Resolution or by any Series Resolution which are pledged by the Resolution; provided, however, that nothing contained in the Resolution shall prevent the Authority from (i) issuing bonds, notes or other obligations or otherwise incurred indebtedness under another and separate resolution so long as the charge or lien created thereby is not prior or equal to the charge or lien created by the Resolution, and (ii) incurring obligations with respect to a Credit Facility or a Liquidity Facility which are secured by a lien upon and pledge of the Revenues of equal priority with the lien created and the pledge made by the Resolution.

*(Section 7.06)*

### **Amendment of Loan Agreement**

The Loan Agreement may not be amended, changed, modified, altered or terminated so as to materially adversely affect the interest of the Holders of the Outstanding Bonds without the prior written consent of (a) the Holders of at least a majority in aggregate principal amount of the Bonds then Outstanding, or (b) in case less than all of the several Series of Bonds then Outstanding are affected by the modifications or amendments, the Holders of not less than a majority in aggregate principal amount of the Bonds of each Series so affected then Outstanding; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Bonds of any specified Series remain Outstanding, the consent of the Holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under this section; provided further, that no such amendment, change, modification, alteration or termination will reduce the percentage of the aggregate principal amount of Outstanding Bonds the consent of the Holders of which is a requirement for any such amendment, change, modification, alteration or termination, or decrease the amount of any payment required to be made by the University under the Loan Agreement that is to be deposited with the Trustee or extend the time of payment thereof.

The Loan Agreement may be amended, changed, modified or altered (i) to make changes necessary or appropriate in connection with the acquisition, construction, reconstruction, rehabilitation and improvement, or otherwise providing, furnishing and equipping of any facilities constituting a part of any Project or to otherwise amend the Project or (ii) with the consent of the Trustee, to cure any ambiguity, or to correct or supplement any provisions contained in the Resolution or in the Loan Agreement. Except as otherwise provided in the Resolution, the Loan Agreement may be amended, changed, modified or altered without the consent of the Holders of Outstanding Bonds or the Trustee. Prior to execution by the Authority of any amendment, a copy thereof certified by an Authorized Officer of the Authority shall be filed with the Trustee.

For the purposes of this section, the purchasers of the Bonds of a Series, whether purchasing as underwriters, for resale or otherwise, upon such purchase from the Authority, may consent to an amendment, change, modification, alteration or termination permitted by this section with the same effect as a consent given by the

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Holder of such Bonds. In addition, the Holder of an Outstanding Auction Rate Bond shall be deemed to have consented to an amendment, change, modification, alteration or termination permitted by this section if (i) the Trustee has mailed notice of such proposed amendment to the Holder of such Bonds in the same manner required by Article X of the Resolution for an amendment to the Resolution, (ii) on the first Auction Date for such Bond occurring at least twenty (20) days after the date on which the aforementioned notice is given by the Trustee the interest rate determined on such date is the Winning Bid Rate and (iii) there is delivered to the Authority and the Trustee an opinion of Bond Counsel to the effect that such amendment shall not adversely affect the validity of such Auction Rate Bond or any exemption from federal income tax to which the interest on such Auction Rate Bond would otherwise be entitled. As used in this paragraph the following terms shall have the respective meanings: **“Auction Rate Bond”** means a Variable Interest Rate Bond that is not an Option Bond, and that bears interest at rates determined by periodic auctions in accordance with procedures therefore established by the Series Resolution authorizing such Bond or the Bond Series Certificate related thereto; **“Auction Date”** means, with respect to particular any Auction Rate Bond, the date on which an auction is held or required to be held for such Bond in accordance with the procedures established therefore; and **“Winning Bid Rate”** when used with respect to an auction held for any particular Auction Rate Bond, shall have the meaning given to such term in the Series Resolution authorizing such Auction Rate Bond or the Bond Series Certificate related thereto, or, if not otherwise defined, means the lowest rate specified in any purchase bid submitted in such auction, which, if selected, would cause the aggregate principal amount of Auction Bonds offered to be sold in such auction to be subject to purchase bids at rates no greater than the rate specified in such purchase bid.

For the purposes of this section, a Series shall be deemed to be adversely affected by an amendment, change, modification or alteration of the Loan Agreement if the same adversely affects or diminishes the rights of the Holders of the Bonds of such Series in any material respect. The Trustee may in its discretion determine whether or not, in accordance with the foregoing provisions, Bonds of any particular Series would be adversely affected in any material respect by any amendment, change, modification or alteration, and any such determination shall be binding and conclusive on the University, the Authority and all Holders of Bonds.

For the purposes of this Section, the Trustee shall be entitled to rely upon an opinion of counsel, which counsel shall be satisfactory to the Trustee, with respect to whether any amendment, change, modification or alteration adversely affects the interests of any Holders of Bonds then Outstanding in any material respect.

*(Section 7.11)*

### **Modification and Amendment of Resolution Without Consent**

The Authority may adopt at any time or from time to time Series Resolutions or Supplemental Resolutions for any one or more of the following purposes, and any such Series Resolution or Supplemental Resolution shall become effective in accordance with its terms upon the filing with the Trustee of a copy thereof certified by an Authorized Officer of the Authority:

(a) To provide for the issuance of a Series of Bonds pursuant to the provisions of the Resolution and to prescribe the terms and conditions pursuant to which such Bonds may be issued, paid or redeemed;

(b) To add additional covenants and agreements of the Authority for the purpose of further securing the payment of the Bonds, provided such additional covenants and agreements are not contrary to or inconsistent with the covenants and agreements of the Authority contained in the Resolution;

(c) To prescribe further limitations and restrictions upon the issuance of Bonds and the incurring of indebtedness by the Authority which are not contrary to or inconsistent with the limitations and restrictions thereon theretofore in effect;

(d) To surrender any right, power or privilege reserved to or conferred upon the Authority by the terms of the Resolution, provided that the surrender of such right, power or privilege is not contrary to or inconsistent with the covenants and agreements of the Authority contained in the Resolution;

(e) To confirm, as further assurance, any pledge under the Resolution, and the subjection to any lien, claim or pledge created or to be created by the provisions of the Resolution, of the Revenues or of any other moneys, securities or funds;

(f) To modify any of the provisions of the Resolution or of any previously adopted Series Resolution in any other respects, provided that such modifications shall not be effective until after all Bonds of any Series of Bonds Outstanding as of the date of adoption of such Supplemental Resolution or Series Resolution shall cease to be Outstanding, and all Bonds issued under such resolutions shall contain a specific reference to the modifications contained in such subsequent Resolutions; or

(g) With the consent of the Trustee, to cure any ambiguity or defect or inconsistent provision in the Resolution or to insert such provisions clarifying matters or questions arising under the Resolution as are necessary or desirable in the event any such modifications are not contrary to or inconsistent with the Resolution as theretofore in effect, or to modify any of the provisions in the Resolution or in any previously adopted Series Resolution in any other respect, provided that such modification shall not adversely affect the interests of the Holders in any material respect.

*(Section 9.01)*

### **Supplemental Resolutions Effective With Consent of Bondholders**

The provisions of the Resolution may also be modified or amended at any time or from time to time by a Supplemental Resolution, subject to the consent of Bondholders in accordance with and subject to the provisions of the Resolution, such Supplemental Resolution to become effective upon the filing with the Trustee of a copy thereof certified by an Authorized Officer of the Authority.

*(Section 9.02)*

### **Powers of Amendment**

Any modification or amendment of the Resolution and of the rights and obligations of the Authority and of the Holders of the Bonds under the Resolution, in any particular, may be made by a Supplemental Resolution, with the written consent given as provided in the Resolution, (i) of the Holders of at least a majority in principal amount of the Bonds Outstanding at the time such consent is given, or (ii) in case less than all of the several Series of Bonds then Outstanding are affected by the modification or amendment, of Holders of at least a majority in principal amount of the Bonds of each Series so affected and Outstanding at the time such consent is given, or (iii) in case the modification or amendment changes the amount or date of any Sinking Fund Installment, of the Holders of at least a majority in principal amount of the Bonds of the particular Series, maturity and interest rate entitled to such Sinking Fund Installment Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Bonds of any specified like Series and maturity remain Outstanding, the consent of the Holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under the Resolution. No such modification or amendment shall permit a change in the terms of redemption or maturity of the principal of any Outstanding Bond or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof, or in the rate of interest thereon without the consent of the Holder of such Bond, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment. For the purposes of this paragraph, a Series shall be deemed to be affected by a modification or amendment of the Resolution if the same adversely affects or diminishes the rights of the Holders of Bonds of such Series in any material respect. The Trustee may in its discretion determine whether or not, in accordance with the foregoing provisions, the Bonds of any particular Series or maturity would be affected by any modification or amendment of the Resolution and any such determination shall be binding and conclusive on the Authority and all Holders of Bonds. The Trustee may receive an opinion of counsel, including an opinion of Bond Counsel, as conclusive evidence as to whether Bonds of any particular Series or maturity would be so affected by any such modification or amendment of the Resolution.

