

Subject to compliance by the Board with certain covenants, in the opinion of Katten Muchin Rosenman LLP, Bond Counsel, under present law, interest on the Tax-Exempt Bonds (as defined herein) is excludable from gross income of the owners thereof for federal income tax purposes and is not included as an item of tax preference in computing the federal alternative minimum tax for individuals and corporations, but such interest is taken into account in computing an adjustment used in determining the federal alternative minimum tax for certain corporations. Interest on the Taxable Bonds (as defined herein) will be includible in gross income for federal income tax purposes. Interest on the Series 2017 Bonds is exempt from all taxation by the State of Hawaii or any county or other political subdivision thereof, except inheritance, transfer, estate and certain franchise taxes. See "TAX MATTERS" in this Official Statement.

\$110,795,000

UNIVERSITY
of HAWAII
SYSTEM

**BOARD OF REGENTS OF THE UNIVERSITY OF HAWAII,
University Revenue Bonds
consisting of**

**\$3,990,000
Series 2017A**

**\$12,040,000
Series 2017B
(Refunding)**

**\$4,110,000
Series 2017C
(Taxable Refunding)**

**\$13,185,000
Series 2017D
(Refunding)**

**\$4,450,000
Series 2017E
(Taxable Refunding)**

**\$52,275,000
Series 2017F
(Refunding)**

**\$20,745,000
Series 2017G
(Taxable Refunding)**

Dated: Date of Delivery**Due: As shown on the inside cover**

This Official Statement relates to the issuance and sale by the Board of Regents of the University of Hawaii (the "Board") of its University Revenue Bonds, Series 2017A (the "Series 2017A Bonds"), University Revenue Bonds, Series 2017B (Refunding) (the "Series 2017B Bonds"), University Revenue Bonds, Series 2017C (Taxable Refunding) (the "Series 2017C Bonds"), University Revenue Bonds, Series 2017D (Refunding) (the "Series 2017D Bonds"), University Revenue Bonds, Series 2017E (Taxable Refunding) (the "Series 2017E Bonds"), University Revenue Bonds, Series 2017F (Refunding) (the "Series 2017F Bonds") and University Revenue Bonds, Series 2017G (Taxable Refunding) (the "Series 2017G Bonds," and, together with the Series 2017A Bonds, the Series 2017B Bonds, the Series 2017C Bonds, the Series 2017D Bonds, the Series 2017E Bonds and the Series 2017F Bonds, the "Series 2017 Bonds"). The Series 2017A Bonds, the Series 2017B Bonds, the Series 2017D Bonds and the Series 2017F Bonds are referred to as the "Tax-Exempt Bonds." The Series 2017C Bonds, the Series 2017E Bonds and the Series 2017G Bonds are referred to as the "Taxable Bonds." The Series 2017 Bonds are being issued in the aggregate principal amount of \$110,795,000 to provide funds to (i) renovate the Gregg M. Sinclair Library basement (the "Project"), (ii) refund all of the Board's University Bonds, Refunding Series 2006A and University Revenue Bonds, Series 2006A and a portion of the Board's University Revenue Bonds, Series 2009A (collectively, the "Refunded Bonds") and (iii) pay costs relating to the issuance of the Series 2017 Bonds and the refunding of the Refunded Bonds, all as more fully described herein.

The Series 2017 Bonds are authorized to be issued under a resolution of the Board adopted on November 16, 2001, as amended and supplemented by certain resolutions including a supplemental resolution of the Board adopted November 16, 2017 (collectively, the "Resolution"). The Series 2017 Bonds, together with certain outstanding parity bonds and additional parity bonds that may be issued in the future, are payable from and secured by certain amounts pledged under the Resolution. See "SECURITY FOR THE BONDS."

The Series 2017 Bonds are issuable only as fully registered bonds, without coupons, in the denomination of \$5,000 or integral multiples of \$5,000 and, when initially issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2017 Bonds. Purchases of beneficial ownership interests in the Series 2017 Bonds will be made in book-entry form only. Beneficial owners of the Series 2017 Bonds will not receive physical delivery of certificates evidencing their ownership interest in the Series 2017 Bonds so long as DTC or a successor securities depository acts as the securities depository with respect to the Series 2017 Bonds. So long as DTC or its nominee is the registered owner of the Series 2017 Bonds, payments of the principal of and interest on the Series 2017 Bonds will be made directly to DTC. Disbursement of such payments to DTC Participants is the responsibility of DTC and disbursement of such payments to the beneficial owners is the responsibility of DTC Participants. See "THE SERIES 2017 BONDS."

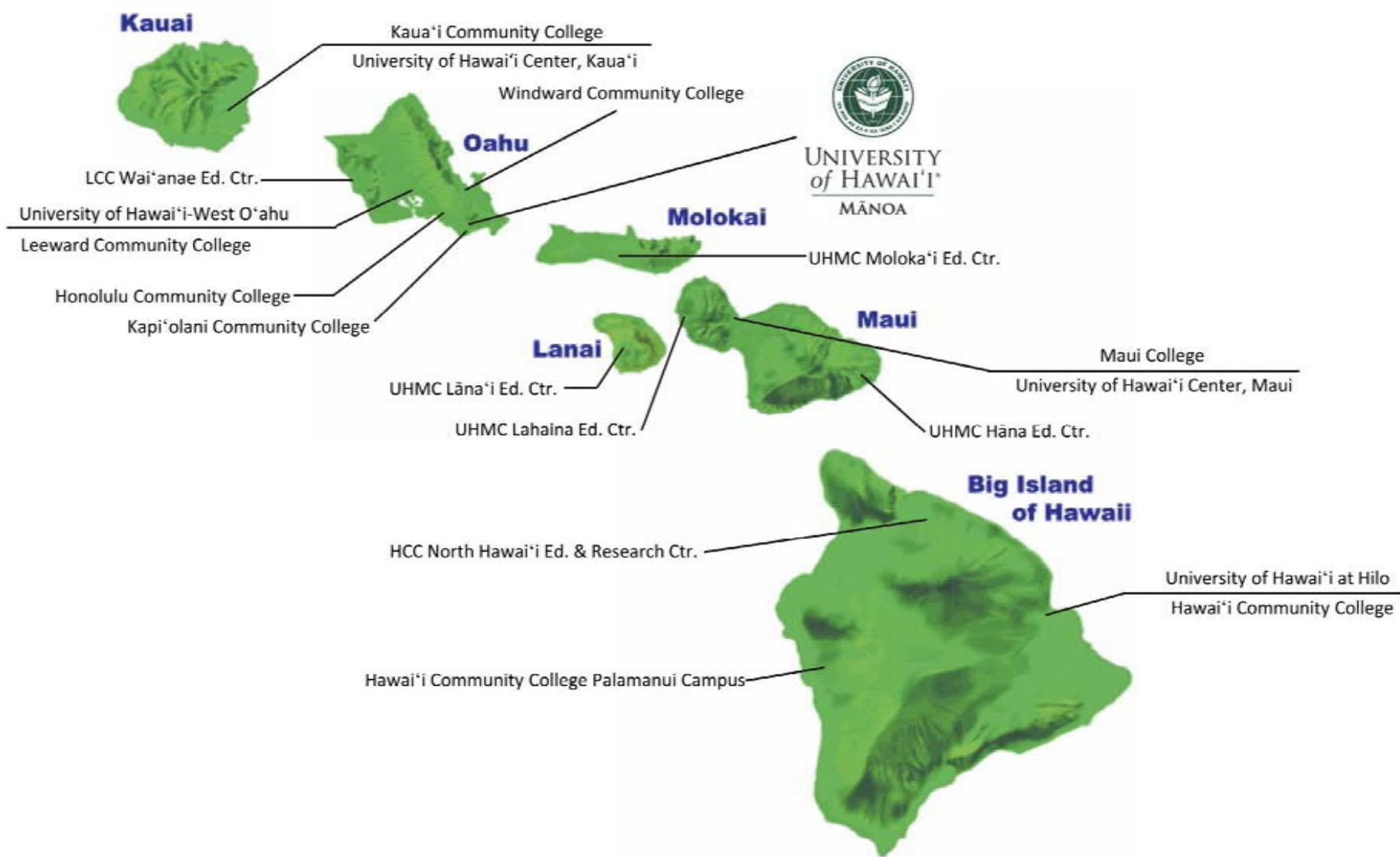
The Series 2017 Bonds will bear interest from the date thereof, payable on April 1 and October 1 of each year, commencing April 1, 2018, at the rates per annum, and will mature on October 1 of the years and in the principal amounts, as set forth on the inside cover. The Series 2017 Bonds are subject to redemption as described herein.

Neither the State of Hawaii (the "State") nor any department or political subdivision thereof, including the Board, is obligated to pay the Series 2017 Bonds from any source other than the moneys pledged under the Resolution. The Series 2017 Bonds are not a general or moral obligation or an indebtedness of the State within the meaning of any limitation of law or a charge upon the general fund of the State, nor is the full faith and credit of the State or any political subdivision thereof pledged to the payment of the principal of or interest on the Series 2017 Bonds. No holder of any Series 2017 Bond shall ever have the right to compel any exercise of the taxing power of the State or any political subdivision thereof for the payment of principal of or interest on the Series 2017 Bonds.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series 2017 Bonds are offered when, as and if issued by the Board and received by the Underwriters, subject to approval of legality by Katten Muchin Rosenman LLP, Bond Counsel to the Board, and subject to certain other conditions. Certain legal matters will be passed upon for the Underwriters by their counsel, Alston Hunt Floyd & Ing. It is expected that the Series 2017 Bonds will be available for delivery in New York, New York, on or about December 28, 2017.

Morgan Stanley**BofA Merrill Lynch**



MATURITY SCHEDULE

\$3,990,000

**Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017A**

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2018	\$200,000	2.000%	1.270%	100.548	JV9
2019	205,000	3.000%	1.530%	102.539	JW7
2020	210,000	5.000%	1.600%	109.136	JX5
2021	220,000	4.000%	1.690%	108.375	JY3
2022	230,000	5.000%	1.780%	114.625	JZ0
2023	245,000	5.000%	1.910%	116.771	KA3
2024	255,000	5.000%	2.030%	118.664	KB1
2025	265,000	2.000%	2.110%	99.215	KC9
2026	270,000	2.125%	2.220%	99.246	KD7
2027	280,000	4.000%	2.310%	114.686	KE5
2028	290,000	5.000%	2.420%	122.301 C	KF2
2029	305,000	5.000%	2.530%	121.236 C	KG0
2030	320,000	5.000%	2.610%	120.468 C	KH8
2031	340,000	5.000%	2.640%	120.181 C	KJ4
2032	355,000	5.000%	2.700%	119.611 C	KK1

\$12,040,000

**Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017B
(Refunding)**

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2027	\$5,930,000	3.000%	2.630%	103.163	KL9
2028	6,110,000	3.000%	2.830%	101.438 C	KM7

C Priced to October 1, 2027 first optional redemption date.

[†] CUSIP is a registered trademark of American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard and Poor's Financial Services LLC on behalf of the American Bankers Association. The CUSIP numbers are provided for convenience of reference only. The Board is not responsible for the selection of CUSIP numbers and makes no representation as to their correctness on the Series 2017 Bonds or as set forth in this Official Statement.

\$4,110,000
Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017C
(Taxable Refunding)

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2027	\$2,020,000	3.280%	3.280%	100.000	KN5
2028	2,090,000	3.380%	3.380%	100.000	KP0

\$13,185,000
Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017D
(Refunding)

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2027	\$3,150,000	3.000%	2.630%	103.163	KQ8
2028	3,250,000	3.000%	2.830%	101.438 C	KR6
2029	3,345,000	3.000%	3.000%	100.000	KS4
2030	3,440,000	3.000%	3.050%	99.471	KT2

\$4,450,000
Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017E
(Taxable Refunding)

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2027	\$1,060,000	3.280%	3.280%	100.000	KU9
2028	1,090,000	3.380%	3.380%	100.000	KV7
2029	1,130,000	3.540%	3.540%	100.000	KW5
2030	1,170,000	3.650%	3.650%	100.000	KX3

C Priced to October 1, 2027 first optional redemption date.

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\$52,275,000
Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017F
(Refunding)

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2020	\$2,180,000	5.000%	1.600%	109.136	KY1
2021	2,295,000	5.000%	1.690%	112.001	KZ8
2022	2,405,000	5.000%	1.780%	114.625	LA2
2023	2,535,000	5.000%	1.910%	116.771	LB0
2024	2,660,000	5.000%	2.030%	118.664	LC8
2025	2,795,000	5.000%	2.110%	120.579	LD6
2026	2,095,000	5.000%	2.220%	122.013	LE4
2027	2,200,000	5.000%	2.310%	123.377	LF1
2028	2,315,000	5.000%	2.420%	122.301 C	LG9
2029	2,435,000	5.000%	2.530%	121.236 C	LH7
2030	2,555,000	5.000%	2.610%	120.468 C	LJ3
2031	2,690,000	5.000%	2.640%	120.181 C	LK0
2032	2,825,000	5.000%	2.700%	119.611 C	LL8
2033	2,970,000	5.000%	2.750%	119.138 C	LM6
2034	3,125,000	5.000%	2.780%	118.855 C	LN4
2035	3,290,000	5.000%	2.830%	118.386 C	LP9
2036	3,455,000	5.000%	2.860%	118.105 C	LQ7
2037	3,635,000	5.000%	2.880%	117.918 C	LR5
2038	3,815,000	5.000%	2.900%	117.732 C	LS3

C Priced to October 1, 2027 first optional redemption date.

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\$20,745,000
Board of Regents of the University of Hawaii,
University Revenue Bonds,
Series 2017G
(Taxable Refunding)

Due (October 1)	Amount	Rate	Yield	Price	CUSIP[†] 91428L
2018	\$210,000	2.100%	2.100%	100.000	LT1
2019	215,000	2.200%	2.200%	100.000	LU8
2020	970,000	2.400%	2.400%	100.000	LV6
2021	995,000	2.550%	2.550%	100.000	LW4
2022	1,025,000	2.700%	2.700%	100.000	LX2
2023	1,045,000	2.800%	2.800%	100.000	LY0
2024	1,085,000	2.950%	2.950%	100.000	LZ7
2025	1,115,000	3.050%	3.050%	100.000	MA1
2026	865,000	3.150%	3.150%	100.000	MB9
2027	895,000	3.280%	3.280%	100.000	MC7
2028	925,000	3.380%	3.380%	100.000	MD5
2029	955,000	3.540%	3.540%	100.000	ME3
2031*	2,025,000	3.650%	3.650%	100.000	MF0
2038*	8,420,000	3.850%	3.850%	100.000	MG8

* Term Bonds.

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REGARDING USE OF THIS OFFICIAL STATEMENT

Certain statements included or incorporated by reference in this Official Statement constitute forward-looking statements. Such statements are generally identifiable by the terminology used such as “plan,” “expect,” “estimate,” “project,” “budget” or other similar words.

THE ACHIEVEMENT OF CERTAIN RESULTS OR OTHER EXPECTATIONS CONTAINED IN SUCH FORWARD-LOOKING STATEMENTS INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE ACTUAL RESULTS, PERFORMANCE OR ACHIEVEMENTS DESCRIBED TO BE MATERIALLY DIFFERENT FROM ANY FUTURE RESULTS, PERFORMANCE OR ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. NO ASSURANCE IS GIVEN THAT ACTUAL RESULTS WILL MEET THE FORECASTS OF THE BOARD IN ANY WAY, REGARDLESS OF THE LEVEL OF OPTIMISM COMMUNICATED IN THE INFORMATION. THE BOARD IS NOT OBLIGATED TO AND DOES NOT PLAN TO ISSUE ANY UPDATES OR REVISIONS TO THOSE FORWARD-LOOKING STATEMENTS IF OR WHEN ANY OF ITS EXPECTATIONS, OR EVENTS, CONDITIONS OR CIRCUMSTANCES ON WHICH SUCH STATEMENTS ARE BASED OCCUR.

No dealer, broker, salesperson or other person has been authorized to give any information or to make any representation, other than as contained in this Official Statement, and if given or made such other information or representation must not be relied upon. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series 2017 Bonds by any person, in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

The information set forth herein has been furnished by the Board and by other sources which were believed to be reliable, but is not guaranteed as to accuracy or completeness. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the Board since the date hereof.

All quotations from and summaries and explanations of laws and documents herein do not purport to be complete, and reference is made to such laws and documents for full and complete statements of their provisions. Any statement made in this Official Statement involving an estimate or matter of opinion, whether or not expressly so stated, is intended merely as an estimate or opinion and not as a representation of fact.

Neither the Series 2017 Bonds nor the Resolution has been registered or qualified with the Securities and Exchange Commission. The registration or qualification of the Series 2017 Bonds and the Resolution in accordance with applicable provisions of securities laws of the states in which the Series 2017 Bonds have been registered or qualified, and the exemption from registration and qualification in other states, shall not be regarded as a recommendation thereof.

In making an investment decision, investors must rely on their own examination of the Board and 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.

The Underwriters have provided the following paragraphs 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.

In connection with this offering, the Underwriters may over allot or effect transactions which stabilize or maintain the market price of the Series 2017 Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

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BOARD OF REGENTS OF THE UNIVERSITY OF HAWAII

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Benjamin Asa Kudo, Vice Chair

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Lee Putnam	Stanford Yuen
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Wayne Higaki	Norma Doctor Sparks
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Nainoa Thompson, Advisor on Hawaiian Affairs
Donald Straney, Vice President for Academic Planning and Policy
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John Morton, Vice President for Community Colleges
Carrie K. S. Okinaga, Vice President for Legal Affairs and University General Counsel
Kalbert Young, Vice President for Budget and Finance/Chief Financial Officer
Garret Yoshimi, Vice President for Information Technology/Chief Information Officer
Vassilis L. Syrmos, Vice President for Research and Innovation
Kendra Oishi, Executive Administrator and Secretary to the Board of Regents

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Marcia Sakai, Interim Chancellor, University of Hawaii at Hilo
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Rachel Solemsaas, Chancellor, Hawaii Community College
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Helen Cox, Chancellor, Kaua‘i Community College
Manuel Cabral, Chancellor, Leeward Community College
Lui Hokoana, Chancellor, Maui College
Douglas Dykstra, Chancellor, Windward Community College

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Honolulu, Hawaii

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San Francisco, California

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U.S Bank National Association
Seattle, Washington

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OFFICIAL STATEMENT

\$110,795,000

**BOARD OF REGENTS OF THE UNIVERSITY OF HAWAII,
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INTRODUCTION

This Official Statement, including the cover page and the appendices, is provided to furnish information regarding the \$3,990,000 University Revenue Bonds, Series 2017A (the “*Series 2017A Bonds*”), \$12,040,000 University Revenue Bonds, Series 2017B (Refunding) (the “*Series 2017B Bonds*”), \$4,110,000 University Revenue Bonds, Series 2017C (Taxable Refunding) (the “*Series 2017C Bonds*”), \$13,185,000 University Revenue Bonds, Series 2017D (Refunding) (the “*Series 2017D Bonds*”), \$4,450,000 University Revenue Bonds, Series 2017E (Taxable Refunding) (the “*Series 2017E Bonds*”), \$52,275,000 University Revenue Bonds, Series 2017F (Refunding) (the “*Series 2017F Bonds*”) and \$20,745,000 University Revenue Bonds, Series 2017G (Taxable Refunding) (the “*Series 2017G Bonds*,” and, together with the Series 2017A Bonds, the Series 2017B Bonds, the Series 2017C Bonds, the Series 2017D Bonds, the Series 2017E Bonds and the Series 2017F Bonds, the “*Series 2017 Bonds*”), being issued by the Board of Regents of the University of Hawaii (the “*Board*”). See “**THE UNIVERSITY OF HAWAII.**”

The Series 2017 Bonds are issued by the Board pursuant to Chapter 304A, Hawaii Revised Statutes, as amended (the “*Act*”), a resolution of the Board adopted November 16, 2001 (the “*Original Resolution*”), as amended, including a Supplemental Resolution of the Board adopted November 16, 2017 (the “*Supplemental Resolution*”). Act 75, Session Laws of Hawaii 2006, among other things, re-codified the legislation pursuant to which the Original Resolution was adopted. However, the re-codification did not substantively affect the provision of the original law. The terms and provisions of the Series 2017 Bonds and certain other matters related to the Series 2017 Bonds are set forth in the Certificate of Determination executed by the Designated Financial Officer, which is incorporated into and made a part of the Supplemental Resolution. The Original Resolution, as supplemented and amended, including as supplemented by the Supplemental Resolution, is referred to as the “*Resolution*.” The Series 2017 Bonds and any other series of Bonds outstanding under the Resolution are called the “*Revenue Bonds*.”

The University of Hawaii

The University of Hawaii (the “*University*”) is the sole public higher education system in Hawaii. The University is a multi-institutional system comprised of three University campuses, seven community college campuses, and nine university and educational centers distributed across six islands throughout the State. The affairs of the University are under the general management and control of the Board, consisting of fifteen members appointed by the governor of the State for staggered five-year terms and confirmed by the Senate.

For additional information on the University, see “THE UNIVERSITY OF HAWAII” and APPENDIX A – “THE UNIVERSITY OF HAWAII” herein.

The Series 2017 Bonds; Purpose and Security

The Resolution authorizes the issuance of one or more series of Revenue Bonds in order to accomplish any purpose of the University. The Series 2017 Bonds are being issued to provide funds to (i) renovate the Gregg M. Sinclair Library basement (the “*Project*”), (ii) refund all of the Board’s University Bonds, Refunding Series 2006A (the “*Series 2006A University Bonds*”) and the University Revenue Bonds, Series 2006A (the “*Series 2006A Bonds*”) and a portion of the University Revenue Bonds, Series 2009A (the “*Series 2009A Bonds*”) and (iii) pay costs relating to the issuance of the Series 2017 Bonds, as set forth in the Resolution and as more fully described below. See “**PLAN OF FINANCE.**”

A portion of the proceeds of the Series 2017 Bonds will be deposited to effect a defeasance of a portion of the Series 2009A Bonds (the “*Advance Refunded Bonds*”). See “**PLAN OF FINANCE – The Refunding**” All of the Series 2006A University Bonds and the Series 2006A Bonds will be refunded on a current basis with a portion of the proceeds of the Series 2017 Bonds (the “*Current Refunded Bonds*” and, together with the Advance Refunded Bonds, the “*Refunded Bonds*”).

In addition to the Series 2006A Bonds and the Series 2009A Bonds, the University has previously issued its University Revenue Bonds, Series 2010A-1 (Taxable – Build America Bonds), University Revenue Bonds, Series 2010A-2 (Tax-Exempt) (together, the “*Series 2010A Bonds*”), University Revenue Bonds, Series 2010B-1 (Taxable – Build America Bonds) and University Revenue Bonds, Series 2010B-2 (Tax-Exempt) (together the “*Series 2010B Bonds*”, and, together with the Series 2010A Bonds the “*Series 2010 Bonds*”), its University Revenue Bonds, Series 2012A (R) (the “*Series 2012A Bonds*”), and its University Revenue Bonds, Series 2015A (Taxable), University Revenue Bonds, Series 2015B (R), University Revenue Bonds, Series 2015C (Taxable) (R), University Revenue Bonds, Series 2015D (Taxable) (R) and University Revenue Bonds, Series 2015E (Forward Delivery) (R) (collectively, the “*Series 2015 Bonds*”). Prior to giving effect to the refunding of the Refunded Bonds and the issuance of the Series 2017 Bonds, as of November 1, 2017, there was \$508,520,000 in aggregate principal amount of Revenue Bonds outstanding under the Resolution. After giving effect to the refunding of the Refunded Bonds and the issuance of the Series 2017 Bonds, \$525,425,000 principal amount of Revenue Bonds will be outstanding under the Resolution.

The Series 2006A University Bonds are issued under a separate resolution of the Board adopted May 17, 2002, as amended and supplemented (the “*University Bonds Resolution*”). Bonds issued under the University Bonds Resolution (the “*University Bonds*”) have a prior and paramount claim to the Legislative Appropriations. The principal amount of University Bonds outstanding is \$16,045,000 as of November 1, 2017. However, after giving effect to the refunding of the Series 2006A University Bonds, there will be no University Bonds outstanding under the University Bonds Resolution. The Board will covenant not to issue any additional bonds under the University Bonds Resolution.

Pursuant to the Act and the Resolution, the Board formally created the Network comprised of (1) projects designated as “university projects” under the Act (“*University Projects*”) and (2) any other action, undertaking or improvement, whether or not capable of producing revenue, constructed, maintained, or both, by the Board, to further the purposes of the University and for the use and services for which fees are imposed or charges made or Legislative Appropriations (defined below) or other moneys shall have been dedicated and committed (“*University Purposes*,” and together with University Projects, the “*Network*”). Some of the University Projects currently included in the Network are the student housing and connecting food service facilities on the Mānoa campus, the bookstores located on any of the University’s campuses, the University’s student union on the Mānoa campus known as the Campus Center, including its dining facilities, the telecommunication system located on the Mānoa

campus, those parking operations for the Mānoa campus which were financed with revenue bonds and/or in whole or in part from certain general obligation bonds, the student housing and connecting food service facilities on the Hilo campus, and faculty housing operated by the Mānoa campus. See **“THE UNIVERSITY OF HAWAII – The University Network”** for additional information regarding the Network.

All Revenue Bonds issued under the Resolution, including the Series 2017 Bonds, are limited obligations of the Board payable from and secured solely by the Revenues, subject to the application of the Revenues to the payment of the Current Expenses of the Network, which include costs and estimated costs of operation, maintenance and repair. See **“SECURITY FOR THE BONDS – Pledge of Revenues.”** “*Revenues*” consist of two primary elements (i) the income derived by the University from its ownership or operation and management of the Network, including the rates, rents, fees and charges imposed by the Board for the use or enjoyment of or the services furnished by University Projects, University Purposes, and other properties and facilities constituting the Network (collectively, the “*University System Revenues*”), and (ii) moneys in any special fund or revolving fund, which include, but are not limited to, the tuition and fees special fund, community colleges special fund, intercollegiate special fund, auxiliary enterprises special fund, student activities revolving fund, student health center revolving fund, real property and facilities use revolving fund, commercial enterprises revolving fund, and research and training revolving fund, unless otherwise restricted, appropriated or allocated by the Legislature of the State of Hawaii (the “*State*”) to the Board, the University, the University System or the Network and permitted to be expended for Current Expenses or for Debt Service (collectively, the “*Legislative Appropriations*”). As more fully described under the subheading **“SECURITY FOR THE BONDS – Separate Resolution Financing.”** Bonds issued under the University Bonds Resolution have a prior and paramount claim to the Legislative Appropriations. As of November 1, 2017, prior to giving effect to the refunding and defeasance of the Series 2006A University Bonds as described herein, \$16,045,000 aggregate principal amount of bonds were outstanding under the University Bonds Resolution. However, after giving effect to the refunding of the Series 2006A University Bonds, there will be no University Bonds outstanding under the University Bonds Resolution. The Board will covenant not to issue any additional bonds under the University Bonds Resolution. Additional information relating to the University System Revenues and Legislative Appropriations can be found under the subheadings **“THE UNIVERSITY OF HAWAII – REVENUES – University System Revenues”** and **“THE UNIVERSITY OF HAWAII – Revenues – The University Special and Revolving Funds”** respectively.

The Series 2017B Bonds and Series 2017C Bonds are additionally secured by a pledge on the University Bond Auxiliary Moneys. Any bonds of the Board that are outstanding under the University Bond Resolution have a prior and paramount claim against the University Bond Auxiliary Moneys. When the Series 2006 University Bonds are refunded as is contemplated hereby, no University Bonds will be outstanding, and the Board will covenant not to issue any additional bonds under the University Bonds Resolution. See **“SECURITY FOR THE BONDS – Additional Security for Certain Revenue Bonds – Series 2017B and 2017C Bonds”** and **“– Separate Resolution Financing”** below. “*University Bond Auxiliary Moneys*” include a portion of the moneys in the Hawaii Tobacco Settlement Special Fund funded by receipts from the Master Settlement Agreement dated November 23, 1998, an industry-wide settlement of litigation between certain states, including the State of Hawaii, and certain tobacco companies.

Limited Obligations

The Revenue Bonds, including the Series 2017 Bonds, are limited obligations of the Board payable from and secured solely by a lien on and security interest in the moneys pledged therefor under the Resolution. See “SECURITY FOR THE BONDS.” Neither the State nor any department or political subdivision thereof, including the Board, is obligated to pay the Series 2017 Bonds from any source other than the moneys pledged under the Resolution. The Series 2017 Bonds are not a

general or moral obligation or an indebtedness of the State within the meaning of any limitation of law or a charge upon the general fund of the State, nor is the full faith and credit of the State or any political subdivision thereof pledged to the payment of the principal of or interest on the Series 2017 Bonds. No holder of any Series 2017 Bond shall ever have the right to compel any exercise of the taxing power of the State or any political subdivision thereof for the payment of principal of or interest on the Series 2017 Bonds.

Additional Information

This introduction is not a summary of this Official Statement. It is only a brief description of, and is qualified by, more complete and detailed information contained in the entire Official Statement, including the cover page and appendices hereto, and the documents summarized or described herein. A full review should be made of the entire Official Statement. The offering of the Series 2017 Bonds to potential investors is made only by means of the entire Official Statement.

Certain capitalized terms used in this Official Statement and not otherwise defined herein shall have the meanings given to such terms in **APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION.”** The descriptions and summaries of various documents hereinafter set forth do not purport to be comprehensive or definitive, and reference is made to each document for the complete details of its terms and conditions. All statements in this Official Statement are qualified in their entirety by reference to each document. Copies of the Resolution and other documents and information are available upon request and upon payment to the Board of a charge for copying, mailing and handling, directed to the Vice President for Budget and Finance/Chief Financial Officer.

Professionals

Morgan Stanley & Co. LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated are underwriting the Series 2017 Bonds (the “*Underwriters*”). Katten Muchin Rosenman LLP is Bond Counsel to the Board. Alston Hunt Floyd & Ing, Honolulu, Hawaii, is serving as counsel to the Underwriters. FirstSouthwest, a Division of Hilltop Securities is serving as Financial Advisor. Accuity LLP has audited the finances of the University appearing in **APPENDIX B**, but has not been asked to review, has not reviewed, and has no responsibility for, this Official Statement.

PLAN OF FINANCE

The Project

The proceeds of the Series 2017A Bonds will be applied to the renovation of the Gregg M. Sinclair Library basement (the “*Project*”). This Project constitutes a University Project pursuant to the Resolution. This Project is anticipated to cost approximately \$4,500,000.

The Refunding

The Series 2017B Bonds, Series 2017C Bonds, Series 2017D Bonds and Series 2017E Bonds are being issued to provide for the redemption of the Current Refunded Bonds. The Series 2017F Bonds and Series 2017G Bonds are being issued to provide for the defeasance and redemption of the Advance Refunded Bonds. The Refunded Bonds all have a redemption price of par and consist of the following:

REFUNDED BONDS

Series	Maturity Date	Amount Outstanding	Interest Rate	Redemption Date	CUSIPs
Series 2006A University Bonds	7/15/2027	\$ 7,880,000	3.500%	1/17/2018	91428LAY2
Series 2006A University Bonds	7/15/2028	8,165,000	3.500	1/17/2018	91428LAZ9
Series 2006A University Revenue Bonds	10/1/2030	17,490,000	3.250	1/17/2018	91428LCH7
Series 2009A University Revenue Bonds	10/1/2020	360,000	4.125	10/1/2019	91428LDL7
Series 2009A University Revenue Bonds	10/1/2020	2,680,000	5.250	10/1/2019	91428LDM5
Series 2009A University Revenue Bonds	10/1/2021	475,000	4.250	10/1/2019	91428LDN3
Series 2009A University Revenue Bonds	10/1/2021	2,730,000	5.250	10/1/2019	91428LDP8
Series 2009A University Revenue Bonds	10/1/2022	150,000	4.500	10/1/2019	91428LDQ6
Series 2009A University Revenue Bonds	10/1/2022	3,225,000	5.500	10/1/2019	91428LDR4
Series 2009A University Revenue Bonds	10/1/2023	1,100,000	5.000	10/1/2019	91428LDS2
Series 2009A University Revenue Bonds	10/1/2023	2,460,000	5.500	10/1/2019	91428LDT0
Series 2009A University Revenue Bonds	10/1/2024	510,000	4.750	10/1/2019	91428LDU7
Series 2009A University Revenue Bonds	10/1/2024	3,245,000	5.500	10/1/2019	91428LDV5
Series 2009A University Revenue Bonds	10/1/2025	965,000	4.750	10/1/2019	91428LDW3
Series 2009A University Revenue Bonds	10/1/2025	2,995,000	5.500	10/1/2019	91428LDX1
Series 2009A University Revenue Bonds	10/1/2026	1,080,000	5.000	10/1/2019	91428LDY9
Series 2009A University Revenue Bonds	10/1/2026	1,965,000	5.500	10/1/2019	91428LDZ6
Series 2009A University Revenue Bonds	10/1/2027	985,000	5.125	10/1/2019	91428LEA0
Series 2009A University Revenue Bonds	10/1/2027	2,220,000	5.000	10/1/2019	91428LEB8
Series 2009A University Revenue Bonds	10/1/2028	3,375,000	5.125	10/1/2019	91428LEC6
Series 2009A University Revenue Bonds	10/1/2029	3,555,000	5.250	10/1/2019	91428LED4
Series 2009A University Revenue Bonds	10/1/2034	3,345,000	5.375	10/1/2019	91428LEE2
Series 2009A University Revenue Bonds	10/1/2034	17,525,000	5.250	10/1/2019	91428LEF9
Series 2009A University Revenue Bonds	10/1/2038	1,560,000	5.500	10/1/2019	91428LEG7
Series 2009A University Revenue Bonds	10/1/2038	19,895,000	6.000	10/1/2019	91428LEH5

The refunding of the Refunded Bonds will be accomplished through the deposit of funds (cash or direct obligations of the United States of America) into the Escrow Funds (the “*Escrow Funds*”) established pursuant to escrow agreements (the “*Escrow Agreements*”) each between the Board and U.S. Bank National Association, as escrow agent (the “*Escrow Agent*”), in an amount that will be, together with the income to accrue thereon, sufficient for (i) payment of the redemption price for each series of the Current Refunded Bonds as shown in the foregoing table and (ii) payment of scheduled debt service on the Advance Refunded Bonds and the redemption price for each series of Advance Refunded Bonds on their respective redemption dates as shown in the foregoing table. Any money remaining in the Escrow Funds after payments as described above will be deposited to the Bond Fund. Money and escrow investments in the Escrow Funds will be used solely for the purposes described above and the deposit of such money and escrow investments in the Escrow Funds will be irrevocable. Upon purchasing the government obligations in connection with the refunding of the Advance Refunded Bonds and upon receipt of the verification described under the caption “**VERIFICATION**” with respect thereto, such Advance Refunded Bonds will be deemed to have been paid and discharged.

ESTIMATED SOURCES AND USES OF FUNDS

The sources and uses of funds are estimated as follows:

	Series 2017A	Series 2017B	Series 2017C	Series 2017D	Series 2017E	Series 2017F	Series 2017G	Total
SOURCES OF FUNDS								
Principal Amount	\$3,990,000.00	\$12,040,000.00	\$4,110,000.00	\$13,185,000.00	\$4,450,000.00	\$52,275,000.00	\$20,745,000.00	\$110,795,000.00
Net Original Issue Premium	536,410.70	275,427.70		128,171.90		9,667,617.05		10,607,627.35
Total Sources	\$4,526,410.70	\$12,315,427.70	\$4,110,000.00	\$13,313,171.90	\$4,450,000.00	\$61,942,617.05	\$20,745,000.00	\$121,402,627.35
USES OF FUNDS								
Deposit to Project Fund	\$4,500,000.00							\$4,500,000.00
Deposit to Escrow Fund		\$12,242,866.17	\$4,086,045.19	\$13,235,457.42	\$4,421,916.17	\$61,613,680.31	\$20,623,758.96	\$116,223,724.22
Costs of Issuance*	26,410.70	72,561.53	23,954.81	77,714.48	28,083.83	328,936.74	121,241.04	678,903.13
Total Uses	\$4,526,410.70	\$12,315,427.70	\$4,110,000.00	\$13,313,171.90	\$4,450,000.00	\$61,942,617.05	\$20,745,000.00	\$121,402,627.35

* Includes underwriters' discount and other costs of issuance.

THE SERIES 2017 BONDS

General Terms of the Series 2017 Bonds

The Series 2017 Bonds will mature in the amounts and on the dates, and bear interest at the rates, set forth on the inside cover of this Official Statement. Interest on each Series 2017 Bond will be payable on April 1 and October 1 of each year, commencing April 1, 2018. The Series 2017 Bonds are issuable in fully registered form in the denomination of \$5,000 or any integral multiple of \$5,000. Interest on the Series 2017 Bonds will be calculated on the basis of a 360-day year and twelve 30-day months.

The Series 2017 Bonds as initially issued will be available only in book-entry form. The Depository Trust Company, New York, New York ("DTC") will act as securities depository for the Series 2017 Bonds, and the ownership of one fully registered Series 2017 Bond for each maturity, in the principal amount of such maturity, of the Series 2017 Bonds will be registered in the name of Cede & Co., as nominee of DTC as the sole registered owner of the Series 2017 Bonds, and, except under the caption "TAX MATTERS," references herein to holders (the registered owners) shall be to DTC and not the beneficial owners. For a description of DTC and its book-entry-only system, see **APPENDIX D "BOOK-ENTRY SYSTEM"** hereto. U.S. Bank National Association will serve as the paying agent for the Series 2017 Bonds (in such capacity, the "Paying Agent"). Interest on the Series 2017 Bonds will be paid by check or draft payable to the registered owner and mailed by first class mail, postage prepaid, to the address of such holder shown on the registry books kept pursuant to the provisions of the Resolution. The principal and redemption price, if any, of any Series 2017 Bond will be payable at the office of the Paying Agent.

Optional Redemption

The Series 2017 Bonds maturing on and after October 1, 2028 are subject to redemption prior to the stated maturity thereof at the option of the Board at any time and from time to time on or after October 1, 2027, in whole or in part (if in part, the maturities or portions thereof to be redeemed to be selected by the Board in its sole discretion), in each case at a redemption price equal to the principal amount of such Series 2017 Bonds or portions thereof to be redeemed plus accrued interest to the date of redemption.

In addition, the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds are subject to redemption on any date prior to October 1, 2027 at the option of the Board, in whole or in part (and if in part on a pro rata basis), at a redemption price equal to the greater of:

(1) 100% of the principal amount of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds to be redeemed; or

(2) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of such Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds to be redeemed, not including any portion of those payments of interest accrued and unpaid as of the date on which such Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds are to be redeemed, discounted to the date on which such Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds are to be redeemed on a semi-annual basis, assuming a 360-day year consisting of twelve 30-day months, at the Comparable Treasury Yield (defined below) plus 25 basis points,

plus, in each case, accrued interest on such Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds to be redeemed to the redemption date.

“Calculation Agent” means a commercial bank or an investment banking institution of national standing that is a primary dealer of United States government securities in the United States and designated by the Board (which may be one of the institutions that served as an underwriter for the Series 2017 Bonds).

“Comparable Treasury Issue” means the United State Treasury security selected by the Calculation Agent as having a maturity comparable to the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed.

“Comparable Treasury Price” means, with respect to any date on which a Series 2017C Bond, Series 2017E Bond and Series 2017G Bond or portion thereof is being redeemed, either (a) the average of five Reference Treasury Dealer quotations for the date fixed for redemption, after excluding the highest and lowest such quotations, and (b) if the Calculation Agent is unable to obtain five such quotations, the average of the quotations that are obtained. The quotations will be the average, as determined by the Calculation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of principal amount) quoted in writing to the Calculation Agent, at 5:00 p.m. New York City time no later than the third business day nor earlier than the twentieth calendar day preceding the applicable date fixed for redemption.