*(Section 10.01)*

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### **Consent of Bondholders**

The Authority may at any time adopt a Supplemental Resolution making a modification or amendment permitted by the provisions of the Resolution to take effect when and as provided in the Resolution. A copy of such Supplemental Resolution (or brief summary thereof or reference thereto in form approved by the Trustee) together with a request to the Holders for their consent thereto in form satisfactory to the Trustee, is required promptly after adoption to be mailed by the Authority to the Holders (but failure to mail such copy and request will not affect the validity of the Supplemental Resolution when consented to as provided in the Resolution). Such Supplemental Resolution shall not be effective unless and until (i) there shall be filed with the Trustee (a) the written consents of Holders of the percentages of Outstanding Bonds specified in the Resolution and (b) an opinion of Bond Counsel stating that such Supplemental Resolution has been duly and lawfully adopted and filed by the Authority in accordance with the provisions of the Resolution, is authorized or permitted by the Resolution, and is valid and binding upon the Authority and enforceable in accordance with its terms, and (ii) a notice shall have been mailed as provided in the Resolution. Each such consent shall be effective only if accompanied by proof of the holding or owning at the date of such consent, of the Bonds with respect to which such consent is given, which proof shall be such as is permitted by the Resolution. A certificate or certificates by the Trustee filed with the Trustee that it has examined such proof and that such proof is sufficient in accordance with the Resolution shall be conclusive that the consents have been given by the Holders described in such certificate or certificates of the Trustee. Any consent shall be binding upon the Holder of the Bonds giving such consent and, anything in the Resolution to the contrary notwithstanding, upon any subsequent Holder of such Bonds and of any Bonds issued in exchange therefor (whether or not such subsequent Holder thereof has notice thereof), unless such consent is revoked in writing by the Holder of such Bonds giving such consent or a subsequent Holder thereof by filing with the Trustee, prior to the time when the written statement of the Trustee provided for in the Resolution is filed, such revocation. The fact that a consent has not been revoked may likewise be proved by a certificate of the Trustee filed with the Trustee to the effect that no revocation thereof is on file with the Trustee. At any time after Holders of the required percentages of Bonds shall have filed their consents to the Supplemental Resolution, the Trustee shall make and file with the Authority and the Trustee a written statement that the Holders of such required percentages of Bonds have filed such consents. Such written statement shall be conclusive that such consents have been so filed. At any time thereafter notice, stating in substance that the Supplemental Resolution (which may be referred to as a Supplemental Resolution adopted by the Authority on a stated date, a copy of which is on file with the Trustee) has been consented to by the Holders of the required percentages of Bonds and will be effective as provided in the Resolution, shall be given to the Bondholders by the Authority by mailing such notice to the Bondholders and, at the discretion of the Authority, by publishing the same at least once not more than ninety (90) days after the Holders of the required percentages of Bonds shall have filed their consents to the Supplemental Resolution and the written statement of the Trustee hereinabove provided for is filed (but failure to publish such notice shall not prevent such Supplemental Resolution from becoming effective and binding as in this paragraph provided). The Authority shall file with the Trustee proof of the mailing of such notice, and, if the same shall have been published to the Bondholders, of the publication thereof. A transcript, consisting of the papers required or permitted by the Resolution to be filed with the Trustee, shall be proof of the matters therein stated. Such Supplemental Resolution making such amendment or modification shall be deemed conclusively binding upon the Authority, the Trustee, each Paying Agent and the Holders of all Bonds at the expiration of thirty (30) days after the filing with the Trustee of the proof of the mailing of such last mentioned notice, except in the event of a final decree of a court of competent jurisdiction setting aside such Supplemental Resolution in a legal action or equitable proceeding for such purpose commenced within such thirty (30) day period; provided, however, that the Authority, the Trustee and any Paying Agent during such thirty (30) day period and any such further period during which any such action or proceeding may be pending shall be entitled in their reasonable discretion to take such action, or to refrain from taking such action, with respect to such Supplemental Resolution as they may deem expedient.

For the purposes of this Article X, the purchasers of the Bonds of a Series, whether purchasing as underwriters, for resale or otherwise, upon such purchase from the Authority, may consent to a modification or amendment permitted by Section 10.01 or 10.03 of the Resolution in the manner provided in the Resolution, except that no proof of ownership shall be required, and with the same effect as a consent given by the Holder of such Bonds; provided, however, that, if such consent is given by a purchaser who is purchasing as an underwriter or for resale, the nature of the modification or amendment and the provisions for the purchaser consenting thereto shall be described in the

official statement, prospectus, offering memorandum or other offering document prepared in connection with the primary offering of the Bonds of such Series by the Authority.

*(Section 10.02)*

### **Modifications by Unanimous Consent**

The terms and provisions of the Resolution and the rights and obligations of the Authority and of the Holders of the Bonds under the Resolution may be modified or amended in any respect upon the adoption and filing with the Trustee by the Authority of a copy of a Supplemental Resolution certified by an Authorized Officer and the consent of the Holders of all of the Bonds then Outstanding, such consent to be given as provided in the Resolution, except that no notice to Bondholders either by mailing or publication shall be required.

*(Section 10.03)*

### **Event of Default**

Each of the following constitutes an “event of default” under the Resolution and each Series Resolution if:

(a) Payment of the principal, Sinking Fund Installment, if any, or Redemption Price of any Bond shall not be made when the same shall become due and payable, either at maturity or by proceedings for redemption or otherwise; or

(b) Payment of an installment of interest on any Bond shall not be made when the same shall become due and payable; or

(c) The Authority shall default in the due and punctual performance of the rebate covenants contained in the Resolution, and, as a result thereof, the interest on the Bonds of a Series shall no longer be excludable from gross income under Section 103 of the Code; or

(d) The Authority shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Resolution or in the Bonds or in any Series Resolution on the part of the Authority to be performed and such default shall continue for thirty (30) days after written notice specifying such default and requiring same to be remedied shall have been given to the Authority by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the Holders of not less than twenty-five percent (25%) in principal amount of the Outstanding Bonds, or, if such default is not capable of being cured within thirty (30) days, the Authority fails to commence to cure such default within said thirty (30) days and diligently prosecutes the cure thereof; or

(e) The Authority shall have notified the Trustee that an “Event of Default”, as defined in the Loan Agreement, shall have occurred and is continuing and all sums payable by the University under the Loan Agreement shall have been declared to be immediately due and payable, which declaration shall not have been annulled and the Authority shall have notified the Trustee of such “Event of Default.”

*(Section 11.02)*

### **Acceleration of Maturity**

Upon the happening and continuance of any event of default (other than under paragraph (c) under the heading “Event of Default” above), then and in every such case the Trustee may, and upon the written request of the Holders of not less than twenty-five percent (25%) in principal amount of the Outstanding Bonds shall, by a notice in writing to the Authority, declare the principal of and interest on all of the Outstanding Bonds to be due immediately and payable. At the expiration of thirty (30) days from the giving of notice of such declaration, such principal and interest shall become and be immediately due and payable, anything in the Resolution or in the Bonds or any Series Resolution to the contrary notwithstanding. At any time after the principal of the Bonds shall have been so declared

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to be due and payable, and before the entry of final judgment or decree in any suit, action or proceeding instituted on account of such default, or before the completion of the enforcement of any other remedy under the Resolution, the Trustee may with the written consent of the Holders of not less than twenty-five percent (25%) in principal amount of the Bonds not then due by their terms and then Outstanding and by written notice to the Authority, annul such declaration and its consequences if: (i) moneys shall have accumulated in the Debt Service Fund sufficient to pay all arrears of interest, if any, upon all of the Outstanding Bonds (except the interest accrued on such Bonds since the last interest payment date); (ii) moneys shall have accumulated and be available sufficient to pay the charges, compensation, expenses, disbursements, advances and liabilities of the Trustee and any Paying Agent; (iii) all other amounts then payable by the Authority under the Resolution and under each Series Resolution other than principal amounts payable only because of a declaration and acceleration under the Resolution shall have been paid or a sum sufficient to pay the same shall have been deposited with the Trustee; and (iv) every other default known to the Trustee in the observance or performance of any covenant, condition or agreement contained in the Resolution (other than a default in the payment of the principal of such Bonds then due only because of a declaration under this Section) or in the Bonds or any Series Resolution shall have been remedied to the satisfaction of the Trustee. No such annulment shall extend to or affect any subsequent default or impair any right consequent thereon.

*(Section 11.03)*

### **Enforcement of Remedies**

Upon the happening and continuance of any event of default, then and in every such case, the Trustee may proceed, and, upon the written request of the Holders of not less than twenty-five percent (25%) in principal amount of the Outstanding Bonds or, in the case of the happening and continuance of an Event of Default described in subparagraph (c) under the heading "Event of Default" above, of the Holders of not less than twenty-five percent (25%) in principal amount of the Outstanding Bonds of the Series affected thereby, shall proceed (subject to the provisions of the Resolution), to protect and enforce its rights and the rights of the Holders of the Bonds under the laws of the State or under the Resolution or under any Series Resolution by such suits, actions or special proceedings in equity or at law, either for the specific performance of any covenant contained under the Resolution and under any Series Resolution or in aid or execution of any power therein granted, or for an accounting against the Authority as if the Authority were the trustee of an express trust, or for the enforcement of any proper legal or equitable remedy as the Trustee shall deem most effectual to protect and enforce such rights.

In the enforcement of any remedy under the Resolution and under each Series Resolution the Trustee shall be entitled to sue for, enforce payment of, and receive any and all amounts then, or during any default becoming, and at any time remaining, due from the Authority for principal or interest or otherwise under any of the provisions of the Resolution or of any Series Resolution or of the Bonds, with interest on overdue payments of the principal or interest on the Bonds at the rate or rates of interest specified in such Bonds, together with any and all costs and expenses of collection and of all proceedings under the Resolution and under any Series Resolution and under such Bonds, without prejudice to any other right or remedy of the Trustee or of the Holders of such Bonds, and to recover and enforce judgment or decree against the Authority but solely as provided in the Resolution and in any Series Resolution and in such Bonds, for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect in any manner provided by law, the moneys adjudged or decreed to be payable.

*(Section 11.04)*

### **Priority of Payments After Default**

If at any time the moneys held by the Trustee under the Resolution and under each Series Resolution shall not be sufficient to pay the principal of and interest on the Bonds as the same become due and payable (either by their terms or by acceleration of maturity under the provisions of the Resolution), such moneys together with any moneys then available or thereafter becoming available for such purpose, whether through exercise of the remedies provided for in the Resolution or otherwise, shall be applied (after first depositing in the Arbitrage Rebate Fund all amounts to be deposited therein and then paying all amounts owing to the Trustee under the Resolution) as follows:

(a) Unless the principal of all the Bonds has become or been declared due and payable, all such moneys shall be applied:



First: To the payment to the persons entitled thereto of all installments of interest then due, in the order of the maturity of the installments of such interest, and, if the amount available shall not be sufficient to pay in full any installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference;

Second: To the payment to the persons entitled thereto of the unpaid principal, Sinking Fund Installments or Redemption Price of any of the 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 amounts due on any date, then to the payment ratably, according to the amount of principal, Sinking Fund Installments or Redemption Price due on such date, to the persons entitled thereto, without any discrimination or preference.

(b) If the principal of all of the Bonds shall have become or been declared due and payable, all such money shall be applied 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 the difference in the respective rates of interest specified in the Bonds.

The provisions of this subdivision are in all respects subject to the provisions of the Resolution.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of this subdivision, 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 moneys becoming available for such application in the future. The setting aside of such moneys in trust for application in accordance with the Resolution shall constitute proper application by the Trustee, and the Trustee shall incur no liability whatsoever to the Authority, 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 to the circumstances, and ultimately applies the same in accordance with such provisions of the Resolution 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 on 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 of the fixing of any such date. The Trustee shall not be required to make payment to the Holder of any Bond unless such Bond shall be presented to the Trustee for appropriate endorsement.

*(Section 11.05)*

### **Termination of Proceedings**

In case any proceedings taken by the Trustee on account of any default shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Trustee, then and in every such case the Authority, the Trustee, each Provider, the University and the Bondholders shall be restored to their former positions and rights under the Resolution, respectively, and all rights, remedies, powers and duties of the Trustee shall continue as though no such proceeding had been commenced.

*(Section 11.06)*

### **Bondholders' Direction of Proceedings**

Anything in the Resolution to the contrary notwithstanding, the Holders of a majority in principal amount of the Outstanding Bonds or in the case of an event of default as specified in the Resolution, the Holders of a majority in principal amount of the Outstanding Bonds of the Series affected thereby shall have the right by an instrument in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee under the Resolution and under each Series Resolution, provided such direction shall not be otherwise than in accordance with law or the provisions of the Resolution and of each Series Resolution and the

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Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee would be unjustly prejudicial to Bondholders not parties to such direction.

*(Section 11.07)*

### **Limitation of Rights of Individual Bondholders**

No Holder of any of the Bonds shall have any right to institute any suit, action or proceeding in equity or at law for the execution of any trust under the Resolution, or for any other remedy under the Resolution unless such Holder previously shall have given to the Trustee written notice of the event of default on account of which such suit, action or proceeding is to be instituted, and unless also the Holders of not less than twenty-five per centum (25%) in principal amount of the Outstanding Bonds, or, in the case of an event of default under paragraph (c) under the heading ("Event of Default" above, the Holders of not less than twenty-five per centum (25%) in principal amount of the Outstanding Bonds of the Series affected thereby, shall have made written request to the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted by the Resolution or to institute such action, suit or proceeding in its or their name, and unless, also, there shall have been offered to the Trustee reasonable security and indemnity against the costs, expenses, and liabilities to be incurred therein or thereby, and the Trustee shall have refused or neglected to comply with such request within a reasonable time. Such notification, request and offer of indemnity are by the Resolution declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of the Resolution or for any other remedy under the Resolution and in equity or at law. It is understood and intended that no one or more Holders of the Bonds secured by the Resolution shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of the Resolution or to enforce any right under the Resolution except in the manner provided in the Resolution, and that all proceedings at law or in equity shall be instituted and maintained for the benefit of all Holders of the Outstanding Bonds. Notwithstanding any other provision of the Resolution, the Holder of any Bond shall have the right which is absolute and unconditional to receive payment of the principal of (and premium, if any) and interest on such Bond on the stated maturity expressed in such Bond (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment, and such right shall not be impaired without the consent of such Holder.

*(Section 11.08)*

### **Defeasance**

If the Authority shall pay or cause to be paid to the Holders of the Bonds of a Series the principal, Sinking Fund Installments, if any, or Redemption Price of and interest thereon, at the times and in the manner stipulated therein, in the Resolution, and in the applicable Series Resolution and Bond Series Certificate, then the pledge of the Revenues or other moneys and securities pledged to such Bonds and all other rights granted by the Resolution to such Bonds shall be discharged and satisfied. In such event, the Trustee shall, upon the request of the Authority, execute and deliver such documents to evidence such discharge and satisfaction as may be reasonably required by the Authority, and all moneys or other securities held by it pursuant to the Resolution and to the applicable Series Resolution which are not required for the payment or redemption of Bonds of such Series shall be paid or delivered by the Trustee as follows: first, to the Arbitrage Rebate Fund, the amount required to be deposited therein in accordance with the direction of an Authorized Officer of the Authority; second, to each Provider, the Provider Payments which have not been repaid, pro rata, based upon the respective Provider Payments then unpaid to each Provider; third, to the Authority the amount certified by an Authorized Officer of the Authority to be then due or past due pursuant to the Loan Agreement for fees and expenses of the Authority or pursuant to any indemnity; and, then, the balance thereof to the University. The securities so paid or delivered shall be released from any trust, pledge, lien, encumbrance or security interest created by the Resolution or by the Loan Agreement.

Bonds for the payment or redemption of which moneys shall have been set aside and shall be held in trust by the Trustee (through deposit of moneys 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 in the preceding paragraph. All Outstanding Bonds of any Series or any maturity within a Series or a portion of a maturity within a Series shall prior to the maturity or redemption date thereof be deemed to have been paid within the meaning and

with the effect expressed in the preceding paragraph if (a) in case any of such Bonds are to be redeemed on any date prior to their maturity, the Authority shall have given to the Trustee, in form satisfactory to it, irrevocable instructions to give as provided in the Resolution notice of redemption on such date of such Bonds, (b) there shall have been deposited with the Trustee either moneys in an amount which shall be sufficient, or Defeasance Securities the principal of and 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, Sinking Fund Installments, if any, or Redemption Price, if applicable, and interest due and to become due on such Bonds on and prior to the redemption date or maturity date thereof, as the case may be, (c) the Trustee shall have received the written consent to such defeasance of each Provider which has given written notice to the Trustee and the Authority that amounts advanced under a Credit Facility or Liquidity Facility issued by it or the interest thereon have not been repaid to such Provider, and (d) in the event such Bonds are not by their terms subject to redemption within the next succeeding sixty (60) days, the Authority shall have given the Trustee, in form satisfactory to it irrevocable instructions to give, as soon as practicable, by First class mail, postage prepaid, to the Holders of said Bonds at their last known addresses appearing on the registration books, and, if directed by an Authorized Officer of the Authority, by publication, at least twice, at an interval of not less than seven (7) days between publications, in an Authorized Newspaper, a notice to the Holders of such Bonds that the deposit required by (b) above has been made with the Trustee and that such Bonds are deemed to have been paid in accordance with this Section and stating such maturity or redemption date upon which moneys are to be available for the payment of the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, of and interest on such Bonds. The Authority shall give written notice to the Trustee of its selection of the Series and maturity the payment of which shall be made in accordance with this Section. The Trustee shall select the Bonds of like Series and maturity payment of which shall be made in accordance with this Section in the manner provided in the Resolution. Neither the Defeasance Securities nor moneys deposited with the Trustee pursuant to the Resolution nor principal or interest payments on any such Defeasance Securities shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, of and interest on such Bonds; provided, however, that any moneys received from such principal or interest payments on such Defeasance Securities deposited with the Trustee, if not then needed for such purpose, shall, to the extent practicable, be reinvested in Defeasance Securities maturing at times and in amounts sufficient to pay when due the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, of and interest to become due on such Bonds on and prior to such redemption date or maturity date thereof, as the case may be; provided, further, that moneys and Defeasance Securities may be withdrawn and used by the Authority for any purpose upon (i) the simultaneous substitution therefor of either moneys in an amount which shall be sufficient, or Defeasance Securities the principal of and interest on which when due will provide moneys which without regard to reinvestment, together with the moneys, if any, held by or deposited with the Trustee at the same time, shall be sufficient to pay when due the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, and interest due and to become due on such Bonds on and prior to the redemption date or maturity date thereof, as the case may be, and (ii) receipt by the Trustee of a letter or other written report of a firm of independent certified public accountants verifying the accuracy of the arithmetical computations which establish the adequacy of such moneys and Defeasance Securities for such purpose. Any income or interest earned by, or increment to, the investment of any such moneys so deposited, shall, to the extent certified by the Trustee to be in excess of the amounts required by the Resolution to pay the principal, Sinking Fund Installments, if any, or Redemption Price, if applicable, of and interest on such Bonds, as realized, be paid by the Trustee as follows: first, to the Arbitrage Rebate Fund, the amount required to be deposited therein in accordance with the direction of an Authorized Officer of the Authority; second, to each Provider, the Provider Payments which have not been repaid, pro rata, based upon the respective Provider Payments then unpaid to each Provider; third, to the Authority the amount certified by an Authorized Officer of the Authority to be then due or past due pursuant to the Loan Agreement for fees and expenses of the Authority or pursuant to any indemnity; and, then, the balance thereof to the University, and any such moneys so paid by the Trustee shall be released of any trust, pledge, lien, encumbrance or security interest created by the Resolution or by the Loan Agreement.

For purposes of determining whether Variable Interest Rate Bonds shall be deemed to have been paid prior to the maturity or redemption date thereof, as the case may be, by the deposit of moneys, or Defeasance Securities and moneys, if any, in accordance with the Resolution, the interest to come due on such Variable Interest Rate Bonds on or prior to the maturity date or redemption date thereof, as the case may be, shall be calculated at the Maximum Interest Rate permitted by the terms thereof; provided, however, that if on any date, as a result of such Variable Interest Rate Bonds having borne interest at less than such Maximum Interest Rate for any period, the total amount

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of moneys and Defeasance Securities on deposit with the Trustee for the payment of interest on such Variable Interest Rate Bonds is in excess of the total amount which would have been required to be deposited with the Trustee on such date in respect of such Variable Interest Rate Bonds in order to satisfy clause (ii) of the second sentence of the preceding paragraph, the Trustee shall, if requested by the Authority, pay the amount of such excess to the Authority free and clear of any trust, pledge, lien, encumbrance or security interest created by the Resolution or by the Loan Agreement.