“Comparable Treasury Yield” means the yield that represents the weekly average yield to maturity for the preceding week appearing in the most recently published statistical release designated “H.15(519) Selected Interest Rates” under the heading “Treasury Constant Maturities,” or any successor

publication selected by the Calculation Agent that is published weekly by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded United States Treasury securities adjusted to constant maturity, for the maturity corresponding to the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed. The Comparable Treasury Yield will be determined no later than the third business day nor earlier than the twentieth calendar day preceding the applicable date fixed for redemption. If the H.15(519) statistical release sets forth a weekly average yield for United States Treasury securities that have a constant maturity that is the same as the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed, then the Comparable Treasury Yield will be equal to such weekly average yield. In all other cases, the Comparable Treasury Yield will be calculated by interpolation on a straight-line basis between the weekly average yields on the United States Treasury securities that have a constant maturity (i) closest to and greater than the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed; and (ii) closest to and less than the remaining term to maturity of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds being redeemed. Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward. If, and only if, weekly average yields for United States Treasury securities for the preceding week are not available in the H.15(519) statistical release or any successor publication, then the Comparable Treasury Yield will be the rate of interest per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price (each as defined herein) as of the date fixed for redemption.

“Reference Treasury Dealer” means a primary dealer of United States Government securities in the United States (which may be one of the institutions that served as an underwriter for the Series 2017 Bonds) appointed by the Board and reasonably acceptable to the Calculation Agent.

Selection for Redemption

If less than all of the Series 2017 Bonds of a series are called for redemption, the Board will designate the maturities from which the Series 2017 Bonds of such series are to be redeemed. For so long as the Series 2017 Bonds are registered in book-entry form and DTC or a successor securities depository is the sole registered owner of such Series 2017 Bonds, if fewer than all of the Series 2017 Bonds of the same maturity and bearing the same interest rate are to be redeemed, the particular Series 2017 Bonds to be redeemed shall be selected: (i) by lot, in the case of the Series 2017A Bonds, Series 2017B Bonds, Series 2017D Bonds or Series 2017F Bonds, and (ii) on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, in the case of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds; provided that, so long as the Series 2017 Bonds are held in book-entry form, the selection for redemption of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds will be made in accordance with the operational arrangements of DTC then in effect, and if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, all Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds will be selected for redemption in accordance with DTC procedures by lot; provided further that any such redemption must be performed such that all Bonds remaining outstanding will be in authorized denominations. See **APPENDIX D, “BOOK-ENTRY SYSTEM.”**

In connection with any repayment of principal of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds, including payments of scheduled mandatory sinking fund payments, the Paying Agent will direct DTC to make a pass-through distribution of principal to the owners of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds. A form of Pro Rata Pass-Through Distribution of Principal Notice will be provided to the Paying Agent that includes a table of factors reflecting the relevant scheduled redemption payments, based on the current schedule of mandatory sinking fund

payments, which is subject to change upon certain optional redemptions, and DTC's currently applicable procedures, which are subject to change.

For purposes of calculating pro rata pass-through distributions of principal, “pro rata” means, for any amount of principal or interest to be paid, the application of a fraction to such amounts where (a) the numerator is equal to the amount due to the owners of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds on a payment date and (b) the denominator is equal to the total original par amount of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds.

It is the Board’s intent that redemption allocations made by DTC with respect to the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds be made on a pro rata pass-through distribution of principal basis as described above. However, neither the Board nor the Underwriters can provide any assurance that DTC, DTC’s direct and indirect participants, or any other intermediary will allocate the redemption of such Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds on such basis.

If the Series 2017 Bonds are not registered in book-entry form and if fewer than all of the Series 2017 Bonds of the same maturity and bearing the same interest rate are to be redeemed, the particular Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds of such maturity and bearing such interest rate to be redeemed will be selected on a pro rata basis, and the particular Series 2017A Bonds, Series 2017B Bonds, Series 2017D Bonds or Series 2017F Bonds of such maturity and bearing such interest rate to be redeemed will be selected by lot, provided that any such redemption must be performed such that all Series 2017 Bonds remaining outstanding will be in authorized denominations.

Mandatory Redemption

The Series 2017G Bonds identified below are also subject to redemption prior to maturity, in part, on each of the dates and in the respective principal amounts set forth below, at a Redemption Price of 100% of the principal amount thereof, plus accrued interest to the date of redemption, from mandatory Sinking Fund Installments which are required to be made in amounts sufficient to redeem the principal amount of Series 2017G Bonds specified for October 1 of each of the years shown below:

**Series 2017G Bonds
Maturing October 1, 2031**

Year (October 1)	Principal Amount
2030	\$995,000
2031*	1,030,000

* *Final Maturity.*

**Series 2017G Bonds
Maturing October 1, 2038**

Year (October 1)	Principal Amount
2032	\$1,070,000
2033	1,115,000
2034	1,155,000
2035	1,195,000
2036	1,245,000
2037	1,295,000
2038*	1,345,000

* *Final Maturity.*

Notice of Redemption

Notice of redemption of any Series 2017 Bond is required to be mailed not less than 30 days prior to the redemption date to the holder of such Series 2017 Bond at its address as it appears on the registry books kept pursuant to the provisions of the Bond Resolution. Notice of redemption of Series 2017 Bonds will be given by the Paying Agent.

Each notice of redemption is required to state: (i) the title of the Series 2017 Bonds to be redeemed, the subseries designation thereof (if any), the redemption date, the place or places of redemption and the redemption price payable upon such redemption; (ii) if less than all the Series 2017 Bonds are to be redeemed, the distinctive number of the Series 2017 Bonds to be redeemed, (iii) that the interest on the Series 2017 Bonds, or on the principal amount thereof to be redeemed, designated for redemption in such notice shall cease to accrue from and after such redemption date; and (iv) that on such date there will become due and payable on each such Series 2017 Bond the principal amount thereof to be redeemed at the then applicable redemption price and the interest accrued on such principal amount to the redemption date. Each notice of redemption mailed to the holder of a Series 2017 Bond to be redeemed must, if less than the entire principal sum thereof is to be redeemed, also state the principal amount thereof to be redeemed and, if less than the entire principal sum of a Series 2017 Bond all of the principal of which matures on the same day is called for redemption, that such Series 2017 Bond must be surrendered to the Paying Agent in exchange for the payment of the principal amount thereof to be redeemed and the issuance of a new Series 2017 Bond or Bonds equaling in principal amount that portion of the principal sum not to be redeemed of the Series 2017 Bond to be surrendered.

Any notice of optional redemption may state that such redemption may be conditional upon the receipt by the Paying Agent on the date fixed for redemption of moneys sufficient to pay in full the redemption price of the Series 2017 Bonds proposed to be redeemed. If the notice contains such

condition, and moneys sufficient to pay in full the redemption price of the Series 2017 Bonds proposed to be redeemed shall not be received on or prior to the date fixed for redemption, such notice of redemption shall be null and void and of no force and effect, the Board shall not redeem or be obligated to redeem any Series 2017 Bonds, and the Paying Agent at the Board's direction shall give notice, in the same manner as notice of redemption is given, that moneys sufficient to pay in full the redemption price of the Series 2017 Bonds proposed to be redeemed were not received on or prior to the date fixed for redemption and such redemption did not occur. In the event of the failure to redeem, all Series 2017 Bonds surrendered for redemption shall be promptly returned to the holder or holders by the Paying Agent.

For so long as a book-entry only system is in effect with respect to the Series 2017 Bonds, notice of redemption, or notice of rescission of any conditional notice of redemption, of Series 2017 Bonds to be redeemed is to be mailed by the Paying Agent to the Securities Depository or its nominee. Any failure of the Securities Depository or of its nominee, or of a direct or indirect participant, to notify a beneficial owner of Series 2017 Bonds of any redemption will not affect the sufficiency or validity of the redemption of the Series 2017 Bonds to be redeemed. See **APPENDIX D, "BOOK-ENTRY SYSTEM"** for a description of the book-entry only system. Neither the Board nor the Paying Agent can give any assurance that the Securities Depository, or direct or indirect participants, will distribute such redemption notices to the beneficial owners of the Series 2017 Bonds, or that they will do so on a timely basis.

Transfer or Exchange of the Bonds

Any Series 2017 Bond may, in accordance with its terms, be transferred upon the registry books required to be kept pursuant to the provisions of the Resolution, by the person in whose name it is registered, in person or by its duly authorized attorney, upon surrender of such Series 2017 Bond to the Paying Agent for cancellation, accompanied by delivery of a written instrument of transfer duly executed and in form satisfactory to the Paying Agent.

Whenever any Series 2017 Bond is surrendered for transfer, the Board shall deliver, or cause to be delivered, at the principal office of the Paying Agent (or cause to be sent by registered mail to the holder thereof at its request, risk and expense), in exchange for the fully registered Series 2017 Bond surrendered, a new duly executed Series 2017 Bond, as appropriate, of the same series, interest rate and maturity for a like aggregate principal sum as the Series 2017 Bond surrendered.

Any Series 2017 Bond may be surrendered for exchange for a new fully registered Series 2017 Bond, as appropriate of a like aggregate principal amount, series, interest rate and maturity and in authorized principal sums aggregating the principal sum or sums of the Series 2017 Bond or Bonds delivered in exchange.

The Paying Agent may charge a sum not exceeding the actual cost of each new fully registered Series 2017 Bond and may require the payment by the holder of the Series 2017 Bond requesting such transfer of any tax or other governmental charges required to be paid with respect to such transfer. The Paying Agent shall require the payment of such tax or governmental charges from the holder requesting an exchange.

SECURITY FOR THE BONDS

Pledge of Revenues

The Revenue Bonds, including the Series 2017 Bonds, are limited obligations of the Board payable from and secured solely by amounts pledged under the Resolution. Under the Resolution, the

Board has pledged Revenues of the Network for the punctual payment of the principal, premium, if any, and interest on the Revenue Bonds in accordance with their terms and the provisions of the Resolution, and such pledge constitutes a lien on the Revenues, subject to the application of the Revenues to the payment of the Current Expenses of the University System as provided in the Resolution. Such Revenues are deposited, when received, in the University System Revenue – Undertakings Fund for credit to the University Network Revenue Account. The Revenues are more fully described under “**THE UNIVERSITY OF HAWAII – Revenues**” below. The Network is more fully described under “**THE UNIVERSITY OF HAWAII – The University Network**” below. The Revenue Bonds are additionally secured by a pledge of the University Bond Available Moneys subject to the prior and paramount lien thereon of the University Bonds all as described under “**Separate Resolution Financing**” below. After giving effect to the refunding of the Series 2006A University Bonds, there will be no bonds outstanding under the University Bond Resolution. The Board will covenant not to issue any additional bonds under the University Bonds Resolution.

“*Revenues*” consist of two primary elements (i) the income derived by the University from its ownership or operation and management of the Network, including the rates, rents, fees and charges imposed by the Board for the use or enjoyment of or the services furnished by University Projects, University Purposes, and other properties and facilities constituting the Network (collectively, the “*University System Revenues*”), and (ii) moneys in any special fund or revolving fund, which include, but are not limited to, the tuition and fees special fund, community colleges special fund, intercollegiate special fund, auxiliary enterprises special fund, student activities revolving fund, student health center revolving fund, real property and facilities use revolving fund, commercial enterprises revolving fund, and research and training revolving fund, unless otherwise restricted, appropriated or allocated by the Legislature of the State of Hawaii (the “*State*”) to the Board, the University, the University System or the Network and permitted to be expended for Current Expenses or for Debt Service (collectively, the “*Legislative Appropriations*”). Additional information relating to the University System Revenues and Legislative Appropriations can be found under the subheadings “**THE UNIVERSITY OF HAWAII – Revenues – University System Revenues**” and “**THE UNIVERSITY OF HAWAII – Revenues – The University Special and Revolving Funds**” respectively.

See APPENDIX A – “**THE UNIVERSITY OF HAWAII – Outstanding Indebtedness**” and APPENDIX C – “**SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION.**”

The Series 2017 Bonds and all other Revenue Bonds are and will be equally and ratably secured by such lien and pledge, without priority by reason of series, number, date, maturity, date of sale, issuance and execution, or delivery thereof, except as described below under “**Additional Security for Certain Revenue Bonds.**”

Neither the State nor any department or political subdivision of the State, including the Board, is obligated to pay the Series 2017 Bonds from any source other than the Revenues pledged under the Resolution. The Series 2017 Bonds are not a general or moral obligation or an indebtedness of the State within the meaning of any limitation of law or a charge upon the general fund of the State, nor is the full faith and credit of the State or any political subdivision of the State pledged to the payment of the principal or interest on the Series 2017 Bonds. No holder of any Series 2017 Bond shall ever have the right to compel any exercise of the taxing power of the State or any political subdivision thereof for the payment of principal of or interest on the Series 2017 Bonds.

Additional Security for Certain Revenue Bonds

Series 2010A Bonds. The Series 2010A Bonds, outstanding in the principal amount of \$118,195,000 as of November 1, 2017, are secured by the Revenues on a parity with the other Revenue Bonds, including the Series 2017 Bonds, and are additionally secured by amounts on deposit in the

Hawaii Cancer Research Special Fund established within the State treasury pursuant to Section 304A-2168, Hawaii Revised Statutes. The Hawaii Cancer Research Special Fund is funded primarily from collections of an excise tax imposed on each cigarette sold, used, or possessed by a wholesaler or dealer in the State pursuant to Section 245-3, Hawaii Revised Statutes. Currently, 2.0 cents per cigarette from these collections is deposited to the credit of the fund, and the amount received by the fund in the fiscal year ended June 30, 2017 was \$14,419,894. The cash balance in the fund as of June 30, 2017 was \$20,086,765. So long as any Series 2010A Bonds remain outstanding, the Hawaii Cancer Research Special Fund shall be allocated to the University's Cancer Research Center, shall continue to constitute Revenues, and shall be used solely for payment of debt service on the Series 2010A Bonds and current expenses and capital expenditures of the Cancer Research Center. **Such amounts only secure the Series 2010A Bonds and are not available for the repayment of any other Revenue Bonds, including the Series 2017 Bonds.**

Series 2015D, 2015E, 2017B and 2017C Bonds. The Series 2015D Bonds, Series 2015E Bonds, Series 2017B Bonds and Series 2017C Bonds are secured by the Revenues on a parity with the other Revenue Bonds, including the Series 2017A Bonds, Series 2017D Bonds, Series 2017E Bonds, Series 2017F Bonds and Series 2017G Bonds and are additionally secured by a lien on the University Bond Auxiliary Moneys, including a portion of the moneys in the Hawaii Tobacco Settlement Special Fund. The bonds outstanding under the University Bond Resolution have prior and paramount claim against the University Bond Auxiliary Moneys as described under the subheading **"Separate Resolution Financing"** below. **Such amounts only secure the Series 2015D Bonds, Series 2015E Bonds, Series 2017B Bonds and Series 2017C Bonds and are not available for the repayment of any other Revenue Bonds, including the Series 2017A Bonds, Series 2017D Bonds, Series 2017E Bonds, Series 2017F Bonds and Series 2017G Bonds.** After giving effect to the refunding of the Series 2006A University Bonds, there will be no bonds outstanding under the University Bond Resolution.

Outstanding and Additional Parity Revenue Bonds

Pursuant to the Resolution, the University has previously issued the Series 2001A Bonds, Series 2001B Bonds, Series 2006A Bonds, Series 2009A Bonds, Series 2010 Bonds, Series 2012A Bonds and the Series 2015 Bonds. The Series 2001A Bonds and Series 2001B Bonds are no longer outstanding. As of November 1, 2017, prior to giving effect to the issuance of the Series 2017 Bonds or the refunding of Refunded Bonds, \$508,520,000 aggregate principal amount of Bonds were outstanding under the Resolution. The Resolution authorizes the issuance of Additional Bonds secured equally and ratably with the Series 2017 Bonds (except for the Series 2010A Bonds, Series 2015D Bonds, Series 2015E Bonds, Series 2017B Bonds and Series 2017C Bonds which are secured by certain additional pledges as described under the subheading **"Additional Security for Certain Revenue Bonds"** above), subject to satisfaction of the requirements of the Resolution. See APPENDIX C – **"SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION – THE RESOLUTION – Authorization and Issuance of Additional Bonds"** herein.

Separate Resolution Financing

Pursuant to the University Bonds Resolution, the Board has financed university projects not constituting a part of the Network, which have a prior and paramount claim on the Legislative Appropriations pledged to the Revenue Bonds. University Bonds issued under the University Bonds Resolution are equally and ratably secured by moneys credited to the University Revenue-Undertaking Fund appropriated by the Legislature of the State for the purpose of the payment of the principal of and interest on the University Bonds and a pledge of moneys from time to time on deposit in any special fund or revolving fund of the University derived from the ownership or operation of the University, and the funds and accounts established thereunder (the *"University Bond Available Moneys"*), but not moneys

deposited in the University Revenue-Undertaking Fund derived from the Network. As of November 1, 2017, prior to giving effect to the refunding and defeasance of the Series 2006A University Bonds as described herein, \$16,045,000 aggregate principal amount of bonds were outstanding under the University Bonds Resolution. After giving effect to the refunding of the Series 2006A University Bonds, there will be no bonds outstanding under the University Bond Resolution. The Board will covenant not to issue any additional bonds under the University Bonds Resolution.

Pursuant to the University Bonds Resolution, the University Bonds (if any) have a prior and paramount claim on a portion of the moneys in the Hawaii Tobacco Settlement Special Fund senior to that of the Series 2017B and Series 2017C Bonds. The State Legislature previously enacted legislation to allocate and appropriate each year, for the purpose of paying debt service on the University Bonds, in addition to other allocations, a portion of the moneys in the Hawaii Tobacco Settlement Special Fund funded by receipts from the Master Settlement Agreement dated November 23, 1998. The State Legislature has not previously appropriated less than the amount necessary to pay principal and interest coming due on such bonds from the Hawaii Tobacco Settlement Special Fund during any fiscal year. The Board will covenant not to issue any additional bonds under the University Bonds Resolution. The University received \$11,799,348 and \$9,548,715 from the Hawaii Tobacco Settlement Special Fund in fiscal years 2017 and 2016, respectively. See **APPENDIX A – “THE UNIVERSITY OF HAWAII – Separate Resolution Financing: University Bonds.”**

Limitations on Subordinated Indebtedness

The Resolution authorizes the Board to issue bonds, notes, warrants, certificates or other obligations or evidences of indebtedness which are payable from and secured by a lien and charge on the Revenues subordinate to the payment from and lien and charge on the Revenues for payment of the principal of and interest on the Revenue Bonds and payments from the Revenues required by the Resolution (i) to pay Current Expenses of the University System and (ii) to be deposited in the University Network Bond Account and the University Network Repair and Replacement Account.

Nothing in the Resolution prevents the State from requiring that reimbursement be made to the general fund of the State from the Revenues for the payment from the general fund of the State of the principal of or interest on any obligations or evidences of indebtedness issued to pay costs of construction of University Projects included or to be included in the University System, subordinate to the payment from the Revenues of the principal of and interest on the Revenue Bonds and subordinate to the payment from the Revenues of the payments therefrom required by the Resolution to be used to make the payments described in clauses (i) and (ii) above, or from securing any such reimbursement by a lien and charge on the Revenues of the payments therefrom required by the Resolution to be used to make the payments described in clauses (i) and (ii) above. As of June 30, 2017, no such reimbursable obligations were outstanding.

Selected Covenants of the Board

In the Resolution, the Board makes the covenants and agreements described in **APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION.”** In particular, the Board has agreed with the Bondholders, among other things, as follows:

Maintenance of the Network. The Board has agreed to operate and maintain the Network and to manage the Network in the most efficient manner consistent with sound economy and public advantage and consistent with the protection of Bondholders. The Board also has agreed to maintain, preserve, keep and operate, or cause to be maintained, preserved, kept and operated, the University Projects, University Purposes, and other properties and facilities constituting the Network (including all additions, improvements and betterments thereto and expansions thereof and every part and parcel thereof) in good

repair, working order and operating condition in conformity with standards customarily followed with respect to programs of like size and character, and to that end will from time to time make all necessary repairs and alterations thereof and renewals and replacements thereof.

Rates, Rents, Fees and Charges, and Legislative Appropriations. With respect to University Projects or University Purposes included in the Network capable of producing revenue sufficient to make all such University Projects or University Purposes self-sustaining, the Board has agreed to impose and collect rates, rents, fees and charges for the use or enjoyment and services of the facilities of the University Projects or University Purposes and has agreed to revise such rates, rents, fees and charges from time to time whenever necessary, so that portion of the Network will be and always remain self-sustaining. With respect to University Projects or University Purposes included in the Network not capable of producing any revenue or revenue sufficient to make such University Projects or University Purposes self-sustaining, the Board has agreed to allocate Legislative Appropriations so that portion of the Network (with such Legislative Appropriations) shall be and always remain self-sustaining. See “**SECURITY FOR THE BONDS – Pledge of Revenues**” herein.

Against Encumbrances. The Board has agreed not to cause to be created or given, or permit to be created or given, any mortgage, lien, pledge, charge or other encumbrance upon any real or personal property comprising the Network or any part thereof, or upon the Revenues and the moneys in the University Revenue-Undertakings Fund credited to any account created by the Resolution, other than the liens, pledges, charges and encumbrances specifically created or permitted by the Resolution.

The Board has further agreed not to permit the creation of or issue any bonds (other than existing and future series of Revenue Bonds pursuant to the Resolution), notes, warrants, or other obligations or evidences of indebtedness or create any additional indebtedness payable from the Revenues prior to or on a parity with the payment of principal of or interest on the Revenue Bonds or secured by a lien thereon. See “**SECURITY FOR THE BONDS – Outstanding and Additional Parity Revenue Bonds**” herein.

Against Sale or Other Disposition. The Board has agreed not to sell, lease or otherwise dispose of all or substantially all of the properties constituting the Network without simultaneously depositing cash or Governmental Securities in an amount sufficient so that no Revenue Bonds are any longer deemed outstanding under the Resolution; provided, however, that (i) the Board may exchange Network property for property of comparable value, (ii) the Board may grant leases, licenses, easements and other agreements pertaining to Network property in the normal and customary course of business, according to the Board’s policy regarding rates, rentals, fees and charges of the Network, properties constituting the Network, and the revenues from such leasing shall be part of the Revenues and such properties shall remain part of the Network, but any such leasing shall not be inconsistent with the provisions of the Resolution and shall not impair or diminish the security of and payment for the Revenue Bonds, (iii) the Board may execute agreements pertaining to the acquisition of properties that are or will become a part of the Network in connection with the operation of the Network and in the normal and customary course of business thereof, and may subject such properties to a lien pending payment therefor, provided that the aggregate of the payments under all such agreements in a Fiscal Year shall not exceed three percent (3%) of the annual budget of the Board for such Fiscal Year adopted pursuant to the Resolution, and all payments under any such agreements shall constitute Current Expenses to the extent such agreements comply with this paragraph, and (iv) the Board may sell, lease or otherwise dispose of any portion of the properties and facilities (real or personal) comprising a part of the University System which are surplus. Surplus properties or facilities are those the disposal of which will not impede or prevent the use of the Network or its facilities and which the Board has determined have become unserviceable, unsafe or no longer required or which have been replaced by other property of substantially equal revenue producing capability and of substantially equal utility. Any moneys received by the Board as the proceeds of any such sale, lease or any other disposition of said surplus properties shall become Revenues. In the event

any Network properties shall be taken by the exercise of the power of eminent domain, the amount of the award received by the Board as a result of such taking shall be applied to any University Purposes, including to the redemption or purchase of Revenue Bonds and to acquire or construct revenue-producing properties to constitute a part of the Network.

THE UNIVERSITY OF HAWAII

The University of Hawaii is a multi-institutional system comprised of three University campuses, seven community college campuses and nine university and educational centers distributed across six islands throughout the State. The affairs of the University are under the general management and control of the Board, consisting of fifteen members appointed by the governor of the State for staggered five-year terms and confirmed by the Senate. For a detailed description of the Board, the University and certain statistical information, See **APPENDIX A – “THE UNIVERSITY OF HAWAII.”**

The University Network

Act 141, originally enacted on May 16, 1947, established the University Project Fund and authorized the University (with the approval of the governor) to issue revenue bonds to finance the construction and maintenance of University housing units, athletic units and other projects. The measure was intended to enable the University to enlarge its facilities sufficiently to meet the needs of its extended educational program and increased student enrollment and to maintain its standing as one of the major institutions of learning in the Pacific area. The Act was enacted for the purpose of creating a system which would make it possible for several projects to be funded by a single issue of bonds and give the Board the means to establish a financial base for subsequent projects of the University.

The Network (as defined below) includes each University Project (as defined below) the cost of construction of which is paid in whole or in part from the proceeds of Bonds or from the Revenues, whether such University Project is located on the Mānoa Campus of the University or on any other area of any of the educational institutions under the control of or governed by the Board.

Pursuant to the Act and the Resolution, the Board formally created a Network consisting of the University System and University Purposes. The University System is comprised of various University Projects operated and maintained as a system and a portion of the Network. Some of the University Projects currently included in the Network are the student housing and connecting food service facilities on the Mānoa campus, the bookstores located on any of the University’s campuses, the University’s student union on the Mānoa campus known as the Campus Center, including its dining facilities, the telecommunication system located on the Mānoa campus, those parking operations for the Mānoa campus which were financed with revenue bonds and/or in whole or in part from certain general obligation bonds, the student housing and connecting food service facilities on the Hilo campus, and faculty housing operated by the Mānoa campus.

The University System and any University Purposes which at the election of the Board have been included as part of the Network pursuant to a Supplemental Resolution constitute the Network so long as the inclusion of the University Purposes in the Network is not in violation of law or in violation of the terms of any grant, gift, bequest or devise. University Purposes are defined in the Resolution as any action, undertaking or improvement by the Board reasonably related to the development and promotion of the University as an institution of higher learning or an action or undertaking related thereto.

Revenues

University System Revenues. The University System Revenues include, among other things, the rates, rents, fees and charges imposed by the Board for the use or enjoyment of or the services furnished by certain Network facilities which constitute the University System (the “*University System*”). See “**THE UNIVERSITY OF HAWAII – The University Network**” herein. Such rates, rents, fees and charges are primarily derived from the imposition of room rentals, bookstore sales, parking revenues, and the like. See **APPENDIX A – “THE UNIVERSITY OF HAWAII – Student Enrollment – Student Tuition, Housing Costs and Financial Aid”** for a description of tuition, fees and room and board charges at each campus.

The University Special and Revolving Funds. The Legislative Appropriations include certain moneys in any special fund or revolving fund, which include, but are not limited to, the tuition and fees special fund, community colleges special fund, intercollegiate special fund, auxiliary enterprises special fund, student activities revolving fund, student health center revolving fund, real property and facilities use revolving fund, commercial enterprises revolving fund, and research and training revolving fund, unless otherwise restricted, appropriated or allocated by the Legislature of the State to the Board, the University, the University System or the Network and permitted to be expended for Current Expenses or for Debt Service. See **APPENDIX A – “THE UNIVERSITY OF HAWAII – Outstanding Indebtedness”** and **APPENDIX C – “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION.”** As described under “**Separate Resolution Financing**” below, the University Bonds have a prior and paramount claim to the Legislative Appropriations.

A special fund, which for accounting purposes is actually composed of several separate accounts, is generally dedicated or set aside by law for a specified object or purpose, but excludes revolving funds and trust funds. Special funds are designed to be self-sustaining through revenues earmarked from specified sources. The distinguishing characteristic of a special fund is that accounts in a special fund have legislative or other limitations imposed on their use. The types of moneys credited to an account in a special fund are user taxes, receipts and revenues from public undertakings, improvements or systems.

A revolving fund is one from which is paid the cost of goods and services rendered or furnished to or by an entity, such as the University, and which is replenished through charges made for the goods or services or through transfers from other accounts or funds. A revolving fund is often established with an appropriation of seed money from the State. Activities financed by revolving funds at the University include student activities, facilities usage, and services provided to facilitate instructional, research, and public service missions at the University. The activities are replenished through fees and charges for admission to events, rental, and services provided to users or the general public.

University System Revenues and Special and Revolving Funds. The following table shows University System Revenues and Current Expenses of the Network, amounts deposited to special and revolving funds and the University System Unrestricted Current Fund and Special and Revolving Funds prior year accumulated net position for the fiscal years ended June 30, 2013 through 2017:

Table 1
UNIVERSITY SYSTEM REVENUES AND SPECIAL AND REVOLVING FUNDS
FOR THE FISCAL YEAR ENDED JUNE 30,
(in thousands of dollars)

	2013	2014	2015	2016	2017
University System Revenues	\$ 96,676	\$ 97,083	\$100,303	\$102,063	\$102,532
Less Current Expenses (Network)	(56,373)	(56,870)	(57,055)	(56,090)	(54,007)
Deposits to Special and Revolving Funds ¹	396,854	415,866	428,081	423,552	416,985
Less Amounts Received from Hawaii Tobacco Settlement Special Fund ²	(12,662)	(12,570)	(11,631)	(9,549)	(11,799)
Less Cigarette Tax Received from State ³	(14,382)	(15,792)	(14,803)	(14,242)	(14,420)
Net University System Revenues and Deposits to Special and Revolving Funds	\$410,113	\$427,717	\$444,895	\$445,734	\$439,291
University System Unrestricted Current Fund Prior Year Accumulated Net Position	\$ 8,242	\$ 8,108	\$ 8,811	\$ 9,981	\$ 12,001
Special and Revolving Funds Prior Year Accumulated Net Position ¹	208,211	164,973	118,366	121,479	159,619
Less University Revenue-Undertakings Fund Tobacco Settlement Prior Year Accumulated Net Position ²	(7,134)	(7,204)	(7,292)	(7,388)	(8,425)
Less Hawaii Cancer Research Special Fund Prior Year Accumulated Net Position ³	(37,943)	(27,075)	(17,806)	(24,846)	(15,612)
University System Unrestricted Current Fund and Special and Revolving Funds Revenues and Prior Year Accumulated Net Position ¹	\$581,489	\$566,519	\$546,974	\$544,960	\$586,874

Source: University of Hawaii, (unaudited).

¹ Amounts on deposit in the special and revolving funds are available to the extent appropriated or allocated by the Legislature of the State to the Board, the University, the University System or the Network and permitted to be expended for Current Expenses of the Board, the University, the University System or the Network or for Aggregate Debt Service or Debt Service or a combination thereof; provided, however, that such amounts are subject and subordinate to the prior and paramount lien of the University Bonds Resolution as described under the subheading “**SECURITY FOR THE BONDS – Separate Resolution Financing**” above.

² Such amounts are only available for debt service on the University Bonds, Series 2015D Bonds, Series 2015E Bonds, Series 2017B Bonds and Series 2017C Bonds and to pay medical school operating expenses.

³ Such amounts are only available for debt service on the Series 2010A Bonds and to pay operating expenses and capital expenditures for the cancer research center.

State Employees’ Retirement System

For information relating to the University’s share of the State Employees’ Retirement System and the system itself see **APPENDIX A – “THE UNIVERSITY OF HAWAII – State Employees’ Retirement System.”**

DEBT SERVICE REQUIREMENTS

Set forth below are the debt service requirements for the Revenue Bonds and University Bonds. Certain other indebtedness payable from the Revenues of the Network and described in **“Outstanding Indebtedness”** in APPENDIX A hereto is excluded. Debt Service requirements for the Revenue Bonds for each fiscal year ending June 30 includes interest payments on April 1 of such year and principal and interest payments on October 1 of the prior calendar year. Debt Service requirements for the University Bonds in each fiscal year ending June 30 includes interest payments on January 15 of such year and principal and interest payments on July 15 of the prior calendar year. See APPENDIX A – **“THE UNIVERSITY OF HAWAII – Outstanding Indebtedness”** hereto for a discussion of the University’s other outstanding obligations.

Fiscal Year Ending June 30	Outstanding University Revenue Bonds Debt Service ⁽¹⁾⁽²⁾	Outstanding University Bonds Debt Service ⁽²⁾	Series 2017 Bonds			
			Principal	Interest	Total Debt Service	Total Bonds Debt Service
2018	\$38,139,055	\$280,788		\$1,170,483	\$1,170,483	\$39,590,325
2019	34,457,626		\$410,000	4,526,698	4,936,698	39,394,324
2020	34,221,359		420,000	4,517,053	4,937,053	39,158,412
2021	31,276,649		3,360,000	4,440,223	7,800,223	39,076,872
2022	31,271,055		3,510,000	4,294,372	7,804,372	39,075,426
2023	31,274,548		3,660,000	4,140,198	7,800,198	39,074,746
2024	31,270,489		3,825,000	3,976,356	7,801,356	39,071,844
2025	31,269,833		4,000,000	3,803,347	7,803,347	39,073,180
2026	31,271,631		4,175,000	3,624,939	7,799,939	39,071,570
2027	31,378,234		3,230,000	3,466,543	6,696,543	38,074,777
2028	20,316,355		15,535,000	3,135,686	18,670,686	38,987,041
2029	20,315,156		16,070,000	2,598,796	18,668,796	38,983,952
2030	28,040,322		8,170,000	2,168,317	10,338,317	38,378,639
2031	28,036,241		8,480,000	1,849,751	10,329,751	38,365,993
2032	32,326,021		4,060,000	1,592,218	5,652,218	37,978,239
2033	32,342,105		4,250,000	1,397,573	5,647,573	37,989,678
2034	22,896,961		4,085,000	1,201,761	5,286,761	28,183,722
2035	22,896,046		4,280,000	1,005,689	5,285,689	28,181,735
2036	22,897,709		4,485,000	800,076	5,285,076	28,182,785
2037	22,903,660		4,700,000	584,481	5,284,481	28,188,142
2038	17,092,965		4,930,000	358,336	5,288,336	22,381,301
2039	17,097,418		5,160,000	121,266	5,281,266	22,378,685
2040	17,097,821					17,097,821
2041	17,098,271					17,098,271
2042	524,194					524,194
2043	522,841					522,841
2044	525,432					525,432
2045	521,967					521,967
Total	\$649,281,965	\$280,788	\$110,795,000	\$54,774,161	\$165,569,161	\$815,131,914

Columns may not foot due to rounding.

(1) Debt service on the Taxable 2010 Build America Bonds is net of federal interest subsidy.

(2) Excludes the Refunded Bonds. Includes debt service payments to date in fiscal year 2018.

LEGALITY OF BONDS FOR INVESTMENT

The State and any of its political subdivisions, or any political or public corporations, including the employees' retirement system of the State, or any instrumentality of the State, or any insurance company or building and loan association, or any savings bank or trust company, or any bank or other financial institution operating under the laws of the State or any personal representative, guardian, trustee or other fiduciary in the State may legally invest any moneys or funds belonging to them or within their control and available for investment under other provisions of law, in bonds issued by the Board under the Act.

FINANCIAL STATEMENTS

The financial statements of the University as of and for the fiscal year ended June 30, 2017 have been audited by Accuity LLP, independent auditors, and are attached as **APPENDIX B** to this Official Statement. See **APPENDIX A – “THE UNIVERSITY OF HAWAII – Financial Information”** and **APPENDIX B – “AUDITED FINANCIAL STATEMENTS.”**

PENDING LITIGATION

The University has been named as a defendant or codefendant in numerous lawsuits and claims arising in the normal course of operations. Counsel is presently unable to express an opinion as to the probable outcome of any of these lawsuits and claims, and accordingly, no provision for losses has been made for such matters. Any losses arising from such lawsuits and claims are expected to be paid from moneys in certain special or revolving funds of the University or from legislative appropriations obtained for such purpose and are not expected to have a material adverse effect on the University's financial position or the Revenues.

There is no pending litigation seeking to restrain or enjoin the sale, issuance, execution or delivery of the Series 2017 Bonds or in any other manner affecting the validity of such Bonds or the proceedings or authority pursuant to which they are to be sold and issued.

TAX MATTERS

THE TAX-EXEMPT BONDS

Summary of Bond Counsel Opinion

Katten Muchin Rosenman, LLP, bond counsel to the Board (*“Bond Counsel”*), is of the opinion that under existing law, interest on the Series 2017A Bonds, Series 2017B Bonds, Series 2017D Bonds and Series 2017F Bonds (collectively, the *“Tax-Exempt Bonds”*) is not includable in the gross income of the owners thereof for federal income tax purposes. If there is continuing compliance with the applicable requirements of the Internal Revenue Code of 1986 (the *“Code”*), Bond Counsel is of the opinion that interest on the Tax-Exempt Bonds will continue to be excluded from the gross income of the owners thereof for federal income tax purposes. Interest on the Tax-Exempt Bonds is not an item of tax preference for purposes of computing individual or corporate alternative minimum taxable income. However, interest on the Tax-Exempt Bonds is includable in corporate earnings and profits and therefore must be taken into account when computing, for example, corporate alternative minimum taxable income for purposes of the corporate alternative minimum tax. Interest on the Tax-Exempt Bonds is exempt from all taxation by the State of Hawaii

or any county or other political subdivision thereof, except inheritance, transfer, estate and certain franchise taxes is not exempt from Illinois income taxes.

The Code contains certain requirements that must be satisfied from and after the date of issuance of the Tax-Exempt Bonds in order to preserve the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. These requirements relate to the use and investment of the proceeds of the Tax-Exempt Bonds, the payment of certain amounts to the United States, the security and source of payment of the Tax-Exempt Bonds and the ownership and use of the property financed and refinanced with the proceeds of the Tax-Exempt Bonds.

Tax-Exempt Bonds Purchased at a Premium or at a Discount

The difference (if any) between the initial price at which a substantial amount of each maturity of the Tax-Exempt Bonds is sold to the public (the “*Offering Price*”) and the principal amount payable at maturity of such Tax-Exempt Bonds is given special treatment for Federal income tax purposes. If the Offering Price is higher than the maturity value of a Tax-Exempt Bond, the difference between the two is known as “bond premium,” if the Offering price is lower than the maturity value of a bond, the difference between the two is known as “original issue discount.”

Bond premium and original issue discount are amortized over the term of a Tax-Exempt Bond on the basis of the Tax-Exempt Bond yield from the date of purchase to the date of maturity, compounded at the end of each accrual period of one year or less with straight line interpolation between compounding dates, as provided more specifically in the Income Tax Regulations. The amount of bond premium accruing during each period is treated as a reduction in the amount of tax-exempt interest earned during such period and is subtracted from the owner’s tax basis in the Tax-Exempt Bond. The amount of original issue discount accruing during each period is treated as interest that is excludable from the gross income of the owner of such Tax-Exempt Bond for federal income tax purposes, to the same extent and with the same limitations as current interest, and is added to the owner’s tax basis in the Tax-Exempt Bond. A Tax-Exempt Bond’s adjusted tax basis is used to determine whether, and to what extent, the owner realizes taxable gain or loss upon the disposition of the Tax-Exempt Bond (whether by reason of sale, acceleration, redemption prior to maturity or payment at maturity of the Tax-Exempt Bond).

Owners who purchase Tax-Exempt Bonds at a price other than the Offering Price, after the termination of the initial public offering or at a market discount should consult their tax advisors with respect to the tax consequences of their ownership of the Tax-Exempt Bonds. In addition, owners of Tax-Exempt Bonds should consult their tax advisors with respect to the state and local tax consequences of owning the Tax-Exempt Bonds; under the applicable provisions of state or local income tax law, bond premium and original issue discount may give rise to taxable income at different times and in different amounts than they do for Federal income tax purposes.

Exclusion from Gross Income: Requirements

The Code sets forth certain requirements that must be satisfied on a continuing basis in order to preserve the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. Among these requirements are the following:

Limitations on Private Use. The Code includes limitations on the amount of Tax-Exempt Bond proceeds, and the facilities financed or refinanced by such proceeds, that may be used in the trade or business of, or owned by, or used to make or finance loans to, persons other than governmental units.

Investment Restrictions. Except during certain “temporary periods,” proceeds of the Tax-Exempt Bonds and investment earnings thereon (other than amounts held in a reasonably required reserve or replacement fund, if any, or as part of a “minor portion”) may generally not be invested in investments having a yield that is “materially higher” (1/8 of one percent) than the yield on the Tax-Exempt Bonds.

Rebate of Arbitrage Profit. Unless the Tax-Exempt Bonds qualify for an exemption, earnings from the investment of the “gross proceeds” of the Tax-Exempt Bonds in excess of the earnings that would have been realized if such investments had been made at a yield equal to the yield on the Tax-Exempt Bonds are required to be paid to the United States at periodic intervals. For this purpose, the term “gross proceeds” includes the original proceeds of the Tax-Exempt Bonds, amounts received as a result of investing such proceeds and amounts to be used to pay debt service on the Tax-Exempt Bonds.

Covenants to Comply

The Board has covenanted to comply with the requirements of the Code relating to the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds.

Risks of Non-Compliance

In the event that the Board fails to comply with the requirements of the Code, interest on the Tax-Exempt Bonds may become includable in the gross income of the owners thereof for federal income tax purposes retroactively to the date of issue. In such event, the Resolution requires neither acceleration of payment of principal of, or interest on, the Tax-Exempt Bonds nor payment of any additional interest or penalties to the owners of the Tax-Exempt Bonds.

Federal Income Tax Consequences

Pursuant to Section 103 of the Code, interest on the Tax-Exempt Bonds is not includable in the gross income of the owners thereof for federal income tax purposes to the extent and with the limitations described above. However, the Code contains a number of other provisions relating to the treatment of interest on the Tax-Exempt Bonds that may affect the taxation of certain types of owners, depending on their particular tax situations. Some of the potentially applicable federal income tax provisions are described in general terms below. **PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR TAX ADVISORS CONCERNING THE PARTICULAR FEDERAL INCOME TAX CONSEQUENCES OF THEIR OWNERSHIP OF THE TAX-EXEMPT BONDS.**

Cost of Carry. Owners of the Tax-Exempt Bonds will generally be denied a deduction for otherwise deductible interest on any debt which is treated for federal income tax purposes as incurred or continued to purchase or carry the Tax-Exempt Bonds. As discussed below, special allocation rules apply to financial institutions.

Corporate Owners. Interest on the Tax-Exempt Bonds is generally taken into account in computing the earnings and profits of a corporation and consequently may be subject to federal income taxes based thereon. Thus, for example, interest on the Tax-Exempt Bonds is taken into account not only in computing the corporate alternative minimum tax but also the branch profits tax imposed on certain foreign corporations, the passive investment income tax imposed on certain S corporations, and the accumulated earnings tax.

Individual Owners. Receipt of interest on the Tax-Exempt Bonds may increase the amount of social security and railroad retirement benefits included in the gross income of the recipients thereof for federal income tax purposes.

Certain Blue Cross or Blue Shield Organizations. Receipt of interest on the Tax-Exempt Bonds may reduce a special deduction otherwise available to certain Blue Cross or Blue Shield organizations.

Property or Casualty Insurance Companies. Receipt of interest on the Tax-Exempt Bonds may reduce otherwise deductible underwriting losses of a property or casualty insurance company.

Financial Institutions. Financial institutions may be denied a deduction for their otherwise allowable interest expense in an amount determined by reference, in part, to their adjusted basis in the Tax-Exempt Bonds.

Foreign Personal Holding Company Income. A United States shareholder of a foreign personal holding company may realize taxable income to the extent that interest on the Tax-Exempt Bonds held by such a company is properly allocable to the shareholder.

THE TAXABLE BONDS

The following is a summary of the principal United States federal income tax consequences of ownership of the Series 2017C Bonds, Series 2017E Bonds and Series 2017G Bonds (collectively, the “*Taxable Bonds*”). This summary deals only with the Taxable Bonds held as capital assets by initial purchasers, and not with special classes of holders, such as dealers in securities or currencies, banks, tax-exempt organizations, life insurance companies, persons that hold the Taxable Bonds as a hedge or as hedged against currency risks or that are part of a straddle or conversion transaction, or persons whose functional currency is not the United States dollar.

The Code contains a number of provisions relating to the taxation of the Taxable Bonds (including but not limited to the treatment of and accounting for interest, premium, and market discount thereon, gain from the disposition thereof and withholding tax on income therefrom) that may affect the taxation of certain owners, depending on their particular tax situations. Prospective purchasers of the Taxable Bonds should consult their own tax advisors concerning the consequences, in their particular circumstances, under the Code and the laws of any other taxing jurisdiction, of ownership of the Taxable Bonds.

United States Federal Income Tax Considerations for United States Holders of Taxable Bonds

Payments of Interest to United States Holders. Interest on the Taxable Bonds will be taxable to a United States Holder (as defined below) as ordinary income at the time it is received or accrued, depending on the holder’s method of accounting for tax purposes in accordance with generally applicable principles.

The term “*United States Holder*” refers to a beneficial owner of a Taxable Bond for United States federal income tax law purposes and that is:

- a citizen or resident of the United States;
- a corporation or other entity taxable as a corporation which is created or organized in or under the laws of the United States or of any political subdivision thereof;

- an estate the income of which is subject to United States federal income taxation regardless of its source; or
- a trust if (1) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust or (2) the trust was in existence on August 10, 1996 and properly elected to continue to be treated as a United States person.

The term “*Non-U.S. Holder*” refers to any beneficial owner of a Taxable Bond who or which is not a United States Holder.

If a partnership holds the Taxable Bonds, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding Taxable Bonds should consult its tax advisor regarding the consequences to the United States federal income tax treatment of an investment in the Taxable Bonds.

Sale or Other Disposition of the Taxable Bonds. Unless a nonrecognition provision of the Code applies, a United States Holder of the Taxable Bonds must recognize any gain or loss on the sale, exchange, redemption, retirement or other disposition of their Taxable Bonds. The gain or loss is measured by the difference between the amount realized on the disposition of a Taxable Bond and the United States Holder’s adjusted tax basis in the Taxable Bond. Such gain or loss is capital gain or loss, except to the extent of accrued market discount not previously included in income, and is long term capital gain or loss if at the time of disposition such Taxable Bond has been held for more than one year.

Unearned Income Medicare Contribution Tax. A 3.8% Medicare contribution tax is imposed on the “net investment income” of certain United States individuals and on the undistributed “net investment income” of certain estates and trusts. Among other items, “net investment income” generally includes interest and certain net gain from the disposition of property (such as the Taxable Bonds), less certain deductions.

United States Federal Income Tax Considerations for Non-U.S. Holders of Taxable Bonds

Withholding Tax on Payments of Principal and Interest on Series 2017 Bonds. Generally, subject to the discussion of FATCA below, payments of principal and interest on a Taxable Bond will not be subject to United States federal withholding tax, provided that in the case of an interest payment:

- the beneficial owner of the Taxable Bond is not a bank to which the Taxable Bonds constitute an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; and
- either (A) the beneficial owner of the Taxable Bond certifies to the applicable payor or its agent, under penalties of perjury on an IRS Form W-8BEN, IRS Form W-8BEN-E or a suitable substitute form, that such owner is not a United States person and provides such owner’s name and address or (B) a securities clearing organization, bank or other financial institution, that holds customers’ securities in the ordinary course of its trade or business (a “financial institution”) and holds the Taxable Bond, certifies under penalties of perjury that such an IRS Form W-8BEN, IRS Form W-8BEN-E or suitable substitute form has been received from the beneficial owner by it or by a financial institution between it and the beneficial owner and furnishes the payor with a copy thereof.

If the beneficial owner is entitled to the benefit of an income tax treaty to which the United States is a party, such owner can obtain an exemption from or reduction of income and withholding tax

(depending on the terms of the treaty) by providing to the withholding agent a properly completed IRS Form W-8BEN, IRS Form W-8BEN-E, or any successor form, before interest is paid. However, neither exemption nor reduced withholding will be available if the withholding agent has actual knowledge or reason to know that the form is false.

Except to the extent otherwise provided under an applicable tax treaty, a beneficial owner of a Taxable Bond generally will be taxed in the same manner as a United States Holder with respect to interest payments on a Taxable Bond if such interest is effectively connected with such owner's conduct of a trade or business in the United States. Effectively connected interest received by a corporate Non-U.S. Holder may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate (or, if applicable, a lower treaty rate), subject to certain adjustments. Such effectively connected interest will not be subject to withholding tax if the holder delivers an IRS Form W-8ECI to the payor.

Gain on Disposition of the Taxable Bonds. A beneficial owner of a Taxable Bond generally will not be subject to United States federal income tax on gain realized on the sale, exchange or redemption of a Taxable Bond unless:

- such owner is an individual present in the United States for 183 days or more in the year of such sale, exchange or redemption and either (A) such owner has a "tax home" in the United States and certain other requirements are met, or (B) the gain from the disposition is attributable to such owner's office or other fixed place of business in the United States; or
- the gain is effectively connected with such owner's conduct of a trade or business in the United States.

Taxation of Payments under FATCA to Foreign Financial Institutions and Certain Other Non-U.S. Holders that are Foreign Entities. A 30% withholding tax may apply to payments of interest on, and after December 31, 2016, on gross proceeds from the disposition of, the Taxable Bonds that are made to Non-U.S. Holders that are financial institutions and certain non-financial entities. Such withholding tax, imposed under sections 1471 through 1474 of the Code, or FATCA, generally will not apply where such payments are made to (i) a Non-U.S. Holder that is a financial institution that enters into an agreement with the IRS to, among other requirements, undertake to identify accounts held by certain United States persons or U.S.-owned foreign entities, report annually certain information about such accounts and withhold tax as may be required by such agreement (or otherwise complies with an applicable intergovernmental agreement with respect to FATCA), or (ii) a Non-U.S. Holder that is a non-financial entity that certifies it does not have any substantial United States owners or furnishes identifying information regarding each substantial United States owner. A Non-U.S. Holder generally will be required to provide information with respect to its status for FATCA purposes, generally on the appropriate IRS Form W-8 or any successor form, to avoid withholding taxes under FATCA. Prospective investors should consult their own tax advisors regarding the application and requirements of these information reporting and withholding provisions under FATCA.

U.S. Federal Estate Tax. A Taxable Bond held by an individual who at the time of death is not a citizen or resident of the United States (as specially defined for United States federal estate tax purposes) is not subject to United States federal estate tax if at the time of the individual's death, payments with respect to such Taxable Bond are not effectively connected with the conduct by such individual of a trade or business in the United States.

Backup Withholding and Information Reporting

United States Holders. Information reporting applies to payments of interest on the Taxable Bonds, or the proceeds of the sale or other disposition of the Taxable Bonds with respect to certain

non-corporate United States holders, and backup withholding may apply unless the recipient of such payment supplies a taxpayer identification number, certified under penalties of perjury, as well as certain other information or otherwise establishes an exemption from backup withholding. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against that holder's United States federal income tax liability provided the required information is furnished to the IRS. The current backup withholding rate is 28%.

Non-U.S. Holders. Backup withholding and information reporting on Form 1099 does not apply to payments of principal and interest on the Taxable Bonds to a Non-U.S. Holder provided the Non-U.S. Holder provides the certification described above under "United States Federal Income Tax Considerations for Non-U.S. Holders-Withholding Tax on Payments of Principal and Interest on Series 2017 Bonds" or otherwise establishes an exemption (provided that neither the payor nor its agent has actual knowledge that the holder is a United States person or that the conditions of any other exemptions are not in fact satisfied). The current backup withholding rate is 28%. Interest payments made to a Non-U.S. Holder may, however, be reported to the IRS and to such Non-U.S. Holder on Form 1042-S.

Information reporting and backup withholding generally do not apply to a payment of the proceeds of a sale of Taxable Bonds effected outside the United States by a foreign office of a foreign broker. However, information reporting requirements (but not backup withholding) will apply to a payment of the proceeds of a sale of Taxable Bonds effected outside the United States by a foreign office of a broker if the broker (i) is a United States person, (ii) derives 50% or more of its gross income for certain periods from the conduct of a trade or business in the United States, (iii) is a "controlled foreign corporation" as to the United States, or (iv) is a foreign partnership that, at any time during its taxable year is 50% or more (by income or capital interest) owned by United States persons or is engaged in the conduct of a United States trade or business, unless in any such case the broker has documentary evidence in its records that the holder is a Non-U.S. Holder (and such broker has no actual knowledge to the contrary) and certain conditions are met, or the holder otherwise establishes an exemption. Payment by a United States office of a broker of the proceeds of a sale of Taxable Bonds will be subject to both backup withholding and information reporting unless the holder certifies its non-United States status under penalties of perjury or otherwise establishes an exemption.

Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against that holder's United States federal income tax liability provided the required information is furnished to the IRS.

CHANGE OF LAW

The opinion of Bond Counsel and the descriptions of the tax law contained in this Official Statement are based on statutes, judicial decisions, regulations, rulings and other official interpretations of law in existence on the date the Series 2017 Bonds are issued. There can be no assurance that such law or the interpretation thereof will not be changed or that new provisions of law will not be enacted or promulgated at any time while the Series 2017 Bonds are outstanding in a manner that would adversely affect the value or the tax treatment of ownership of the Series 2017 Bonds. The Tax Cut and Jobs Act ("H.R. 1"), which among other things, would significantly alter income tax rates and change or eliminate the alternative minimum tax, passed the House of Representatives on November 16, 2017; passed, with amendment, in the Senate on December 2, 2017; and is anticipated to be the subject of a conference committee in the near future. At this time it cannot be predicted whether, or in what form, H.R. 1 will be enacted into law.

STATE AND LOCAL CONSIDERATIONS

Interest on the Series 2017 Bonds is exempt from all taxation by the State of Hawaii or any county or other political subdivision thereof, except inheritance, transfer, estate and certain franchise taxes. Ownership of the Series 2017 Bonds may result in other state and local tax consequences to certain taxpayers, and Bond Counsel expresses no opinion regarding any such consequences arising with respect to the Series 2017 Bonds. Prospective purchasers of the Series 2017 Bonds should consult their tax advisors regarding the applicability of any such state and local taxes.

VERIFICATION

Causey Demgen & Moore P.C. (the “*Verification Agent*”), will verify from the information provided by the Underwriters the mathematical accuracy as of the date of issuance of the Series 2017 Bonds of (1) the computations contained in the schedules provided by the Underwriters to determine that the anticipated receipts from the securities and cash deposits listed in such schedules to be held in escrow will be sufficient to pay when due the principal, interest and any call premium payment requirements of the Advance Refunded Bonds, and (2) the computations of yield on both the Escrow Securities and the Series 2017 Bonds contained in the schedules provided to Bond Counsel for use in its determination that the interest on the Series 2017 Bonds is excluded from gross income for federal income tax purposes. The Verification Agent will express no opinion on the reasonableness of the assumptions provided to them, the likelihood that the principal of and interest on the Series 2017 Bonds will be paid as described in the schedules provided to them, or the exclusion of the interest on the Series 2017 Bonds from gross income for federal income tax purposes.

LEGALITY

The validity of the Series 2017 Bonds and certain other legal matters are subject to the approving opinion of Katten Muchin Rosenman LLP, Bond Counsel to the Board. A complete copy of the proposed forms of Bond Counsel opinion is contained in **APPENDIX E** hereto. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for the Underwriters by their counsel, Alston Hunt Floyd & Ing.

RATINGS

Fitch Ratings and Moody’s Investors Service, Inc. have assigned their municipal bond ratings of “AA” and “Aa2,” respectively, to the Series 2017 Bonds. Such ratings reflect only the respective views of such rating agencies, and any explanation of the significance of such ratings should be obtained from the rating agency furnishing the same. There is no assurance that any of such ratings will be retained for any given period of time or that the same will not be revised downward, suspended or withdrawn entirely by the rating agency furnishing the same if, in its judgment, circumstances so warrant. The Board undertakes no responsibility to oppose any such revision, suspension or withdrawal. Any such downward revision, suspension or withdrawal of such ratings, or any of them, may have an adverse effect on the market price of the Series 2017 Bonds.

CONTINUING DISCLOSURE

The Board will undertake to provide certain annual financial information and notices of the occurrence of certain events, if material, pursuant to a Continuing Disclosure Undertaking, a form of

which is attached as **APPENDIX F – “FORM OF CONTINUING DISCLOSURE CERTIFICATE;”** provided that if the inclusion or format of such information is changed in any future official statement, annual reports provided by the Board thereafter may instead contain or include by reference information of the type included in that official statement as so changed or, if different, the type of equivalent information included in the most recent official statement.

The Board failed to file timely notice in connection with the March 2014 upgrade of National Public Finance Guarantee Corporation, the successor bond insurer for the Series 2006A Bonds and Series 2006A University Bonds.

UNDERWRITING

Morgan Stanley & Co. LLC, as representative of itself and Merrill Lynch, Pierce, Fenner & Smith Incorporated, has agreed to purchase the Series 2017 Bonds at a price equal to the par amount of \$110,795,000.00, plus a net original issue premium of \$10,607,627.35, less an underwriting discount of \$540,781.03, resulting in a purchase price of \$120,861,846.32. The purchase contract relating to the Series 2017 Bonds (the “Contract of Purchase”) provides that the Underwriters will purchase all the Series 2017 Bonds if any are purchased, the obligation to make such purchase being subject to certain terms and conditions set forth therein, including the approval of certain legal matters by counsel and certain other conditions. The initial public offering prices may be changed from time to time by the Underwriters. The Underwriters may offer and sell the Series 2017 Bonds to certain dealers (including dealers depositing the Series 2017 Bonds into unit investment trusts certain of which may be sponsored or managed by the Underwriters) and others at prices lower than the public offering prices stated on the cover page hereof.

Morgan Stanley & Co. LLC, one of the Underwriters of the Series 2017 Bonds, has entered into a retail distribution arrangement with its affiliate Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC. As part of this arrangement, Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC for its selling efforts with respect to the Series 2017 Bonds.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. In the various course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Board (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Board. The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments; provided, however, that potential investors are advised that the offering of the Bonds is made only by means of the Official Statement. No dealer, broker, salesperson or other person has been authorized by the Board to give any information or to make any representation other than as contained in the Official Statement.

FINANCIAL ADVISOR

FirstSouthwest, a Division of Hilltop Securities (“FirstSouthwest”) is employed as Financial Advisor to the Board in connection with the issuance of the Series 2017 Bonds. The Financial Advisor's fee for services rendered with respect to the sale of the Series 2017 Bonds is contingent upon the issuance and delivery of the Series 2017 Bonds. FirstSouthwest, in its capacity as Financial Advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the federal income tax status of the Series 2017 Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

The Financial Advisor to the Board has provided the following sentence for inclusion in this Official Statement. The Financial Advisor has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to the Board and, as applicable, to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Financial Advisor does not guarantee the accuracy or completeness of such information.

MISCELLANEOUS

Any statements made in this Official Statement involving matters of opinion or estimates, whether or not expressly so stated, are set forth as such and not as representations of fact, and no representations are made that any of the estimates will be realized.

The description of the Resolution and other documents referred to herein are brief summaries of certain provisions thereof. Such summaries do not purport to be complete and reference is made to such documents for full and complete statements of such provisions.

The execution and delivery of this Official Statement has been duly authorized by the Board.

**BOARD OF REGENTS OF THE
UNIVERSITY OF HAWAII**

By: /s/ Jan N. Sullivan

Chair

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APPENDIX A
THE UNIVERSITY OF HAWAII

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APPENDIX A

THE UNIVERSITY OF HAWAII

General

The University of Hawaii (the “*University*” or “*UH*”) is Hawaii’s sole state public university system and is governed by a single Board of Regents. It is comprised of ten campuses, including three University campuses and seven community college campuses, three University Centers, multiple learning centers, and extension, research, and service programs distributed across six islands throughout the State. In addition to the flagship campus of the University at Mānoa, the University System also includes the campus of the University at Hilo on the island of Hawaii and the campus of the University at West O‘ahu on the island of O‘ahu. The community college system in the University System consists of seven community colleges. There are four community college campuses on the island of O‘ahu and one community college campus on each of the islands of Maui, Kaua‘i, and Hawaii, making college classes accessible and affordable and easing the transition from high school to college for many students. Nine university and educational centers are located in the more remote areas of the State, and support the rural communities via interactive television classrooms.

The mission of the University System is to provide quality college and university education and training; create knowledge through research and scholarship; provide service through extension, technical assistance, and training; contribute to the cultural heritage of the community, and respond to State needs. The campuses, organized under the Board, differentially emphasize instruction, research, and service. The University System’s special distinction is found in its Hawaiian, Asian, and Pacific orientation and international leadership role. Common values bind the University System together: aloha; academic freedom and vigor; institutional integrity and service; quality and opportunity; diversity, fairness, equity; collaboration and respect; and accountability and fiscal integrity.

The University traces its roots to 1907, when the Hawaii Territorial Legislature established the College of Agriculture and Mechanic Arts in Honolulu. The University began classes in September 1908, with 10 students and 13 faculty members. In 1912, the founding campus was renamed the College of Hawaii and moved to its present location in O‘ahu’s Mānoa Valley. Six years later, the University petitioned the legislature for university status, and the campus became the University of Hawaii in 1920.

Campuses and Academic Programs

The University System provides students with one doctoral-research campus, two comprehensive baccalaureate campuses, and seven community college campuses located on the four major islands. Students of the University System can earn a variety of degrees including certificates in more than 100 fields of study, 133 associate degrees in liberal arts and career and technical education, bachelor’s degrees in 146 programs, master’s degrees in 94 programs, and doctoral degrees in 56 programs, including medicine, law, pharmacy and architecture degrees. In addition, the University maintains a co-operative extension program. The three University Centers extend access to baccalaureate or higher degrees and certificates in communities beyond the physical location of campuses.

Mānoa Campus

The oldest campus and the flagship of the University System is at Mānoa on the island of O‘ahu. The University was established at Mānoa in 1907 as a land-grant college of agriculture and mechanic arts. With the addition of a College of Arts and Sciences in 1920, the college became the University. In 1972, the campus became known as the University of Hawaii at Mānoa to distinguish it from the other units of the growing University System. The campus at Mānoa remains by far the largest and most

comprehensive unit in the University System, comprising 10 schools and colleges, offering 99 baccalaureate degrees and 145 graduate and professional degrees. Regular credit enrollment for the fall 2017 semester was 17,612, of which 13,292 were full-time students and 4,320 were part-time students, with 12,881 students enrolled as undergraduates and 4,731 as graduates. A total of 4,712 degrees were awarded during fiscal year 2016-2017, of which 1,365 were graduate degrees and 3,347 were bachelors and other undergraduate degrees. The University at Mānoa is situated on approximately 320 acres on the island of O‘ahu, seven miles east of the central business district of the City and County of Honolulu. For the fall 2017 semester, the University at Mānoa had 2,514 faculty (5,995 faculty and staff).

The University at Mānoa is a research university of international standing. It has a Carnegie classification of “Research University/Very High” research activity (RU/VH), the top classification for doctoral-research universities, and the closest to the old “Carnegie Research I University” classification no longer in use. Students have special opportunities for Hawaiian, Asian, and Pacific educational experiences and involvement in research activities, learning community service, and co-curricular activities. The University is one of 32 universities or consortia in the United States designated as a land, sea and space grant college. As a major research university, the University at Mānoa has the capability of serving not only the State but the nation and the international community as well. The University at Mānoa has widely recognized strengths in tropical agriculture, tropical medicine, oceanography, astronomy, electrical engineering, volcanology, evolutionary biology, comparative philosophy, comparative religion, Hawaiian studies, Asian studies, Pacific Islands studies, and Asian and Pacific region public health. The University at Mānoa offers instruction in more languages than most American institutions. Languages taught include Arabic, Cambodian, Chamorro, Chinese, Filipino, French, German, Greek, Hawaiian, Hindi, Ilokano, Indonesian, Italian, Japanese, Korean, Latin, Maori, Portuguese, Russian, Samoan, Sanskrit, Spanish, Tahitian, Thai, Tongan, and Vietnamese. Other languages are taught on an as-needed basis, including Burmese, Classical Tibetan, Dutch, Khmer, Manchu, Pali, Prakrit, Tagalog, and Welsh. In addition to the University faculty expertise in benthic and pelagic oceanography, the Hawaii Institute of Marine Biology leads global research in coral reefs and zooxanthellae.

A number of specialized schools and colleges are located at the University at Mānoa, including Law, Medicine, Agriculture, Business Administration, Hawaiian Knowledge, Pacific and Asian Studies, and Ocean and Earth Sciences and Technology. The University at Mānoa also sponsors an NCAA Division I intercollegiate sports program.

Hilo Campus

The campus of the University of Hawaii at Hilo on the island of Hawaii was established in 1970 as a four-year, residential liberal arts undergraduate campus in the University System, with baccalaureate and associate degrees in arts and sciences. The major emphasis is on undergraduate education. The campus of the University at Hilo also has a College of Agriculture, Forestry, and Natural Resource Management, a College of Business, a College of Hawaiian Language and a College of Pharmacy.

Students may select majors in the natural sciences, humanities, social sciences, agriculture and Hawaiian language, as well as professional programs such as business, education, nursing, and pharmacy. As of the fall 2017 semester, the campus had 333 faculty (642 faculty and staff). Regular credit enrollment for the fall 2017 semester was 3,539, of which 2,743 were full-time and 796 were part-time, with 2,971 students enrolled as undergraduates and 568 as graduates. A total of 955 degrees were awarded during fiscal year 2016-2017, of which 157 were graduate degrees and 798 were bachelor’s degrees. With an average of 20 students per class, faculty and students interact closely in the learning environment.

The University at Hilo also sponsors an NCAA Division II intercollegiate sports program.

West O'ahu Campus

The University of Hawaii–West O'ahu is the most recent addition to the University System. It began operation in January 1976 as West O'ahu College, and in August 2012, the University opened a state-of-the-art baccalaureate campus in the City of Kapolei on the island of O'ahu. The name of the institution was changed to the University of Hawaii–West O'ahu by the Board in 1989. Formerly an upper division campus, the University of Hawaii–West O'ahu became a four-year campus and admitted its first class of freshmen in the fall semester of 2007.

The campus at West O'ahu was established to support the region's substantial growth. University of Hawaii–West O'ahu permits students to pursue their educational and professional goals through a curriculum that places major emphasis on workforce development with selected professional programs (such as elementary education, accounting and health care administration) as well as the humanities and social sciences. Courses are scheduled to accommodate student schedules, including evening, weekend and online courses.

As of the fall 2017 semester, the campus had 219 faculty (346 faculty and staff). Regular credit enrollment for the fall 2017 semester was 2,082 undergraduates, of which 1,611 were full-time and 1,471 were part-time. During fiscal year 2016-2017, 623 degrees were awarded, all of which were bachelor's degrees.

The first phase of the new campus was built on 41 acres and consists of a classroom building, laboratory building, administration building, library/resource center, campus center and maintenance building. The architectural design of the new campus has and continues to incorporate the latest trends in environmental sustainability and strives to achieve a Leadership in Energy and Environmental Design (LEED) certification by following strict standards established by the U.S. Green Building Council. The construction of the entire campus and adjacent business and retail community is being developed in phases. When completed, the University of Hawaii–West O'ahu is expected to accommodate 7,600 students and 1,000 faculty and staff.

The Community Colleges and Outreach Programs

The community college system in the University System consists of seven campuses. In the fall semester of 2017, the community college system served 27,441 credit students, which is approximately 53% of the enrollment of the entire University System. The community college subsystem is comprehensive, offering liberal arts and sciences courses leading to the Associate of Arts degree (for students preparing to transfer to baccalaureate institutions). The community colleges also offer courses in career and technical training leading to an Associate in Science (transferable to applicable baccalaureate programs), an Associate in Applied Science, or an Associate in Technical Studies degree. These courses may also lead to either a Certificate of Achievement or Certificate of Completion. Developmental instruction for students needing to improve their basic skills and a variety of non-credit courses and activities are also available.

Table A-1
COMMUNITY COLLEGES
2017-2018 Academic Year

<u>College</u>	<u>Island</u>	<u>FTE Enrollment*</u>	<u>Faculty/Staff*</u>	<u>Degrees Awarded**</u>
Hawaii	Big Island	1,658	326	576
Honolulu	O‘ahu	2,044	382	900
Kapi‘olani	O‘ahu	4,066	592	1,356
Kaua‘i	Kaua‘i	703	188	258
Leeward	O‘ahu	3,959	457	1,019
Maui	Maui	1,837	379	668
Windward	O‘ahu	1,256	220	341
Total:		15,522	2,544	5,118

* Fall 2017; FTE enrollments rounded to the nearest whole number

** Fall 2017 preliminary count

*** FY 2016-2017

Source: University of Hawaii Institutional Research and Analysis Office.

In addition to the community college subsystem, the University System provides dozens of educational, training and research centers across the Hawaiian Islands including centers located in Wai‘anae, O‘ahu; Hāna, Maui; Lāna‘i; Moloka‘i and West Hawaii.

Accreditation and Membership

The University is accredited by the Accrediting Commission for Senior Colleges and Universities and the Accrediting Commission for Community and Junior Colleges (“ACCJC”) of the Western Association of Schools and Colleges. All campuses meet or exceed their accreditation requirements. The most recent reaffirmation of accreditations at the University at Mānoa and Hilo campuses were for 10 years each, and for seven years at the West O‘ahu campus. Each community college is separately accredited and the most recent reaffirmation of accreditation for each campus was for six years, the maximum allowed by ACCJC policy. Professional programs in curriculum are individually accredited by appropriate agencies. Students may transfer credits to other U.S. or foreign universities on the same basis as course credits are transferred by other accredited U.S. universities.

Research and Sponsored Programs

The University of Hawaii at Mānoa is the University’s flagship research campus and in fiscal year 2016 was ranked in the top 100 by the National Science Foundation out of all public universities in the United States in research expenditures. The University has research partnerships with local, mainland and international universities, research institutions and business organizations. The University also secures research funding from various other sources, including the State, the National Science Foundation, National Institutes of Health, Department of Defense, Department of Agriculture, National Aeronautics and Space Administration, Department of Energy and the Environmental Protection Agency.

Recent University Capital Improvements and Future Capital Plans

In the past five years the University has completed a significant number of capital projects including new campuses at West O‘ahu and West Hawai‘i, a new cancer research center, a new system IT

building at the Mānoa Campus serving all ten campuses, a new Life Sciences building on the Manoa Campus, a new Allied Health and Administration building on the West O‘ahu campus, a new Daniel K. Inouye College of Pharmacy at the Hilo campus, a new Culinary Institute of the Pacific at Kapi‘olani Community College in Honolulu, new facilities at the Leeward Community College, Maui College and Windward Community College and a Community College Energy Conservation Project. The University approved the Six-Year Capital Improvement Program for fiscal years 2018-2023 in November 2016 and updated it in November 2017. This \$1.5 billion program is designed to modernize the University’s classrooms, laboratories and offices while addressing the University’s maintenance backlog.

Administrative Organization

The University System is governed by the Board, the members of which are appointed by the Governor and confirmed by the State Senate. At least part of the membership of the Board represents geographic subdivisions of the State. The Board has the power, as provided by law, to formulate policy and to exercise control over the University through its executive officer, the President of the University, who is appointed by the Board. The Board has exclusive jurisdiction over the internal structure, management and operation of the University.

The President of the University System also serves as the Chief Executive Officer of the Board. Chief executive officers for the various campuses are Chancellors.

Members of the Board of Regents

The affairs of the University System are under the general management and control of the Board, consisting of fifteen members nominated by the Candidate Advisory Council for the Board of Regents, appointed by the governor of the State and confirmed by the Senate. Regents serve staggered five-year terms. The current Regents of the University are:

Name	Term Expires (June 30)	Profession
Jan Naoe Sullivan, Chair	2021	Chief Operating Officer, Oceanit
Randolph G. Moore, Vice Chair	2018	Retired, Assistant Superintendent for School Facilities, Department of Education
Benjamin Asa Kudo, Vice Chair	2022	Counsel, Ashford & Wriston
Eugene Bal III	2018	Former Executive Director, Maui High Performance Computing Center
Brandon Marc Higa	2018	Student Regent
Douglas Shinsato	2018	Co-Founder, Anthill Ventures
Jeffrey Portnoy	2019	Chair of Litigation Department, Cades Schutte
Lee Putnam	2019	Retired, Assistant Vice President for Academic Affairs, University of Hawaii
Stanford Yuen	2019	Principal, SLC Consulting
Michael McEnerney	2020	Former Forensic Accountant, McEnerney Shimabukuro Okazaki and Fujita CPAs AAC
Ernest Wilson	2020	Retired, Dean, Hawaii Pacific University TIM program

Wayne Higaki	2021	Chief Development Officer, North Hawaii Community Hospital
Michelle Tagorda	2021	Undergraduate Advisor, University of Hawaii
Simeon Acoba	2022	Retired, Associate Justice, Supreme Court of Hawaii
Norma Doctor Sparks	2022	Co-Founder and President, Families First Hawaii Services Inc.

Administration

Administrative personnel of the University System include the following individuals:

David Lassner, President. David Lassner was appointed University of Hawaii President effective July 1, 2014 and interim Chancellor of the University of Hawaii at Mānoa effective September 1, 2016.

Lassner has worked at the university since 1977, and, prior to serving as President and interim President, served as the University's Vice President for Information Technology and Chief Information Officer. Lassner is a member of the University's graduate faculty and has taught both online and in-person courses in computer science, communications, business and education.

In his prior positions Lassner played an active leadership role in a variety of local, national and international information and communications technology organizations. He served on the boards of Hawaii's High Technology Development Corporation and Public Broadcasting Service affiliate and he chaired the state's Broadband Task Force. Lassner also served on the board of Internet2 and was a co-founder and board member of the Kualī Foundation, a founding steering committee member and past-chair of the Western Interstate Commission for Higher Education's Cooperative for Educational Technologies (WCET) cooperative and past-chair of the board of EDUCAUSE, the major professional association for information technology in higher education.

Lassner led a major statewide federally-funded project that interconnected public schools, libraries and campuses on six islands with fiber optics and has received multiple awards from the National Science Foundation focused on research and education networking and cyberinfrastructure. He is principal investigator for the Maui High Performance Computing Center and for the Pacific Disaster Center, major Department of Defense programs on Maui.

Lassner earned an AB in economics summa cum laude and MS in computer science at the University of Illinois at Urbana-Champaign and a Ph.D. in communication and information sciences from the University of Hawaii. He has been recognized with Internet2's Richard Rose Award, WCET's Richard Jonsen Award and as a Distinguished Alumnus of the University of Hawaii.

Donald Straney, Vice President for Academic Planning and Policy. As Vice President for Academic Planning and Policy, Donald O. Straney serves as the Chief Academic Officer for the UH System with overall responsibility for leadership, planning and intercampus coordination of academic affairs, student affairs, policy and planning, institutional research and analysis, international and strategic initiatives and Hawaii P-20 Partnerships for Education.

From 2010 to 2017, Straney served as Chancellor at the University of Hawai'i at Hilo. He served on the board of directors of the Hawai'i Island Chamber of Commerce and the Hawai'i County Workforce Development Board. He was also on the National Advisory Board of the Center for the

Integration of Teaching, Research and Learning, a National Science Foundation initiative at the University of Wisconsin.

Previously, he served eight years as dean of the College of Science and professor of biology at California State Polytechnic University, Pomona. While there, he was on the board of directors of the Desert Studies Center, the Ocean Studies Institute, and the Strategic Planning Council of the California State University Program for Education and Research in Biotechnology.

Before that, he spent 23 years at Michigan State University as chair of the Department of Zoology and assistant to the provost for faculty development.

Straney currently serves on the board of directors of the Pacific International Space Center for Exploration Systems (PISCES) and the Hawai'i Aeronautics Advisory Committee.

An evolutionary biologist by training, Straney studied patterns of change in a variety of organisms. He earned his Ph.D. in zoology from the University of California, Berkeley, and his MS in zoology from Michigan State University.

Jan Gouveia, Vice President for Administration. As Vice President for Administration, Jan Gouveia is responsible for overseeing and managing systemwide operational programs in procurement, real property and risk management, capital improvements, human resources, and internal and external communications.

Gouveia brings more than 15 years of administrative and leadership experience in the public and private sectors, including four years with the University of Hawaii. She previously served as Hawaiian Airlines' managing director for training and development and manager of strategy and transformation with the strategic goal of increasing efficiency and effectiveness. She has previously held cabinet level positions in state government, served as chief legal counsel for the Honolulu Board of Water Supply and was the inaugural director of risk management at the University.

Gouveia holds a BA in political science from the University of Hawaii at Mānoa and a juris doctorate and master's in business administration from Gonzaga University.

Dr. John F. Morton, Vice President for Community Colleges. Dr. Morton has served as Vice President for Community Colleges since July 2005 and is responsible for executive leadership, policy decision-making, resource allocation and development of support services for the University of Hawai'i's seven community colleges. Dr. Morton earned a B.S. in chemistry and M.A. in political science from the University of Illinois and a Ph.D. in Communication and Information Sciences from the University of Hawaii at Mānoa.

At the University of Hawaii where he began in 1970, Dr. Morton previously served as Chancellor at Kapi'olani Community College for 20 years where he directed the development of a new campus on Diamond Head and a rapidly increasing student population. He started his UH career at Leeward Community College as a faculty member in chemistry and political science, and was Dean of Instruction, Coordinator for Advanced Institutional Development Program, and Director for Special Programs and Community Services.

In January 2002, Dr. Morton became project coordinator, overseeing the planning, development, and implementation of the first unified Student Information System for the University of Hawaii System and continues to oversee this project.

Active nationally and regionally, he serves as a member of the board for Community Colleges for International Development and RC 2020 (Renewal and Change).

Locally, Dr. Morton serves on numerous boards including chairing the Hawaii Health Information Corporation Board and the Assets School Board of Trustees. He also serves on the Board of the Pacific Asian Affairs Council and the High Technology Development Corporation.

Carrie K. S. Okinaga, Vice President for Legal Affairs and University General Counsel. As University General Counsel and Vice President for Legal Affairs, Carrie K. S. Okinaga serves as a member of the President's executive leadership team and is responsible for overseeing the provision of legal services to the Board of Regents, the President, the University administration and its operating units. Okinaga joined the University System in June 2015, with legal experience gained in both the private and public sectors.

Following 12 years in private practice in Honolulu, Okinaga worked with three mayors as the City and County of Honolulu's corporation counsel from 2005 to 2011. From 2012 to 2015, she served as senior vice president, general counsel and corporate secretary of First Hawaiian Bank. Okinaga also served on the board for the Honolulu Authority for Rapid Transportation from its inception until June 2015, serving as HART's first board chair for two years until 2013.

Born and raised in Hawaii, Okinaga attended the University of Hawaii at Mānoa, participating in the honors program. She received her bachelor of arts degree in government/public policy from Pomona College in 1989, graduating magna cum laude. She graduated from Stanford Law School in 1992, and served on its Board of Visitors from 2006 to 2014.

Kalbert K. Young, Vice President for Budget and Finance/Chief Financial Officer. Kalbert K. Young joined the University of Hawaii System in January 2015. As the University's Chief Financial Officer, Young is responsible for leading and directing the university's systemwide financial management and budgetary functions.

He previously served as the State of Hawaii's Director of Budget and Finance. As the Director of Budget and Finance, he administered the state budget to develop near- and long-term financial plans and strategies and to provide programs for the improvement of state agencies' management and financial management. Young has served as a trustee to the State of Hawaii Employees' Retirement System and as a trustee on the State of Hawaii Deferred Compensation Plan.

Prior to serving as the Director of Budget and Finance for the State, Young served as the Director of Finance for the County of Maui. His professional experience and background includes government service work in the State House of Representatives on the staff of the chair of the House Committee on Economic Development.