Option Bonds shall be deemed to have been paid in accordance with the Resolution only if, in addition to satisfying the requirements of clauses (i) and (iii) above, there shall have been deposited with the Trustee moneys in an amount which shall be sufficient to pay when due the maximum amount of principal of and Redemption Price, if any, and interest on such Bonds which could become payable to the Holders of such Bonds upon the exercise of any options provided to the Holders of such Bonds; provided, however, that if, at the time a deposit is made with the Trustee pursuant to the Resolution, the options originally exercisable by the Holder of an Option Bond are no longer exercisable, such Bond shall not be considered an Option Bond for purposes of this paragraph. If any portion of the moneys deposited with the Trustee for the payment of the principal of and Redemption Price, if any, and interest on Option Bonds is not required for such purpose, the Trustee shall, if requested by the Authority, pay the amount of such excess to the Authority free and clear of any trust, pledge, lien, encumbrance or security interest created by the Resolution or by the Loan Agreement.

Anything in the Resolution to the contrary notwithstanding, any moneys held by the Trustee in trust for the payment and discharge of any of the Bonds of a Series or the interest thereon which remain unclaimed for one (1) year after the date when all of the Bonds of such Series have become due and payable either at their stated maturity dates or by call for earlier redemption, if such moneys were held by the Trustee at such date, or for one (1) year after the date of deposit of such moneys if deposited with the Trustee after such date when all of the Bonds of such Series become due and payable, shall, at the written request of the Authority, be repaid by the Trustee to the Authority as its absolute property and free from trust, and the Trustee shall thereupon be released and discharged and the Holders shall look only to the Authority for payment of such Bonds; provided, however, that, before being required to make any such payment to the Authority, the Trustee may, at the expense of the Authority cause to be published in an Authorized Newspaper a notice that such moneys remain unclaimed and that, after a date named in such notice, which date shall be not less than thirty (30) nor more than sixty (60) days after the date of publication of such notice, the balance of such moneys then unclaimed shall be returned to the Authority.

*(Section 12.01)*

**FORM OF AGREEMENT TO  
PROVIDE CONTINUING DISCLOSURE**

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**AGREEMENT TO PROVIDE CONTINUING DISCLOSURE**

**DORMITORY AUTHORITY OF THE STATE OF NEW YORK  
COLUMBIA UNIVERSITY REVENUE BONDS, SERIES 2018A AND SERIES 2018B**

This **AGREEMENT TO PROVIDE CONTINUING DISCLOSURE** (the “Disclosure Agreement”), dated as of [ ], 2018, is executed and delivered by The Trustees of Columbia University in the City of New York (the “Obligated Person”), Manufacturers and Traders Trust Company, as trustee (the “Trustee”) and Digital Assurance Certification, L.L.C. (“DAC”), as exclusive Disclosure Dissemination Agent (the “Disclosure Dissemination Agent”) for the benefit of the Holders (hereinafter defined) of the Bonds (hereinafter defined) issued by the Dormitory Authority of the State of New York (the “Issuer” or “DASNY”) and in order to provide certain continuing disclosure with respect to the Bonds in accordance with Rule 15c2-12 of the United States Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time (the “Rule”).

The services provided under this Disclosure Agreement solely relate to the execution of instructions received from the parties hereto through use of the DAC system and are not intended to constitute “advice” within the meaning of the United States Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Act”). DAC is not obligated hereunder provide any advice or recommendation to the Issuer, the Obligated Person or anyone on the Issuer’s or the Obligated Person’s behalf regarding the “issuance of municipal securities” or any “municipal financial product” as defined in the Act and nothing in this Disclosure Agreement shall be interpreted to the contrary.

**SECTION 1. Definitions.** Capitalized terms not otherwise defined in this Disclosure Agreement shall have the meaning assigned in the Rule or, to the extent not in conflict with the Rule, in the Resolution (hereinafter defined). The capitalized terms shall have the following meanings:

“Annual Filing Date” means the date, set in Sections 2(a) and 2(f), by which the Annual Report is to be filed with the MSRB.

“Annual Financial Information” means annual financial information as such term is used in paragraph (b)(5)(i) of the Rule and specified in Section 3(a) of this Disclosure Agreement.

“Annual Report” means an Annual Report described in and consistent with Section 3 of this Disclosure Agreement.

“Audited Financial Statements” means the financial statements (if any) of the Obligated Person for the prior fiscal year, certified by an independent auditor as prepared in accordance with accounting principles generally accepted in the United States of America or otherwise, as such term is used in paragraph (b)(5)(i) of the Rule and specified in Section 3(b) of this Disclosure Agreement.

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“Bonds” means the bonds as listed on the attached Exhibit A, with the 9-digit CUSIP numbers relating thereto.

“Certification” means a written certification of compliance signed by the Disclosure Representative stating that the Annual Report, Audited Financial Statements, Voluntary Financial Disclosure, Notice Event notice, Failure to File Event notice or Voluntary Event Disclosure delivered to the Disclosure Dissemination Agent is the Annual Report, Audited Financial Statements, Voluntary Financial Disclosure, Notice Event notice, Failure to File Event notice or Voluntary Event Disclosure required to be or voluntarily submitted to the MSRB under this Disclosure Agreement. A Certification shall accompany each such document submitted to the Disclosure Dissemination Agent by the Obligated Person and include the full name of the Bonds and the 9-digit CUSIP numbers for all Bonds to which the document applies.

“Disclosure Dissemination Agent” means Digital Assurance Certification, L.L.C., acting in its capacity as Disclosure Dissemination Agent hereunder, or any successor Disclosure Dissemination Agent designated in writing by the Obligated Person pursuant to Section 9 hereof.

“Disclosure Representative” means the Chief Financial Officer of the Obligated Person or his or her designee, or such other person as the Obligated Person shall designate in writing to the Disclosure Dissemination Agent from time to time as the person responsible for providing Information to the Disclosure Dissemination Agent.

“Failure to File Event” means the Obligated Person’s failure to file an Annual Report on or before the Annual Filing Date.

“Force Majeure Event” means: (i) acts of God, war or terrorist action; (ii) failure or shut-down of the Electronic Municipal Market Access System maintained by the MSRB; or (iii) to the extent beyond the Disclosure Dissemination Agent’s reasonable control, interruptions in telecommunications or utilities services, failure, malfunction or error of any telecommunications, computer or other electrical, mechanical or technological application, service or system, computer virus, interruptions in Internet service or telephone service (including due to a virus, electrical delivery problem or similar occurrence) that affect Internet users generally, or in the local area in which the Disclosure Dissemination Agent or the MSRB is located, or acts of any government, regulatory or any other competent authority the effect of which is to prohibit the Disclosure Dissemination Agent from performance of its obligations under this Disclosure Agreement.

“Holder” means any person (a) having the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries) or (b) treated as the owner of any Bonds for federal income tax purposes.



“Information” means collectively, the Annual Reports, the Audited Financial Statements (if any), the Notice Event notices, the Failure to File Event notices, the Voluntary Event Disclosures and the Voluntary Financial Disclosures.

“Issuer” means the Dormitory Authority of the State of New York, as conduit issuer of the Bonds.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the United States Securities Exchange Act of 1934, as amended.

“Notice Event” means any of the events enumerated in paragraph (b)(5)(i)(C) of the Rule and listed in Section 4(a) of this Disclosure Agreement.

“Obligated Person” means any person who is either generally or through an enterprise, fund, or account of such person committed by contract or other arrangement to support payment of all, or part of the obligations on the Bonds (other than providers of municipal bond insurance, letters of credit, or other liquidity facilities), as shown on Exhibit A.

“Official Statement” means that Official Statement prepared by the Issuer and the Obligated Person in connection with the Bonds, as listed on Exhibit A.

“Resolution” means DASNY’s bond resolution(s) pursuant to which the Bonds were issued.

“Trustee” means Manufacturers and Traders Trust Company and its successors and assigns.

“Voluntary Event Disclosure” means information of the category specified in any of subsections (e)(vi)(1) through (e)(vi)(11) of Section 2 of this Disclosure Agreement that is accompanied by a Certification of the Disclosure Representative containing the information prescribed by Section 7(a) of this Disclosure Agreement.

“Voluntary Financial Disclosure” means information of the category specified in any of subsections (e)(vii)(1) through (e)(vii)(9) of Section 2 of this Disclosure Agreement that is accompanied by a Certification of the Disclosure Representative containing the information prescribed by Section 7(b) of this Disclosure Agreement.

## SECTION 2. Provision of Annual Reports.

(a) The Obligated Person shall provide, annually, an electronic copy of the Annual Report and Certification to the Disclosure Dissemination Agent, together with a copy for the Trustee, not later than 165 days after the end of each fiscal year of the Obligated Person (or any time thereafter following a Failure to File Event as described in this Section), commencing with the fiscal year ending June 30, 2018, such date and each anniversary thereof, the “Annual Filing Date.” Promptly upon receipt of an electronic copy of the Annual Report and the Certification, the Disclosure Dissemination Agent shall provide the Annual Report to the MSRB through its Electronic Municipal Market Access (“EMMA”) system for municipal securities disclosure. The Annual Financial Information and Audited Financial Statements may be submitted as a single

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document or as separate documents comprising a package, and may cross-reference other information as provided in Section 3 of this Disclosure Agreement.

(b) If on the fifteenth (15th) day prior to the Annual Filing Date, the Disclosure Dissemination Agent has not received a copy of the Annual Report and Certification, the Disclosure Dissemination Agent shall contact the Disclosure Representative by telephone and in writing (which may be by e-mail) to remind the Obligated Person of its undertaking to provide the Annual Report pursuant to Section 2(a). Upon such reminder, the Disclosure Representative shall, not later than two (2) business days prior to the Annual Filing Date, either: (i) provide the Disclosure Dissemination Agent with an electronic copy of the Annual Financial Information, Audited Financial Statements, if available, and unaudited financial statements, if audited financial statements are not available in accordance with subsection (d) below and the Certification, or (ii) instruct the Disclosure Dissemination Agent in writing, with a copy to the Trustee, that a Failure to File Event may occur, state the date by which the Annual Financial Information and Audited Financial Statements for such year are expected to be provided, and, at the election of the Obligated Person, instruct the Disclosure Dissemination Agent to send a notice to the MSRB in substantially the form attached as Exhibit B on the Annual Filing Date, accompanied by a cover sheet completed by the Disclosure Dissemination Agent in the form set forth in Exhibit C-1.