His private sector experience includes government relations, budget and financial planning and internal audit at Kamehameha Schools—a private non-profit educational trust in Hawaii. He has also worked in the area of land planning and development for the Kapalua Land Company, Ltd., a subsidiary of Maui Land & Pineapple, Inc.

Young holds a bachelor of arts degree in American history and a master of business administration degree from the University of Hawaii at Mānoa.

Garret Yoshimi, Vice President for Information Technology/Chief Information Officer. As the University of Hawaii's Vice President for Information Technology and Chief Information Officer (VPIT/CIO), Garret Yoshimi is responsible for the University's systemwide information technology

systems and services. Yoshimi provides executive leadership in collaboratively setting forth the overall vision, goals, strategies and plans for the effective and appropriate use of information technologies to advance the University System.

Yoshimi joined the University in January 2015. Prior to serving as the University's VPIT/CIO, Yoshimi was Vice President and Chief Operating Officer for eWorld Enterprise Solutions. He brings to the university more than 35 years of experience in information technology in both the public and private sectors in Hawaii. He has served as the first CIO for the Hawaii Judiciary, senior technology executive for the East-West Center and CIO for DTRIC Insurance.

Yoshimi also previously served as telecommunications manager before being promoted to director of technology infrastructure for the University of Hawaii. He actively represented the University of Hawaii in state and national venues as a member of EDUCAUSE, Internet2 and the Association for College and University Technology Advancement, which awarded him the Bill D. Morris award for individual leadership.

A native of Honolulu, Yoshimi earned a bachelor of science degree in electrical engineering from Purdue University and a graduate certificate in telecommunications and information resource management from the University of Hawaii at Mānoa.

Vassilis L. Syrmos, Vice President for Research and Innovation. As Vice President for Research and Innovation of the University of Hawaii System, Vassilis Syrmos is charged with providing critical leadership and coordination of systemwide research and innovation efforts, including management and direction of the University's research support, technology transfer and many compliance functions. One of his priorities will be to support significant growth in research through the University of Hawaii Innovation Initiative (HI²), which seeks to double the state's research enterprise to \$1 billion annually over the next decade.

Syrmos previously served as the Associate Vice Chancellor for Research at the University of Hawaii at Mānoa where he worked on a range of projects including developing major research facilities such as the Daniel K. Inouye Center for Microbial Oceanography: Research and Education (C-MORE Hale), the state's only laboratory to be rated LEED Platinum and, since 1991, has been a professor with the department of electrical engineering at the University of Hawaii Mānoa. He has also served as the associate dean of the College of Engineering and spent a sabbatical leave at The Boeing Company as a research fellow.

Syrmos is the author/coauthor of more than 100 journal and conference papers and the book *Optimal Control* (2nd edition, John Wiley, 1995). He was an associate editor of Circuits, Systems and Signal Processing and has served in numerous international conferences in technical program committees, editorial boards and organizing committees. His research has been funded by the National Science Foundation, the Defense Advanced Research Projects Agency, the Office of Naval Research, the Naval Air Systems Command, the Naval Sea Systems Command, the Air Force Research Labs at Wright Patterson, the Army Research Labs, The Boeing Company, Hawaiian Electric Company and Hamamatsu Photonics.

Syrmos has been a consultant for the Canada France Hawaii Telescope, Innovative Solutions, Science Technology International and others. He is a Boeing AD Welliver Fellow, a member of the Sigma Xi research organization, a senior member of the Institute of Electrical and Electronics Engineers and was a member of the board of the Hawaii Technology Development Venture program. He is a board member of the Research Corporation of the University of Hawaii (RCUH), the Pacific International Center of High Technology Research (PICHTR), Natural Energy Laboratory of Hawaii Authority

(NELHA), the Hawaii Academy of Sciences and XLR8UH, the University of Hawaii's first proof of concept accelerator.

Syrmos obtained his Ph.D. at Georgia Institute of Technology in electrical engineering and a diploma in electrical engineering from Democritus University of Thrace, Greece.

Council of Chancellors

Chief executives of the University System's three university and seven community college campuses comprise the Council of Chancellors, which reports to the university president. The chancellors are:

David Lassner, Mānoa (interim)	Louise Pagotto, Kapi'olani
Marcia Sakai, Hilo (interim)	Helen Cox, Kaua'i
Maenette Benham, West O'ahu	Manuel Cabral, Leeward
Rachel Solemsaas, Hawaii	Lui Hokoana, Maui
Erika Lacro, Honolulu	Douglas Dykstra, Windward

Student Enrollment

Enrollments

The following table sets forth the University System's enrollment, by campus, for the fall semester of each of the past five academic years:

Table A-2
FTE ENROLLMENT BY CAMPUS
Fall Semester 2013 to 2017

Fall	Total University System	UH Mānoa	UH Hilo	UH West O'ahu	Community Colleges
2013					
Undergraduate	35,943	12,793	2,910	1,481	18,759
Graduate	4,448	3,787	661	0	0
Total:	40,391	16,580	3,571	1,481	18,759
2014					
Undergraduate	34,854	12,504	2,866	1,673	17,811
Graduate	4,383	3,752	631	0	0
Total:	39,237	16,256	3,497	1,673	17,811
2015					
Undergraduate	34,124	12,208	2,737	1,834	17,345
Graduate	4,335	3,715	620	0	0
Total:	38,459	15,923	3,357	1,834	17,345
2016					
Undergraduate	32,551	11,657	2,617	2,002	16,275
Graduate	4,150	3,536	614	0	0
Total:	36,701	15,193	3,231	2,002	16,275
2017					
Undergraduate	31,633	11,487	2,542	2,082	15,522
Graduate	3,976	3,387	589	0	0
Total:	35,609	14,874	3,131	2,082	15,522

Source: University of Hawaii Institutional Research and Analysis Office.

Applications and New Enrollments

The following tables list the applications and new enrollments of undergraduates, by campus, for the fall semester for the past five years:

Table A-3
MĀNOA CAMPUS
APPLICATIONS AND NEW ENROLLMENTS
UNDERGRADUATE

Fall	Applications			New Enrollments		
	Received	Accepted	Percent Accepted	Freshman ⁽¹⁾	Transfer	Total Enrolled
2013	12,286	9,880	80.4	2,005	2,084	4,089
2014	12,226	9,794	80.1	1,841	2,011	3,852
2015	12,492	10,023	80.2	1,903	1,826	3,729
2016	11,810	9,881	83.7	1,972	1,694	3,666
2017	13,197	10,734	81.3	1,959	1,586	3,545

(1) The calculation for determining first-time freshmen status was revised in Spring 2013. As of November 2013, counts for first-time freshmen for all years were revised to reflect the new calculation.

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-4
HILO CAMPUS
APPLICATIONS AND NEW ENROLLMENTS
UNDERGRADUATE

Fall	Applications			New Enrollments		
	Received	Accepted	Percent Accepted	Freshman ⁽¹⁾	Transfer	Total Enrolled
2013	3,202	2,561	80.0	496	639	1,135
2014	3,142	2,427	77.2	432	614	1,046
2015	3,016	2,349	77.9	385	569	954
2016	3,053	2,261	74.1	369	533	902
2017	3,055	2,468	80.8	415	511	926

(1) The calculation for determining first-time freshmen status was revised in Spring 2013. As of November 2013, counts for first-time freshmen for all years were revised to reflect the new calculation.

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-5
WEST O‘AHU CAMPUS
APPLICATIONS AND NEW ENROLLMENTS
UNDERGRADUATE

Fall	Applications			New Enrollments		
	Received	Accepted	Percent Accepted	Freshman ⁽¹⁾	Transfer	Total Enrolled
2013	2,299	1,869	81.3	291	551	842
2014	2,408	1,903	79.0	266	583	849
2015	2,351	1,893	80.5	254	557	811
2016	2,795	2,153	77.0	292	599	891
2017	2,649	2,296	86.7	282	586	868

⁽¹⁾ The calculation for determining first-time freshmen status was revised in Spring 2013. As of November 2013, counts for first-time freshmen for all years were revised to reflect the new calculation.

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-6
COMMUNITY COLLEGES
APPLICATIONS AND NEW ENROLLMENTS
UNDERGRADUATE

Fall	Applications			New Enrollments		
	Received	Accepted	Percent Accepted	Freshman ⁽¹⁾	Transfer	Total Enrolled
2013	22,935	20,660	90.1	5,485	3,277	8,762
2014	21,732	19,849	91.3	5,274	3,044	8,318
2015	23,028	20,882	90.7	4,889	3,070	7,959
2016	20,485	18,802	91.8	4,428	2,708	7,136
2017	20,162	17,713	87.9	4,379	2,457	6,836

⁽¹⁾ The calculation for determining first-time freshmen status was revised in Spring 2013. As of November 2013, counts for first-time freshmen for all years were revised to reflect the new calculation.

Source: University of Hawaii Institutional Research and Analysis Office.

As the sole provider of public higher education in the State of Hawaii with ten campuses throughout the State, including a flagship doctoral-research campus, two comprehensive baccalaureate campuses and seven community colleges, transfers play a key role in providing access to higher education for many students in the State. The majority of undergraduate transfers in to the University System’s four year campuses are from the University System’s community colleges, and transfers in to the community colleges are primarily from other UH campuses, including other community colleges.

Strategies to Increase Enrollment

The University’s enrollment has decreased slightly from academic year 2014-2015 to 2015-2016, and again from 2015-2016 to 2016-2017. The State’s unemployment rate is presently 2.2%, the lowest in the nation. The University’s administration is not surprised with the decline in enrollment as the University continues to graduate more students on time, within four years, while competing for students in a tight labor market.

To further grow student enrollment and help reach the State’s goal under the *55 by ’25 Campaign* (55% of the adult population having college degrees by 2025), the University has developed a 2017-2020 Enrollment Management Plan to grow enrollment over the next five years. The following strategies are intended to guide the University’s enrollment, retention and degree efforts:

- Focus on retention and persistence initiatives with campus specific strategies
- Use of financial aid to positively impact enrollment
- Initiatives targeting transfer, returning, and adult students
- Research best practices and maintain national engagement in enrollment management
- Set enrollment targets to increase enrollment between 3% and 8% systemwide for the next four years

Student Tuition, Housing Costs and Financial Aid

Tuition rates for academic year 2015–2016 had previously been scheduled to increase as much as seven percent over the previous year’s tuition. However, in the interest of preserving affordability and access to public higher education in the State of Hawaii, the Board amended a previously-approved five year tuition schedule, reducing the tuition rate increase to not more than five percent for academic year 2015-2016 and academic year 2016-2017. On July 21, 2016, the Board approved a new three-year tuition increase schedule. This new schedule provided for no increase in tuition for academic year 2017-2018 and tuition increases in academic years 2018-2019 and 2019-2020 ranging from one to two percent at various campuses.

The University seeks to provide affordable education for its students. The University has increased its institutional financial aid for students from \$34.8 million in academic year 2007-2008 to \$64.0 million in academic year 2015-2016. The share of students receiving aid¹ in 2015–2016 academic year ranged from 33% (Honolulu CC) to 65% (University of Hawai‘i at Hilo) for all students and 50% (Honolulu CC) to 82% (Hawai‘i CC) for first-time, full-time freshmen. On average, financial aid recipients receive \$9,468 in financial assistance² from the University. Further, first-time full-time freshmen financial aid recipients receive an average of \$9,299 in financial assistance.² Concurrent with the new tuition schedule, executive policy requires the allocation of tuition revenues for financial assistance to be at least 10% at Mānoa, 12% at Hilo and West O‘ahu and 8.8% at the community colleges by the end of the tuition schedule in academic year 2016-2017. In addition, non-need-based aid shall be not less than what was awarded in academic year 2013-2014. Further, students receive various federal and other, non-institutional financial assistance. For example, undergraduate students received \$61.4 million from 14,465 Pell Grants in academic year 2015-16.

The following tables set forth the annual tuition and fee charges to each full-time undergraduate student, together with the average annual room and board charges, for the current year and each of the past four years.

¹ Aid includes scholarships and grants.

² Financial assistance includes scholarships, grants, federal work study, and loans.

Table A-7
MĀNOA CAMPUS
Annual Tuition, Fees and Room and Board Charges

Academic Year	Tuition and Fees		Average Room and Board
	Resident	Non-resident	
2013-2014	\$9,904	\$27,472	\$10,218
2014-2015	10,620	29,412	13,284
2015-2016	11,164	31,516	13,898
2016-2017	11,732	33,764	13,030
2017-2018	11,754	33,786	13,673

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-8
HILO CAMPUS
Annual Tuition, Fees and Room and Board Charges

Academic Year	Tuition and Fees		Average Room and Board
	Resident	Non-resident	
2013-2014	\$6,536	\$18,296	\$7,616
2014-2015	7,036	19,036	9,328
2015-2016	7,332	19,788	9,970
2016-2017	7,650	20,610	10,418
2017-2018	7,648	20,608	11,064

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-9
WEST O‘AHU CAMPUS
Annual Tuition and Fees

Academic Year	Tuition and Fees	
	Resident	Non-resident
2013-2014	\$6,336	\$17,856
2014-2015	6,888	18,888
2015-2016	7,152	19,608
2016-2017	7,440	20,400
2017-2018	7,440	20,400

Source: University of Hawaii Institutional Research and Analysis Office.

Table A-10
COMMUNITY COLLEGES
Annual Tuition and Fees

Academic Year	Tuition and Fees (a)	
	Resident	Non-resident
2013-2014	\$2,623	\$7,375
2014-2015	2,815	7,663
2015-2016	2,948	7,940
2016-2017	3,093	8,229
2017-2018	3,094	8,230

(a) Average community college tuition and fees.

Source: University of Hawaii Institutional Research and Analysis Office.

Degrees Awarded by School

The following table shows the number of degrees awarded, by campus, for the five fiscal years shown:

Table A-11
DEGREES AWARDED BY CAMPUS
ASSOCIATE/BACHELOR/GRADUATE*

Fiscal Year/Degree	Total UH System	UH Mānoa	UH Hilo	UH West O'ahu	Community Colleges
2012-2013					
Associate/Certificate	4,097	0	0	0	4,097
Bachelor/Other Undergraduate	4,301	3,267	676	349	9
Graduate/Professional Practice	1,603	1,470	133	0	0
Total:	10,001	4,737	809	349	4,106
2013-2014					
Associate/Certificate	5,158	0	0	0	5,158
Bachelor/Other Undergraduate	4,474	3,444	665	352	13
Graduate/Professional Practice	1,646	1,505	141	0	0
Total:	11,278	4,949	806	352	5,171
2014-2015					
Associate/Certificate	4,830	0	0	0	4,830
Bachelor/Other Undergraduate	4,660	3,465	749	439	7
Graduate/Professional Practice	1,614	1,458	156	0	0
Total:	11,104	4,923	905	439	4,837
2015-2016					
Associate/Certificate	5,192	0	0	0	5,192
Bachelor/Other Undergraduate	4,890	3,649	750	474	17
Graduate/Professional Practice	1,598	1,455	143	0	0
Total:	11,680	5,104	893	474	5,209
2016-2017					
Associate/Certificate	5,102	0	0	0	5,102
Bachelor/Other Undergraduate	4,784	3,347	798	623	16
Graduate/Professional Practice	1,522	1,365	157	0	0
Total:	11,408	4,712	955	623	5,118

* The University Institutional Research and Analysis Office maintains the information contained in this table only for fiscal years.
Source: University of Hawaii Institutional Research and Analysis Office.

Faculty

The full-time equivalent faculty in the University System in the academic year 2017-2018 totals approximately 3,881. Of the total headcount of faculty on the tenure track, approximately 71.2% are tenured. When all faculty are considered, including those that are neither tenured nor tenure-track, approximately 38.2% are tenured.

Scores of faculty members have been elected to distinguished academic societies such as the American Academy of Arts and Sciences, the American Philosophical Society, the National Academy of Sciences, and the National Academy of Engineering.

Cybersecurity

The University's Information Technology Services ("ITS") provides governance for information technology projects and supports the management and operation of computer and telecommunication services within the University, including programs in fulfillment of statutorily mandated cybersecurity duties outlined under Hawaii Revised Statutes. ITS is led by the Vice President for Information Technology and Chief Information Officer. This office is responsible for establishing cybersecurity standards for the University and ensuring that system operations stay current with best practices.

Information technology systems, including those operated or utilized by the University may be vulnerable to breaches, hacker attacks, computer viruses, physical or electronic break-ins or similar actions which can result in the unintended release and distribution of private or confidential data or other information. The University has taken, and continues to take, measures to protect its information technology systems from the threat of such "cyberattacks," but there can be no assurance that the University or any department thereof or any of their vendors will not experience a breach. If such a breach occurs, the financial consequences could have an economic impact on the University, or on its ability to efficiently perform routine functions, or on the ability of the University or one or more of its component units to deliver services.

Financial Information

General. The University receives funds from various sources, including (i) general funds from Legislative Appropriations of the State; (ii) federal funds, including federal contracts and grants in support of research and training programs; (iii) special and revolving funds derived from wholly or partially self-supporting activities as well as funds appropriated by the legislature for specific purposes; and (iv) trust and agency funds received and expended by the University in accordance with terms of trusts or agreements with donors or grantors, or maintained by the University to account for certain funds. See **APPENDIX A – "THE UNIVERSITY OF HAWAII – Financial Information – State Appropriations"** below.

Financial Statements. The audited financial statements of the University as of and for the year ended June 30, 2017 are included in **APPENDIX B** to this Official Statement to provide general information. Accuity LLP has not reviewed this Official Statement and has no responsibility with respect to this Official Statement. See **"FINANCIAL STATEMENTS"** in the forepart of this Official Statement.

The University of Hawaii Foundation ("UHF") administers gifts, contributions and grants to the University. The Research Corporation of the University of Hawaii ("RCUH") is a public corporation created to encourage and administer sponsored scientific research by University faculty and staff. UHF and RCUH are considered to be component units of the University, and their financial information is incorporated into the University's financial statements. Both UHF and RCUH prepare stand-alone audited financial statements. See **APPENDIX A – "THE UNIVERSITY OF HAWAII – Financial**

Information – The University of Hawaii Foundation” and “– Financial Information Concerning Foundations and Other Entities.”

Tables A-12 and A-13 present the University’s balance sheet and statement of operations for the past five fiscal years. The financial statements for fiscal years ending June 30, 2013 through 2017 were audited by Accuity LLP. Total net position has decreased 62.3% over the past five fiscal years ended June 30 of the years shown in the table below.

Table A-12
SUMMARY BALANCE SHEET
AS OF JUNE 30
(in thousands of dollars)

	<u>2013*</u>	<u>2014</u>	<u>2015**</u>	<u>2016***</u>	<u>2017</u>
Assets and Deferred Outflows of Resources					
Total Assets	\$3,400,654	\$3,464,626	\$3,517,218	\$3,445,565	\$3,646,939
Total Deferred Outflows of Resources	<u>5,883</u>	<u>5,576</u>	<u>140,099</u>	<u>146,098</u>	<u>567,220</u>
Total Assets and Deferred Outflows of Resources	<u>\$3,406,537</u>	<u>\$3,470,202</u>	<u>\$3,657,317</u>	<u>\$3,591,663</u>	<u>\$4,214,159</u>
Liabilities, Deferred Inflows of Resources and Net Position					
Total Liabilities	<u>1,469,640</u>	<u>1,508,676</u>	<u>2,663,734</u>	<u>2,783,848</u>	<u>3,419,461</u>
Total Deferred Inflows of Resources			151,162	111,364	65,171
Net Position					
Invested in capital assets, net of related debt	1,482,274	1,519,669	1,503,902	1,504,935	1,541,725
Restricted:					
Nonexpendable	207,338	218,133	235,894	244,396	342,071
Expendable	530,130	598,070	644,743	561,093	586,825
Unrestricted	(282,845)	(374,346)	(1,542,118)	(1,613,973)	(1,741,094)
Total Net Position	<u>1,936,897</u>	<u>1,961,526</u>	<u>842,421</u>	<u>696,451</u>	<u>729,527</u>
Total Liabilities, Deferred Inflows of Resources and Net Position	<u>\$3,406,537</u>	<u>\$3,470,202</u>	<u>\$3,657,317</u>	<u>\$3,591,663</u>	<u>\$4,214,159</u>

* In 2014, the University adopted GASB Statement No. 65, Items Previously Reported as Assets and Liabilities. This statement provides financial reporting guidance for proper classification and recognition of previously reported assets and liabilities as deferred inflows or deferred outflows of resources. Management has adopted the new standard in the University’s financial statements. Due to the adoption of GASB Statement No. 65, in fiscal year 2014, the 2013 financial statements were restated. The beginning net position as of July 1, 2012 was restated by approximately \$929 from \$1,972,123 to \$1,971,194.

** In 2015, the University adopted GASB Statement No. 68, Accounting and Financial Reporting for Pensions. This Statement revises and establishes new financial reporting requirements for most governments that provide their employees with pension benefits. Management has adopted the new standard as presented in the University’s consolidated financial statements. Due to the adoption of GASB Statement No. 68 in fiscal year 2015, beginning net position was restated. The beginning net position as of July 1, 2014 was restated by \$1,112,792 from \$1,961,526 to \$848,734.

*** During fiscal year 2017, the University implemented GASB Statement No. 82, Pension Issues—an Amendment of GASB Statements No. 67, 68, and 73. The objective of this Statement is to address certain issues that have been raised with respect to Statements No. 67, Financial Reporting for Pension Plans, No. 68, Accounting and Financial Reporting for Pensions, and No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. The adoption of Statement No. 82 has resulted in the restatement of the University’s beginning net position to reflect the new calculation of deferred outflows of resources in accordance with the provisions of Statement No. 82. The beginning net position as of July 1, 2015 was restated by \$28,000 from \$842,421 to \$814,421.

Source: University of Hawaii

A change in the accounting and recognition methodology for the University's allocated share of the State's actuarial determined total net pension and OPEB liability resulted in a reduction in the University's unrestricted net position of \$788.8 million, \$722.8 million, \$650.8 million, \$579.2 million and \$514.4 million as of June 30, 2017, 2016, 2015, 2014, and 2013, respectively, compared to the prior methodology. Annual required OPEB contribution payments, on a pay as you go basis, relating to such liability are paid directly by the State Department of Budget and Finance from its general fund appropriation and not out of the University's operating budget appropriation. See "STATE EMPLOYEES' RETIREMENT SYSTEM" below and **APPENDIX B – "AUDITED FINANCIAL STATEMENTS."**

The following table provides a summary of the results of operations summarized to match revenues supporting core activities with expenses associated with core activities and other changes for the past five fiscal years.

Table A-13
RESULTS OF OPERATIONS SUMMARIZED TO MATCH REVENUES SUPPORTING
CORE ACTIVITIES WITH EXPENSES ASSOCIATED WITH CORE ACTIVITIES
FOR THE FISCAL YEAR ENDED JUNE 30
(in thousands of dollars)

	<u>2013*</u>	<u>2014</u>	<u>2015**</u>	<u>2016***</u>	<u>2017</u>
Revenues:					
Tuition and fees, net	\$ 241,811	\$ 248,377	\$ 262,660	\$ 272,306	\$ 270,123
State appropriations	374,280	391,266	413,148	441,373	471,453
Grants and contracts	482,619	494,321	456,944	451,669	424,593
Sales and services	133,211	130,879	135,315	134,787	130,867
Investment income, net	32,206	51,520	4,659	679	42,509
Private gifts	35,206	61,127	32,600	32,382	31,233
Other revenue	2,989	2,935	2,568	2,211	1,648
Revenues Supporting Core Activities	1,302,322	1,380,425	1,307,894	1,335,407	1,372,426
Expenses Associated with Core Activities					
Before Depreciation	1,385,846	1,397,784	1,373,768	1,357,367	1,474,215
Loss from Core Activities Before Depreciation	(83,524)	(17,359)	(65,874)	(21,960)	(101,789)
Depreciation	106,631	109,458	121,378	124,937	122,841
Expenses Associated with Core Activities Including Depreciation	1,492,477	1,507,242	1,495,146	1,482,304	1,597,056
Loss from Core Activities	(190,155)	(126,817)	(187,252)	(146,897)	(224,630)
Other Nonoperating Income, net	155,858	151,446	180,939	28,927	257,706
Increase (Decrease) in Net Position	(34,297)	24,629	(6,313)	(117,970)	33,076
Net Position, Beginning of Year	1,971,194	1,936,897	848,734	814,421	696,451
Net Position, End of Year	\$ 1,936,897	\$ 1,961,526	\$ 842,421	\$ 696,451	\$ 729,527

* In 2014, the University adopted GASB Statement No. 65, Items Previously Reported as Assets and Liabilities. This statement provides financial reporting guidance for proper classification and recognition of previously reported assets and liabilities as deferred inflows or deferred outflows of resources. Management has adopted the new standard in the University's financial statements. Due to the adoption of

GASB Statement No. 65, in fiscal year 2014, the 2013 financial statements were restated. The beginning net position as of July 1, 2012 was restated by approximately \$929 from \$1,972,123 to \$1,971,194.

*** In 2015, the University adopted GASB Statement No. 68, Accounting and Financial Reporting for Pensions. This Statement revises and establishes new financial reporting requirements for most governments that provide their employees with pension benefits. Management has adopted the new standard as presented in the University's consolidated financial statements. Due to the adoption of GASB Statement No. 68 in fiscal year 2015, beginning net position was restated. The beginning net position as of July 1, 2014 was restated by \$1,112,792 from \$1,961,526 to \$848,734.*

**** During fiscal year 2017, the University implemented GASB Statement No. 82, Pension Issues-an Amendment of GASB Statements No. 67, 68, and 73. The objective of this Statement is to address certain issues that have been raised with respect to Statements No. 67, Financial Reporting for Pension Plans, No. 68, Accounting and Financial Reporting for Pensions, and No. 73, Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68. The adoption of Statement No. 82 has resulted in the restatement of the University's beginning net position to reflect the new calculation of deferred outflows of resources in accordance with the provisions of Statement No. 82. The beginning net position as of July 1, 2015 was restated by \$28,000 from \$842,421 to \$814,421.*

Source: University of Hawaii

Operating Budget Process. In accordance with State law, the University submits a biennial budget request, program and financial plan, and program performance reports to the Governor and Legislature for consideration by the Legislature when it convenes in regular session in every odd-numbered year. A supplemental budget request to amend any appropriation for the current fiscal biennium may also be submitted to the Legislature for approval when it convenes in regular session in even-numbered years. Operating and capital funds for the University are appropriated by major organizational units (UH-Mānoa, UH-Hilo, UH-West O'ahu, UH Community Colleges, Systemwide Support, as well as several program areas, including the John A Burns School of Medicine, Waikiki Aquarium, and Hawaii Small Business Development Center). Operating funds are generally organized and discussed in three functional categories: current service requirements that are necessary to support and maintain the current level of services, workload and program change requests to meet increases in workload and implementation of new program initiatives, and the University's share of various overhead type costs that are administered on a statewide basis (debt service, fringe benefits, risk management, etc.).

Upon approval by the Board, the University's operating and capital improvements budget requests are submitted simultaneously to the Governor for review and incorporation into the executive budget request for the State and to the Legislature for informational purposes. The executive budget request for the State is submitted to the Legislature in December for consideration in the regular session of the Legislature in mid-January. Appropriations by the Legislature (General or Supplemental Appropriations Act) are usually passed in May and transmitted to the Governor for approval. Upon approval by the Governor, generally not later than mid-June, allocation notices are transmitted to all State agencies, which may include any restrictions imposed by the Governor on legislative appropriations.

With the exception of the Community Colleges, lump sum allocations are made to each campus in the University System and are generally equal to legislative appropriations less any restrictions imposed by the Governor. Due to the declining level of State general fund support, however, it has become necessary to assess each campus for a pro rata share of certain unfunded costs that are administered on a systemwide basis. These costs include but are not limited to: legal settlements, risk management costs, private fundraising costs, and workers compensation/unemployment insurance premiums.

As a result of several statutory changes and a State constitutional provision that authorizes the Board of Regents and the President to maintain exclusive jurisdiction over the internal organization and management of the University system, the University enjoys a much greater degree of discretion over its operating budget priorities than other State departments.

State Appropriations. In fiscal year 2016-2017, State appropriations were the largest source of revenues supporting the University's core activities. State appropriations (excluding the University's share of various overhead costs that are administered on a statewide basis) comprised 34.4%, 33.1% and

31.6% of the University's revenues in fiscal year 2016-2017, 2015-2016 and 2014-2015, respectively. General fund State appropriations to the University for the past five fiscal years are summarized in the table below. See Note 17 to the University's audited financial statements in **APPENDIX B – "AUDITED FINANCIAL STATEMENTS."**

Table A-14
GENERAL FUND STATE APPROPRIATIONS
FOR THE FISCAL YEAR ENDED JUNE 30
(in thousands of dollars)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
General Fund State Appropriations	\$374,280	\$391,226	\$413,148	\$441,373	\$471,453

Source: University of Hawaii.

The General Fund State Appropriations for the Fiscal Year ending June 30, 2018 are anticipated to be approximately \$478.6 million which is based on legislative appropriations, adjustments and executive restrictions to date. See **"—The State's Finances and its Impact on the University"** herein for additional information.

General fund appropriations have increased in recent years, resulting in general fund appropriations for fiscal year 2016-2017 approximately \$97.2 million higher than in fiscal year 2012-2013, a 26.0% increase over the four year period.

State Support for Capital Improvements. The following table shows amounts provided by the State to the University for capital improvements for the fiscal years ended June 30, 2008 through 2017. Over that 10 year period, the State provided over \$1.6 billion, for an average of \$160 million annually,

<u>Fiscal Year</u>	<u>Total UH CIP GO Bond Funds & General Funds (in Thousands of Dollars)</u>
2008	\$ 183,036
2009	138,946
2010	171,908
2011	209,889
2012	135,217
2013	140,964
2014	173,994
2015	173,700
2016	92,884
2017	182,750
10 Year Total	\$1,603,288
Average	\$ 160,329

The State Legislature also appropriated \$149.8 million in Capital Improvement Program ("CIP") general obligation bond-funded projects for fiscal year 2017-2018. The University's capital improvements program for fiscal biennium 2017-2019 includes a total of \$169.8 million in Legislative Appropriations and authorizations, including \$159.8 million in State funded general obligation bonds. The University received a total of \$311.4 million in Legislative Appropriations and authorizations for capital improvements for the fiscal biennium 2015-2017, including \$275.6 million in State funded general obligation bonds.

Grants and Contracts. Grants and contracts are the second largest source of revenues supporting the University’s core activities. Grants and contracts comprised 30.9%, 33.8% and 34.9% of the University’s revenues in fiscal years 2016-2017, 2015-2016 and 2014-2015, respectively. In fiscal year 2016-2017, federal grant revenue accounted for approximately 82.7% of sponsored programs at the University, while the remainder was funded by private organizations and State and local agencies. The top six federal sponsors in fiscal years 2016-2017 and 2015-2016 are the Department of Health and Human Services, Department of Defense, Department of Education, National Science Foundation, Department of Energy, and National Aeronautics and Space Administration, with no sponsor contributing more than 15% in fiscal year 2016-2017 and 16% in fiscal year 2015-2016 of the total amount of all grants and contracts.

Grants and contracts are awarded to the University on behalf of faculty members. The administration of these funds is through the research departments and the Office of Research Services of the University in accordance with the policies of the sponsors and the University. The revenues from these awards are reimbursed by the funding agency on a periodic basis.

Table A-15
GRANTS AND CONTRACTS
FOR THE FISCAL YEAR ENDED JUNE 30
(in thousands of dollars)

	2013	2014	2015	2016	2017
Federal Grants and Contracts	\$420,631	\$424,450	\$391,675	\$383,704	\$351,045
Other	61,988	69,871	65,269	67,965	73,548
Total Grants and Contracts	\$482,619	\$494,321	\$456,944	\$451,669	\$424,593

Source: University of Hawaii.

Auxiliary Enterprises Sales and Services. The University operates auxiliary enterprises to provide important goods and services to students, faculty, staff, and others. These self-supporting activities generate sales and services revenues that are used to fund their operations. Auxiliary enterprises include dormitories, bookstores, campus food service, parking, faculty housing, and others. Sales and services revenues decreased 1.8% over the past five years.

Gifts and Fund Development.

The University of Hawai‘i Foundation. The University of Hawai‘i Foundation (“UHF”) is a nonprofit organization that was established in 1955, legally separate from the University, to encourage and manage private support for the University. UHF is considered to be a component unit of the University, and its financial information is blended into the University’s consolidated financial statements. See **APPENDIX A – “THE UNIVERSITY OF HAWAII – Financial Information – Financial Statements”** above. Currently, UHF is the central fundraising organization for the University, providing a variety of fundraising services and managing more than 6,900 separate donor accounts for the benefit of the University. As of June 30, 2017, UHF’s endowment was valued at \$294.7 million. Each year, UHF pays out approximately 5.5% of its endowment for its operations and to support the University’s programs. In fiscal year 2016-2017, UHF distributed \$51.5 million to the University, with approximately \$11.7 million for research, \$9.7 million for student aid and services and \$6.0 million for academic support. In fiscal year 2015-2016, UHF distributed \$46.3 million to the University, with approximately \$10.2 million for research, \$8.7 million for student aid and services and \$7.3 million for academic support. For the fiscal year ended June 30, 2017, UHF reported in its financial statements revenues of \$135.8 million and expenses of \$13.5 million.

UHF launched a seven-year \$500 million fundraising campaign on July 1, 2011. Since the launch of this campaign, UHF has consistently exceeded the fundraising goals. In fiscal year 2017, the University raised \$77.7 million, as compared to \$66.1 million in fiscal year 2016, \$129.1 million in fiscal year 2015 and \$98.6 million in fiscal year 2014. As of June 30, 2017, UHF has raised \$533.7 million or 107% of its seven-year \$500 million campaign with one year remaining. The fundraising goal for fiscal year 2018 is \$75.0 million.

In September 2017, Jay H. Shidler, a 1968 alumnus of the University, made a significant donation of eleven long-term real estate ground leases in nine major cities valued at \$117 million to the Shidler College of Business at Mānoa campus. This donation was made following Mr. Shidler's previous \$111 million of gifts, and brings the total value of his donations to \$228 million. The \$117 million gift will further the Shidler College's on-going facility improvements, faculty endowments, and academic program expansions. The gift is also designed to provide a level of steady funding for the College. The donated ground leases have terms up to 99-years and will generate an estimated \$2.1 billion in contractual cash flow for the College. In addition, at the end of the ground lease terms, ownership of the office buildings will revert to the Shidler College of Business. The buildings, together with the land, could be worth an estimated \$5.1 billion for a total of \$7.2 billion over the life of the current leases.

UHF's results generally are based on two components: investment returns and donor contributions. In the fiscal year 2017, UHF's investments generated a positive return of 11.8% and donors contributed more than \$10.1 million. As of June 30, 2017, UHF's endowment was valued at approximately \$294.7 million and allocated as follows:

Table A-16
UNIVERSITY OF HAWAII FOUNDATION
ENDOWMENT ASSET ALLOCATION PERCENTAGES
(as of June 30, 2017)

<u>Investment</u>	<u>Percentage</u>
Global Equity	21%
United States Equity	21
Marketable Alternative Assets	17
Fixed Income	13
Emerging Markets Equity	7
Private Equity/Venture Capital	5
Private Real Assets	10
Public Real Assets	2
Cash	4
Total	<u>100%</u>

Source: University of Hawaii Foundation.

The University and UHF maintain separate investment policies. See “– **The University's Investment Policy**” herein. The Investment Committee of UHF's Board of Trustees makes the decisions regarding the investment of the endowment, with the goal of obtaining high investment returns through a diversified, professionally managed portfolio. UHF retains an independent consulting firm, Cambridge Associates, with expertise in investment policy development, spending policy analysis, manager evaluation, and selection and performance evaluation.

University Endowment. The University also maintains a separate endowment pool. In the fiscal year 2017, the University's endowment pool generated a positive return of 12.3%. As of June 30, 2017, the University's endowment was valued at approximately \$69.0 million and allocated as follows:

Table A-17
UNIVERSITY OF HAWAII
ENDOWMENT ASSET ALLOCATION PERCENTAGES
(as of June 30, 2017)

Investment	Percentage
US Equity	55%
Global Equity	6
US Fixed Income	19
Global Fixed Income	20
Cash ⁽¹⁾	0
Total	100%

Source: University of Hawaii.

(1) Represents less than 1%.

The University's endowment and UHF's endowment are presented in the University's financial statements. See Note 2 to the University's audited financial statements in **APPENDIX B – "AUDITED FINANCIAL STATEMENTS."** The following table summarizes the performance of the endowment funds of the University and UHF as of June 30, 2013 to June 30, 2017.

Table A-18
UNIVERSITY OF HAWAII AND UNIVERSITY OF HAWAII FOUNDATION
ENDOWMENT FUND PERFORMANCE
AS A PERCENTAGE OF THE ENDOWMENT FUND
(as of June 30)

	2013	2014	2015	2016	2017
University of Hawaii ⁽¹⁾	10.5%	15.7%	2.3%	0.4%	12.3%
University of Hawaii Foundation ⁽²⁾	11.4%	14.9%	0.8%	-2.0%	11.8%

(1) Information provided by the University.

(2) Information provided by UHF.

Investments. The University's endowment provides funds to support University academic programs and student-related activities. Historically, the University does not rely heavily on income from its investments as a source of revenue for the University. Investment activity constituted 0.1% and 3.1% of the University's revenues in fiscal years 2015-2016 and 2016-2017, respectively. The University and UHF have no direct exposure to derivative or other structured products. See Note 2 to the University's audited financial statements in **APPENDIX B – "AUDITED FINANCIAL STATEMENTS."**

University Endowment Spending Policy. Pursuant to the University's investment policy, the Board is required to adopt investment goals and comprehensive guidelines to insure the preservation of capital and adequate growth and income. The long-range investment objective of the University is to achieve an optimal rate of return on assets based on the asset allocation policy to produce current income to meet spending needs of 6% while preserving the real value of the endowment principal.

The investment goal of the University's endowment fund is to seek the highest expected total return (resulting from income from dividends, interest and option writing, and from realized and unrealized appreciation in securities and other investments) within reasonable levels of annual volatility to insure the long-term growth of the fund and the continued annual payout of not more than 5% of the market value which will be determined by the Board. Upon approval by the Board, the University shall provide each investment manager with a schedule of payouts to be made during the year. The payouts will be scheduled as close to the actual expenditures as practicable to maximize the amounts retained and invested by investment managers. In fiscal years 2015-2016 and 2016-2017, the University instituted a 4.5 percent distribution rate on restricted and unrestricted endowments based upon a five-year moving average of market values at fiscal year end. The total restricted and unrestricted distributions available to the University amounted to \$2.6 million in each of fiscal years 2015-2016 and 2016-2017.

The University's Investment Policy. The University and UHF maintain separate comprehensive investment policies. See “—Gifts and Fund Development” above and **APPENDIX B “Audited Financial Statements”** hereto for additional information regarding the University's investment policies.

Investment Monitoring. The endowment pool maintained by the University is managed through a contract with UBS Financial Services, Inc. (the “Investment Manager”). The Investment Manager is responsible for the investment and overall performance of the endowment pool and for compliance with the University's investment policy. The Investment Manager reports quarterly to University management and meet regularly with the Board of Regents on the performance and compliance of the endowment pool.

The following table summarizes the University's cash and investments as of June 30 of each of the past five fiscal years.

Table A-19
UNIVERSITY CASH AND INVESTMENTS
FOR THE FISCAL YEAR ENDED JUNE 30
(in thousands of dollars)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Current Assets:					
Cash and cash equivalents	\$ 78,704	\$ 64,307	\$ 89,811	\$ 103,179	\$ 69,096
Operating investments	298,841	278,046	285,241	298,702	355,180
Noncurrent Assets:					
Restricted cash and cash equivalents	54,649	3,647	119	162	65
Endowment and other investments	413,471	495,813	477,124	474,878	507,548
Total Cash and Investments	\$845,665	\$841,813	\$852,295	\$876,921	\$931,889

Source: University of Hawaii.

The University and UHF have no direct exposure to derivative or other structured products.

Additional information regarding the University's investments is provided in the accompanying notes to the financial statements of the University included in **APPENDIX B – “AUDITED FINANCIAL STATEMENTS.”**

Capital Assets. Capital assets consist of land, land improvements, infrastructure, buildings, equipment, library books, and construction in progress. Assets acquired are recorded at cost, or if

donated, at an appraised value at the date of the gift. Depreciation of capital assets is provided for on a straight-line basis over the estimated useful lives of the respective assets. Capital assets net of accumulated depreciation at June 30, 2017 and 2016 amounted to \$2.1 billion and \$2.1 billion, respectively, an increase of 3.0% and 12.4% over the prior five fiscal years.

Table A-20
UNIVERSITY CAPITAL ASSETS
AS OF JUNE 30
(in thousands of dollars)

	2013	2014	2015	2016	2017
Capital assets not being depreciated:					
Land	\$ 14,891	\$ 36,211	\$ 37,596	\$ 45,354	\$ 55,195
Construction in progress	397,825	230,965	249,788	182,872	170,027
Total capital assets not being depreciated	\$ 412,716	\$ 267,176	\$ 287,384	\$ 228,226	\$ 225,222
Capital assets being depreciated:					
Land improvements	\$ 122,161	\$ 127,590	\$ 129,013	\$ 128,969	\$ 131,745
Infrastructure	149,100	170,432	174,376	218,284	243,030
Buildings	1,964,451	2,192,091	2,248,626	2,340,153	2,421,881
Equipment	366,068	383,343	377,355	382,445	397,471
Library books	159,466	161,839	164,410	168,836	171,605
Total assets being depreciated	\$2,761,246	\$3,035,295	\$3,093,780	\$3,238,687	\$ 3,365,732
Less accumulated depreciation	\$1,146,842	\$1,230,621	\$1,312,473	\$1,413,528	\$ 1,503,221
Capital assets, net	\$2,027,120	\$2,071,850	\$2,068,691	\$2,053,385	\$ 2,087,733

Source: University of Hawaii.

Financial Information Concerning Foundations and Other Entities. The Governmental Accounting Standards Board (“GASB”) Statement No. 14, The Financial Reporting Entity, as amended by GASB Statement No. 39, Determining Whether Certain Organizations are Component Units, as amended by GASB Statement No. 61, The Financial Reporting Entity: Omnibus and amendment of GASB Statement No. 14 and No. 34, establishes standards for defining and reporting on the financial reporting entity. The basic criterion for including a potential component within the reporting entity is financial accountability. Other criteria include fiscal dependency and the nature and significance of the relationship such that exclusion would cause the financial statements of the University to be misleading. Accordingly, the financial information of UHF and the RCUH are blended in the University’s financial statements. See Note 1 to the University’s audited financial statements in **APPENDIX B – “AUDITED FINANCIAL STATEMENTS.”**

RCUH was created for the purpose of promoting, encouraging, initiating, developing, and conducting scientific research and investigation. It provides administrative support services to projects of the University, the State and other organizations. For the fiscal year ended June 30, 2017, RCUH reported in its financial statements revenues of \$7.4 million and expenses of \$7.7 million.

The State’s Finances and its Impact on the University

The 2017 Legislature appropriated \$487.3 million in general funds for university operations for fiscal year 2017-2018. Subsequently, on August 29, 2017, the Governor issued Executive Memorandum No. 17-04, which promulgated budget execution policies, including a restriction on the expenditure of the general funds appropriated to the University by \$8.7 million, although half of that may be lifted in the future. As a result, the adjusted general fund appropriation for the University currently totals \$478.6

million for fiscal year 2017-2018. The University represents approximately 6.4 percent of the State's executive general fund budget.

Chapter 37-111, Hawaii Revised Statutes, creates a Council on Revenues ("COR") which creates quarterly reports to the Governor and Legislature for their utilization in estimating revenues available to the state. Chapter 37-112, Hawaii Revised Statutes, states that should either the Governor or the Legislature use a revenue estimate that differs than that of the COR, they must publicly state that fact in addition to the reasons for using a differing revenue estimate. The practical implication is that COR revenue estimates are highly regarded in the formulation and execution of the state's general fund operating budget.

At its meeting on September 7, 2017, the Council on Revenues raised its forecast for growth in the State General Fund tax revenue in fiscal year 2018 from 4.0% to 4.3%. The State of Hawaii Department of Taxation released its Preliminary Comparative Statement of State General Fund Tax Revenues of the fiscal year 2017 versus fiscal year 2016 on July 11, 2017, which indicates that general fund tax deposits are up 2.0% for the year ending June 30, 2017 which is lower than the 2.5% previously predicted. The Council expects a rebound in the revenue growth after a low growth year. The Council also increased its growth forecast for fiscal year 2019 from 4.0% to 4.3% and lowered the forecast from fiscal year 2020 to fiscal year 2024 from 4.5% to 4.0%. The revised forecast for State general fund tax revenues for fiscal year 2018 through fiscal year 2024 as of September 7, 2017 is shown below:

General Fund Tax		
Fiscal Year	Revenues	Growth From
<u>Ending</u>	<u>(in Thousands of Dollars)</u>	<u>Previous Year</u>
2018	6,586,769	4.3
2019	6,870,000	4.3
2020	7,144,800	4.0
2021	7,430,592	4.0
2022	7,727,816	4.0
2023	8,036,929	4.0
2024	8,358,406	4.0

In reaching its new forecast, the Council noted that Hawaii's economy continues to be strong, but cited uncertainty about the future. In particular, concerns were expressed that the economy may have reached the end of its current expansionary cycle during the seven-year budget window. The Council noted that visitor arrivals and expenditures, job counts, and construction activities are all continuing strong. The Council was also concerned that the construction cycle may have peaked. The Council also adopted specific adjustments recommended by the Department of Taxation to reflect effects on State general fund tax revenue due to tax law changes enacted by the 2017 Legislature.

Collective Bargaining

The Hawaii State Constitution under Article XIII, Section 2, grants public employees in the State the right to organize for the purpose of collective bargaining as provided by law. Chapter 89, HRS, provides for 14 recognized bargaining units ("Units") for all public employees throughout the State, including State, county and municipal employees. Each Unit is represented by an employee organization otherwise known as the exclusive bargaining representative of all employees within such unit which negotiates with the public employer. For the purpose of negotiating a collective bargaining agreement ("CBA"), the public employer of an appropriate Unit is statutorily defined by law under HRS §89-6. In Units with employees in multiple jurisdictions (i.e. State, Counties, Judiciary, Hawaii Health Systems Corporation), the public employer includes the Governor and an employer representative from each

applicable jurisdiction to include the Mayors, the Chief Justice, the Hawaii Health Systems Corporation board, the President of the University of Hawaii, the Superintendent of Education, the Board of Regents of the University of Hawaii, and the Board of Education. In the case of the University's Unit 7 and 8 employees, the public employers are the Governor, the Board of Regents, and the President of the University of Hawaii.

Decisions by the employer representatives of the State and county employees are determined by simple majority vote with the Governor having varying numbers of votes depending on the Unit involved. Decisions by the public employer of the Board of Regents appointed employees (Units 7 and 8) are determined by simple majority vote with the Governor having three votes, the Board of Regents having two votes, and the University President having one vote. By statute, if an impasse in any negotiation is declared, the parties may attempt to resolve the impasse through mediation, fact finding, and, if mutually agreeable to the parties, final and binding arbitration. Although the statute characterizes arbitration as "final and binding," it also provides that all cost items are subject to appropriations by the appropriate legislative bodies. If final and binding arbitration is not agreed upon, either party may take other lawful action to end the dispute, which, in the case of blue collar workers, public school teachers and university professors, could include an employee strike. In the case of the remaining eleven bargaining units, including fire fighters and police officers, a strike is prohibited by law, and negotiation impasses are subject to mandatory final and binding arbitration, subject to appropriation of cost items, as described above.

Employees of the University belong to one of eight Units: Unit 1 (Nonsupervisory employees in blue collar positions), Unit 2 (Supervisory employees in blue collar positions), Unit 3 (Nonsupervisory employees in white collar positions), Unit 4 (Supervisory employees in white collar positions), Unit 7 (Faculty of the University of Hawaii and the community college system), Unit 8 (Personnel of the University of Hawaii and the community college system, other than faculty), Unit 9 (Registered professional nurses) or Unit 10 (Institutional health, and correctional workers). Employees in executive/managerial positions, as well as certain other personnel designated as excluded from collective bargaining pursuant to HRS §89-6(f), are not represented by any union, and some employees (e.g., certain contractual hires) are not parties to any recognized Unit.

The status of negotiations and awards for wages and health benefits for the period from July 1, 2017 to June 30, 2021 is as follows:

Unit 1 (blue collar workers): The United Public Workers ("UPW") and the employer reached a four-year (July 1, 2017 – June 30, 2021) agreement that was ratified in August 2017. The agreement provides for a \$1,000 lump sum payment in each of the first two years of the agreement and across the board increases of 3.2% on June 1, 2018; 3.45% on May 1, 2019; 2% on July 1, 2019; and 2% on July 1, 2020. An additional increase in the final two years of the contract is subject to negotiation.

Unit 2 (blue collar supervisors): An arbitration award for a two-year agreement (July 1, 2017 – June 30, 2019) was issued April 27, 2017. The award provides for across the board wage adjustments of 2.0% on July 1, 2017, 1.2% on January 1, 2018, 2.25% on July 1, 2018 and 1.2% on January 1, 2019. The award also provides for continuation of step movement adjustments for eligible employees.

Unit 3 (white collar workers): An arbitration award for a two-year agreement (July 1, 2017 – June 30, 2019) was issued April 27, 2017. The award provides for across the board wage adjustments of 2.0% on July 1, 2017, 1.5% on January 1, 2018, 2.25% on July 1, 2018, and 1.25% on January 1, 2019. The award also calls for the deletion of the lowest step on the salary schedule effective January 1, 2019 and a \$150 lump sum payment in each year.

Unit 4 (white collar supervisors): An arbitration award for a two-year agreement (July 1, 2017 – June 30, 2019) was issued April 27, 2017. The award provides for across the board wage adjustments of 2.0% on July 1, 2017, 1.5% on January 1, 2018, 2.25% on July 1, 2018, and 1.25% on January 1, 2019. The award also calls for the deletion of the lowest step on the salary schedule effective January 1, 2019 and a \$150 lump sum payment in each year.

Unit 7 (faculty of the University of Hawaii): University of Hawaii Professional Assembly and the employer reached a four-year agreement (July 1, 2017 – June 30, 2021) that was ratified in July 2017. The agreement provides for a \$500 increase to base salary in each of the first two years of the agreement and across the board increases of 2.13% on July 1, 2017; 2.82% on July 1, 2018 (at the end of the first two years of the contract salary increases to be reconstructed to a cumulative 6.89% increase); 2% on July 1, 2019; and 2% on July 1, 2020. An additional increase in the final two years of the contract is subject to negotiation.

Unit 8 (University of Hawaii administrative, professional and technical staff): An arbitration award for a two-year agreement (July 1, 2017 – June 30, 2019) was issued April 27, 2017. The award provides for across the board wage adjustments of 2.0% on July 1, 2017, 1.2% on January 1, 2018, 2.25% on July 1, 2018 and 1.2% on January 1, 2019.

Unit 9 (registered professional nurses): An arbitration award for a two-year agreement (July 1, 2017 – June 30, 2019) was issued April 27, 2017. The award provides for across the board wage adjustments of 2.0% on July 1, 2017, 2.25% on July 1, 2018 and 1.2% on January 1, 2019. The award also provides for continuation of step movement adjustments for eligible employees.

Unit 10 (institutional health and correctional workers): UPW and the employer and the employer reached a four-year (July 1, 2017 – June 30, 2021) that was ratified in August 2017. The agreement across the board increase of 2.0% on October 1, 2017; 1.35% on April 1, 2019; 2% on July 1, 2019; and 2% on July 1, 2020. The agreement also implements a new developmental career plan effective July 1, 2019. An additional increase in the final two years of the contract is subject to negotiation.

For more information see Note 19 to the Audited Financial Statements attached as **APPENDIX B**.

State Employees' Retirement System

THE INFORMATION CONTAINED IN THIS SECTION IS PRIMARILY DERIVED FROM INFORMATION PRODUCED BY THE STATE RETIREMENT SYSTEM, ITS INDEPENDENT ACCOUNTANT AND ITS ACTUARY. THE UNIVERSITY HAS NOT INDEPENDENTLY VERIFIED THE INFORMATION PROVIDED BY THE STATE RETIREMENT SYSTEM, ITS INDEPENDENT ACCOUNTANT AND ITS ACTUARY, AND MAKES NO REPRESENTATIONS NOR EXPRESSES ANY OPINION AS TO THE ACCURACY OF SUCH INFORMATION.

All regular employees of the University are covered under the Employees' Retirement System of the State (referred to as the "*State Retirement System*"), a cost sharing, multiple employer defined benefit pension plan that provides retirement, disability and death benefits funded by employee contributions and by employer contributions. This section contains certain information relating to the State Retirement System. The comprehensive annual financial report of the State Retirement System and most recent valuation report of the State Retirement System may be obtained by contacting the State Retirement System. The comprehensive annual financial reports of the State Retirement System are also available on the State's website at <http://portal.ehawaii.gov/>, and other information about the State Retirement System are available on the State Retirement System's website at <http://ers.ehawaii.gov/>. Such documents and other information are not incorporated herein by reference.

The State Retirement System uses a variety of assumptions to calculate the actuarial accrued liability, actuarial value of assets and other actuarial calculations and valuations of the State Retirement System. No assurance can be given that any of the assumptions underlying such calculations and valuations (including, but not limited to, the current actuarial assumptions adopted by the State Retirement System's Board of Trustees, the State Retirement System's benefit structure or the actuarial method used by the State Retirement System) will reflect the actual results experienced by the State Retirement System. Variances between the assumptions and actual results may cause an increase or decrease in, among other things, the State Retirement System's actuarial value of assets, actuarial accrued liability, unfunded actuarial accrued liability or funded ratio. Actuarial assessments are "forward-looking" information that reflect the judgment of the fiduciaries of the pension plans, and are based upon a variety of assumptions (including, but not limited to, the current actuarial assumptions, benefit structure or actuarial method used by the State Retirement System), one or more of which may prove to be inaccurate or be changed in the future. Actuarial assessments will change with the future experience of the pension plans. See "**General Information**" and "**Actuarial Valuation**" below for more information on the actuarial assumptions used by the State Retirement System.

Much of the disclosure set forth in this "State Employees' Retirement System" section is based on the Report to the Board of Trustees on the 91st Annual Actuarial Valuation for the Year Ended June 30, 2016 (the "2016 Valuation Report"), which is the most recent valuation report of the System. The information presented in the 2016 Valuation Report was based on actuarial assumptions adopted by the System's Board of Trustees in December 2016 effective with the June 30, 2016 valuation. As described more fully under "—General Information" below, a revised benefit structure for new members was enacted through statute. In addition, future employer contribution rates were enacted through statute. This is the fourth valuation with new members under the new tier of benefits and member contribution rates. However, the liability for this group of employees represents just a small fraction of the total liabilities of the system. Included in the 2016 Valuation Report are projections showing the long term impact of both the increased employer contributions and the change in benefits for employees first hired after June 30, 2012. In June 2012, the Governmental Accounting Standards Board ("GASB") voted to approve two new statements relating to the accounting and financial reporting for public employee pension plans by state and local governments. Statement No. 67, Financial Reporting for Pension Plans ("GASB 67"), was effective for reporting periods beginning after June 15, 2013. GASB 67 requires enhanced pension disclosures in notes and required supplementary information for financial reports of pension plans. Statement No. 68, Accounting and Financial Reporting for Pensions ("GASB 68"), was effective for fiscal years beginning after June 15, 2014. GASB 68 requires governments providing defined benefit pension plans to recognize pension obligations as balance sheet liabilities (as opposed to footnote disclosures), require more immediate recognition of certain changes in liabilities, require use of the entry age normal actuarial cost method (currently employed by the System) for reporting purposes, and limit the smoothing of differences between actual and expected investment returns on pension assets. In certain cases, a lower discount rate will be required for valuing pension liabilities. In addition, employers participating in cost-sharing, multiple employer defined benefit plans will be required to report their proportionate shares of the collective net pension liability and expense for such plans.

The State implemented GASB 68 beginning with the fiscal year ending June 30, 2015. Like most public employers, the State reflected pension liabilities directly on its Statement of Net Position, which resulted in a reduction in the State's reported net position. As allowed under GASB 68 the State is reporting its GASB 68 disclosure items one year in arrears (June 30, 2015 information is reported as of June 30, 2016). The amount of the ERS net pension liability (as of June 30, 2015) allocated to the State is \$6.1 billion or 70% (of the \$8.7 billion net pension liability for all participating employers).

University Share of State Employee's Retirement System

The University's share of the State Retirement System costs for the four fiscal years ended June 30, 2014 through June 30, 2017 were: \$87.8 million for the fiscal year ended June 30, 2014; \$93.9 million for the fiscal year ended June 30, 2015; \$97.0 million for the fiscal year ended June 30, 2016; and \$98.9 million for the fiscal year ended June 30, 2017. In addition to the foregoing retirement benefit payments, for fiscal years 2014 through 2018 the State has appropriated, for the benefit of University employees, \$138.7 million for the fiscal year ended June 30, 2014; \$138.7 million for the fiscal year ended June 30, 2015; \$143.1 million for the fiscal year ended June 30, 2016; \$140.8 million for the fiscal year ended June 30, 2017; and \$153.3 million for the fiscal year ending June 30, 2018.

General Information

The State Retirement System began operation on January 1, 1926. The actuarial information presented below is provided for all employers of the State Retirement System in total. The State Retirement System's plan year runs from July 1 of each year through the following June 30. The State Retirement System covers all regular employees of the State and each of its counties, including judges and elected officials. As it is a cost-sharing plan, the State Retirement System does not allocate its liabilities among participating employers. Although the State's employer contributions are recorded as expenses of the General Fund, approximately 29.0% are reimbursed from various non general funds of the State. See "***University Share of State Employee's Retirement System***" above for information relating to the University's contributions.

The statutory provisions of HRS Chapter 88 govern the operation of the State Retirement System. Responsibility for the general administration of the State Retirement System is vested in a Board of Trustees, with certain areas of administrative control being vested in the Department of Budget and Finance. The Board of Trustees consists of eight members: the Director of Finance of the State, ex officio; four members of the State Retirement System (two general employees, one teacher, and one retiree) who are elected by the members and retirees of the State Retirement System; and three citizens of the State (one of whom shall be an officer of a bank authorized to do business in the State, or a person of similar experience) who are appointed by the Governor and may not be employees of the State or any county. All contributions, benefits and eligibility requirements are established by statute, under HRS Chapter 88, and may only be amended by legislative action.

Prior to 1984, the State Retirement System consisted of only a contributory plan. Legislation enacted in 1984 created a noncontributory retirement plan for certain members of the State Retirement System who are also covered under Social Security. The noncontributory plan provides for reduced benefits and covers most employees hired after June 30, 1984 and employees hired before that date who elected to join the plan. Police officers, firefighters, other enforcement officials, certain elected and appointed officials and other employees not covered by Social Security are excluded from the noncontributory plan. The minimum service required for retirement eligibility is five years of credited service under the contributory plan and ten years of credited service under the noncontributory plan. Both the contributory and noncontributory plans provide a monthly retirement allowance based on the employee's age, years of credited service, and average final compensation (the "AFC"). The AFC is the average salary earned during the five highest paid years of service, including the vacation payment, if the employee became a member prior to January 1, 1971 or the three highest paid years of service, excluding the vacation payment (whichever is higher). The AFC for members hired after that date is based on the three highest paid years of service, excluding the vacation payment.

On July 1, 2006, a defined benefit contributory plan (the "Hybrid Plan") was established pursuant to Act 179, SLH 2004. Members in the Hybrid Plan are eligible for retirement with full benefits at age 62 with no less than 5 years of credited service or age 55 and no less than 30 years of credited service.

Members receive a benefit multiplier of 2% for each year of credited service in the Hybrid Plan. Most new employees hired from July 1, 2006 were required to join the Hybrid Plan.

In December 2010, the State Retirement System's actuary completed an Actuarial Experience Study for the five-year period ended June 30, 2010 (the "2010 Experience Study"). In fiscal year 2011, based in part on the results of the 2010 Experience Study, the Legislature acted to limit the growth of the State's pension liabilities by passing Act 163, SLH 2011. This Act, effective July 1, 2012, enacted certain changes to the funding of the State Retirement System and the benefit structure for new members in all plans. Funding changes include increasing the statutorily required employer contribution rates (see "**Funding Status**" below). Benefit changes for new members include increasing the age and service requirements for retirement eligibility, reducing the retirement benefit multiplier and reducing the interest rate credited to employee contributions to 2%. The change in the interest rate credited to employee contributions to 2% is for new members in the Hybrid Plan and Contributory Plan hired on or after July 1, 2011. All other benefit changes are effective for new members hired on or after July 1, 2012. Act 163, SLH 2011, also reduced the investment yield rate assumption for fiscal year 2011 from 8% to 7.75% and gave authority to the Board of Trustees to adopt all assumptions to be used for actuarial valuations of the State Retirement System, including the assumed investment yield rate for subsequent fiscal years. To better reflect the recent actual experience of the State Retirement System, in December 2016, the Board of Trustees adopted the assumption recommendations set forth in the Actuarial Experience Study for the five-year period ended June 30, 2016. The Board of Trustees also set the investment yield rate assumption of 7.00%. The Legislature also enacted Act 152 and 153, SLH 2012, effective June 30, 2012 and July 1, 2012, respectively, to define compensation for retirement purposes as normal periodic payments excluding overtime, supplemental payments, bonuses and other differentials, and to assess employers annually for all retiree pension costs attributable to non-base pay during the last years of retirement.

In fiscal year 2011, the Legislature acted to improve and protect the State Retirement System's funded status by placing a moratorium on the enhancement of benefits. Act 29, SLH 2011, provides that there shall be no benefit enhancement for any group of members until the actuarial value of the State Retirement System's assets is 100 percent of the State Retirement System's actuarial accrued liability.

The demographic data for each annual June 30 valuation is collected as of the March 31 preceding the valuation date. As of March 31, 2016, the contributory plan covered 6,070 active employees or 9% of all active members of the State Retirement System, the noncontributory plan covered approximately 15,062 active employees or 22%, and the Hybrid Plan covered 46,245 active members or 69%. The Hybrid Plan membership will continue to increase in the future as most new employees will be required to join this plan.

As of March 31, 2016, the State Retirement System's membership comprised approximately 67,377 active employees, 7,741 inactive vested members and 45,506 pensioners and beneficiaries. The following table shows the number of active members, inactive vested members and retirees and beneficiaries of the State Retirement System as of March 31, 2014, 2015, and 2016:

STATE RETIREMENT SYSTEM MEMBERSHIP

Category	March 31, 2014	March 31, 2015	March 31, 2016
Active	67,206	67,310	67,377
Inactive, vested	8,105	7,413	7,741
Retirees and beneficiaries	43,087	44,283	45,506
Total	118,398	119,006	120,624

Funded Status

Since the adoption of GASB 67 in fiscal year 2014 by the ERS and GASB 68 in fiscal year 2015 by all of its participating employers, including the State, the System's actuary has prepared two separate annual actuarial valuation reports, one of which provides the disclosures required by GASB 67 and 68 that are incorporated into the financial statements of the ERS and its participating employers. In addition, the actuary has provided an annual valuation report based on the provisions of Chapter 88 of the Hawaii Revised Statutes, as amended, and the actuarial assumptions adopted by the ERS Board of Trustees. This report determines whether current employer contribution rates are adequate to ensure that the UAAL can be funded over a period not exceeding 30 years, describes the financial condition of ERS and analyzes changes in ERS's condition. The information presented in this section is derived from the 2016 Valuation Report, presenting the actuarial condition of the ERS as of June 30, 2016.

Based on the 2016 Valuation Report, the State Retirement System's Unfunded Actuarial Accrued Liability ("UAAL") increased to \$12,440.5 million, compared to \$8,774.7 million for the prior year. This increase was caused primarily by an increase in the liabilities of the State Retirement System due to the decrease in the investment return assumption from 7.65% to 7.00% and significantly lower market returns during fiscal year 2016. The funded ratio decreased to 54.7% in 2016, compared to 62.2% for the prior year based on smoothed assets. The statutory employee and employer contribution rates are intended to provide for the normal cost plus the amortization of the UAAL over a period not in excess of 30 years. Based on the contribution rates of 25.00% for police and fire employees and 17.00% for all other employees, the future contribution rates established in statute (see "**Funding Policy**" below), and the new benefit tier for employees hired after June 30, 2012, the actuary has determined that, as of the 2016 Valuation Report, the remaining amortization period was 66 years. Since the aggregate funding period based on the contributions rates exceeded 30 years, the rates were not adequate to meet the requirements of HRS § 88-122(e)(1). The State statute provides that the employer contribution rates are subject to adjustment when the funding period is in excess of 30 years. See "**Funding Policy**" below for information on increases in the employer contribution rates and benefits changes.

Funding Policy

Prior to fiscal year 2006, the State Retirement System was funded on an actuarial reserve basis. Actuarial valuations were prepared annually by the consulting actuary to the Board of Trustees to determine the employer contribution requirement. In earlier years, the total actuarially determined employer contribution was reduced by some or all of the investment earnings in excess of the investment yield rate applied in actuarial valuations to determine the net employer appropriations to be made to the State Retirement System. Act 327, SLH 1997, amended HRS Section 88-107, so that, beginning with the June 30, 1997 valuation, the State Retirement System retains all of its excess earnings for the purpose of reducing the unfunded actuarial accrued liability. However, Act 100, SLH 1999, reinstated the excess earnings credit for the June 30, 1997 and June 30, 1998 valuations. For those two valuations, the investment earnings in excess of a 10% actuarial return was to be applied as a reduction to the employer contributions. In accordance with the statutory funding provisions (HRS Section 88-122, as amended by Act 147, SLH 2001), the total actuarially determined employer contribution to the pension accumulation fund was comprised of the normal cost plus the level annual payment required to amortize the unfunded actuarial accrued liability over a period of 29 years from July 1, 2000. The contribution requirement was determined in the aggregate for all employers in the State Retirement System and then allocated to individual employers based on the payroll distribution of covered employees as of the March preceding the valuation date. The actuarially determined employer contribution derived from a valuation was paid during the third fiscal year following the valuation date, e.g., the contribution requirement derived from the June 30, 1998 valuation was paid into the State Retirement System during the fiscal year ended June 30, 2001. The actuarial cost method used to calculate employer contributions was changed in 1997

by Act 327 from the frozen initial liability actuarial cost method to the entry age normal actuarial cost method effective with the June 30, 1995 actuarial valuation. Employer contributions were determined separately for two groups of covered employees: (1) police officers, firefighters, and corrections officers; and (2) all other employees who are members of the State Retirement System.

Act 181, SLH 2004, established fixed employer contribution rates as a percentage of compensation (15.75% for their police officers and firefighters and 13.75% for other employees) effective July 1, 2005. Pursuant to Act 256, SLH 2007, employer contributions beginning July 1, 2008, increased to 19.70% for police officers and firefighters and 15.00% for all others employees. As of June 30, 2010, the System's actuary determined that the remaining period required to amortize the UAAL was 41.3 years, greater than the maximum of 30 years specified by HRS Section 88-122(e)(1). Pursuant to Act 163, SLH 2011, employer contributions beginning July 1, 2012, were gradually increased to 25% for police and firefighters and 17% for other employees.

Employer Contribution Rate

The following schedule shows the total actuarially determined employer contribution rate for all employees based on the last five annual actuarial valuations:

EMPLOYER CONTRIBUTION RATES

Actuarial Valuation as of June 30	Total Calculated Employer Contribution Rate for all Employees (% of total payroll)*	Funding Period (Years)
2012	16.11%	30.0
2013	16.76%	28.0
2014	17.28%	26.0
2015	17.89%	26.0
2016	17.91%	66.0

* Reflects Act 181, SLH 2004, which amended Sections 88-105, 88-122, 88-123, 88-124, 88-125, 88-126, Hawaii Revised Statutes, and Act 163, SLH 2011

Act 17, SLH 2017, which became effective July 1, 2017, was adopted to bring the State Retirement System's funding period within 30 years by increasing employer contribution requirements as follows:

Employer Contribution effective starting	Police Officers and Firefighters (% of total payroll)	Other Employees (% of total payroll)
July 1, 2017	28.0	18.0
July 1, 2018	31.0	19.0
July 1, 2019	36.0	22.0
July 1, 2020	41.0	24.0

The Legislature also included \$34.6 million in fiscal year 2017-2018 and \$70.7 million in fiscal year 2018-2019 in the Executive Budget Bill (H.B. 100, H.D. 1, S.D. 1, C.D. 1) ("H.B. 100"), to fund the required contribution increases.

Under the contributory plan, police officers, firefighters, and corrections officers are required to contribute 12.2% of their salary to the plan and most other covered employees are required to contribute 7.8% of their salary. Under the Hybrid Plan, covered employees are generally required to contribute 6.0% of their salary to the plan, with sewer workers in specified classifications, water safety officers and emergency medical technicians required to contribute 9.75% of their salary. Effective July 1, 2012, contribution rates for newly hired employees covered under the contributory and Hybrid Plan increased by 2% pursuant to Act 163, SLH 2011, such that the corresponding contribution rates for new employees as discussed in this paragraph became 14.2%, 9.8%, 8.0% and 11.75%, respectively. Employees covered under the noncontributory plan do not make contributions.

Actuarial Methods

The State Retirement System's actuary uses the entry age normal cost method. The most recent valuation was performed for the year ended June 30, 2016.

Since the State statutes governing the State Retirement System establish the current employee and employer contribution rates, the actuarial valuation determines the number of years required to amortize (or fund) the UAAL. For the June 30, 2016 valuation, this determination was made using an open group projection to reflect both the increasing contribution rates and the changes in benefits for members hired after June 30, 2012.

Because of this amortization procedure, any change in the unfunded actuarial accrued liability due to (i) actuarial gains and losses, (ii) changes in actuarial assumptions or (iii) amendments, affects the funding period.

On an aggregate basis with regards to the contributory, the Hybrid, and the noncontributory plans, the total normal cost for benefits provided by the State Retirement System for the fiscal year ended June 30, 2016 was 13.98% of payroll, which was 9.68% of payroll less than the total contributions required by law (17.91% from employers plus 5.75% in the aggregate from employees). Since only 8.23% of the employers' 17.91% contribution is required to meet the normal cost (5.75% comes from the employee contribution), it is intended that the remaining 9.68% of payroll will be used to amortize any unfunded actuarial accrued liabilities over a period of years in the future, assuming that total payroll increases by 3.50% per year. Due to the changes enacted in 2011 (increases in the employer contribution rates and new benefits and contribution rates for members hired after June 30, 2012), the percentage of payroll available to amortize the unfunded actuarial liabilities is expected to increase each year for the foreseeable future.

The following table shows the valuation results as of June 30, 2016 plus a 30-year open group projection of ERS' assets and liabilities. The projection assumes no actuarial gains or losses in the actuarial liabilities or the actuarial value of assets. In addition, the projection reflects the changes made to the benefits and member contribution rates of employees hired after June 30, 2012, but does not take into account the increased employer contributions required by S.B. 936.

Projection Results Based on June 30, 2016 Actuarial Valuation

Valuation as of June 30,	Employer Contribution Rate for Fiscal Year Following Valuation Date	Compensation (in Millions)	Employer Contributions (in Millions)	Actuarial Accrued Liability (AAL, in Millions)	Actuarial Value of Assets (AVA, in Millions)	Unfunded Actuarial Accrued Liability (UAAL, in Millions)	Funded Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2016	17.91%	\$ 4,258.9	\$ 763	\$ 27,439	\$ 14,997	\$ 12,443	54.7%
2017	17.91%	4,348.5	779	28,504	15,626	12,878	54.8%
2018	17.91%	4,449.4	797	29,643	16,318	13,325	55.0%
2019	17.91%	4,557.6	816	30,785	17,002	13,783	55.2%
2020	17.90%	4,672.8	837	31,929	17,676	14,252	55.4%
2021	17.90%	4,793.9	858	33,074	18,341	14,733	55.5%
2022	17.90%	4,920.0	881	34,220	18,995	15,224	55.5%
2023	17.90%	5,052.4	904	35,365	19,639	15,726	55.5%
2024	17.89%	5,190.1	929	36,510	20,271	16,239	55.5%
2025	17.89%	5,333.8	954	37,651	20,889	16,763	55.5%
2026	17.88%	5,484.6	981	38,788	21,492	17,296	55.4%
2027	17.88%	5,642.6	1,009	39,921	22,081	17,840	55.3%
2028	17.87%	5,807.9	1,038	41,051	22,658	18,393	55.2%
2029	17.87%	5,981.2	1,069	42,179	23,223	18,956	55.1%
2030	17.87%	6,162.1	1,101	43,307	23,779	19,528	54.9%
2031	17.86%	6,351.0	1,134	44,436	24,328	20,108	54.7%
2032	17.86%	6,547.3	1,169	45,565	24,869	20,696	54.6%
2033	17.86%	6,750.8	1,205	46,694	25,404	21,290	54.4%
2034	17.85%	6,963.1	1,243	47,827	25,935	21,891	54.2%
2035	17.85%	7,184.2	1,282	48,964	26,466	22,498	54.1%
2036	17.85%	7,414.0	1,323	50,108	26,999	23,109	53.9%
2037	17.85%	7,653.7	1,366	51,261	27,538	23,723	53.7%
2038	17.85%	7,904.3	1,411	52,429	28,088	24,340	53.6%
2039	17.85%	8,165.8	1,458	53,614	28,656	24,959	53.4%
2040	17.85%	8,438.4	1,506	54,823	29,246	25,577	53.3%
2041	17.85%	8,722.4	1,557	56,060	29,866	26,194	53.3%
2042	17.86%	9,017.3	1,610	57,331	30,523	26,808	53.2%
2043	17.86%	9,324.0	1,665	58,642	31,225	27,417	53.2%
2044	17.86%	9,643.1	1,722	59,998	31,977	28,021	53.3%
2045	17.86%	9,974.2	1,781	61,406	32,790	28,616	53.4%

Projection assumes all assumptions exactly met, including a 7.00% annual return on the current actuarial value of assets.

Source: 2016 Valuation Report.

Actuarial Valuation

The actuarial value of assets is equal to the market value, adjusted for a four-year phase-in of actual investment return in excess of or below expected investment return. The actual return is calculated net of investment and administrative expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds. The actuarial value of assets has been based on a four-year smoothed valuation that recognizes the excess or shortfall of investment income over or under the actuarial investment yield rate assumption. The actuarial asset valuation method is intended to smooth out year to year fluctuations in the market return. The excess or shortfall in the actual return during the year, compared to the investment yield rate assumption, is spread over this valuation and the next three valuations.

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The actual investment returns of the State Retirement System for Fiscal Years 2007 through 2016 shown below are market returns, net of investment and administrative expenses.

<u>Fiscal Year</u>	<u>Percentage</u>
2007	17.81%
2008	-3.51%
2009	-17.54%
2010	11.96%
2011	21.25%
2012	-0.14%
2013	12.57%
2014	17.77%
2015	4.23%
2016	-0.78%

Source: Report on Investment Activity for the ERS prepared by Callan Associates, Inc. (2006), Pension Consulting Alliance, Inc. (2007), The Northern Trust Company (2008 to 2013), and the Bank of New York Mellon (2014 to 2016), and reported in the State Retirement System's Comprehensive Annual Financial Reports.

The actual investment return (market return) of the State Retirement System for fiscal year 2017 was 13.4%, gross of investment and administrative expenses.

The 2016 Valuation Report found that, as the percentage of employees hired on and after July 1, 2012, increases and the increases in the employer contribution rates required by Act 17, SLH 2017 impact the State Retirement System, the State will be able to amortize the UAAL over a 66-year period. Assuming a constant employment base, the number of employees entitled to pre-2012 retirement benefits should equal the number of employees entitled to post-2012 retirement benefits in fiscal year 2023. The combination of the higher contribution policies and new benefit structure for future employees is expected to enable the State Retirement System to absorb the prior adverse experience over the 30-year term.

The following table sets forth the schedule of funding progress of the State Retirement System for the ten most recent actuarial valuation dates.

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in millions)

June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b)–(a)	Funded Ratio (a)/(b)	Annual Covered Payroll (c)	UAAL as a Percentage of Payroll ((b)–(a))/(c)
2007*	\$10,589.8	\$15,696.5	\$5,106.8	67.5%	\$3,507.0	145.6%
2008	11,381.0	16,549.1	5,168.1	68.8%	3,782.1	136.6%
2009	11,400.1	17,636.4	6,236.3	64.6%	4,030.1	154.7%
2010	11,345.6	18,483.7	7,138.1	61.4%	3,895.7	183.2%
2011*	11,942.8	20,096.9	8,154.2	59.4%	3,916.0	208.2%
2012	12,242.5	20,683.4	8,440.9	59.2%	3,890.0	217.0%
2013	12,748.8	21,243.7	8,494.9	60.0%	3,906.7	217.4%
2014	13,641.8	22,220.1	8,578.3	61.4%	3,991.6	214.9%
2015*	14,463.7	23,238.4	8,774.7	62.2%	4,171.4	210.4%
2016*	14,998.7	27,439.2	12,440.5	54.7%	4,258.9	292.1%

Source: The 2016 Valuation Report.

* New assumption changes effective on valuation date.

The total assets of the State Retirement System on a market value basis available for benefits amounted to approximately \$14.2 billion as of June 30, 2014, \$14.5 billion as of June 30, 2015, \$14.1 billion as of June 30, 2016, \$15.6 billion as of June 30, 2017 and \$16.3 billion as of September 30, 2017. Actuarial certification of assets as of June 30, 2016 was \$15.0 billion. The estimated actuarial value of assets as of June 30, 2017 is \$15.7 billion and preliminary unfunded actuarial accrued liability as of June 30, 2017 was \$12.95 billion.

The following table shows a comparison of the actuarial value of assets (“AVA”) to the market values, the ratio of the AVA to market value and the funded ratio based on AVA compared to funded ratio based on market value assets.

ACTUARIAL VALUE OF ASSETS

Fiscal Year (ending June 30)	Actuarial Value of Assets (in millions)	Market Value of Assets (in millions)	Market Value as Percentage of AVA	Funded Ratio (AVA)	Funded Ratio (Market Value)
2007	10,589.8	11,434.3	108.0%	67.5%	72.8%
2008	11,381.0	10,846.8	95.3%	68.8%	65.5%
2009	11,400.1	8,818.0	77.4%	64.6%	50.0%
2010	11,345.6	9,821.6	86.6%	61.4%	53.1%
2011	11,942.8	11,642.3	97.5%	59.4%	57.9%
2012	12,242.5	11,285.9	92.2%	59.2%	54.6%
2013	12,748.8	12,357.8	96.9%	60.0%	58.2%
2014	13,641.8	14,203.0	104.1%	61.4%	63.9%
2015	14,463.7	14,505.5	100.3%	62.2%	62.4%
2016	14,998.7	14,070.0	93.8%	54.7%	51.3%

Source: 2007-2016 Valuation Reports.