(c) If the Disclosure Dissemination Agent has not received an Annual Report and Certification by 6:00 p.m. Eastern time on the Annual Filing Date (or, if such Annual Filing Date falls on a Saturday, Sunday or holiday, then the first business day thereafter) for the Annual Report, a Failure to File Event shall have occurred and the Obligated Person hereby irrevocably directs the Disclosure Dissemination Agent to immediately send a notice to the MSRB in substantially the form attached as Exhibit B without reference to the anticipated filing date for the Annual Report, accompanied by a cover sheet completed by the Disclosure Dissemination Agent in the form set forth in Exhibit C-1.

(d) If Audited Financial Statements of the Obligated Person are prepared but not available prior to the Annual Filing Date, the Obligated Person shall provide unaudited financial statements for filing prior to the Annual Filing Date in accordance with Section 3(b) hereof and, when the Audited Financial Statements are available, provide in a timely manner an electronic copy to the Disclosure Dissemination Agent, accompanied by a Certification, together with a copy for the Trustee, for filing with the MSRB.

(e) The Disclosure Dissemination Agent shall:

- (i) verify the filing specifications of the MSRB each year prior to the Annual Filing Date;
- (ii) upon receipt, promptly file each Annual Report received under Section 2(a) and 2(b) with the MSRB;
- (iii) upon receipt, promptly file each Audited Financial Statement received under Section 2(d) with the MSRB;

- (iv) upon receipt, promptly file the text of each Notice Event received under Sections 4(a) and 4(b)(ii) with the MSRB, identifying the Notice Event as instructed pursuant to Section 4(a) or Section 4(b)(ii) (being any of the categories set forth below) when filing pursuant to Section 4(c) of this Disclosure Agreement:
1. Principal and interest payment delinquencies;
  2. Non-Payment related defaults, if material;
  3. Unscheduled draws on debt service reserves reflecting financial difficulties;
  4. Unscheduled draws on credit enhancements reflecting financial difficulties;
  5. Substitution of credit or liquidity providers, or their failure to perform;
  6. Adverse tax opinions, IRS notices or events affecting the tax-exempt status of the securities;
  7. Modifications to rights of securities holders, if material;
  8. Bond calls, if material;
  9. Defeasances;
  10. Release, substitution, or sale of property securing repayment of the securities, if material;
  11. Ratings changes;
  12. Tender offers;
  13. Bankruptcy, insolvency, receivership or similar event of the Obligated Person;
  14. Merger, consolidation, or acquisition of the Obligated Person, if material; and
  15. Appointment of a successor or additional trustee, or the change of name of a trustee, if material;
  16. Failure to provide annual financial information as required, together with a completed copy of Exhibit B to this Agreement; and
  17. Other Material Event Notice.

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- (v) upon receipt (or irrevocable direction pursuant to Section 2(c) of this Disclosure Agreement, as applicable), promptly file a completed copy of Exhibit B to this Disclosure Agreement with the MSRB, identifying the filing as “Failure to provide annual financial information as required” when filing pursuant to Section 2(b)(ii) or Section 2(c) of this Disclosure Agreement;
- (vi) upon receipt, promptly file the text of each Voluntary Event Disclosure received under Section 7(a) with the MSRB, identifying the Voluntary Event Disclosure as instructed by the Obligated Person pursuant to Section 7(a) (being any of the categories set forth below) when filing pursuant to Section 7(a) of this Disclosure Agreement:
  - 1. “amendment to continuing disclosure undertaking;”
  - 2. “change in obligated person;”
  - 3. “notice to investors pursuant to bond documents;”
  - 4. “certain communications from the Internal Revenue Service;”
  - 5. “secondary market purchases;”
  - 6. “bid for auction rate or other securities;”
  - 7. “capital or other financing plan;”
  - 8. “litigation/enforcement action;”
  - 9. “change of tender agent, remarketing agent, or other on-going party;”
  - 10. “derivative or other similar transaction;” and
  - 11. “other event-based disclosures;”
- (vii) upon receipt, promptly file the text of each Voluntary Financial Disclosure received under Section 7(b) with the MSRB, identifying the Voluntary Financial Disclosure as instructed by the Obligated Person pursuant to Section 7(b) (being any of the categories set forth below) when filing pursuant to Section 7(b) of this Disclosure Agreement:
  - 1. “quarterly/monthly financial information;”
  - 2. “change in fiscal year/timing of annual disclosure;”

3. “change in accounting standard;”
4. “interim/additional financial information/operating data;”
5. “budget;”
6. “investment/debt/financial policy;”
7. “information provided to rating agency, credit/liquidity provider or other third party;”
8. “consultant reports;” and
9. “other financial/operating data;”

(viii) provide the Obligated Person evidence of the filings of each of the above when made, which shall be by means of the DAC system, for so long as DAC is the Disclosure Dissemination Agent under this Disclosure Agreement.

(f) The Obligated Person may adjust the Annual Filing Date upon change of its fiscal year by providing written notice of such change and the new Annual Filing Date to the Disclosure Dissemination Agent, the Trustee and the MSRB, provided that the period between the existing Annual Filing Date and new Annual Filing Date shall not exceed one year.

(g) If Audited Financial Statements are not available on the Filing Date, the Obligated Person shall be in compliance under this agreement if unaudited financial statements are filed on the Annual Filing Date along with a certificate of the Obligated Person stating when the Audited Financial Statements are expected to become available and agreeing to file Audited Financial Statements as soon as they become available in accordance with Section 2(d) above. In such case the Dissemination Agent shall not file the notices described in Section 2(c) above and the Obligated Person shall instruct the Dissemination Agent not to file such notices.

(h) Any Information received by the Disclosure Dissemination Agent before 6:00 p.m. Eastern time on any business day that it is required to file with the MSRB pursuant to the terms of this Disclosure Agreement and that is accompanied by a Certification and all other information required by the terms of this Disclosure Agreement will be filed by the Disclosure Dissemination Agent with the MSRB no later than 11:59 p.m. Eastern time on the same business day; provided, however, the Disclosure Dissemination Agent shall have no liability for any delay in filing with the MSRB if such delay is caused by a Force Majeure Event provided that the Disclosure Dissemination Agent uses reasonable efforts to make any such filing as soon as possible.

### SECTION 3. Content of Annual Reports.

Each Annual Report shall contain:

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(a) Annual Financial Information with respect to the Obligated Person which shall include operating data and financial information of the type included in the Official Statement for the Bonds as described in “PART 4-THE UNIVERSITY” under the headings “OPERATING INFORMATION” and “ANNUAL FINANCIAL STATEMENT INFORMATION” relating to: (1) *student enrollment*, similar to that set forth under the heading “ENROLLMENT HEADCOUNT SUMMARY;” (2) *student admissions*, similar to that set forth under the heading “UNDERGRADUATE ADMISSIONS STATISTICS;” (3) *tuition and other student charges*, similar to that set forth under the heading “UNDERGRADUATE STUDENT CHARGES;” (4) *financial aid*, similar to that set forth under the heading “COLUMBIA UNIVERSITY FINANCIAL AID GRANTS;” (5) *faculty*, similar to that set forth under the heading “FACULTY PROFILE;” (6) *University finances*, unless such information is included in the Audited Financial Statements, (7) *gifts and investments*, unless such information is included in the Audited Financial Statements, (8) *government contracts and grants*, unless such information is included in the Audited Financial Statements, and (9) *outstanding indebtedness*, unless such information is included in the Audited Financial Statements, together with a narrative explanation as may be necessary to avoid misunderstanding regarding the presentation of such Annual Financial Information concerning the Obligated Person; and

(b) Audited Financial Statements prepared in accordance with generally accepted accounting principles (“GAAP”) or alternate accounting principles as described in the Official Statement will be included in the Annual Report. If Audited Financial Statements are not available, the Obligated Person shall be in compliance under this Disclosure Agreement if unaudited financial statements, prepared in accordance with GAAP or alternate accounting principles as described in the Official Statement, are included in the Annual Report. Audited Financial Statements (if any) will be provided pursuant to Section 2(d).

Any or all of the items listed above may be included by specific reference from other documents, including official statements of debt issues with respect to which the Obligated Person is an “obligated person” (as defined by the Rule), which have been previously filed the Securities and Exchange Commission or available from the MSRB Internet Website. If the document incorporated by reference is a Final Official Statement, it must be available from the MSRB. The Obligated Person will clearly identify each such document so incorporated by reference.

Any Annual Financial Information containing modified operating data or financial information shall include an explanation, in narrative form, of such modifications.

### SECTION 4. Reporting of Notice Events.

(a) The occurrence of any of the following events with respect to the Bonds constitutes a Notice Event:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults, if material;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;

4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers, or their failure to perform;
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices and determinations with respect to the tax status of the securities or other material events affecting the tax status of the securities;
7. Modifications to rights of the security holders, if material;
8. Bond calls, if material;
9. Defeasances;
10. Release, substitution, or sale of property securing repayment of the Bonds, if material;
11. Rating changes;
12. Tender offers;
13. Bankruptcy, insolvency, receivership or similar event of the Obligated Person;

**Note to subsection (a)(13) of this Section 4:** For the purposes of the event described in subsection (a)(13) of this Section 4, the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an Obligated Person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the Obligated Person, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the Obligated Person.

14. The consummation of a merger, consolidation or acquisition involving the 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; and
15. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

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The Obligated Person shall, in a timely manner not in excess of ten business days after its occurrence, notify the Trustee and the Disclosure Dissemination Agent in writing upon the occurrence of a Notice Event. Upon actual knowledge of the occurrence of a Notice Event, the Trustee shall promptly notify the Obligated Person and also shall notify the Disclosure Dissemination Agent in writing of the occurrence of such Notice Event. Each such notice shall instruct the Disclosure Dissemination Agent to report the occurrence pursuant to subsection (c) and shall be accompanied by a Certification. Such notice or Certification shall identify the Notice Event that has occurred (which shall be any of the categories set forth in Section 2(e)(iv) of this Disclosure Agreement), include the desired text of the disclosure, the written authorization for the Disclosure Dissemination Agent to disseminate such information, and identify the desired date for the Disclosure Dissemination Agent to disseminate the information (provided that such date is not later than the tenth business day after the occurrence of the Notice Event).

(b) The Disclosure Dissemination Agent is under no obligation to notify the Obligated Person or the Disclosure Representative of an event that may constitute a Notice Event. In the event the Disclosure Dissemination Agent so notifies the Obligated Person or the Disclosure Representative, such notified party will within two business days of receipt of such notice (but in any event not later than the tenth business day after the occurrence of the Notice Event, if the Obligated Person determines that a Notice Event has occurred), instruct the Disclosure Dissemination Agent that (i) a Notice Event has not occurred and no filing is to be made or (ii) a Notice Event has occurred and the Disclosure Dissemination Agent is to report the occurrence pursuant to subsection (c) of this Section 4, together with a Certification. Such Certification shall identify the Notice Event that has occurred (which shall be any of the categories set forth in Section 2(e)(iv) of this Disclosure Agreement), include the text of the disclosure that the Obligated Person desires to make, contain the written authorization of the Obligated Person for the Disclosure Dissemination Agent to disseminate such information, and identify the date the Obligated Person desires for the Disclosure Dissemination Agent to disseminate the information (provided that such date is not later than the tenth business day after the occurrence of the Notice Event).

(c) If the Disclosure Dissemination Agent has been instructed as prescribed in subsection (a) or as prescribed in subsection (b) of this Section 4 to report the occurrence of a Notice Event, the Disclosure Dissemination Agent shall promptly file a notice of such occurrence with MSRB, in accordance with Section 2(e)(iv) hereof. This notice will be filed with a cover sheet completed by the Disclosure Dissemination Agent in the form set forth in Exhibit C-1.

### SECTION 5. CUSIP Numbers.

Whenever providing information to the Disclosure Dissemination Agent, including but not limited to Annual Reports, documents incorporated by reference in the Annual Reports, Audited Financial Statements, Notice Event notices and Voluntary Event Disclosure, the Obligated Person shall indicate the full name of the Bonds and the 9-digit CUSIP numbers for the Bonds as to which the provided information relates.



SECTION 6. Additional Disclosure Obligations.

The Obligated Person acknowledges and understands that other state and federal laws, including but not limited to the United States Securities Act of 1933, as amended, and Rule 10b-5 promulgated under the United States Securities Exchange Act of 1934, as amended, may apply to the Obligated Person, and that the duties and responsibilities of the Disclosure Dissemination Agent under this Disclosure Agreement do not extend to providing legal advice regarding such laws. The Obligated Person acknowledges and understands that the duties of the Disclosure Dissemination Agent relate exclusively to execution of the mechanical tasks of disseminating information as described in this Disclosure Agreement.

SECTION 7. Voluntary Filing.

(a) The Obligated Person may instruct the Disclosure Dissemination Agent to file Voluntary Event Disclosure with the MSRB from time to time pursuant to a Certification of the Disclosure Representative. Such Certification shall identify the Voluntary Event Disclosure (which shall be any of the categories set forth in Section 2(e)(vi) of this Disclosure Agreement), include the text of the disclosure that the Obligated Person desires to make, and identify the date the Obligated Person desires for the Disclosure Dissemination Agent to disseminate the information. This notice will be filed with a cover sheet completed by the Disclosure Dissemination Agent in the form set forth in Exhibit C-2.

(b) The Obligated Person may instruct the Disclosure Dissemination Agent to file Voluntary Financial Disclosure with the MSRB from time to time pursuant to a Certification of the Disclosure Representative. Such Certification shall identify the Voluntary Financial Disclosure (which shall be any of the categories set forth in Section 2(e)(vii) of this Disclosure Agreement), include the desired text of the disclosure, contain the written authorization for the Disclosure Dissemination Agent to disseminate such information, if applicable, and identify the desired date for the Disclosure Dissemination Agent to disseminate the information. If the Disclosure Dissemination Agent has been instructed by the Obligated Person as prescribed in this Section 7(b) to file a Voluntary Financial Disclosure, the Disclosure Dissemination Agent shall promptly file such Voluntary Financial Disclosure with the MSRB in accordance with Section 2(e)(vii) hereof. This notice will be filed with a cover sheet completed by the Disclosure Dissemination Agent in the form set forth in Exhibit C-3.

(c) The parties hereto acknowledge that neither the Issuer nor the Obligated Person is obligated pursuant to the terms of this Disclosure Agreement to file any Voluntary Event Disclosure pursuant to Section 7(a) hereof or to file any Voluntary Financial Disclosure pursuant to Section 7(b) hereof.

(d) Nothing in this Disclosure Agreement shall be deemed to prevent the Obligated Person from disseminating any other information through the Disclosure Dissemination Agent using the means of dissemination set forth in this Section 7, or including any other information in any Annual Report, Failure to File Event notice or Notice Event notice in addition to that which is specifically required by this Disclosure Agreement. If the Obligated Person chooses to include any information in any Annual Report, Failure to File Event notice or Notice Event notice in addition to that which is specifically required by this Disclosure Agreement or to file Voluntary

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Event Disclosure or Voluntary Financial Disclosure, the Obligated Person shall have no obligation under this Disclosure Agreement to update such information or include it in any future Annual Report, Voluntary Financial Disclosure, Voluntary Event Disclosure, Failure to File Event Notice or Notice Event notice.

### SECTION 8. Termination of Reporting Obligation.

The obligations of the Obligated Person and the Disclosure Dissemination Agent under this Disclosure Agreement shall terminate with respect to the Bonds upon the legal defeasance, prior redemption or payment in full of all of the Bonds, when the Obligated Person is no longer an Obligated Person with respect to the Bonds, or upon delivery by the Disclosure Representative to the Disclosure Dissemination Agent of an opinion of nationally recognized bond counsel to the effect that continuing disclosure is no longer required.

### SECTION 9. Disclosure Dissemination Agent.

The Obligated Person hereby appoints DAC as exclusive Disclosure Dissemination Agent under this Disclosure Agreement. The Obligated Person may, upon thirty days written notice to the Disclosure Dissemination Agent and the Trustee, replace or appoint a successor Disclosure Dissemination Agent. Upon termination of DAC's services as Disclosure Dissemination Agent, whether by notice of the Obligated Person or DAC, the Obligated Person agrees to appoint a successor Disclosure Dissemination Agent or, alternatively, agrees to assume all responsibilities of the Disclosure Dissemination Agent under this Disclosure Agreement for the benefit of the Holders of the Bonds. Notwithstanding any replacement or appointment of a successor, the Obligated Person shall remain liable until payment in full for any and all sums owed and payable to the Disclosure Dissemination Agent. The Disclosure Dissemination Agent may resign at any time by providing thirty days' prior written notice to the Obligated Person.

### SECTION 10. Remedies in Event of Default.

In the event of a failure of the Obligated Person or the Disclosure Dissemination Agent to comply with any provision of this Disclosure Agreement, the Holders' rights to enforce the provisions of this Disclosure Agreement shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of the parties' obligation under this Disclosure Agreement. Any failure by a party to perform in accordance with this Disclosure Agreement shall not constitute a default on the Bonds or under any other document relating to the Bonds, and all rights and remedies shall be limited to those expressly stated herein.

### SECTION 11. Duties, Immunities and Liabilities of Disclosure Dissemination Agent.

(a) The Disclosure Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Agreement. The Disclosure Dissemination Agent's obligation to deliver the information at the times and with the contents described herein shall be limited to the extent the Obligated Person has provided such information to the Disclosure Dissemination Agent as provided in this Disclosure Agreement. The Disclosure Dissemination Agent shall have no duty with respect to the content of any disclosures or notice made pursuant to the terms hereof. The Disclosure Dissemination Agent shall have no duty or obligation to review or verify any

Information, or any other information, disclosures or notices provided to it by the Obligated Person and shall not be deemed to be acting in any fiduciary capacity for the Issuer, the Obligated Person, the Holders of the Bonds or any other party. The Disclosure Dissemination Agent shall have no responsibility for the Obligated Person's failure to report to the Disclosure Dissemination Agent a Notice Event or a duty to determine the materiality thereof. The Disclosure Dissemination Agent shall have no duty to determine or liability for failing to determine whether the Obligated Person has complied with this Disclosure Agreement. The Disclosure Dissemination Agent may conclusively rely upon certifications of the Obligated Person at all times.

THE OBLIGATED PERSON AGREES TO INDEMNIFY AND SAVE THE DISCLOSURE DISSEMINATION AGENT, THE ISSUER AND THE TRUSTEE AND THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS, HARMLESS AGAINST ANY LOSS, EXPENSE AND LIABILITY WHICH THEY MAY INCUR ARISING OUT OF OR IN THE EXERCISE OR PERFORMANCE OF THEIR POWERS AND DUTIES HEREUNDER, INCLUDING THE COSTS AND EXPENSES (INCLUDING ATTORNEYS FEES) OF DEFENDING AGAINST ANY CLAIM OF LIABILITY, BUT EXCLUDING LOSSES, EXPENSES AND LIABILITIES DUE TO THE DISCLOSURE DISSEMINATION AGENT'S GROSS NEGLIGENCE OR WILLFUL MISCONDUCT AND THE TRUSTEE'S (AND ITS OFFICERS, DIRECTORS, EMPLOYEES AND AGENTS') NEGLIGENCE OR WILLFUL MISCONDUCT.

The obligations of the Obligated Person under this Section shall survive resignation or removal of the Disclosure Dissemination Agent and defeasance, redemption or payment of the Bonds.