As of June 30, 2016, the UAAL of the State Retirement System was \$12.44 billion. The following table shows the normal cost (which means the annual cost of providing retirement benefits for services performed by today's members) as a percentage of payroll, employee contribution rate and effective employer normal cost rate for the two groups of covered employees for Fiscal Years 2016 and 2015:

NORMAL COST

	June 30,					
	2015			2016		
	Police and Firefighters	Other Employees	All Employees	Police and Firefighters	Other Employees	All Employees
Normal cost as % of payroll:	20.39%	10.53%	11.66%	25.72%	12.46%	13.98%
Employee contribution rate:	12.35%	4.77%	5.64%	12.40%	4.89%	5.75%
Effective employer normal cost rate:	8.04%	5.76%	6.02%	13.32%	7.57%	8.23%

Source: 2016 Valuation Report.

The following table shows the annual required contributions, actual contributions and the percentage of actuarially required contribution that has been funded as of the last 10 valuation dates. Employer contribution rates are set prospectively by the statute and, accordingly, may be greater or less than the ARC in any given year.

SCHEDULE OF EMPLOYER CONTRIBUTIONS*
(Dollar amounts in thousands)

June 30,	Annual Required Contribution	Actual Contribution	Percentage Contributed
2008	\$510,727	\$488,770	95.7%
2009	\$526,538	\$578,635	109.9%
2010	\$536,237	\$547,613	102.1%
2011	\$582,535	\$534,858	91.8%
2012	\$654,755	\$548,353	83.7%
2013	\$667,142	\$581,447	87.2%
2014	\$705,224	\$653,128	92.6%
2015	--*	\$717,793	--*
2016	--*	\$756,558	--*

Source: 2016 Valuation Report and 2015 Comprehensive Annual Financial Report for the State Retirement System.

Excludes University-paid employee contributions classified as employer contributions pursuant to IRC Section 414(h)(2).

*Amount is no longer calculated due to revised GASB standards.

Asset Allocation

The following table shows the target and actual asset allocation of the State Retirement System as of June 30, 2016:

ASSET ALLOCATION
(as of June 30, 2016)

Asset Type	Actual Allocation		Target Allocation		Allocation Difference
	Amount (\$mm)	Percentage	Amount (\$mm)	Percentage	
Domestic Equity	\$4,486.3	32.0%	\$ 4,594.7	32.9%	-0.8%
Non-US Equity	3,138.5	22.4%	3,640.3	26.0%	-3.6%
Fixed Income	2,909.4	20.8%	2,800.3	20.0%	0.8%
Real Estate	779.8	5.6%	779.8	5.6%	0.0%
Private Equity	805.7	5.8%	805.7	5.8%	0.0%
Real Return	680.4	4.9%	680.4	4.9%	0.0%
Covered Calls	988.5	7.1%	700.1	5.0%	2.1%
Other	212.5	1.5%	0.0	0.0%	1.5%
Total	\$14,001.3*	100.0%*	\$14,001.3	100.0%*	

Source: Valuations provided by BNY Mellon – 2016.

*Totals may not add up due to rounding.

Summary of Actuarial Certification Statement

A summary of the actuarial certification of the State Retirement System as of June 30, 2015 and June 30, 2016 is set forth below.

EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF HAWAII **Summary of Actuarial Certification as of June 30, 2015 and 2016** **(Includes all counties)**

ASSETS	2015	2016
Total current assets	\$14,463,670,277	\$14,998,749,060
Present value of future employee contributions.....	1,932,961,666	2,200,959,950
Present value of future employer normal cost contributions	1,868,722,677	2,777,611,039
Unfunded actuarial accrued liability	8,774,725,109	12,440,484,569
Present value of future employer Early Incentive Retirement Program contribution	N/A	N/A
TOTAL ASSETS	<u>\$27,040,079,729</u>	<u>\$32,417,804,618</u>
LIABILITIES		
Present value of benefits to current pensioners and beneficiaries...	\$12,321,791,648	\$14,228,204,532
Present value of future benefits to active employees and inactive members.....	<u>14,718,288,081</u>	<u>18,189,600,086</u>
TOTAL LIABILITIES.....	<u>\$27,040,079,729</u>	<u>\$32,417,804,618</u>

Source: Gabriel, Roeder, Smith & Company.

As of June 30, 2016, the unfunded actuarial accrued liability (under the entry age normal actuarial cost method) of the System amounted to approximately \$12.440 billion. The System's funded ratios — assets divided by the actuarial accrued liability — decreased during fiscal year 2016 as shown below:

FUNDED RATIOS

June 30, 2015

62.2%

June 30, 2016

54.7%

Employee Health Benefits

All regular employees of the University are eligible for coverage under health plans provided through the State of Hawaii Public Employer-Union Health Benefit Trust Fund (the "*Trust Fund*"), which was established in 2003 by Act 88, SLH 2001, Relating to Public Employees Health Benefits (partially codified as HRS Chapter 87A) to design, provide and administer health and other benefit plans for State and county employees, retirees and their dependents. The employers participating in the Trust Fund include the State and the University. The Trust Fund is administered by a ten-member Board of Trustees (the "*EUTF Board*") appointed by the Governor comprised of five union representatives and five management representatives. The Board is responsible for determining the nature and scope of health plans offered by the Trust Fund, negotiating and entering into contracts with insurance carriers, ruling on eligibility and establishing management policies for the Trust Fund and overseeing Trust Fund activities.

Public employer contributions to the Trust Fund for the health and other benefit plans of public employees and their dependents are determined under HRS Chapter 89C, or by way of applicable public sector collective bargaining agreements. Except for reimbursement of medical insurance coverage under Medicare, public employer contributions to fund the health and other benefit plans of retirees are not to exceed certain monthly contribution levels specified in HRS Chapter 87A.

The Trust Fund currently provides medical, prescription drug, dental, vision, chiropractic and group life benefits. Benefits with respect to regular employees are funded by a combination of employer contributions set by collective bargaining agreement or by executive order (with respect to non-union employees) and employee contributions through payroll deductions. Benefits for retirees are funded by a statutory formula.

In recent years, public and private health plan providers nationwide and in Hawaii, including the Trust Fund, have experienced substantial increases in health care costs. In the case of the Trust Fund, the current fiscal situation faced by State and county employers has made it extremely difficult for the employers to increase employer contributions for health benefits in order to maintain the historical employer-employee contribution ratio. In the past, the EUTF Board has attempted to mitigate health plan rate increases by modifying benefits, and employees have been required to bear a larger share of the increased rates. The University cannot predict what actions will be taken (including changes to future plan benefits or employer-employee contribution rates) to address the impact of rising health care costs on the Trust Fund or what financial effects such changes may have on the University.

For employee health premium payments, the State has appropriated, for the benefit of University employees, \$78.9 million for the fiscal year ended June 30, 2014, \$85.1 million for the fiscal year ended June 30, 2015, \$91.1 million for the fiscal year ended June 30, 2016, \$96.7 million for the fiscal year ended June 30, 2017, and \$104.5 million for the fiscal year ending June 30, 2018.

Post-Retirement Benefits

The Governmental Accounting Standards Board (“GASB”) previously issued Statement No. 43 (“GASB 43”) and Statement No. 45 (“GASB 45”), which addresses how state and local governments should account for and report their costs and obligations related to post-employment health and other non-pension benefits (“OPEB”). GASB 43 and GASB 45 generally require that governments account for and report the annual cost of OPEB and the outstanding obligations and commitments related to OPEB in essentially the same manner as they do for pensions. These requirements were effective for the State, including the University, beginning in the fiscal year ended June 30, 2007 for GASB 43 and in the fiscal year ended June 30, 2008 for GASB 45. The University has commissioned an actuarial study of the obligations for post-retirement benefits which are paid by the Hawaii Employers-Union Health Benefit Trust Fund.

In June 2015, GASB approved new accounting and financial reporting standards for state and local government OPEB. Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans* (GASB 74) applies to OPEB plans, and replaces GASB 43 and GASB Statement No. 57. Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) applies to state and local employers that sponsor OPEB, and replaces GASB 45 and GASB Statement No. 57. Generally, the new OPEB standards parallel those applied to defined-benefit pension plans and participating employers by Statement No. 67, *Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25* (GASB 67) and Statement No. 68, *Accounting and Financial Reporting for Pensions* (GASB 68), respectively. The new standards introduce new procedures for measuring OPEB liabilities and costs, require employers to report a net OPEB liability on their financial statements, and require more extensive disclosure in plan and employer financial statements. GASB 74 will be effective for plans with fiscal years beginning after June 15, 2016. GASB

75 will be effective for employers for fiscal years beginning after June 15, 2017. The University has not determined the potential impact of the new standards on its financial statements.

In the past, the State funded its OPEB costs on a “pay as you go” basis; however, the State began the process of pre-funding its OPEB costs with contributions in the amount of \$100 million for fiscal year ending June 30, 2014. The State has met its pre-funding OPEB contribution in accordance with Act 268, SLH 2013 for the fiscal years ending June 30, 2015, 2016, 2017 and 2018 with actual contributions of \$117.4 million (versus the \$83.0 million Act 268, SLH 2013 required contribution), \$249.8 million (versus the \$163.6 million Act 268, SLH 2013 required contribution), \$333.0 million (versus the \$230.2 million Act 268, SLH 2013 required contribution) and \$297.1 million (versus the \$297.063 million Act 268, SLH 2013 required contribution), respectively. The market value of the State’s OPEB assets amounted to \$879.8 million as of June 30, 2017. The State’s budget for the fiscal year ending June 30, 2019 includes a pre-funding contribution of \$375.2 million.

The University made payments of \$93.101 million in excess of its actuarially determined minimum OPEB contribution of \$49.7 million for the year ended June 30, 2017, \$68.184 million in excess of its actuarially determined minimum OPEB contribution of \$45.1 million for the year ended June 30, 2016, and of \$57,438 million in excess of its actuarially determined minimum OPEB contribution of \$41.4 million for the year ended June 30, 2015. For additional information on pensions and employee benefits see Notes 14 and 15 to the University’s audited financial statements in **APPENDIX B – “AUDITED FINANCIAL STATEMENTS.”**

Insurance

Act 186 of the 2003 Hawaii State Legislature established the Risk Management Special Fund (“*RMSF*”) to finance a program of insurance and self-insurance for the University. The program is funded through annual assessments of each campus based on factors such as number of employees, student enrollment, loss history, and specialized facilities. The RMSF pays the University’s insurance premiums, retention payments, settlements and judgments, litigation expenses incurred by the University General Counsel, and risk management related expenses.

In addition to its own insurance program, the University participates in the State of Hawaii insurance program.

Outstanding Indebtedness

Bonds Issued and Outstanding Under the Resolution. The University has previously issued and has Outstanding the following Bonds pursuant to the Resolution:

Designation	Principal Amount Outstanding as of November 1, 2017
\$100,000,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2006A (the “ <i>Series 2006A Bonds</i> ”)	\$17,490,000
\$100,000,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2009A (the “ <i>Series 2009A Bonds</i> ”)	82,090,000
\$111,265,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2010A-1 (the “ <i>Series 2010A-1 Bonds</i> ”)	111,265,000

\$27,375,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2010A-2 (the “ <i>Series 2010A-2 Bonds</i> ”)	6,930,000
\$127,535,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2010B-1 (the “ <i>Series 2010B-1 Bonds</i> ”)	127,535,000
\$26,555,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2010B-2 (the “ <i>Series 2010B-2 Bonds</i> ”)	7,820,000
\$8,575,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2012A (R) (the “ <i>Series 2012A Bonds</i> ”)	240,000
\$8,575,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Taxable Series 2015A (the “ <i>Series 2015A Bonds</i> ”)	8,220,000
\$47,010,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2015B (R) (the “ <i>Series 2015B Bonds</i> ”)	47,010,000
\$17,585,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Series 2015C (R) (the “ <i>Series 2015C Bonds</i> ”)	12,725,000
\$25,715,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Taxable Series 2015D (R) (the “ <i>Series 2015D Bonds</i> ”)	19,795,000
\$67,400,000 Board of Regents of the University of Hawaii, University Revenue Bonds, Refunding Series 2015E (Forward Delivery) (R) (the “ <i>Series 2015E Bonds</i> ”)	67,400,000
Total	\$508,520,000

The proceeds of the Series 2017 Bonds will be used to refund the Series 2006A Bonds and a portion of the Series 2009A Bonds.

The Series 2006A Bonds, which are enhanced by a bond insurance policy issued by MBIA Insurance Corporation, were issued to finance or refinance the costs of construction of a dormitory facility designated as Frear Hall, the maintenance of existing food service facilities at the Mānoa campus and the maintenance of existing University Projects in the University System. The Series 2009A Bonds were issued to finance and refinance, among other things, the costs of acquisition, conversion and development of student housing facilities at the University’s Mānoa and Hilo campuses, the development of the West O’ahu campus, additions to the Biomedical Science Building on the Mānoa campus, additions to the Campus Center on the Hilo campus and to refund certain outstanding indebtedness. The Series 2010A-1 Bonds and the Series 2010A-2 Bonds were issued to finance and refinance the costs of construction and maintenance of the University’s Cancer Research Center of Hawaii. The Series 2010B-1 Bonds and the Series 2010B-2 Bonds were issued to finance and refinance, among other things, renovations and additions to the Mānoa Campus Center, construction and equipment for an Information Technology Building, renovations to the Sinclair Library basement on the Mānoa campus, further development of the West O’ahu campus, various energy conservation/efficiency projects on the community college campuses of O’ahu, Kauai and Maui, and renovation and construction of other University Projects. The Series 2012A Bonds were issued to refund certain other revenue bonds of the Board. The Series 2015A Bonds were issued to finance strategic constructions projects at the Hilo College of Pharmacy and the University’s Law School. The Board elected to issue and designate the Series 2010A-1 Bonds and the Series 2010B-1 Bonds as “Build America Bonds” pursuant to the American Recovery and Reinvestment Act of 2009, which authorized the Board to issue such Bonds as taxable bonds to finance capital expenditures for which it could otherwise issue tax-exempt bonds and to receive a subsidy payment from

the federal government equal to 35% of each interest payment on such bonds (“Subsidy Payment”). To the extent such Subsidy Payments are paid by the federal government to the Board, such amounts constitute Revenues of the Network for purposes of the Resolution and are pledged as security for all Bonds. The Subsidy Payments do not represent a full faith credit obligation of the United States. All of the outstanding Revenue Bonds bear interest at a fixed rate.

Separate Resolution Financing: University Bonds. Pursuant to a separate resolution, the Board has financed university projects not constituting a part of the Network, currently only Phase I of the University’s Health and Wellness Center. In 2002, the University issued \$150,000,000 principal amount of University Bonds to finance Phase I and to provide for the planning and design of Phase II. In 2006, the University issued \$133,810,000 principal amount of University Bonds to advance refund a portion of the bonds issued in 2002. All bonds issued under this resolution are equally and ratably secured by a pledge of moneys from time to time on deposit in any special fund or revolving fund of the University derived from its ownership or operation of the University, and the funds and accounts established thereunder, in each case, but does not include moneys deposited in the University Revenue-Undertaking Fund derived from the Network. Such special and revolving fund moneys constitute “Legislative Appropriations” under the Resolution. Under the supplemental resolutions authorizing the University Bonds issued in 2002 and 2006, such bonds are additionally payable from and secured by a lien on a portion of the moneys in the Hawaii Tobacco Settlement Special Fund which is prior and paramount to the lien of the Series 2015D Bonds and Series 2015E Bonds. The University Bonds have a prior and paramount claim on the Legislative Appropriation pledged to such bonds. However, after giving effect to the refunding of the Series 2006A University Bonds, there will be no University Bonds outstanding. The Board will covenant not to issue any additional bonds under the University Bonds Resolution.

Reimbursable General Obligation Bonds. In addition to payment of debt service on the bonds issued for the Network, revenues from the Network are utilized to reimburse the State for debt service on certain reimbursable State of Hawaii general obligation bonds to the payment of which general obligation bonds the State has pledged its full faith and credit. Such reimbursement to the State is made after the payment of amounts due on the bonds issued for the Network and certain other amounts. The final installment of general obligation bonds was paid in July 2017.

Master Financing Lease; Installment Contracts. The University entered into a “Master Financing Lease Agreement” in 1999 with Academic Capital Government Finance, Inc. for the lease of various equipment. Since the inception of the leasing agreement, the University has leased equipment from time to time. Payments under the leasing agreement are denominated as a “current expense” of the University, are not construed as a debt and are expressly subject to appropriation. In addition, the University from time to time purchases certain equipment under installment purchase contracts. Payments under these arrangements are also treated as a “current expense” of the University, are not construed as debt, are subject to appropriation and are payable from the revenues of the Network. Under both the aforesaid leasing agreement and installment purchases payments are generally made in monthly installments over the economic life of the equipment acquired. As of June 30, 2017, there were no outstanding obligations under the leasing agreement, nor under any installment purchase contract agreements.

EB-5 Financing – West O’ahu. On May 4, 2012, the University entered into a five-year, unsecured loan agreement (“Note”) with Hawaii Regional Center LP III (“Lender”) for a commitment amount not to exceed \$18 million, subject to certain limitations. The proceeds were used to facilitate and fund construction of the UH-West O’ahu campus located in Kapolei, Hawaii. The Note bears interest at the rate of 1.5% per annum, which is due and payable semi-annually to the Lender on January 1 and July 1 each year until the Note has been paid in full. Under the terms of the Note, repayment each fiscal year is limited and subject to specific appropriations by the State to make such payments. As of June 30,

2017, \$17.0 million remains outstanding. The Note matures on April 22, 2018, at which time the unpaid principal will be due. The University intends to pay the Note at maturity.

Energy Performance Contracts. The University previously entered into energy performance contracts with Johnson Controls, Inc. (“JCI”) to implement energy conservation equipment and alternate energy measures at the University’s Oahu community college campuses and Maui College. The University recently entered into Phase II energy performance contracts with JCI to lease additional energy conservation equipment at the University’s Oahu community college campuses and Maui College. JCI has assigned the equipment leases to Banc of America Public Capital Corp. (“BAPCC”).

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APPENDIX B
AUDITED FINANCIAL STATEMENTS

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UNIVERSITY of HAWAI'I®
SYSTEM

**2017 Annual Financial Report,
Required Supplementary Information
and Other Supplementary Information
University of Hawai'i
State of Hawai'i**



Mānoa



Hilo



West O'ahu



Hawai'i



Honolulu



Kapi'olani



Kaua'i



Leeward



Maui



Windward

Research Sustainability Hawaiian Place of Learning

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Report of Independent Auditors

To the Board of Regents of the
University of Hawai'i

Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of the University of Hawai'i (the "University"), a component unit of the State of Hawai'i, as of and for the years ended June 30, 2017 and 2016, and the related notes to the consolidated financial statements, which collectively comprise the University's basic financial statements as listed in the accompanying index.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these 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 financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We did not audit the financial statements of the University of Hawai'i Foundation (the "Foundation"), which represent 13.1 percent and 13.3 percent, respectively, of the total assets and deferred outflows of resources and 0.8 percent of the total operating revenues of the University as of and for the years ended June 30, 2017 and 2016. Those financial statements were audited by other auditors whose reports thereon have been furnished to us, and our opinion expressed herein, insofar as it relates to the amounts included for the Foundation as of and for the years ended June 30, 2017 and 2016, are based solely on the reports of the other auditors. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits 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 the auditors' 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, the auditors consider internal control relevant to the entity'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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the 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 University of Hawai'i, as of June 30, 2017 and 2016, and the changes in financial position and cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1 to the consolidated financial statements, effective July 1, 2015, the University adopted new accounting guidance under Governmental Accounting Standards Board Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, 68 and 73*. Our opinion is not modified with respect to this matter.

Other Matters*Required Supplementary Information*

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

The image shows a handwritten signature in black ink that reads "Accuity LLP". The signature is written in a cursive, flowing style.

Honolulu, Hawai'i
December 7, 2017

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Management's Discussion and Analysis (Unaudited)

June 30, 2017 and 2016

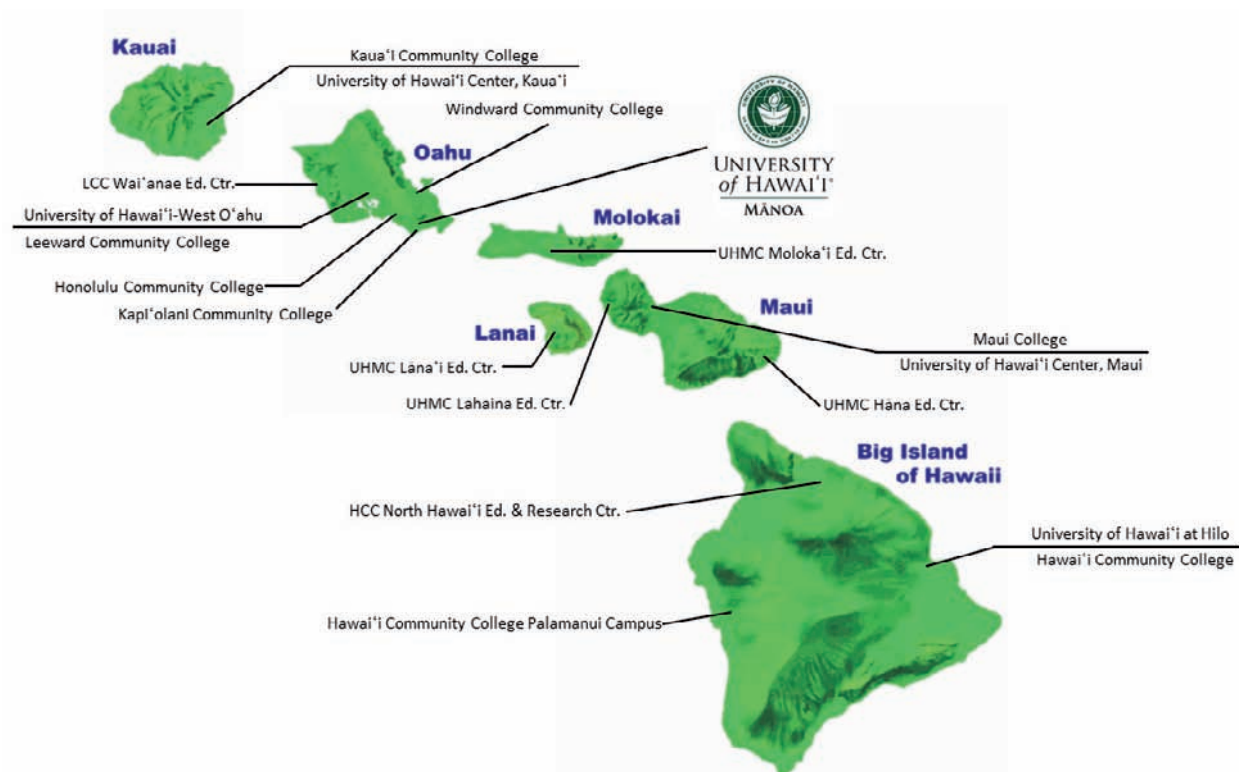
Introduction

The following discussion and analysis provides an overview of the consolidated financial position and activities of the University of Hawai'i (the "University") for the years ended June 30, 2017 and 2016, with selected information for the year ended June 30, 2015. This discussion has been prepared by management and should be read in conjunction with the financial statements and the notes thereto, which follow this section.

Founded in 1907 under the auspices of the Morrill Act, the University is a land-grant, sea-grant and space-grant institution and a 10-campus system comprised of a major research university (Mānoa), two baccalaureate campuses (Hilo and West O'ahu), seven community colleges (Hawai'i, Honolulu, Kapiolani, Kauai, Leeward, Maui, and Windward) and nine educational centers distributed across the State. The University of Hawai'i at Mānoa was ranked No. 159 on the publication's annual Best Colleges and No. 83 as a top public school, according to the latest surveys by *U.S. News & World Report*.

The University is the sole public higher education system within the State and, therefore, has a unique competitive position and value in Hawai'i. Furthermore, the University is the only truly integrated higher education system in the country that seamlessly arranges its universities and community colleges into one system. Other public higher education systems in the country are typically separate and distinct systems defined by the type of system (community colleges, junior colleges and universities).

In addition to being an integrated higher education system, the University distinguishes itself through its Hawai'i, Asian and Pacific orientation and its position as one of the world's foremost multicultural centers for global and indigenous studies. Students are members of a population in which no one ethnic group constitutes a majority, and the educational experience is enriched by the diversity of cultures represented.



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University of Hawai'i Quick Facts

Students	Academic Year 2017	Academic Year 2016	Academic Year 2015
Undergraduate	47,903	50,011	48,494
Graduate	5,515	5,745	8,558
Total	53,418	55,756	57,052

Types of Degrees Awarded

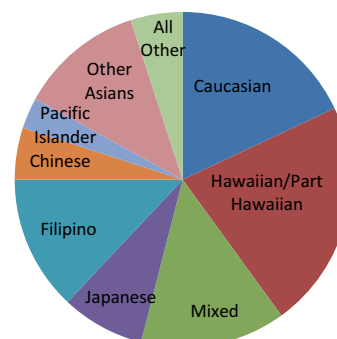
Certificates: Community Colleges	180
Certificates: University	101
Associate degrees	128
Bachelor's degrees	146
Master's degrees	91
Doctoral degrees	59
Professional degrees	5

Residency

Hawai'i	86%
Mainland	10%
Foreign	4%

Student Diversity (full time Students)

Caucasian	18%
Hawaiian/Part Hawaiian	22%
Mixed	14%
Japanese	8%
Filipino	13%
Chinese	5%
Pacific Islander	3%
Other Asians	12%
All Other (e.g. Hispanic, African American)	5%



Total Revenues (\$ in thousands)	Fiscal Year 2017	% of Total	Fiscal Year 2016	Fiscal Year 2015
Net tuition and fees	\$ 270,123	15%	\$ 272,306	\$ 262,660
Contracts and grants (including Pell grants)	424,592	23%	451,669	456,944
State appropriations	471,453	26%	441,373	413,148
Transfer from State for fringe benefits	179,715	10%	172,248	162,969
Sales and services	130,867	7%	134,787	135,315
Capital State appropriations	159,094	9%	16,547	161,822
Others	202,376	10%	79,701	82,244
Total	\$ 1,838,220	100%	\$ 1,568,631	\$ 1,675,102

The University's Revenue Bond Ratings:

Moody's Investors Service - Aa2 with stable outlook
Fitch Ratings - AA with stable outlook

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Using the Financial Statements

The University’s consolidated financial statements are prepared in accordance with Governmental Accounting Standards Board (“GASB”) principles, which establish standards for external financial reporting for public colleges and universities. The University’s consolidated financial statements are comprised of the following four components:

- **Statements of Net Position** – The Consolidated Statements of Net Position present information on the University’s assets and liabilities, with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the University’s financial condition is improving or deteriorating. Net position increases when revenues exceed expenses, or when assets increase without a corresponding increase in liabilities. This is an indication of improving financial condition. However, when expenses exceed revenues, or when liabilities increase without a corresponding increase in assets, there is an indication of deteriorating financial condition.
- **Statements of Revenues, Expenses and Changes in Net Position** – The Consolidated Statements of Revenues, Expenses and Changes in Net Position present the University’s revenues and expenses and illustrate how current year activities improve or weaken the University’s financial condition. Changes in net position are reported when the underlying event occurs (accrual basis of accounting), which may be different from actual cash flows. In accordance with GASB requirements, certain significant revenues budgeted for fundamental operational support of the core instructional mission of the University must be recorded as nonoperating revenue, including state educational appropriations, private gifts, and investment income. Consequently, the Consolidated Statements of Revenues, Expenses and Changes in Net Position distinguish operating from nonoperating revenues and expenses. It is anticipated that the University will consistently report an operating loss since certain significant revenue sources relied upon for core operational needs are considered nonoperating revenue.
- **Statements of Cash Flows** – The Consolidated Statements of Cash Flows distinguishes between cash inflows and outflows from operating activities, non-capital financing activities, capital and related financing activities, and investing activities.
- **Notes to Consolidated Financial Statements** – The notes provide additional information that is essential to a full understanding of the information presented in the consolidated financial statements.

Related Entities

The University maintains close relationships with two other entities, considered to be component units, whose financial information is blended into the University’s accompanying consolidated financial statements. The University of Hawai‘i Foundation (the “Foundation”) is a not-for-profit organization established to solicit and manage funds for the benefit of the University. The Research Corporation of the University of Hawai‘i (the “Research Corporation”) provides administrative support services for research and training programs of the University. Both of the University’s component units prepare stand-alone financial statements with footnotes, which are audited by independent auditors. Summarized information of the individual components of the University’s consolidated financial position, results of operations and cash flows for the years ended June 30, 2017 and 2016 is presented in Note 18 to the consolidated financial statements.

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Financial Position

The Consolidated Statements of Net Position present the financial position of the University at the end of the fiscal year and display all assets and liabilities of the University. Assets and liabilities are presented using fair and current values, respectively. Two notable exceptions are receivables and capital assets, which are stated at historical cost less an allowance for doubtful accounts and accumulated depreciation, respectively. The difference between assets and liabilities is net position, representing a measurement of the current financial condition of the University. The University’s assets, liabilities and net position at June 30, 2017, 2016 and 2015 are summarized as follows (in thousands of dollars):

	2017	2016	FY 17 vs 16 Change	2015	FY 16 vs 15 Change
Current assets					
Cash and operating investments	\$ 424,276	\$ 401,881	\$ 22,395	\$ 375,052	\$ 26,829
Receivables, net	98,041	104,838	(6,797)	104,711	127
Other current assets	21,741	21,712	29	24,681	(2,969)
Total current assets	544,058	528,431	15,627	504,444	23,987
Noncurrent assets					
Endowment and other investments	507,613	475,040	32,573	477,243	(2,203)
Capital assets, net	2,087,733	2,053,385	34,348	2,068,691	(15,306)
Other noncurrent assets	507,535	388,709	118,826	466,840	(78,131)
Total assets	3,646,939	3,445,565	201,374	3,517,218	(71,653)
Deferred outflows of resources					
Deferred loss on refunding	9,995	11,383	(1,388)	5,251	6,132
Deferred outflows on net pension liability	557,225	134,715	422,510	106,848	27,867
Total deferred outflows of resources	567,220	146,098	421,122	112,099	33,999
Total assets and deferred outflows of resources	\$ 4,214,159	\$ 3,591,663	\$ 622,496	\$ 3,629,317	\$ (37,654)
Current liabilities	\$ 289,085	\$ 266,951	\$ 22,134	\$ 270,047	\$ (3,096)
Noncurrent liabilities					
Long-term debt	524,565	543,680	(19,115)	561,470	(17,790)
Net pension liability and other postemployment benefits	2,493,243	1,867,321	625,922	1,740,687	126,634
Other noncurrent liabilities	112,568	105,896	6,672	91,530	14,366
Total liabilities	3,419,461	2,783,848	635,613	2,663,734	120,114
Deferred inflows of resources					
Deferred inflows on net pension liability	65,171	111,364	(46,193)	151,162	(39,798)
Total deferred inflows of resources	65,171	111,364	(46,193)	151,162	(39,798)
Net position					
Net investment in capital assets	1,541,725	1,504,935	36,790	1,503,902	1,033
Restricted					
Nonexpendable	342,071	244,396	97,675	235,894	8,502
Expendable	586,825	561,093	25,732	644,743	(83,650)
Unrestricted	(1,741,094)	(1,613,973)	(127,121)	(1,570,118)	(43,855)
Total net position	729,527	696,451	33,076	814,421	(117,970)
Total liabilities, deferred inflows of resources and net position	\$ 4,214,159	\$ 3,591,663	\$ 622,496	\$ 3,629,317	\$ (37,654)

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Implementation of GASB Statements No. 68, 71 and 82

During fiscal year 2015, University implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, and GASB Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68*. During fiscal year 2017, the University implemented GASB Statement No. 82, *Pension Issues – an Amendment of GASB Statements No. 67, No. 68, and No. 73*.

The adoption of Statements No. 68 and 71 has a significant impact on the University's consolidated financial statements, which requires us to report expenditures and liabilities in the amount statutorily required. Readers of the fiscal year 2015 financial statements should notice that the University's balance sheet showed significant financial impact by the inclusion of the University's proportionate share of the net pension liability for the Employees' Retirement System of the State of Hawai'i ("ERS") plan. The adoption of Statement No. 82 addresses certain issues that have been raised with respect to Statements No. 67, 68 and 73. The adoption resulted in the restatement of the University's fiscal year 2014 net position. Accordingly, the University's net position as of July 1, 2014 has been restated to \$822 million from \$1.962 billion, which reflects the retrospective effect of Statements No. 68 and 71 related to the adoption for net pension liability of \$1.113 billion during fiscal year 2015, plus the retrospective effect of Statement No. 82 related to the new calculation of deferred outflows of resources of \$27 million. Retroactive implementation of GASB Statement No. 68 was not deemed practical due to the cost and timing required to obtain and analyze the activity covering fiscal year 2014. As such, the University's fiscal year 2014 financial statements are presented in accordance with GASB Statement No. 27.

The net pension liability increased by \$559.9 million to \$1.704 billion from \$1.144 billion in fiscal year 2017 when compared to fiscal year 2016. Similarly, the net pension liability increased by \$54.7 million from \$1.090 billion when compared to fiscal year 2015. The changes are primarily due to the additional pension expense, the difference between expected and actual experience with economic and demographic factors, effect of changes in assumptions, and the difference between actual and projected earnings on plan investments. Refer to Note 14 for more information regarding the University's pension.

Current Assets and Liabilities

Working capital is a good measure of both the University's efficiency and financial health. Positive working capital means that the University has current assets in excess of current liabilities and is able to pay off short-term obligations. A working capital deficit would mean that the University is unable to meet its short-term obligations with existing current assets.

The University recorded an increase in working capital the last three fiscal years, which resulted mainly from the implementation of the new financial management policy. In November 2013, the University adopted a financial reserve policy to establish system-wide operating reserves from non-general fund revenue in amounts sufficient to provide continued operations for at least two months with a minimum of five percent unencumbered cash from all tuition and fee funds, special funds, and revolving funds. At June 30, 2017, 2016 and 2015, working capital amounted to \$255.0 million, \$261.5 million and \$234.4 million, respectively. The University is committed to maintaining a prudent level of working capital to fund operations, including pre-funding approximately \$368.9 million in extramural grants which were mostly paid on a cost reimbursement basis. Based on the \$1.655 billion of operating expenses (excluding depreciation) for the year ended June 30, 2017, the working capital at year end represents approximately 57 days of operating funds, as compared to 59 and 53 days of operating funds in 2016 and 2015, respectively.

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The components of the University's current assets and liabilities and their fluctuations during the three-year period are as follows:

- Current assets consist primarily of cash and cash equivalents, operating investments and net receivables. Total current assets were \$544.0 million, \$528.4 million and \$504.4 million at June 30, 2017, 2016 and 2015, respectively. Total current assets increased by \$15.6 million, or 3.0 percent, at June 30, 2017, primarily due to a \$22.4 million increase in cash, offset by a \$6.8 million decrease in accounts receivable. The cash increase was attributable to the operating surplus from tuition and fees. During fiscal year 2017, with the anticipation of enrollment decline, the University implemented various cost control initiatives including personnel cost reduction, which resulted in operating surplus. The \$6.8 million accounts receivable reduction was due to the decrease of federal awards. Total current assets increased by \$24.0 million, or 4.8 percent, at June 30, 2016, primarily due to a \$26.8 million increase in cash and operating investments. The increase was made up of the \$12.0 million cash balance increase from tuition and fees, the receipt of \$3.6 million from revolving funds, the proceeds of \$8.5 million from the 2015 revenue bond issuance, offset by the repayment of a \$6.0 million advance to the State of Hawai'i for the Snug Harbor project.
- Current liabilities consist primarily of accounts payable, accrued payroll and fringe benefits, advances from sponsor and unearned revenue. Current liabilities also include amounts due to the State of Hawai'i, the current portion of long-term liabilities and other current liabilities. Total current liabilities were \$289.1 million, \$267.0 million and \$270.0 million at June 30, 2017, 2016 and 2015, respectively. Total current liabilities increased by \$22.1 million, or 8.3 percent, at June 30, 2017, primarily due to increases in accounts payable of \$9.1 million and the current portion of long-term liabilities of \$17.8 million. The increase in accounts payable was mainly due to the timing of recording and the increase in the current portion of long-term liabilities is because the repayment of the \$17.0 million note payable (EB-5 loan) with Hawaii Regional Center LP III is due in fiscal year 2018. The aggregated increase is offset by a net decrease in accrued payroll of \$4.2 million primarily due to the negotiated bonus payments accrued for in fiscal year 2016 and paid in fiscal year 2017. Total current liabilities decreased by \$3.1 million, or 1.1 percent, at June 30, 2016, primarily due to the decrease in accounts payable of \$5.1 million due to decreases in construction in progress expenditures accrued for coupled with a \$6.0 million repayment to the State of Hawai'i for the Snug Harbor project. The aggregated decrease is offset by an increase in accrued payroll of \$7.4 million in negotiated bonus payments paid in fiscal year 2017.

Endowment and Other Investments

The University's endowment and other investments, including endowments held with the Foundation, increased by \$32.6 million, or 6.9 percent, to \$507.6 million at June 30, 2017 as a result of an \$8.6 million gift, and favorable market conditions. The June 30, 2016 decrease of \$2.2 million, or 0.5 percent, was primarily due to a result of market value decline.

Realized and unrealized net gains in fiscal year 2017 totaled \$34.7 million, versus \$6.1 million realized and unrealized net losses in fiscal year 2016. A summarized comparison of the University investments as of June 30, 2017, 2016 and 2015, are as follows (in thousands of dollars):

	2017	2016	2015
University of Hawai'i	\$ 100.1	\$ 103.8	\$ 104.0
Foundation	407.5	371.2	373.2
Total	<u>\$ 507.6</u>	<u>\$ 475.0</u>	<u>\$ 477.2</u>

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The University's endowment funds consist of both permanent endowments and funds functioning as endowments (quasi-endowment funds). Permanent endowment funds are funds received from donors or other outside agencies with the stipulation that the principal be inviolate and invested in perpetuity for the purpose of producing present and future income which may either be expended for the purposes specified by the donor or added to principal. Quasi-endowment funds are funds which the Board of Regents, rather than a donor or other outside agency, has allocated for long-term investment purposes. The Board of Regents, in accordance with its policies, is not required to maintain the quasi-endowment principal in perpetuity. Quasi-endowment funds are further categorized as restricted and unrestricted. Restricted quasi-endowment funds represent donor-restricted gifts, without the requirement to maintain the principal in perpetuity. Unrestricted quasi-endowment funds represent unrestricted funds designated by the Board of Regents for long-term investment purposes.

Programs supported by the University's permanent and quasi-endowment funds include scholarships, fellowships, professorships, research efforts, and other important programs and activities. The University uses its endowment to support academic and research programs by generating a predictable stream of annual support for current needs, while preserving the purchasing power of the endowment funds for future periods.

The spending rate policy for the University's self-managed endowment is to limit the immediate impact that significant changes in the fair value of the endowment portfolio have on annual distributions. The spending rate policy provides for an annual distribution, ranging between three percent and five percent of the five-year moving average of the endowment portfolio's fair value. In fiscal years 2017, 2016 and 2015, the University instituted a 4.5 percent distribution rate on restricted and unrestricted endowments. The total restricted and unrestricted distributions available to the University amounted to \$2.6 million, \$2.6 million and \$2.5 million in fiscal years 2017, 2016 and 2015, respectively.

Capital and Debt Activities

The University's capital assets are separated into seven categories: land, buildings, infrastructure, land improvements, equipment, library materials, and construction in progress. At June 30, 2017, 2016 and 2015, total capital assets, net of accumulated depreciation, remained constant at \$2.1 billion, which represented approximately 57 percent of the University's total assets. Capital asset additions totaled \$173.1 million, \$118.5 million and \$130.7 million in fiscal years 2017, 2016 and 2015, respectively, while depreciable capital asset disposals, net of accumulated depreciation, amounted to \$15.9 million, \$8.8 million and \$12.5 million, respectively.

The increase of the additions in fiscal year 2017 was due to the purchase of the Atherton building for \$8.2 million and an increased number of strategic capital projects that are ongoing as of fiscal year end 2017. The decrease of the additions in fiscal year 2016 was due to the completion of many strategic capital projects in prior years.

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Capital Projects

One of the critical factors in enhancing the quality of the University's academic and research programs and student life enrichment is the development, replacement and renewal of capital assets. The University continues to modernize its older teaching and research facilities, and develop and construct new facilities.

Significant capital projects completed during fiscal years 2017 and 2016 or in progress as of June 30, 2017 and 2016 included:

- **Hawai'i Community College Pālanui Campus** – The newest University of Hawai'i campus, the \$27.8 million Hawai'i Community College Pālanui opened on August 24, 2015. The community of Pālanui, "A Place of Enlightenment," will consist of homes, parks, a University Village Town Center, a University Inn, and the Hawai'i Community College Pālanui Campus. The first phase includes five single-story buildings with kitchens, classrooms, laboratories, computer lab, and a library. The Hawai'i Community College Pālanui Campus was awarded a Leadership in Energy and Environmental Design ("LEED") Platinum rating from the U.S. Green Building Council.
- **Community College Energy Conservation Project** – The \$38 million Leeward, Windward, Honolulu, and Kapiolani Community Colleges portion of the energy conservation project was completed on September 11, 2015. The \$10 million University of Hawai'i Maui College project was placed in service on July 15, 2016. The project will reduce the consumption of electricity, water, wastewater and Syngas as well as create a curriculum based on conservation for each campus. The community colleges are leading the way to reach the University of Hawai'i's goal of net-zero energy by 2035.
- **University of Hawai'i at Mānoa Elevator Modernization Phase III** – Most of the elevators at the University of Hawai'i at Mānoa exceeded normal service life expectancy and as a result required frequent service and repair calls. The modernization project was executed in phases and Phase III should be completed in August 2017. The new systems will be reliable and will comply with all current and accessibility standards and includes the installation of security access surveillance in the elevator lobbies and cabs.
- **Culinary Institute of the Pacific** – The \$30.5 million Phase I portion of the Culinary Institute of the Pacific was placed in service on April 17, 2017. Phase I includes the infrastructure for the entire project, a parking lot, two single story laboratory buildings, a student lounge, and an outdoor cooking area. Phase II will include an auditorium, administration building, classrooms, laboratories, and a restaurant.
- **William S. Richardson School of Law Clinical Building** – The \$7 million William S. Richardson School of Law Clinical Building (Clinical Legal Outreach Center) broke ground on September 30, 2016. The new building will provide law students a professional space required for trial practice and advocacy. U.S. Green Building Council will award the project a Silver LEED rating upon completion, with the opportunity to receive a Gold rating. The estimated completion date is November 2017.

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- **Coconut Island Marine Laboratory Buildings 1 & 2** – The estimated completion date for the \$21 million Coconut Island Marine Laboratory Buildings 1 & 2 renovation project is March 2018. This is the home of the Hawaii Institute of Marine Biology. The renovation project will provide state of the art research and teaching laboratories, replace and upgrade mechanical, electrical and architectural systems and structures, and perform significant structural retrofitting.
- **Daniel K. Inouye College of Pharmacy** – The \$31.3 million Daniel K. Inouye College of Pharmacy broke ground in December of 2014. The 35,000 square foot instructional and research facility will be the permanent home of the Daniel K Inouye College of Pharmacy. The building will include classrooms, student lounge, biolabs, faculty offices, a mock pharmacy, a resource center, and simulation labs. The estimated completion date is May 2018.
- **University of Hawai‘i West O‘ahu Allied Health and Administration Building** – The ground breaking for the University of Hawai‘i West O‘ahu Allied Health and Administration building took place on November 28, 2016. The \$30 million two-story 43,000 square foot building will house the allied health, community health, health information management, long-term care, and biology programs and will contain administrative offices, faculty offices, classrooms and lab spaces. The building is expected to be completed in 2018.
- **University of Hawai‘i at Mānoa Life Sciences Building** – The design portion of \$49.5 million University of Hawai‘i at Mānoa Life Sciences Building has been completed. This design-build project is being developed at the site of Henke Hall and will support botany, PBRC, biology and microbiology. The estimated completion date is spring 2019.

Financing

The University uses a variety of sources, including federal and state support, revenue bonds, bank loans, gifts, and other expendable resources to finance capital projects.

- **General obligation bonds** – The State of Hawai‘i continues to provide strong support to the University and issued general obligation bonds to help finance certain University projects. These bonds are carried as liabilities of the State. In fiscal years 2017, 2016 and 2015, the State appropriated funds directly to the Department of Budget and Finance to pay for debt service on general obligation bonds issued for the University. As a result, the University itself received no appropriations and made no transfers for debt service on general obligation bonds for these fiscal years. In fiscal years 2017, 2016 and 2015, \$111.3 million, \$106.8 million and \$106.1 million, respectively, were appropriated.

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- **Revenue bonds** – The University also issued revenue bonds to finance capital projects. These bonds are carried as liabilities of the University. Total revenue bonds liabilities were \$543.7 million, \$562.6 million and \$578.6 million for fiscal years 2017, 2016 and 2015, respectively. The University revenue bonds were assigned municipal bond ratings of "Aa2" and "AA" by Moody's Investors Service and Fitch Ratings, respectively. The University has appropriated funds, by statute, from the State of Hawai'i Tobacco Settlement Special Fund for the payment of principal and interest on revenue bonds to finance the cost of construction of the medical school facility and for annual operating expenses incurred by the facility. The University received State of Hawai'i Tobacco Settlement funds in the amount of \$11.8 million, \$9.5 million and \$9.9 million in fiscal years 2017, 2016 and 2015, respectively, to cover debt service for the bonds that financed the medical school facility. The University also receives a portion of the State of Hawai'i's cigarette tax revenues, by statute, for the UH Cancer Center to be used for research and operating expenses and capital expenditures. In each of the fiscal years 2017, 2016 and 2015, \$7.9 million from cigarette tax revenues was used to cover debt service for the bonds that financed the UH Cancer Center. Refer to Note 11 for more information regarding the University revenue bonds.
- **Loan agreement** – On May 4, 2012, the University entered into a five-year, unsecured loan agreement ("Note") with Hawai'i Regional Center LP III ("Lender") for a commitment amount not to exceed \$18 million, subject to certain limitations. The proceeds were used to facilitate and fund construction of the UH-West O'ahu campus located at Kapolei, Hawai'i. The Note bears interest at the rate of 1.5 percent per annum, which is due and payable semi-annually to the Lender on January 1 and July 1 each year until the Note has been paid in full. Under the terms of the Note, repayment each fiscal year is limited and subject to specific appropriations by the State to make such payments. The Note matures on April 22, 2018, at which time the unpaid principal will be due. As of June 30, 2017, \$17 million remains outstanding.
- **Line of credit** – On April 20, 2017, the Foundation entered into a 10-year \$13.2 million acquisition and construction credit facility (the "Loan") for the purchase and renovation of the Charles Atherton House and the Mary Atherton Richards House (the "Atherton Property"). The Loan is secured by the fee simple interest and improvements on the Atherton Property, along with an assignment of a long-term lease and rents due thereunder from the University. Under terms of the credit facility, interest-only payments are required for the first 36 months at a fixed rate of three percent and, thereafter monthly installments of principal and interest, based on a 25-year amortization schedule, at a fixed rate of four percent through the remaining term of the Loan. The Loan matures on April 1, 2027. As of June 30, 2017, the outstanding balance on the Loan was \$8.2 million.

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Net Position

Net position represents the residual interest in the University’s assets after liabilities are deducted. At June 30, 2017, 2016 and 2015, total net position amounted to \$729.5 million, \$696.5 million and \$814.4 million, respectively. Net position is reported in four major categories: net investment in capital assets, restricted nonexpendable, restricted expendable and unrestricted. The University’s net position at June 30, 2017, 2016 and 2015 is summarized as follows (in thousands of dollars):

	2017	2016	2015
Net investment in capital assets	\$ 1,541,725	\$ 1,504,935	\$ 1,503,902
Restricted – Nonexpendable	342,071	244,396	235,894
Restricted – Expendable	586,825	561,093	644,743
Unrestricted	<u>(1,741,094)</u>	<u>(1,613,973)</u>	<u>(1,570,118)</u>
Total net position	<u>\$ 729,527</u>	<u>\$ 696,451</u>	<u>\$ 814,421</u>

Net investment in capital assets is the University’s capital asset, net of accumulated depreciation and the related outstanding debt used to finance the acquisition, construction or improvement of those assets. The net investment in capital assets increased by \$36.8 million in fiscal year 2017, primarily due to \$122.8 million of depreciation expense, \$15.9 million in net disposals offset by \$19.2 million in related debt retirement, and \$173.1 million of capital asset additions. The net investment in capital assets increased by \$1 million in fiscal year 2016, primarily due to \$124.9 million of depreciation expense, \$8.8 million in net disposals offset by a \$16.0 million decrease in related debt and \$118.4 million of capital asset additions.

Restricted nonexpendable net position primarily represents the University’s and Foundation’s permanent endowment funds, which are required to be maintained in perpetuity and amounted to \$342.1 million, \$244.4 million and \$235.9 million at June 30, 2017, 2016 and 2015, respectively. The increases of \$97.7 million and \$8.5 million in fiscal years 2017 and 2016, respectively, were primarily attributable to new permanent endowment gifts received, including the receipt of three properties as part of the Shidler gift valued at \$80.2 million in fiscal year 2017. The University’s alumnus, Jay H. Shidler, has provided significant gifts to the College of Business at Mānoa with a safe, predictable and continuous revenue stream to help insure long-term financial stability.

Restricted expendable net position is subject to externally imposed restrictions governing their use. Net position was restricted for the following purposes at June 30, 2017, 2016 and 2015 (in thousands of dollars):

	2017	2016	2015
Plant facilities	\$ 354,780	\$ 319,809	\$ 386,742
Donor-restricted activities	215,608	210,404	224,904
Loan activities	24,131	37,229	24,363
External sponsor activities	<u>(7,694)</u>	<u>(6,349)</u>	<u>8,734</u>
	<u>\$ 586,825</u>	<u>\$ 561,093</u>	<u>\$ 644,743</u>

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In fiscal year 2017, the overall increase of \$25.7 million in restricted expendable net position was primarily attributable to a \$25.6 million increase in capital assets due to increased State capital appropriations in fiscal year 2017. In fiscal year 2016, the overall decrease of \$83.7 million in restricted expendable net position was primarily attributable to the spending of State capital appropriations received in the prior year.

Net position that is not subject to externally imposed restrictions governing their use is classified as unrestricted for financial reporting purposes. At June 30, 2017, 2016 and 2015, unrestricted net positions amounted to deficits of \$1.74 billion, \$1.61 billion and \$1.57 billion, respectively. Although unrestricted net position is not subject to externally imposed restrictions, all of the University’s unrestricted net positions have been internally designated for various academic and research programs and initiatives, contractual commitments, and capital projects. In addition, unrestricted net positions of \$44.8 million, \$37.6 million and \$45.0 million were designated for endowment activities at June 30, 2017, 2016 and 2015, respectively.

In addition to the impact of the net pension liability recorded in accordance with GASB Statements No. 68 and 71, the reduction in unrestricted net positions for the years ended June 30, 2017 and 2016 was caused by the University’s required accounting and recognition of the University’s allocated share of the State of Hawai‘i’s actuarially determined total other postemployment benefits (“OPEB”) liability. Similar to other state and local governments, the State of Hawai‘i (“State”) plan has been paid on a “pay as you go” basis, which resulted in the OPEB liability growing substantially each year. As a result, unrestricted net position continues to decline, despite the unrestricted net position of the University from operations showing growth. The University’s share of the OPEB liability as of June 30, 2017, 2016 and 2015 was \$788.8 million, \$722.8 million and \$650.8 million, respectively. Annual required OPEB contribution payments, on a “pay as you go” basis, towards this liability were paid directly by the State Department of Budget and Finance from its general fund appropriation and not out of the University’s operating budget appropriation. The University made contributions calculated as part of the State’s total contribution requirements and were reimbursed to the State’s General Fund as part of the fringe benefit rate on University employees’ actual salaries.

Below is a table showing the unrestricted net position excluding the impact of the net pension and OPEB liabilities (in thousands of dollars):

	2017	2016	2015
Unrestricted net position	\$ (1,741,094)	\$ (1,613,973)	\$ (1,570,118)
Pension	2,001,189	1,843,970	1,785,001
OPEB	<u>788,773</u>	<u>722,757</u>	<u>650,805</u>
Adjusted net unrestricted position	<u>\$ 1,048,868</u>	<u>\$ 952,754</u>	<u>\$ 865,688</u>

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Results of Operations

The Consolidated Statements of Revenues, Expenses and Changes in Net Position are a presentation of the University’s results of operations for the year. It indicates whether the financial condition of the University improved or deteriorated. For financial reporting purposes, certain significant revenues, including state appropriations, private gifts and investment income, which are relied upon and budgeted to support the University’s core operations, are required to be reported as nonoperating revenues. The University’s results of operations for the years ended June 30, 2017, 2016 and 2015 summarized to match revenues supporting core activities with expenses associated with core activities, are as follows (in thousands of dollars):

	2017	2016	FY 17 vs 16 Change	2015	FY 16 vs 15 Change
Revenues					
Operating					
Tuition and fees	\$ 403,177	\$ 403,411	\$ (234)	\$ 392,471	\$ 10,940
Less: Scholarship allowances	(133,054)	(131,105)	(1,949)	(129,811)	(1,294)
Grants and contracts	368,892	390,231	(21,339)	390,800	(569)
Sales and services	130,867	134,787	(3,920)	135,315	(528)
Other revenue	1,648	2,211	(563)	2,568	(357)
Total operating revenues	771,530	799,535	(28,005)	791,343	8,192
Nonoperating					
State appropriations	471,453	441,373	30,080	413,148	28,225
Federal Pell grant	55,701	61,438	(5,737)	66,144	(4,706)
Net investment income	42,509	679	41,830	4,659	(3,980)
Private gifts	31,233	32,382	(1,149)	32,600	(218)
Total nonoperating revenues	600,896	535,872	65,024	516,551	19,321
Total revenues supporting core activities	1,372,426	1,335,407	37,019	1,307,894	27,513
Expenses					
Operating					
Compensation and benefits	1,235,479	1,114,755	120,724	1,094,407	20,348
Supplies, services and cost of goods sold	193,411	202,157	(8,746)	205,833	(3,676)
Telecom and utilities	59,957	64,633	(4,676)	72,282	(7,649)
Scholarships and fellowships	41,771	43,440	(1,669)	49,302	(5,862)
Other expense	124,786	111,615	13,171	112,076	(461)
Total operating expenses	1,655,404	1,536,600	118,804	1,533,900	2,700
Nonoperating (revenues) expenses					
Transfers from State, net	(208,594)	(200,216)	(8,378)	(191,584)	(8,632)
Transfers (from) to Federal – capital assets	505	(4,081)	4,586	5,315	(9,396)
Interest expense	26,900	25,064	1,836	27,523	(2,459)
Total nonoperating revenues	(181,189)	(179,233)	(1,956)	(158,746)	(20,487)
Expenses associated with core activities before depreciation	1,474,215	1,357,367	116,848	1,375,154	(17,787)
Loss from core activities before depreciation	(101,789)	(21,960)	(79,829)	(67,260)	45,300
Depreciation	122,841	124,937	(2,096)	121,378	3,559
Expenses associated with core activities including depreciation	1,597,056	1,482,304	114,752	1,496,532	(14,228)
Loss from core activities	(224,630)	(146,897)	(77,733)	(188,638)	41,741
Other nonoperating activity					
Capital gifts and grants	171,652	28,122	143,530	165,904	(137,782)
Permanent endowment	96,024	9,254	86,770	19,426	(10,172)
Other expenses, net	(9,970)	(8,449)	(1,521)	(4,391)	(4,058)
Other nonoperating income, net	257,706	28,927	228,779	180,939	(152,012)
Increase (decrease) in net position	33,076	(117,970)	151,046	(7,699)	(110,271)
Net position					
Beginning of year	696,451	814,421		1,961,526	
Adjustment for change in accounting principle	-	-		(1,139,406)	
Beginning of year, as restated	696,451	814,421		822,120	
End of year	\$ 729,527	\$ 696,451		\$ 814,421	

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Revenues Supporting Core Activities

The University has a diversified stream of revenues to support its operations. No single source generated more than 35 percent of the total 2017 revenue. State appropriations and tuition and fees are the core components that support the University's instructional and academic programs. Government and nongovernmental grants and contracts provide opportunities for under-graduate and graduate students to participate in basic research with renowned researchers. Private gifts contribute toward the support of the University's instructional and academic initiatives. Sales and services revenues include revenues from educational departments and auxiliary enterprises, including bookstores, student and faculty housing, food services, parking and athletics.

Tuition and fees revenue, net of scholarship allowances, was down by \$2.2 million, or 0.8 percent, to \$270.1 million in fiscal year 2017. The decrease in fiscal year 2017 was primarily attributable to the continued decline in enrollment offset by an increase in tuition rates between one percent and eight percent among all campuses. The increase in fiscal year 2016 was \$9.6 million, or 3.7 percent, to \$272.3 million, which was primarily attributable to the increase in tuition rates between four percent and five percent among all campuses offset by a decline in enrollment. Scholarship allowances amounted to \$133.1 million, \$131.1 million and \$129.8 million in fiscal years 2017, 2016 and 2015, respectively.

One of the largest sources of revenue (27 percent) continues to be grants and contracts. Total grants and contracts revenue decreased by \$21.3 million, or 5.5 percent in fiscal year 2017. The decrease was mainly from federal awards where the University is experiencing unaccustomed peaks and troughs in funding — a direct consequence of federal budget cuts, the lingering effects of sequestration, and other uncertainties in Washington, D.C. The total revenue decrease from federal awards was approximately \$26.9 million offset by a slight revenue increase in State and local grants and contracts of \$6.3 million and private grants and contracts of \$0.8 million. Although the federal reductions were evident across all federal agencies, the greatest revenue cuts were from three federal agencies: Department of Health & Human Services, Department of the Navy, and Department of Labor, totaling \$19 million. The grants and contracts revenue amounted to \$368.9 million, \$390.2 million and \$390.8 million in fiscal year 2017, 2016 and 2015, respectively.

Sales and services revenues, which are mainly comprised of bookstores, student and faculty housing, food services, parking and athletics, was down by \$3.9 million, or 2.9 percent, to \$130.9 million in fiscal year 2017. The decrease was primarily attributable to a decline in Research Corporation of the University of Hawai'i project activities due to the federal award cuts. Sales and services revenues decreased by \$0.5 million, or 0.4 percent, to \$134.8 million in fiscal year 2016 from fiscal year 2015. The decrease was primarily attributable to the decline in textbook sales, where the University faced increasing competition with online retailers and direct marketing from publishers.

The State continues to provide strong financial support to the University as the sole public higher education system within the State. General state appropriations increased by \$30.1 million, or 6.8 percent, to \$471.5 million in fiscal year 2017 and by \$28.2 million, or 6.8 percent, to \$441.4 million in fiscal year 2016. The increase in fiscal year 2017 was primarily attributable to a \$38.4 million allotment for salary increases as negotiated by the collective bargaining agreements, which is a \$20.8 million increase from the fiscal year 2016 allotment of \$17.6 million. The State also provided an additional \$7.1 million for the Hawai'i Promise Program, Athletics program, and special equipment fund for Community Colleges in fiscal year 2017. The additional funding in fiscal year 2016 included \$6.3 million for performance-based funding, \$1.2 million for Title IX compliance support, \$19.3 million for salary increase negotiated by the collective bargaining agreements, and \$1.4 million for other mission critical programs.

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The University’s net investment income for fiscal year 2017, as compared to fiscal year 2016, went up by \$41.8 million. The fiscal year 2017 increase was mainly due to the increase in realized gains of \$10.2 million and an increase in unrealized gains of \$30.7 million. The University’s net investment income for fiscal year 2016, as compared to fiscal year 2015, decreased by \$4.0 million, or 85.4 percent, mainly due to the decrease in realized gain of \$7.8 million offset by the decrease in unrealized loss and other investment loss of \$1.5 million and \$1.4 million, respectively.

The components of net investment income for the years ended June 30, 2017, 2016 and 2015 were as follows (in thousands):

	2017	2016	FY 17 vs 16 Change	2015	FY 16 vs 15 Change
Interest and dividend income	\$ 9,149	\$ 8,640	\$ 509	\$ 7,974	\$ 666
Net realized gains	10,733	572	10,161	8,336	(7,764)
Net unrealized gains (losses)	23,974	(6,703)	30,677	(8,232)	1,529
Other, net	(1,347)	(1,830)	483	(3,419)	1,589
	<u>\$ 42,509</u>	<u>\$ 679</u>	<u>\$ 41,830</u>	<u>\$ 4,659</u>	<u>\$ (3,980)</u>

Private gifts, most of which are restricted as to use, stayed relatively consistent at \$31.2 million in fiscal year 2017 compared to \$32.4 million and \$32.6 million in fiscal years 2016 and 2015, respectively.

Expenses Associated with Core Activities

The University is committed to recruiting and retaining outstanding faculty and staff and providing compensation equivalent to peer institutions and nonacademic employers. Of the University’s operating expenses, approximately 77.3 percent during fiscal year 2017, 75.2 percent during fiscal year 2016, and 73.1 percent during fiscal year 2015, were related to compensation and benefits.

Compensation and benefits went up by \$120.7 million, or 10.8 percent, to \$1,235 million in fiscal year 2017 as compared to fiscal year 2016, and increased by \$20.3 million, or 1.9 percent, to \$1,115 million in fiscal year 2016 as compared to \$1,094 million in fiscal year 2015. The fiscal year 2017 increase was attributable to a \$103.5 million increase in pension expense, and an increase in fringe benefits of \$40.6 million, offset by a decrease in OPEB of \$26.2 million. The fiscal year 2016 increase was attributable to a 4.0 percent pay increase, or \$3.1 million, and one-time pay bonus, or \$7.4 million, negotiated by the collective bargaining agreements, and an increase in fringe benefits of \$9.3 million. The increase of OPEB assessment was a result from the enacted Act 268, SLH 2013 during the 2013 legislative session. The Act requires the State and the University to fully fund the Annual Required contribution as determined by an actuary within 30 years. The University recognized \$115.7 million, \$117.1 million and \$113.0 million of postretirement health and life insurance benefits in fiscal years 2017, 2016 and 2015, respectively. The fiscal year 2017 decrease in postretirement health and life insurance benefits was due to a decrease in the net OPEB obligation adjustment factor determined by actuarial assumptions whereas the increases in fiscal years 2016 and 2015 were a result of year-to-year increases in the payroll expense actuarial assumptions.

Supplies, services and cost of goods sold expense includes service fees, printing and binding, advertising, dues and subscriptions, controlled property acquisitions, cost of goods sold for resale items, and other miscellaneous operating costs.

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In fiscal year 2017, such expenses decreased by \$8.7 million, or 4.3 percent, to \$193.4 million as compared to fiscal year 2016. The fiscal year 2017 decrease was primarily attributable to decreases in other services and controlled property purchases relating to declining federal awards, and cost of goods sold at the Bookstores offset by an increase in purchases of supplies. In fiscal year 2016, such expenses decreased by \$3.7 million, or 1.8 percent, to \$202.2 million as compared to fiscal year 2015. The fiscal year 2016 decrease was primarily attributable to decreases in purchases of supplies, federal property acquisitions, and other miscellaneous operating costs offset by increases in controlled property acquisitions and cost of goods sold.

The University is committed to providing affordable yet quality education to its students. To accomplish this goal, student aid is provided in the form of scholarships and fellowships, including tuition and fee waivers applied to student accounts and reflected as reductions and allowances to student tuition and student housing revenues, and scholarship and fellowship payments (mostly academic and athletic) made directly to students.

Total aid to students of \$174.8 million in fiscal year 2017 stayed relatively consistent as compared to the prior year. Total aid to students decreased by \$4.6 million, or 2.6 percent, to \$174.5 million in fiscal year 2016 as compared to prior year. The decrease was primarily attributable to the number of Pell grants awarded, and the contributing factors were: 1) decreased enrollment and 2) increase in overall household income that stemmed from the effect of the low unemployment rate in Hawai'i that took families out of the Pell grant eligibility.

Other operating expenses increased by \$13.2 million, or 11.8 percent, to \$124.8 million in fiscal year 2017. Due to the expiration of the Federal Perkins Loan program in September 2017, the University is required to return the Federal Capital Contribution ("FCC") from the Perkins Loan Revolving Funds on a regular basis until such time as all of the University's outstanding Perkins Loans have been paid in full or otherwise fully retired, or assigned to the federal government. During fiscal year 2017, the University recognized a noncurrent liability and operating expense of \$13.6 million in accordance with GASB Statement No. 33 as the FCC was previously recorded as nonexchange grant revenue upon initial receipt from the federal government.

The University depreciates its capital assets over their estimated useful lives using the straight-line method. Depreciation expense decreased by \$2.1 million, or 1.7 percent, to \$122.8 million during fiscal year 2017 as compared to fiscal year 2016. The decrease in fiscal year 2017 was primarily attributable to a decrease in capital projects placed into service in the current year. Depreciation expense increased by \$3.6 million, or 2.9 percent, to \$124.9 million during fiscal year 2016 as compared to fiscal year 2015. The increase in fiscal year 2016 was primarily attributable to building and equipment additions and reclassifications from construction in progress.

Transfers from the State amounted to \$208.6 million, \$200.2 million and \$191.6 million in fiscal years 2017, 2016 and 2015, respectively. Transfers from the State were primarily for fringe benefit expense paid by the State for the University, the tobacco settlement moneys paying for John A. Burns School of Medicine revenue bond debt service, and the UH Cancer Center cigarette stamp tax collections. The increase in Transfer from the State for both fiscal years 2017 and 2016 were primarily attributable to the increase in fringe benefit rates.

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Other Nonoperating Activities

Revenues from other nonoperating activities are generally not used to support the University's current operations and are comprised primarily of capital gifts and grants and additions to permanent endowments. Capital gifts and grants and state capital appropriations and transfers may only be used for the purchase or construction of specified capital assets. While additions to permanent endowments must be retained in perpetuity, investment earnings thereon may be available in future years to support specified programs.

In fiscal year 2017, capital gifts and grants, including state capital appropriations and transfers, increased by \$143.5 million, or 510.4 percent, to \$171.7 million as compared to \$28.1 million in fiscal year 2016. In fiscal year 2016, there was a decrease of \$137.8 million, or 83.0 percent, to \$28.1 million compared to \$165.9 million in fiscal year 2015. The State of Hawai‘i Legislature continues its strong financial support to the University's capital improvement programs as the increase in fiscal year 2017 was primarily attributable to the increase of capital appropriations from the State of Hawai‘i by \$142.5 million, or 861.5 percent, to \$159.1 million as compared to the decrease of capital appropriations in fiscal year 2016 of \$145.3 million. The capital appropriation fluctuations were mainly due to the timing of capital appropriation requests and lapses. Other capital gifts and grants during fiscal year 2017 included federal capital grants of \$11.2 million and private capital gifts and grants of \$1.8 million. During fiscal year 2016, other capital gifts and grants included federal capital grants of \$4.8 million and private capital gifts and grants of \$1.1 million.

Endowed gifts supply permanent capital and an ongoing stream of current earnings to the University. Programs supported by endowment returns include academic programs, scholarships, fellowships, professorships, chairs and research activities. In fiscal year 2017, additions to the permanent endowment increased by \$86.7 million to \$96.0 million, when compared to \$9.2 million in fiscal year 2016. The increase is due to the generosity of alumnus Jay H. Shidler, who provided the \$80.2 million endowed gifts.

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Cash Flows

The Consolidated Statements of Cash Flows present the University's significant sources and uses of cash and cash equivalents, including restricted cash balances. The University's cash is comprised primarily of cash held with the State Treasury, demand deposits, and time certificates of deposit with an original maturity of three months or less. A summary of the University's cash flows for the years ended June 30, 2017, 2016 and 2015 are as follows (in thousands of dollars):

	2017	2016	FY 17 vs 16 Change	2015	FY 16 vs 15 Change
Cash received from operations	\$ 789,810	\$ 799,112	\$ (9,302)	\$ 804,374	\$ (5,262)
Cash payments for operations	<u>(1,313,781)</u>	<u>(1,293,552)</u>	<u>(20,229)</u>	<u>(1,299,687)</u>	<u>6,135</u>
Net cash used in operating activities	<u>(523,971)</u>	<u>(494,440)</u>	<u>(29,531)</u>	<u>(495,313)</u>	<u>873</u>
Net cash provided by noncapital financing activities	578,881	560,769	18,112	538,775	21,994
Net cash used in capital and related financing activities	(51,003)	(43,518)	(7,485)	(41,419)	(2,099)
Net cash provided by (used in) investing activities	<u>(37,990)</u>	<u>(9,443)</u>	<u>(28,547)</u>	<u>23,461</u>	<u>(32,904)</u>
Net increase (decrease) in cash	(34,083)	13,368	(47,451)	25,504	(12,136)
Cash					
Beginning of year	<u>103,179</u>	<u>89,811</u>	<u>13,368</u>	<u>64,307</u>	<u>25,504</u>
End of year	<u>\$ 69,096</u>	<u>\$ 103,179</u>	<u>\$ (34,083)</u>	<u>\$ 89,811</u>	<u>\$ 13,368</u>

The University's cash and cash equivalents decreased by \$34.1 million, or 33.0 percent, to \$69.1 million at June 30, 2017 from \$103.1 million at June 30, 2016. The University's cash and cash equivalents increased by \$13.4 million, or 14.9 percent, to \$103.1 million at June 30, 2016 from \$89.8 million at June 30, 2015. During fiscal year 2017, \$524.0 million in cash was used for operating activities, offset by \$578.9 million in cash provided by noncapital financing activities. Net cash used in capital and related financing activities and investing activities amounted to \$51.0 million and \$38.0 million in fiscal year 2017.

The net cash used in operating activities increased by \$29.5 million in fiscal year 2017 and decreased by \$0.9 million in fiscal year 2016. The increase in fiscal year 2017 was largely due to an increase in personnel costs. The reduction in fiscal year 2016 was the result of the implementation of the financial reserve policy that required the University to reserve at least two months of working capital with a minimum of five percent unencumbered cash from non-general fund revenue.

The \$7.5 million increase in net cash used in capital and related financing activities in fiscal year 2017 as compared to fiscal year 2016 were attributable to increases in capital appropriations of \$23.3 million and capital gifts and grants of \$7.4 million, the \$6 million repayment of funds to the State of Hawai'i in fiscal year 2016, offset by an increase in capital asset purchases of \$44.6 million. The \$2.1 million increase in net cash used in capital and related financing activities in fiscal year 2016 as compared to fiscal year 2015 was primarily attributable to a reduction of capital appropriation received from the State of Hawai'i of \$25.8 million and \$12.0 million due to the advance and repayment of funds to the State of Hawai'i offset by a decrease in capital asset purchases of \$28.5 million and the receipt of proceeds from the Series 2015A bond issuance of \$8.6 million.

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The net cash used in investing activities increased by \$28.5 million and \$32.9 million in fiscal year 2017 and 2016, respectively. The increase in fiscal year 2017 was primarily due to an increase in available funds from net operating gains invested in the University's operating fund investment pool of \$42.3 million, offset by an \$11.4 million net increase in cash provided by the University's bond system. The increase in fiscal year 2016 was primarily due to a \$30.5 million net increase in cash provided by the University's bond system.

Looking Forward

The University of Hawai'i is the sole provider of public higher education in Hawai'i, known for generating streams of talent, knowledge and social benefits, and has always been at the center of the Hawai'i economic engine. The University's programs attract students and faculty from Hawai'i, the mainland, and many international countries and leverage hundreds of millions of dollars in state, federal, and private funding to promote discovery of new knowledge that fuels economic growth.

In the 2018 Best Colleges Rankings released by *U.S. News & World Report*, the University of Hawai'i at Mānoa, West O'ahu and Hilo once again made the ranking, along with the Mānoa Shidler College of Business. Mānoa has gained 10 spots on the annual list of the nation's top universities and secured No. 83 as a top public school. West O'ahu ranked 25 among Best Regional Colleges West, placing it in the top 38 percent of schools in its respective category, while Hilo ranked 66 among Best Regional Universities West, placing it in the top 47 percent in its respective category.

The University of Hawai'i's strength is further demonstrated through its credit ratings. During fiscal year 2017, the University was rated Aa2 with stable outlook by Moody's Investors Service and AA with stable outlook by Fitch Ratings. Both credit agencies have cited some of the strong characteristics of the University:

- Dominant provider of higher education and important economic development driver in the State of Hawai'i.
- Strong operating support from the State of Hawai'i.
- Unique academic programming and research, and well-diversified revenue.
- Low debt burden which reflects strong and growing capital support from the State of Hawai'i.
- Improved cash and investment cushion and reserve.

The University is committed to improving the social, economic and environmental well-being of current and future generations. To that end, the University has developed and implemented the University of Hawai'i Strategic Directions, 2015–2021, built upon previous work outlined in the Strategic Outcomes and Performances Measures, 2008–2015, that will guide the University's priorities for the next three biennia to achieve the outcomes directed by the Board of Regents.

The four strategic directions outlined below describe the University's priorities for 2015–2021:

- Hawai'i Graduation Initiative.
- Hawai'i Innovation Initiative.
- 21st Century Facilities.
- High Performance Mission-Driven System.

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Hawai'i Graduation Initiative

An educated labor force and engaged citizenry are essential in today's global, knowledge-based economy. The State of Hawai'i has set goals to increase the percentage of working age adults with two- or four-year degrees to 55 percent by 2025 (*55 by '25 Campaign*). As the sole provider of public higher education in Hawai'i, the University is doing its part to increase number of educated citizens within the State. The Hawai'i Graduation Initiative ("HGI") was established with a set of goals to increase the graduation rate each year between four percent and five percent. Because of the focused efforts, the University of Hawai'i at Mānoa improved its four-year graduation rate from 17.5 percent in 2010 to an all-time high of 34 percent in 2017, and awarded 3,347 undergraduate degrees and certificates in spring 2017, just 302 shy of the record 3,649 degrees in spring 2016.

The University of Hawai'i at Hilo also set a record in 2017 with 798 undergraduate degrees awarded, a 37.3 percent increase from 2011. The University of Hawai'i at West O'ahu awarded 623 degrees, a 144 percent increase from six years ago, and the seven Community Colleges awarded 5,118 degrees and certificates, the third highest ever, and a 53.8 percent increase from 2011.

As part of the HGI's tactical plans, *15 to Finish Campaign* was launched to encourage students to take 15 credits per semester (or 30 credits per year) to graduate on time (i.e., in most cases, two years for an associate degree and four years for a bachelor's degree). As a result, the percentage of first-time freshmen who enroll in 15 or more credits in their first semester has nearly doubled since the start of the campaign in 2012.

To further the HGI, the University has developed the *Guided Pathways System* ("GPS") that provides undergraduate students with the optimal path to their destination, i.e., graduation. When students select a new program of study, GPS will help with their registration and create a path for the students based on where they are and where they want to go. The GPS pilot test results showed an impressive reduction in the share of credits taken that do not count towards a degree, from 22 percent, which is consistent with national averages, to just four percent. This represents a remarkable cost savings toward a student's degree. STAR GPS registration was in full use across the University for summer and fall 2017.

HGI is a winning strategy because it helps students graduate faster, reduce debt, and prevent drop-outs.

Enrollment and Tuition

Enrollment at the University of Hawai'i's 10 campuses dropped slightly in fall 2017 to 51,674 total students, a decrease of 1,744 students, or 3.3 percent compared to fall 2016, as Hawai'i's robust economy continues. As of September 2017, the State unemployment rate was at 2.5 percent. The overall decline was no surprise, as the University continues to graduate more students on time while competing for students with a tight local labor market experiencing extraordinarily low unemployment. The largest decrease in enrollment were at the Community Colleges, as students commonly attend college during a recession and enter the job market with the improved economy.

The fall 2017 enrollment at the University of Hawai'i at West O'ahu is up 4.9 percent to 3,082 students from fall 2016, continuing the trend that began in 2012 when the school moved to its Kapolei campus. The campus was recently recognized as the fastest growing public baccalaureate campus in the nation.

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Fall census headcount comparisons are as follows:

	Fall 2017	Fall 2016	% Change	Fall 2015	% Change
Mānoa	17,612	18,056	-2.5	18,865	-4.3
Hilo	3,539	3,666	-3.5	3,829	-4.3
West O‘ahu	3,082	2,939	4.9	2,692	9.2
Community Colleges	27,441	28,757	-4.6	30,370	-5.3
Total	<u>51,674</u>	<u>53,418</u>	<u>-3.3</u>	<u>55,756</u>	<u>-4.2</u>

With the goal to reverse the enrollment decline and address the higher education gaps for the underserved regions and populations, the Community Colleges, working with the State legislators, secured \$1.8 million to establish the *Hawai‘i Promise* scholarship program that provides free in-state tuition for qualified community college students with financial needs in fiscal year 2017. The program is a “last dollar” scholarship that would provide any financial needs that are not met by other forms of financial aid, such as federal grants, the University scholarships, and other private sources. Because of the success of the program, the University will continue to request funding from the State.

To further grow student enrollment and help reach the State’s goal of *55 by ‘25 Campaign*, the University has developed a 2017–2020 Enrollment Management Plan to steadily grow enrollment over the next five years. This framework will guide the University’s overall enrollment, retention, and degree efforts.

Specific initiatives and strategies are:

- Focus on retention and persistence initiatives with campus specific strategies.
- Use of financial aid to positively impact enrollment.
- Initiatives targeting transfer, returning and adult students.
- Research best practices and maintain national engagement in enrollment management.
- Set enrollment target to increase enrollment between three percent and eight percent systemwide over the next four years.

On October 11, 2011, the Board approved a five-year tuition schedule. Fiscal year 2015–2016 was the fourth year of the schedule. Tuition rates for fiscal year 2015–2016 were scheduled to increase as much as seven percent. However, in the interest of preserving affordability and access to public higher education in the State of Hawai‘i, the Board amended the previously-approved schedule and reduced the percentage of tuition increase scheduled for years four and five of the schedule — reducing tuition rate increases to not more than five percent. On July 21, 2016, the Board approved a new three-year tuition increase schedule for fiscal year to begin July 1, 2017. This new schedule has no increases for fiscal year 2017–2018, and tuition increases in fiscal years 2018–2019 and 2019–2020 ranging from one to two percent at various campuses.

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Research and Innovation

The University’s extramural fund awards include a mix of research and non-research programs that provide financial stability and balance to the University. About 40 to 50 percent of the projects are non-research in nature and are intended for training, workforce development, outreach and community services, clinical trials, and others. The University of Hawai‘i at Mānoa, the flagship campus, is ranked by National Science Foundation (“NSF”) as number 48th among 398 public universities for research and development expenditures in fiscal year 2015.

The extramural awards totaled \$387 million in fiscal year 2017, representing an almost flat to slight decrease of one percent from the previous year’s tally. Like many of our counterpart universities in recent years, the University is experiencing unaccustomed peaks and troughs in funding — a direct consequence of federal budget cuts, the lingering effects of sequestration and other uncertainties in Washington, D.C.

Despite the significant reductions in federal support that have put a strain on research institutions across the country, the University is doing its best to weather the storm through the dedicated efforts of our talented research faculty and support staff. Here are some highlights of fiscal year 2017:

- The Hawai‘i Natural Energy Institute received an \$8.6 million award from the Office of Naval Research for its Asia-Pacific Research Initiative for Sustainable Energy Systems.
- The University at Hilo received two separate awards from the National Science Foundation totaling \$1.9 million for research on tropical ecosystems.
- The Cancer Center’s Multi Ethnic Cohort Study received a \$3.9 million award from the National Cancer Institute.
- The University at West O‘ahu received a \$2.0 million award from the U.S. Department of Education for its PIKO project.
- The Community Colleges received numerous awards totaling \$14.3 million from the U.S. Department of Education, NSF, and the Hawai‘i State Departments of Human Services, Transportation, and Labor & Industrial Relations for its programs.