(b) The Disclosure Dissemination Agent may, from time to time, consult with legal counsel (either in-house or external) of its own choosing in the event of any disagreement or controversy, or question or doubt as to the construction of any of the provisions hereof or its respective duties hereunder, and it shall not incur any liability and shall be fully protected in acting in good faith upon the advice of such legal counsel. The fees and expenses of such counsel shall be payable by the Obligated Person.

(c) All documents, reports, notices, statements, information and other materials provided to the MSRB under this Disclosure Agreement shall be provided in an electronic format through the EMMA System and accompanied by identifying information as prescribed by the MSRB.

#### SECTION 12. No Issuer or Trustee Responsibility.

The Obligated Person and the Disclosure Dissemination Agent acknowledge that neither the Issuer nor the Trustee have undertaken any responsibility, and shall not be required to undertake any responsibility, with respect to any reports, notices or disclosures required by or provided pursuant to this Disclosure Agreement other than those notices required under Section 4 hereof, and shall have no liability to any person, including any Holder of the Bonds, with respect to any such reports, notices or disclosures other than those notices required under Section 4 hereof. DASNY (as conduit issuer) is not, for purposes of and within the meaning of the Rule, (i) committed by contract or other arrangement to support payment of all, or part of, the

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obligations on the Bonds, or (ii) a person for whom annual financial information and notices of material events will be provided. The Trustee shall be indemnified and held harmless in connection with this Disclosure Agreement to the same extent provided in the Resolution for matters arising thereunder.

### SECTION 13. Amendment; Waiver.

Notwithstanding any other provision of this Disclosure Agreement, the Obligated Person, the Trustee and the Disclosure Dissemination Agent may amend this Disclosure Agreement and any provision of this Disclosure Agreement may be waived, if such amendment or waiver is supported by an opinion of counsel expert in federal securities laws acceptable to each of the Obligated Person, the Trustee and the Disclosure Dissemination Agent to the effect that such amendment or waiver does not materially impair the interests of Holders of the Bonds and would not, in and of itself, cause the undertakings herein to violate the Rule if such amendment or waiver had been effective on the date hereof but taking into account any subsequent change in or official interpretation of the Rule; provided none of the Obligated Person, the Trustee or the Disclosure Dissemination Agent shall be obligated to agree to any amendment modifying their respective duties or obligations without their consent thereto.

Notwithstanding the preceding paragraph, the Obligated Person, the Trustee and the Disclosure Dissemination Agent shall have the right to amend this Disclosure Agreement for any of the following purposes:

(i) to comply with modifications to and interpretations of the provisions of the Rule as announced by the Securities and Exchange Commission from time to time;

(ii) to add or change a dissemination agent for the information required to be provided hereby and to make any necessary or desirable provisions with respect thereto;

(iii) to evidence the succession of another person to the Obligated Person or the Trustee and the assumption by any such successor of the covenants of the Obligated Person or the Trustee hereunder;

(iv) to add to the covenants of the Obligated Person or the Disclosure Dissemination Agent for the benefit of the Holders, or to surrender any right or power herein conferred upon the Obligated Person or the Disclosure Dissemination Agent;

(v) for any purpose for which, and subject to the conditions pursuant to which, amendments may be made under the Rule, as amended or modified from time to time, or any formal authoritative interpretations thereof by the Securities and Exchange Commission.

### SECTION 14. Beneficiaries.

This Disclosure Agreement shall inure solely to the benefit of the Obligated Person, the Trustee, the Disclosure Dissemination Agent, the underwriter, and the Holders from time to time of the Bonds, and shall create no rights in any other person or entity.

SECTION 15. Governing Law.

This Disclosure Agreement shall be governed by the laws of the State of New York (without regard to its conflicts of laws provisions).

SECTION 16. Counterparts.

This Disclosure Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

[remainder of page intentionally left blank]

*Appendix E*

The Disclosure Dissemination Agent, the Trustee and the Obligated Person have caused this Disclosure Agreement to be executed, on the date first written above, by their respective officers duly authorized.

**DIGITAL ASSURANCE CERTIFICATION,  
L.L.C.,**  
as Disclosure Dissemination Agent

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**THE TRUSTEES OF COLUMBIA  
UNIVERSITY IN THE CITY OF NEW YORK,**  
Obligated Person

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**MANUFACTURERS AND TRADERS TRUST  
COMPANY,**  
as Trustee

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**EXHIBIT A**

**NAME AND CUSIP NUMBERS OF BONDS**

Name of Issuer: Dormitory Authority of the State of New York  
Obligated Person(s): The Trustees of Columbia University in the City of New York  
Name of Bond Issue: Columbia University Revenue Bonds, Series 2018A and Series 2018B  
Date of Issuance: [ ], 2018  
Date of Official Statement: [ ], 2018

Maturity

CUSIP No.

**EXHIBIT B**

**NOTICE TO MSRB OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: Dormitory Authority of the State of New York  
Obligated Person(s): The Trustees of Columbia University in the City of New York  
Name of Bond Issue: Columbia University Revenue Bonds, Series 2018A and Series 2018B  
Date of Issuance: [ ], 2018  
CUSIP Numbers:

NOTICE IS HEREBY GIVEN that the Obligated Person has not provided an Annual Report with respect to the above-named Bonds as required by the Agreement to Provide Continuing Disclosure, dated as of [ ], 2018, by and among the Obligated Person, Manufacturers and Traders Trust Company, as Trustee and Digital Assurance Certification, L.L.C., as Disclosure Dissemination Agent. The Obligated Person has notified the Disclosure Dissemination Agent that it anticipates that the Annual Report will be filed by \_\_\_\_\_.

Dated: \_\_\_\_\_

Digital Assurance Certification, L.L.C., as  
Disclosure Dissemination Agent, on behalf of the  
Obligated Person

---

cc: Obligated Person



**EXHIBIT C-1  
EVENT NOTICE COVER SHEET**

This cover sheet and accompanying "event notice" will be sent to the MSRB, pursuant to Securities and Exchange Commission Rule 15c2-12(b)(5)(i)(C) and (D).

Issuer's and Obligated Person's Names:

\_\_\_\_\_

Six-Digit CUSIP Number:

\_\_\_\_\_

or Nine-Digit CUSIP Number(s) of the bonds to which this event notice relates:

Number of pages attached: \_\_\_\_\_

Description of Notice Events (Check One):

- 1. \_\_\_\_\_ "Principal and interest payment delinquencies;"
- 2. \_\_\_\_\_ "Non-Payment related defaults, if material;"
- 3. \_\_\_\_\_ "Unscheduled draws on debt service reserves reflecting financial difficulties;"
- 4. \_\_\_\_\_ "Unscheduled draws on credit enhancements reflecting financial difficulties;"
- 5. \_\_\_\_\_ "Substitution of credit or liquidity providers, or their failure to perform;"
- 6. \_\_\_\_\_ "Adverse tax opinions, IRS notices or events affecting the tax status of the security;"
- 7. \_\_\_\_\_ "Modifications to rights of securities holders, if material;"
- 8. \_\_\_\_\_ "Bond calls, if material;"
- 9. \_\_\_\_\_ "Defeasances;"
- 10. \_\_\_\_\_ "Release, substitution, or sale of property securing repayment of the securities, if material;"
- 11. \_\_\_\_\_ "Rating changes;"
- 12. \_\_\_\_\_ "Tender offers;"
- 13. \_\_\_\_\_ "Bankruptcy, insolvency, receivership or similar event of the obligated person;"
- 14. \_\_\_\_\_ "Merger, consolidation, or acquisition of the obligated person, if material;" and
- 15. \_\_\_\_\_ "Appointment of a successor or additional trustee, or the change of name of a trustee, if material."

\_\_\_\_\_ Failure to provide annual financial information as required.

I hereby represent that I am authorized by the obligated person or its agent to distribute this information publicly:

Signature:

\_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Digital Assurance Certification, L.L.C.  
390 N. Orange Avenue  
Suite 1750  
Orlando, FL 32801  
407-515-1100

Date:

**EXHIBIT C-2  
VOLUNTARY EVENT DISCLOSURE COVER SHEET**

This cover sheet and accompanying “voluntary event disclosure” will be sent to the MSRB, pursuant to the Continuing Disclosure Agreement dated as of \_\_\_\_\_ by and among the Obligated Person, the Trustee and DAC.

Issuer’s and Obligated Person’s Names:

\_\_\_\_\_

Six-Digit CUSIP Number:

\_\_\_\_\_

\_\_\_\_\_

or Nine-Digit CUSIP Number(s) of the bonds to which this notice relates:

\_\_\_\_\_

Number of pages attached: \_\_\_\_\_

Description of Voluntary Event Disclosure (Check One):

1. \_\_\_\_\_ “amendment to continuing disclosure undertaking;”
2. \_\_\_\_\_ “change in obligated person;”
3. \_\_\_\_\_ “notice to investors pursuant to bond documents;”
4. \_\_\_\_\_ “certain communications from the Internal Revenue Service;”
5. \_\_\_\_\_ “secondary market purchases;”
6. \_\_\_\_\_ “bid for auction rate or other securities;”
7. \_\_\_\_\_ “capital or other financing plan;”
8. \_\_\_\_\_ “litigation/enforcement action;”
9. \_\_\_\_\_ “change of tender agent, remarketing agent, or other on-going party;”
10. \_\_\_\_\_ “derivative or other similar transaction;” and
11. \_\_\_\_\_ “other event-based disclosures.”

I hereby represent that I am authorized by the obligated person or its agent to distribute this information publicly:

Signature:

\_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Digital Assurance Certification, L.L.C.  
390 N. Orange Avenue  
Suite 1750  
Orlando, FL 32801  
407-515-1100

Date:

**EXHIBIT C-3  
VOLUNTARY FINANCIAL DISCLOSURE COVER SHEET**

This cover sheet and accompanying “voluntary financial disclosure” will be sent to the MSRB, pursuant to the Continuing Disclosure Agreement dated as of \_\_\_\_\_ by and among the the Obligated Person, the Trustee and DAC.

Issuer’s and Obligated Person’s Names:

\_\_\_\_\_

Six-Digit CUSIP Number:

\_\_\_\_\_

\_\_\_\_\_

or Nine-Digit CUSIP Number(s) of the bonds to which this notice relates:

\_\_\_\_\_

Number of pages attached: \_\_\_\_\_

Description of Voluntary Financial Disclosure (Check One):

1. \_\_\_\_\_ “quarterly/monthly financial information;”
2. \_\_\_\_\_ “change in fiscal year/timing of annual disclosure;”
3. \_\_\_\_\_ “change in accounting standard;”
4. \_\_\_\_\_ “interim/additional financial information/operating data;”
5. \_\_\_\_\_ “budget;”
6. \_\_\_\_\_ “investment/debt/financial policy;”
7. \_\_\_\_\_ “information provided to rating agency, credit/liquidity provider or other third party;”
8. \_\_\_\_\_ “consultant reports;” and
9. \_\_\_\_\_ “other financial/operating data.”

I hereby represent that I am authorized by the obligated person or its agent to distribute this information publicly:

Signature:

\_\_\_\_\_

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Digital Assurance Certification, L.L.C.  
390 N. Orange Avenue  
Suite 1750  
Orlando, FL 32801  
407-515-1100

Date:

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**FORM OF APPROVING OPINIONS  
OF CO-BOND COUNSEL**

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**FORM OF APPROVING OPINIONS OF CO-BOND COUNSEL  
RELATING TO THE SERIES 2018 BONDS**

[Date of Issuance]

Dormitory Authority of the  
State of New York  
515 Broadway  
Albany, New York 12207

Ladies and Gentlemen:

We have examined a record of proceedings relating to the issuance of \$325,185,000 aggregate principal amount of Columbia University Revenue Bonds, Series 2018, consisting of \$150,000,000 aggregate principal amount of Columbia University Revenue Bonds, Series 2018A (the “Series 2018A Bonds”) and \$175,185,000 aggregate principal amount of Columbia University Revenue Bonds, Series 2018B Bonds (the “Series 2018B Bonds”), and together with the Series 2018A Bonds, the “Series 2018 Bonds”), by the Dormitory Authority of the State of New York (the “Authority”), a body corporate and politic constituting a public benefit corporation of the State of New York, created and existing under and pursuant to the Constitution and statutes of the State of New York, including the Dormitory Authority Act, being Title 4 of Article 8 of the Public Authorities Law of the State of New York, as amended to the date hereof, including, without limitation, by the Healthcare Financing Consolidation Act, being Title 4-B of the Public Authorities Law of the State of New York, as amended to the date hereof (the “Act”). We have also examined such certificates, documents, records and matters of law as we have deemed necessary for the purpose of rendering the opinions hereinafter set forth.

The Series 2018 Bonds are issued under and pursuant to the Act and the Columbia University Revenue Bond Resolution of the Authority, adopted September 27, 2000, as amended and supplemented to the date hereof (the “Resolution”), the Series 2018A Resolution Authorizing a Series of Columbia University Revenue Bonds, adopted April 11, 2018 (the “Series 2018A Resolution”), the Series 2018B Resolution Authorizing a Series of Columbia University Revenue Bonds, adopted April 11, 2018 (the “Series 2018B Resolution”, and together with the Series 2018A Resolution, the “Series Resolutions”), the Bond Series Certificate executed by the Authority in connection with the sale and issuance of the Series 2018A Bonds (the “Series 2018A Bond Series Certificate”) and the Bond Series Certificate executed by the Authority in connection with the sale and issuance of the Series 2018B Bonds (the “Series 2018B Bond Series Certificate” and, together with the Series 2018A Bond Series Certificate, the “Series 2018 Bond Series Certificates”). Said resolutions and the Series 2018 Bond Series Certificates are herein collectively called the “Resolutions.” Unless otherwise defined herein, capitalized terms used herein have the respective meanings given to them in the Resolutions.

The Series 2018 Bonds are part of an issue of bonds of the Authority (the “Bonds”) which the Authority has established and created under the terms of the Resolution and is authorized to issue from time to time for the purposes authorized by the Act and the Resolution, as then in effect, and without limitation as to amount, except as provided in the Resolutions or as may be limited by law. The Series 2018 Bonds are being issued for the purposes set forth in the Resolutions.

The Authority is authorized to issue Bonds, in addition to the Series 2018 Bonds, only upon the terms and conditions set forth in the Resolution and such Bonds, when issued, will with the Series 2018 Bonds be entitled to the equal benefit, protection and security of the provisions, covenants and agreements of the Resolution.

The Series 2018 Bonds are issuable in the form of fully registered Bonds in the denomination of \$5,000 or integral multiples thereof. The Series 2018 Bonds are each numbered consecutively from one upward in order of issuance.

## Appendix F

The Series 2018 Bonds are dated the date hereof and mature on October 1 and bear interest, payable October 1, 2018 and semiannually thereafter on April 1 and October 1 of the years and at the respective principal amounts and rates per annum set forth below.

### \$150,000,000 Series 2018A

| <b>Maturing<br/>October 1</b> | <b>Principal<br/>Amount</b> | <b>Interest<br/>Rate</b> |
|-------------------------------|-----------------------------|--------------------------|
| 2028                          | \$ 50,000,000               | 5.00%                    |
| 2048                          | 100,000,000                 | 5.00                     |

### \$175,185,000 Series 2018B

| <b>Maturing<br/>October 1</b> | <b>Principal<br/>Amount</b> | <b>Interest<br/>Rate</b> |
|-------------------------------|-----------------------------|--------------------------|
| 2038                          | \$175,185,000               | 5.00%                    |

The Series 2018 Bonds are subject to redemption and purchase in lieu of optional redemption prior to maturity as provided in the Resolutions.

The Series 2018 Bonds are being issued to finance a loan by the Authority to the Trustees of Columbia University in The City of New York (the "University"). The Authority and the University have entered into an Amended and Restated Loan Agreement, dated as of September 27, 2000, as amended and restated as of September 1, 2011 (the "Loan Agreement"), by which the University is required to make payments sufficient to pay, when due, the principal and Redemption Price of and interest on the Outstanding Bonds, including the Series 2018 Bonds as well as a part of the Authority's annual administrative expenditures and costs. All amounts payable under the Loan Agreement for payment of the principal or Redemption Price of or interest on the Bonds are required to be paid to the Trustee under the Resolution and have been pledged by the Authority for the benefit of the Holders of the Bonds, including the Series 2018 Bonds.

We are of the opinion that:

1. The Authority is a body corporate and politic constituting a public benefit corporation of the State of New York, with the right and lawful authority and power to adopt the Resolutions and to issue the Series 2018 Bonds thereunder.

2. The Series Resolutions have been duly adopted by the Authority in accordance with the provisions of the Resolution and are authorized and permitted by the Resolution. The Resolutions have been duly and lawfully adopted by the Authority, are in full force and effect and are legal, valid and binding obligations of the Authority enforceable in accordance with their respective terms.

3. The Series 2018 Bonds have been duly and validly authorized and issued in accordance with the Constitution and statutes of the State of New York, including the Act, and in accordance with the Resolutions. The Series 2018 Bonds are legal, valid and binding special obligations of the Authority payable as provided in the Resolutions, are enforceable in accordance with their terms and the terms of the Resolutions and are entitled, together with all other Bonds issued under the Resolutions, to the equal benefits of the Resolutions and the Act.

4. The Authority has the right and lawful authority and power to enter into the Loan Agreement and the Loan Agreement has been duly authorized, executed and delivered by the Authority and constitutes a legal, valid and binding obligation of the Authority enforceable in accordance with its terms.

5.\* The Internal Revenue Code of 1986, as amended (the "Code") sets forth certain requirements that must be met subsequent to the issuance and delivery of the Series 2018 Bonds for interest thereon to be and remain excluded from gross income for federal income tax purposes. Noncompliance with such requirements could cause

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\* This opinion to be given by Nixon Peabody LLP only.



the interest on the Series 2018 Bonds to be included in gross income for federal income tax purposes retroactive to the date of issue of the Series 2018 Bonds. The Authority has covenanted in the Series Resolutions and the Tax Certificate as to Arbitrage and the Provisions of Sections 141-150 of the Internal Revenue Code (the "Tax Certificate") and the University has covenanted in the Loan Agreement and the Tax Certificate to comply with the applicable requirements of the Code in order to maintain the exclusion of the interest on the Series 2018 Bonds from gross income for federal income tax purposes pursuant to Section 103 of the Code. In addition, the Authority and the University have made certain representations and certifications in the Tax Certificate. We have also relied on the opinion of counsel to the University as to all matters concerning the status of the University as an organization described in Section 501(c)(3) of the Code and exempt from federal income tax under Section 501(a) of the Code. We have not independently verified the accuracy of those certifications and representations or that opinion.

Under existing law and assuming compliance with the tax covenants described herein, and the accuracy of the aforementioned representations and certifications, interest on the Series 2018 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. We are also of the opinion that such interest is not treated as a preference item in calculating the alternative minimum tax imposed under the Code.

6. Interest on the Series 2018 Bonds is exempt, by virtue of the Act, from personal income taxes of the State of New York and its political subdivisions, including The City of New York and the City of Yonkers.

Except as stated in paragraphs 5 and 6 above, we express no opinion as to any other federal, state or local tax consequences of the ownership or disposition of the Series 2018 Bonds. Furthermore, we express no opinion as to any federal, state or local tax law consequences with respect to the Series 2018 Bonds, or the interest thereon, if any action is taken with respect to the Series 2018 Bonds or the proceeds thereof upon the advice or approval of other counsel.

We have examined an executed Series 2018 Bond and, in our opinion, the form of said Bond and its execution are regular and proper.

The opinions contained in paragraphs 2, 3 and 4 above are qualified to the extent that the enforceability of the Resolutions, the Loan Agreement and the Series 2018 Bonds may be limited by bankruptcy, insolvency, moratorium, reorganization or other laws affecting creditors' rights generally or as to the availability of any particular remedy.

In connection with the delivery of this opinion, we are not passing upon the authorization, execution and delivery of the Loan Agreement by the University. We have assumed the due authorization, execution and delivery of the Loan Agreement by the University.

Very truly yours,

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