In early 2017, the University published a research and innovation long-range plan to use as a roadmap for the 10-campus system to help better navigate the evolving research landscape. Included were various thought-provoking strategies and initiatives, including the possible formation of cutting-edge interdisciplinary teams to successfully compete for multi-million dollar research awards.

The University continues the efforts to expand the Hawai‘i Innovation Initiative and has created 394 invention disclosures, 67 license/option agreements, 66 patents, and 14 startup companies between 2010 and 2017. In June 2017, the State of Hawai‘i Governor David Ige signed into law two key legislative measures that removed restrictive statutes that limited the University’s ability to participate in technology transfer and commercialization activities, and will now enable the University to remain competitive with our peer research institutions.

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Facilities and Infrastructure

Improvement and modernization of the University's physical assets is key to delivering the University's strategic directions that strives for 21st century facilities for learning, teaching and research. The University has developed a six-year CIP plan for fiscal year 2018–2023 (the "6-Year CIP Plan"). The 6-Year CIP Plan sets forth a vision of a physical environment that supports and augments the high quality education and research that takes place at our University. It also presents a coordinated, long-term strategy that (1) prioritizes classrooms, laboratories and student spaces with a focus on improving the learning and research environment, 2) targets those facilities with the highest utility and poorest conditions through upgrade to the interior/exterior structures, building roofs, mechanical and electrical systems, pedestrian pathways, and roadways, and 3) changes the paradigm on how the University manages its space.

In the past three years, the University completed many major construction projects, which included the newest campus, Hawai'i Community College Pālanui campus, as well as the Clarence T.C. Ching Athletics Complex, the new three-story Student Services building at the University at Hilo, the expansion of the two-story Warrior Recreation Center at Mānoa, and other new buildings in Maui College, Leeward and Windward Community Colleges to accommodate anticipated enrollment growth.

To meet the increasing enrollment, provide access to higher education for students in the Leeward side of the island, and create a vibrant campus life experience that inspires students to engage in their campus community, the University of Hawai'i at West O'ahu broke ground for its \$36 million newest addition, the Allied Health/Administration building. The building will house the allied health, community health, health information management, long-term care, and biology programs, in addition to various administrative offices. The University is also in the process of developing a master plan to build an integrated campus and University Village on 500 acres of current vacant lands in West O'ahu. The plan may include leasehold housing options, retail and commercial activities, and other uses that would complement the West O'ahu campus and also serve the area. There will be transit-oriented development options near the transit stations. Two stations will be located directly across Kualaka'i Parkway from the West O'ahu campus.

Meanwhile, the State of Hawai'i Legislature continued its strong financial support to the University's capital improvement program and provided general obligation bond appropriations for the 2015–2017 and 2013–2015 fiscal biennia that were approximately \$365.5 million and \$390 million, respectively. At the conclusion of the 2017 Legislative Session, the State provided a \$159.8 million General Obligation bond appropriation as part of the 2018-2019 Capital Improvement Project biennium budget.

Fundraising

The University launched a seven-year \$500 million fundraising campaign and began its 'quiet phase' on July 1, 2011. Since the launch of the campaign, the University has consistently exceeded the fundraising goals. In fiscal year 2017, the University had raised \$77.6 million as compared to \$66.1 million in fiscal year 2016 and \$129.0 million in fiscal year 2015.

In September 2017, the Shidler College of Business at Mānoa received a significant donation of \$117 million in cash and eleven real estate ground leases in nine major cities from alumnus Jay H. Shidler. This donation was made immediately following the final installment of his previous \$111 million gift made in fiscal year 2015 and brings the total value of his donation to \$228 million. The \$117 million gift will further the school's on-going facility improvements, faculty endowments, and academic program expansions and is also designated to provide a level of steady funding for the college. The donated ground leases have 99-year terms and are expected to generate a minimum of \$2.1 billion in contractual

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cash flow for the college. In addition, at the end of the ground lease terms, the college will receive full ownership of the related commercial office buildings, which together with the land will be worth an estimated \$5.1 billion for a total of \$7.2 billion over the life of the current leases.

State General Fund Appropriations

As the sole provider of higher public education and a key economic development driver, the University helped generate a total estimated impact of \$3.61 billion on Hawai‘i’s economy. Looking toward the future, Hawai‘i’s economy is expected to continue a positive growth of 1.5 percent in 2018, according to the State Department of Business, Economic Development & Tourism. The tourism and construction industries are projected to remain strong, while the government and military sectors will continue to stay relatively unchanged. Hawai‘i’s robust economy has kept the unemployment rate low at 2.7 percent as of July 2017.

The State of Hawai‘i continues to provide strong support to the University as the sole provider of public higher education in Hawai‘i. When compared to other universities in the nation, the University is well supported by the State and was ranked 11th in the category of higher education operating appropriation per full-time equivalent in 2014. The Hawai‘i Governor supported, and the State Legislature appropriated, an increase of \$42.2 million, or 9.7 percent in general funds to the University’s fiscal year 2018 operating budget. These funds were allocated throughout the campuses primarily to fund faculty salary increases that were negotiated through collective bargaining agreements and other special programs, including the Hawai‘i Promise Program.

Future general fund appropriations are dependent upon the financial health of the State, State Council of Revenues projections and priorities yet to be articulated by the Governor and State legislature. The current outlook shows positive signs. The State ended fiscal year 2017 with a general fund surplus totaling \$893 million, although it was a single point of data. The Council on Revenues had initially forecasted a 5.5 percent growth for fiscal year 2017, which was eventually reduced to 2.5 percent. Ultimately, fiscal year 2017 general fund tax revenue collections showed only a 2.0 percent growth over FY16 totals. The Council’s current forecast for FY18 revenues projects 4.3 percent growth compared to FY17. As of September 2017, general fund collections are up 9.3 percent compared to the same period for fiscal year 2017. In addition, ERS (retirement) and OPEB (health fund) unfunded liabilities for the State are roughly \$23 billion. To continue to provide quality and affordable education to the residents of Hawai‘i, the University has been working hard with lawmakers to advance the University’s needs and priorities.

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June 30, 2017 and 2016
(All dollars reported in thousands)

	2017	2016
Assets and Deferred Outflows of Resources		
Current assets		
Cash and cash equivalents	\$ 69,096	\$ 103,179
Operating investments	355,180	298,702
Due from State of Hawai'i	1,355	102
Accounts receivable, net	78,270	86,913
Current portion of notes and contributions receivable, net	17,035	16,972
Accrued interest receivable	1,381	851
Inventories	7,902	10,250
Prepaid expenses and other current assets	13,839	11,462
Total current assets	544,058	528,431
Noncurrent assets		
Due from State of Hawai'i	378,310	329,751
Endowment and other investments	507,613	475,040
Notes and contributions receivable, net	34,619	40,068
Capital assets, net	2,087,733	2,053,385
Other noncurrent assets	94,606	18,890
Total noncurrent assets	3,102,881	2,917,134
Total assets	3,646,939	3,445,565
Deferred outflows of resources		
Deferred loss on refunding	9,995	11,383
Deferred outflows on net pension liability	557,225	134,715
Total deferred outflows of resources	567,220	146,098
Total assets and deferred outflows of resources	\$ 4,214,159	\$ 3,591,663
Liabilities, Deferred Inflows of Resources and Net Position		
Current liabilities		
Accounts payable	\$ 60,696	\$ 51,596
Accrued payroll and fringe benefits	62,119	66,300
Advances from sponsors	31,607	34,002
Unearned revenue	48,657	46,314
Due to State of Hawai'i	6,117	6,294
Current portion of long-term liabilities	72,989	55,216
Other current liabilities	6,900	7,229
Total current liabilities	289,085	266,951
Noncurrent liabilities		
Accrued vacation	45,280	45,251
Accrued workers' compensation	12,186	11,747
Net pension liability	1,704,470	1,144,564
Other postemployment benefits	788,773	722,757
Revenue bonds payable	524,565	543,680
Premium on bonds payable	13,412	14,754
Note payable	8,200	17,000
Other noncurrent liabilities	33,490	17,144
Total noncurrent liabilities	3,130,376	2,516,897
Total liabilities	3,419,461	2,783,848
Deferred inflows of resources		
Deferred inflows on net pension liability	65,171	111,364
Total deferred inflows of resources	65,171	111,364
Commitments and contingencies		
Net position		
Net investment in capital assets	1,541,725	1,504,935
Restricted		
Nonexpendable	342,071	244,396
Expendable	586,825	561,093
Unrestricted	(1,741,094)	(1,613,973)
Total net position	729,527	696,451
Total liabilities, deferred inflows of resources and net position	\$ 4,214,159	\$ 3,591,663

The accompanying notes are an integral part of the consolidated financial statements.

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Consolidated Statements of Revenues, Expenses and Changes in Net Position

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

	2017	2016
Operating revenues		
Student tuition and fees	\$ 403,177	\$ 403,411
Less: Scholarship allowances	133,054	131,105
Net student tuition and fees	270,123	272,306
Federal appropriations, grants and contracts	295,344	322,266
State and local grants and contracts	39,174	32,831
Nongovernmental sponsored programs	34,374	35,134
Sales and services of educational departments, other	33,428	35,763
Auxiliary enterprises		
Bookstores	19,598	20,736
Student housing (net of scholarship allowances of \$1,867 and \$1,474)	31,952	32,102
Other auxiliary enterprises revenues	45,889	46,186
Other operating revenues	1,648	2,211
Total operating revenues	771,530	799,535
Operating expenses		
Compensation and benefits	1,235,479	1,114,755
Supplies, services and cost of goods sold	193,411	202,157
Depreciation	122,841	124,937
Telephone and utilities	59,957	64,633
Scholarships and fellowships	41,771	43,440
Travel expenses	32,989	33,962
Repairs and maintenance	30,011	28,571
Rental expenses	11,198	12,877
Other operating expenses	50,588	36,205
Total operating expenses	1,778,245	1,661,537
Operating loss	(1,006,715)	(862,002)
Nonoperating revenues (expenses)		
State appropriations	471,453	441,373
Federal Pell grants	55,701	61,438
Private gifts	31,233	32,382
Net investment income	42,509	679
Interest expense	(26,900)	(25,064)
Net transfers from (to) State of Hawai'i for		
Fringe benefits	179,715	172,248
Hawai'i Barrel Tax	2,536	2,784
School of Nursing	124	1,066
University of Hawai'i Cancer Center	6,546	6,366
Other	-	(86)
Loss on disposal of capital assets	(10,069)	(8,165)
Other, net	99	(284)
Net nonoperating revenues before capital and endowment additions (deductions)	752,947	684,737
Capital – state appropriations	159,094	16,547
Capital – federal grants/subsidies	11,174	4,829
Capital – gifts and grants	1,776	1,095
Net transfers from (to) State of Hawai'i for capital assets	(392)	5,651
Transfers from State of Hawai'i, Tobacco settlement	11,799	9,549
Transfers from State of Hawai'i, University of Hawai'i Cancer Center	7,874	7,876
Transfers from other State agencies	-	413
Net transfers from (to) Federal – capital assets	(505)	4,081
Additions to permanent endowments	96,024	9,254
Total other revenues	286,844	59,295
Net nonoperating revenues	1,039,791	744,032
Change in net position	33,076	(117,970)
Net position		
Beginning of year	696,451	842,421
Adjustment for change in accounting principle (Note 1)	-	(28,000)
Beginning of year, as restated	696,451	814,421
End of year	\$ 729,527	\$ 696,451

The accompanying notes are an integral part of the consolidated financial statements.

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	2017	2016
Cash flows from operating activities		
Student tuition and fees	\$ 274,315	\$ 267,057
Grants and contracts	382,764	395,583
Other revenues	132,731	136,472
Payments to employees	(899,457)	(870,514)
Payments to suppliers and other	(372,553)	(379,598)
Payments for scholarships and fellowships	(41,771)	(43,440)
Net cash used in operating activities	<u>(523,971)</u>	<u>(494,440)</u>
Cash flows from noncapital financing activities		
State appropriations	470,200	441,459
Gifts and grants for other than capital purposes	99,457	109,406
Transfer from State of Hawai'i for		
Hawai'i Barrel Tax	2,536	2,784
School of Nursing	124	1,066
University of Hawai'i Cancer Center	6,546	6,366
Other	-	(86)
Other receipts (disbursements)	18	(226)
Net cash provided by noncapital financing activities	<u>578,881</u>	<u>560,769</u>
Cash flows from capital and related financing activities		
Capital appropriations	109,255	85,940
Capital gifts and grants	12,558	5,171
Proceeds from issuance of capital debt	8,200	8,575
Purchases of capital assets	(154,106)	(109,459)
Proceeds from sale of capital assets	21	653
Principal paid on capital debt	(19,069)	(19,190)
Interest paid on capital debt	(27,535)	(27,046)
Repayment to State of Hawai'i	-	(6,000)
Transfer from other State agencies	-	413
Transfer from State of Hawai'i for		
Tobacco Settlement	11,799	9,549
University of Hawai'i Cancer Center	7,874	7,876
Net cash used in capital and related financing activities	<u>(51,003)</u>	<u>(43,518)</u>
Cash flows from investing activities		
Interest and dividends on investments, net	7,481	7,163
Proceeds from sales and maturities of investments	793,427	962,297
Purchase of investments	(838,898)	(978,903)
Net cash used in investing activities	<u>(37,990)</u>	<u>(9,443)</u>
Net increase (decrease) in cash and cash equivalents	(34,083)	13,368
Cash and cash equivalents		
Beginning of year	<u>103,179</u>	<u>89,811</u>
End of year	<u>\$ 69,096</u>	<u>\$ 103,179</u>

The accompanying notes are an integral part of the consolidated financial statements.

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	2017	2016
Reconciliation of operating loss to net cash used in operating activities		
Operating loss	\$ (1,006,715)	\$ (862,002)
Adjustments to reconcile operating loss to net cash used in operating activities		
On behalf payments by State for fringe benefits	223,116	195,332
Depreciation expense	122,841	124,937
Pension and other post retirement health care benefit expense	113,818	35,885
Bad debt expense, net	2,436	146
Changes in operating assets and liabilities		
Accounts receivable	6,386	1,542
Notes and contributions receivable	565	9
Inventories	2,348	1,515
Prepaid expenses and other assets	944	810
Accounts payable	(2,700)	(3,403)
Accrued payroll and benefits	(3,437)	10,200
Accrued workers' compensation liability	333	2,588
Advances from sponsors	11,201	23
Other, net	4,893	(2,022)
Net cash used in operating activities	<u>\$ (523,971)</u>	<u>\$ (494,440)</u>
Supplemental information of noncash transactions		
Noncash contributions	\$ 87,634	\$ 1,951
Net transfers from (to) State of Hawai'i for capital assets	(392)	5,651
Net transfers from (to) Federal for capital assets	(505)	4,081
Accounts payable for capital assets	30,674	18,874
Bond proceeds deposited immediately into escrow	-	171,408
Defeasance of outstanding revenue bond principal	-	(163,245)

The accompanying notes are an integral part of the consolidated financial statements.

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1. Organization and Summary of Significant Accounting Policies

Financial Reporting Entity

The accompanying consolidated financial statements of the University of Hawai'i (the "University") include the activities of the University of Hawai'i at Mānoa, University of Hawai'i at Hilo, University of Hawai'i at West O'ahu, University of Hawai'i at Maui College, University of Hawai'i Community Colleges, and its component units. The University has defined its reporting entity in accordance with Governmental Accounting Standards Board ("GASB") Statement No. 14, *The Financial Reporting Entity*, as amended by GASB Statement No. 39, *Determining Whether Certain Organizations are Component Units*, as amended by GASB Statement No. 61, *The Financial Reporting Entity: Omnibus – an amendment of GASB Statements No. 14 and No. 34*. The basic criterion for including a potential component unit within the reporting entity is financial accountability. Other criteria include fiscal dependency and the nature and significance of the relationship are such that exclusion would cause the financial statements of the University to be misleading. Accordingly, the financial information of the Research Corporation of the University of Hawai'i (the "Research Corporation") and the University of Hawai'i Foundation (the "Foundation") have been blended with the University's financial activity in the accompanying consolidated financial statements.

Complete financial statements of the Research Corporation can be obtained at the Research Corporation of the University of Hawai'i, 2800 Woodlawn Drive, Honolulu, HI 96822. The Foundation's federal Form 990 is available for inspection as required by Internal Revenue Code ("IRC") Section 6104 at the University of Hawai'i Foundation, 2444 Dole Street, Bachman Hall, Room 101, Honolulu, HI 96822.

Similarly, the University is fiscally dependent upon the State of Hawai'i (the "State") and therefore, the State is financially accountable for the University as defined by GASB Statement No. 61. Accordingly, the University's financial information is discretely presented as a component unit within the State's comprehensive annual financial report ("CAFR").

The University is classified as a state instrumentality under IRC Section 115, and is therefore exempt from federal income taxes. Certain activities of the University may be subject to taxation as unrelated business income under IRC Sections 511 and 514.

Basis of Presentation

The University follows the reporting model prescribed for special-purpose governments engaged only in business-type activities, as defined in GASB Statement No. 35, *Basic Financial Statements and Management's Discussion and Analysis for Public Colleges and Universities*, as amended. The consolidated financial statements of the University are presented using the economic resources measurement focus and the accrual basis of accounting.

The Foundation's accounting policies conform to accounting principles generally accepted in the United States ("GAAP") applicable to not-for-profit organizations as promulgated by the FASB. The Foundation's financial information has been converted to conform to the University's presentation.

The Research Corporation's accounting policies conform to GAAP applicable to business-type activities of governmental units as promulgated by the GASB.

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Cash, Cash Equivalents and Investments

The University considers all cash and investments with original maturities of three months or less to be cash equivalents. The carrying amounts reported in the Consolidated Statements of Net Position for cash equivalents approximate fair value due to the short maturity of these investments.

The University classifies unspent cash, cash equivalents and investments from the issuance of revenue bonds held with an escrow agent and invested until used for the cost of construction as noncurrent assets.

Investments

Investments in money market instruments that have remaining maturity at time of purchase of one year or less are reported at amortized cost. Investments in time certificates of deposits are carried at cost. Investments in money market funds, fixed income securities, equity securities, and mutual funds with readily determinable fair values are reported at fair value based on quoted market prices. Investments in limited partnerships, absolute return, real estate and other investments include limited partnership investments in private equity, venture capital, real estate, and hedge funds including absolute return and long/short hedge funds. Fair value is generally based on information provided by the respective external investment manager at the most recent valuation date and from the valuation date to fiscal year-end, if applicable. The private equity, venture capital, and real estate investments are not readily marketable and involve assumptions and methods that are reviewed by the Foundation. Because these investments are not readily marketable, their estimated value is subject to uncertainty and therefore, may differ from the value that would have been used had a ready market for such investment existed. A portion of the investments made by certain hedge funds is also not readily marketable; additionally, hedge fund managers may not provide the detail of their underlying marketable securities. The hedge fund valuation process is carefully reviewed by the Foundation with the assistance of an outside consultant. The Foundation utilized the net asset value per share for the investments in limited partnerships, absolute return, real estate and other investments. Unrealized gains and losses on investments are included in the Consolidated Statements of Revenues, Expenses and Changes in Net Position. Realized gains and losses are computed as the difference between the proceeds of the sale and the cost basis of the investment sold. The calculation of realized gains and losses is independent of the calculation of net changes in the fair value of investments.

The title to investment securities is vested in the name of Securities and Exchange Commission (“SEC”) registered brokerage firms representing the various investment managers of the University and the Foundation. The title to short-term investments, made from pooled cash, is vested in the name of the University or the Foundation.

Fair Value Measurements

For financial assets reported at fair value, the University defines fair value as the price that would be received to sell an asset in the principal or most advantageous market in an orderly transaction between market participants. The University measures fair value using assumptions developed based on market data obtained from independent external sources and the reporting entity’s own assumptions. The hierarchy is broken down into levels based on the reliability of the inputs as follows:

- **Level 1** – Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- **Level 2** – Inputs (other than quoted prices) included within Level 1 that are observable for the asset or liability, either directly or indirectly.

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- **Level 3** – Unobservable inputs for an asset or liability reflecting management's assumption. Level 3 inputs are used to measure fair value to the extent that observable Level 1 or 2 inputs are not available.

Due from and Due to State

The State Director of Budget and Finance is responsible for the safekeeping of all cash in the State Treasury in accordance with State laws. Currently, separate accounts are not maintained in the State Treasury for the University's general operating and capital appropriations. Although these appropriations are available to the University to expend, custody and ownership of the funds remain with the State. Unspent general and capital appropriations that continue to be available to the University for expenditure at the end of the fiscal year are reported as Due from State of Hawai'i in the accompanying Consolidated Statements of Net Position.

Amounts due to the State of Hawai'i are primarily due to operating or capital advances and general obligation bond debt service requirements.

Perpetual Trusts

The Foundation is the beneficiary of certain perpetual trusts held and administered by others. The fair value of the estimated future cash receipts from the trusts is recognized as assets and contribution revenues when the Foundation is notified of their existence. The reported value of the assets is fair value.

Split-Interest Agreements

The Foundation's split-interest agreements with donors consist of irrevocable pooled income funds, charitable remainder trusts and charitable gift annuities for which the Foundation serves as trustee. Assets held under the split-interest agreements are included in investments. Contribution revenues are recognized at the date the split-interest agreements are established after recording liabilities for the present value (utilizing discount rates ranging from 1.2 percent to 8.2 percent) of the estimated future payments to be made to the donors and/or other beneficiaries. The liabilities are adjusted during the term of the split-interest agreements for changes in the fair value of the assets, accretion of the discount, and other changes in the estimates of future benefits.

Accounts Receivable

Accounts receivable are initially recorded at the amount invoiced or otherwise due and normally do not bear interest. The University maintains an allowance for doubtful accounts to reduce receivables to their estimated collectible amount. Management estimates the allowance for uncollectible receivables based on a specific review of customer balances, the overall aging of outstanding balances, historical collection experience, and current business and economic conditions. Delinquent accounts in excess of two years are written off upon approval of University general counsel and when, in the judgment of management, they are deemed uncollectible based on an evaluation of the specific circumstances.

Contributions

The Foundation receives pledges and bequests of financial support from corporations, foundations and individuals. Revenue is recognized when a pledge representing an unconditional promise to pay is received and all eligibility requirements, including time requirements, have been met. In absence of such a promise, revenue is recognized when the gift is received. Endowment pledges that do not meet eligibility requirements,

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as defined by GASB Statement No. 33, are not recorded as assets until the related gift is received.

Capital Assets

Capital assets are recorded at cost, or if donated, at an appraised value at the date of the gift. Depreciation of capital assets is provided for on a straight-line basis over the estimated useful lives (3 to 100 years) of the respective assets. The University's policy is to capitalize tangible, nonexpendable personal property having an estimated useful life of more than one year.

Interest incurred on tax-exempt construction financing, net of investment income on any unspent financing proceeds, is capitalized as a cost of construction. When taxable debt is incurred specifically for a project, interest is capitalized on amounts expended on the project using the weighted-average cost of outstanding borrowings. The capitalization of interest ceases when the project is substantially complete or construction activity is suspended for more than a brief period. The University incurred interest cost of \$27,183 and \$25,562 for the years ended June 30, 2017 and 2016, respectively, of which capitalized interest as a cost of construction amounted to \$283 and \$498, respectively. The University does not capitalize works of art or historical treasures that are held for exhibition, education, research and public service. These collections are neither disposed of for financial gain nor encumbered. Accordingly, such collections are not recognized or capitalized for financial statement purposes. Maintenance and repairs, as well as minor renewals, replacements and betterments, are charged to operations. Major renewals, replacements and betterments are capitalized in the year incurred. Capital assets retired or otherwise disposed of are removed from the appropriate asset and related accumulated depreciation accounts. Gains and losses on disposals and the net book value of transfers of capital assets are reflected in operations.

The University evaluates the future service utility of capital assets when events or changes in circumstances have occurred. A diminished service utility of the University's capital assets is reported as an impairment loss and netted against any insurance or appropriated recoveries.

Deferred Outflows of Resources

Deferred outflows of resources represent a consumption of net position that applies to a future period. The University defers recognition of the loss on debt refunding related to issuance of its revenue bonds and amortizes these costs over the life of the bonds using the effective interest rate method. The deferred outflow of resources related to pensions resulted from differences between expected and actual experiences which will be amortized over five years and University contributions to the pension plan subsequent to the measurement date of the actuarial valuations for the pension plans which will be recognized as a reduction of the net pension liability in the subsequent fiscal year.

Advances from Sponsors

Amounts received from grant and contract sponsors which have not been earned under the terms of the agreement are deferred and reported as advances from sponsors in the Consolidated Statements of Net Position.

Unearned Revenue

Unearned revenue includes amounts received in advance of an event such as student tuition and advance sports ticket sales related to a future period.

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Pensions

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Employee's Retirement System ("ERS") and additions to/deductions from the ERS's fiduciary net position have been determined on the same basis as they are reported by the ERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at their fair value.

Other Postemployment Benefits

The University applies the provisions of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, which requires accrual-based measurement and recognition and disclosure of other postemployment benefits ("OPEB") expense, such as retiree medical and dental costs, over the employees' years of service, along with the related liability.

Revenue Bonds Payable

Revenue bonds payable include outstanding amounts due from the issuance of revenue bonds by the University.

Deferred Inflows of Resources

Deferred inflows of resources represent an acquisition of net position by the University that is applicable to a future reporting period. The deferred inflow of resources related to pensions resulted from the difference between projected and actual earnings on the pension plan and changes in the proportionate rate. These amounts are deferred and amortized over five years.

Net Position

The University's net position is classified into the following four net position categories:

- **Net investment in capital assets** – This component of net position represents the University's total investment in capital assets, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those capital assets.
- **Restricted**
 - Nonexpendable – Net position subject to externally imposed stipulations that they be maintained permanently by the University, which includes the University's permanent endowment funds.
 - Expendable – Net position that is restricted for specific purposes by sponsors, donors or law. Restrictions in these assets are released when the University complies with the stipulations required by the sponsor, donor or legislative act.
- **Unrestricted** – Net position not classified as restricted or net investment in capital assets and not subject to externally imposed stipulations. Unrestricted net position may be designated for specific purposes by action of management or the Board of Regents ("Board") or may otherwise be limited by contractual agreements with outside parties. Substantially all unrestricted net position is designated for academic and research programs and initiatives, and capital asset programs.

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When an expense is incurred for purposes for which both restricted and unrestricted resources are available to pay the expenses, resources are generally applied proportionate to the benefit realized. For instances in which such a determination is not feasible or if there are cost compliance issues, unrestricted resources are applied first.

Net Position Restricted by Enabling Legislation

GASB Statement No. 46, *Net Assets Restricted by Enabling Legislation* – an amendment of GASB Statement No. 34, requires that limitations on the use of net position imposed by enabling legislation be reported as restricted net position. GASB Statement No. 46 also specifies the accounting and financial reporting requirements if new enabling legislation replaces existing enabling legislation or if legal enforceability is reevaluated. Restricted net position at June 30, 2017 and 2016 amounted to \$928,896 and \$805,489, respectively, of which \$348,726 and \$313,262 were restricted by enabling legislation for capital activity.

Operating and Nonoperating Activities

The University's policies for defining operating activities, as reported on the Consolidated Statements of Revenues, Expenses and Changes in Net Position, are those that generally result from exchange transactions such as payments received for providing services and goods and payments made for services and goods received. Certain significant revenue streams relied upon for operations are recorded as nonoperating revenues, as defined by GASB Statement No. 35, including state appropriations, gifts and investment income.

Student tuition and fees revenues are recognized in the period earned. Revenues for programs that cross fiscal years are prorated between the two fiscal years.

The University recognizes revenue associated with the direct costs of research and training grants and contracts as the related expenses are incurred.

Bookstore revenues are recognized at the point of sale. Sales returns (which are not significant) are recognized at the time returns are made.

Room and other rental revenues are recognized over the period the room is occupied. Room and other rental revenues for the summer term are recognized in the fiscal year in which the term primarily falls. Had room and other rental revenues for the summer term been prorated between fiscal years, the difference would not be material.

Scholarships and Fellowships

Scholarships and fellowships, including tuition and fee waivers applied to student accounts, are shown as a reduction to student tuition and student housing revenues. Stipend and other payments made directly to students are reflected as scholarships and fellowships expense.

State Appropriations

The University recognizes general operating and capital appropriations as nonoperating revenue when allotments are made available to the University for expenditure. If restrictions are placed on such appropriations, the restrictions are given separate and discrete accounting recognition.

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Management's Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates. These estimates, among others, include workers' compensation liabilities, net pension liabilities, postemployment benefit liabilities, allowances for uncollectible receivables, the useful lives of capital assets, the valuation of investments, and the current versus noncurrent classification of assets and liabilities.

With respect to workers' compensation insurance, the University is self-insured for the first \$650 per occurrence and annual aggregate, and obtains excess insurance of \$50,000 from a commercial insurance company. The University records a liability for risk financing and insurance related losses if it is determined that a loss has been incurred and the amount can be reasonably estimated. The University uses a third-party actuary to estimate its workers' compensation liability. Changes in the liability are the result of claims payments made during the fiscal year, new claims filed, and changes in the estimates of existing claims. Anticipated payments by the third party for the next fiscal year are considered current and payments thereafter are considered noncurrent. The liability represents the University's best estimate of workers' compensation liabilities based on available information. The University's estimated liability for workers' compensation claims is included in "Other Liabilities" in the accompanying Consolidated Statements of Net Position (see Note 11).

The University also uses a third-party actuary to estimate its net pension liability and postemployment health care and life insurance benefit obligations. The assumptions used to determine the liabilities are described in Notes 14 and 15.

The allowance for uncollectible receivables is a valuation account used to estimate the portion of accounts, notes and contributions receivable that are considered uncollectible.

The University depreciates its capital assets using useful lives internally or externally determined to represent the expected service period of the asset.

In general, the fair value of investments has been determined using values supplied by independent pricing services.

New Accounting Pronouncements

The GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement replaces GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended. The Statement will require governments to report a liability on the face of the financial statements for the other postemployment benefits that they provide. The requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The University has determined that Statement No. 75 will have a material effect on its consolidated financial statements.

During fiscal year 2017, the University implemented GASB Statement No. 80, *Blending Requirements for Certain Component Units*. This Statement amends the blending requirements in GASB Statement No. 14. The Statement amends the blending requirements for the financial statement presentation of component units of all state and local governments. This Statement did not have a material effect on the University's consolidated financial statements.

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The GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. The objective of this Statement is to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for situations in which a government is a beneficiary of the agreement. The requirements of this Statement are effective for reporting periods beginning after December 15, 2016. The University is currently evaluating the impact that Statement No. 81 will have on its financial statements.

During fiscal year 2017, the University implemented GASB Statement No. 82, *Pension Issues – an amendment of GASB Statements No. 67, 68 and 73*. The objective of this Statement is to address certain issues that have been raised with respect to Statements No. 67, *Financial Reporting for Pension Plans*, No. 68, *Accounting and Financial Reporting for Pensions*, and No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. The adoption of Statement No. 82 has resulted in the restatement of the University's beginning net position to reflect the new calculation of deferred outflows of resources in accordance with the provisions of Statement No. 82. The beginning net position as of July 1, 2015 was restated by \$28,000 from \$842,421 to \$814,421.

The GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The objective of this Statement is to provide financial statement users with information about asset retirement obligations that were not addressed in GASB standards by establishing uniform accounting and financial reporting requirements for these obligations. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. The University has not yet determined the effect this Statement will have on its consolidated financial statements.

The GASB issued Statement No. 84, *Fiduciary Activities*. The objective of this Statement is to improve guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of this Statement are effective for reporting periods beginning after December 15, 2018. The University has not yet determined the effect this Statement will have on its consolidated financial statements.

The GASB issued Statement No. 85, *Omnibus 2017*. The objective of this Statement is to address practice issues that have been identified during implementation and application of certain GASB Statements. The requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The University is currently evaluating the impact Statement No. 85 will have on its consolidated financial statements.

The GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. The primary objective of this Statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources — resources other than the proceeds of refunding debt — are placed in an irrevocable trust for the sole purpose of extinguishing debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The requirements of this Statement are effective for reporting periods beginning after June 15, 2017. The University is currently evaluating the impact Statement No. 86 will have on its consolidated financial statements.

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The GASB issued Statement No. 87, *Leases*. The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. The Statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. The requirements of this Statement are effective for reporting periods beginning after December 15, 2019. The University has not yet determined the effect this Statement will have on its consolidated financial statements.

Reclassifications

In addition to the restatement of beginning net position as of July 1, 2015 by \$28,000, certain amounts in the 2016 consolidated financial statements have been reclassified due to the adoption of GASB Statement No. 82.

	2016 As Previously Reported	Reclassifications	2016 Revised
Deferred outflows of resources			
Deferred outflows on pension liability	\$ 163,699	\$ (28,984)	\$ 134,715
Total deferred outflows of resources	175,082	(28,984)	146,098
Total assets and deferred outflows of resources	3,620,647	(28,984)	3,591,663
Operating expenses			
Compensation and benefits	1,113,771	984	1,114,755
Total operating expenses	1,660,553	984	1,661,537
Operating loss	(861,018)	(984)	(862,002)
Change in net position	(116,986)	(984)	(117,970)

2. Cash and Investments

The carrying amounts of cash and cash equivalents and time certificates of deposit held outside of the State Treasury as of June 30, 2017 and 2016, classified as cash and cash equivalents and operating investments, were \$230,039 and \$271,416, with corresponding bank balances of \$230,511 and \$282,084, respectively. The portion of such bank balances covered by the Federal Deposit Insurance Corporation or by collateral held by the State Director of Budget & Finance in the name of the University totaled \$225,690 at June 30, 2017 and \$276,554 at June 30, 2016. Additional cash equivalent balances of \$4,119 at June 30, 2017 and \$7,341 at June 30, 2016 represent deposits with investment brokers covered by the Securities Investor Protection Corporation and additional insurance provided by the investment brokers.

Endowment funds are combined in investment pools with each individual account subscribing to or disposing of shares on the basis of the market value per share.

Cost of securities sold is determined using the first-in first-out method.

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As a result of market fluctuations, the fair market value of certain donor-restricted endowments was less than the historical cost of such funds by \$4,855 and \$10,428 at June 30, 2017 and 2016, respectively. These unrealized losses have been recorded as reductions in unrestricted net position. Future market gains will be used to restore this deficiency in unrestricted net position before any net appreciation above the historical cost value of such funds increases restricted expendable net position.

- **Endowment funds** are received from benefactors who, by the terms of their conveying instruments, have stipulated that the principal of their gifts may never be expended, and use of the income is generally restricted.
- **Quasi-endowment funds** are funds that have been transferred to the endowment funds by the Board. Use of the income is either restricted by the donor or unrestricted and designated by the Board.

The Hawai‘i Uniform Prudent Management of Institutional Funds Act (“HUPMIFA”), established under Hawai‘i Revised Statute §517E, was enacted by the State on July 1, 2009. HUPMIFA requires the preservation of the fair value of the original gift as of the gift date of the donor-restricted endowment funds absent explicit donor stipulations to the contrary. As a result, the University classifies as restricted nonexpendable net position (a) the original value of gifts donated to the permanent endowment, (b) the original value of subsequent gifts to the permanent endowment, and (c) accumulations to the permanent endowment made in accordance with the direction of the applicable donor gift instrument at the time the accumulation is added to the fund.

The remaining portion of the donor-restricted endowment fund that is not classified in restricted nonexpendable net position is classified as restricted expendable net position until those amounts are expended and distributed by the University in accordance with its Board-approved spending rate policy and in a manner consistent with the standard of prudence prescribed by HUPMIFA. In fiscal years 2017 and 2016, the University’s spending rate policy provided for annual distributions was four and a half percent of the trailing five-year moving average of the endowment fair value.

At June 30, 2017 and 2016, the University’s investments were comprised of the following:

	2017		2016	
	Fair Value	Cost	Fair Value	Cost
Money market funds	\$ 4,716	\$ 4,716	\$ 11,679	\$ 11,679
Fixed income securities	283,541	284,620	210,172	207,952
Equity securities	6,328	5,122	5,866	5,143
Mutual funds	183,210	173,137	179,089	178,440
Time certificates of deposit	161,022	161,022	192,518	192,518
Limited partnerships	121,954	74,267	74,376	43,289
Absolute return	16,322	11,741	19,612	14,779
Real estate	23,161	28,721	17,105	21,084
Other investments	62,539	52,927	63,325	56,312
Total investments	862,793	796,273	773,742	731,196
Less: Current portion	355,180	355,686	298,702	297,425
Total noncurrent investments	<u>\$ 507,613</u>	<u>\$ 440,587</u>	<u>\$ 475,040</u>	<u>\$ 433,771</u>

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Changes in the University's investments for the year ended June 30, 2017 were as follows:

	Fair Value	Cost Basis	Net Unrealized Gain (Loss)	Net Realized Gain (Loss)
University Endowment Pool				
End of year	\$ 69,054	\$ 62,793	\$ 6,261	
Beginning of year	63,479	63,094	385	
Net change	5,575	(301)	5,876	\$ 293
Foundation Endowment Pool				
End of year	283,469	223,970	59,499	
Beginning of year	255,979	215,551	40,428	
Net change	27,490	8,419	19,071	10,639
Associated Students of the University of Hawai'i				
End of year	8,768	7,566	1,202	
Beginning of year	8,350	7,590	760	
Net change	418	(24)	442	3
School of Medicine				
End of year	5,540	5,540	-	
Beginning of year	5,519	5,519	-	
Net change	21	21	-	-
University Bond System				
End of year	16,738	16,738	-	
Beginning of year	26,492	26,492	-	
Net change	(9,754)	(9,754)	-	-
Operating investments				
End of year	355,180	355,686	(506)	
Beginning of year	298,702	297,425	1,277	
Net change	56,478	58,261	(1,783)	36
Other				
End of year	124,044	123,980	64	
Beginning of year	115,221	115,525	(304)	
Net change	8,823	8,455	368	(238)
Total investments				
End of year	862,793	796,273	66,520	
Beginning of year	773,742	731,196	42,546	
Net change	\$ 89,051	\$ 65,077	\$ 23,974	\$ 10,733

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	Fair Value	Cost Basis	Net Unrealized Gain (Loss)	Net Realized Gain (Loss)
University Endowment Pool				
End of year	\$ 63,479	\$ 63,094	\$ 385	
Beginning of year	65,557	63,930	1,627	
Net change	(2,078)	(836)	(1,242)	\$ (532)
Foundation Endowment Pool				
End of year	255,979	215,551	40,428	
Beginning of year	265,685	217,861	47,824	
Net change	(9,706)	(2,310)	(7,396)	921
Associated Students of the University of Hawai'i				
End of year	8,350	7,590	760	
Beginning of year	8,099	7,613	486	
Net change	251	(23)	274	75
School of Medicine				
End of year	5,519	5,519	-	
Beginning of year	5,516	5,516	-	
Net change	3	3	-	1
University Bond System				
End of year	26,492	26,492	-	
Beginning of year	24,830	24,830	-	
Net change	1,662	1,662	-	2
Operating investments				
End of year	298,702	297,425	1,277	
Beginning of year	285,241	284,871	370	
Net change	13,461	12,554	907	47
Other				
End of year	115,221	115,525	(304)	
Beginning of year	107,556	108,614	(1,058)	
Net change	7,665	6,911	754	58
Total investments				
End of year	773,742	731,196	42,546	
Beginning of year	762,484	713,235	49,249	
Net change	\$ 11,258	\$ 17,961	\$ (6,703)	\$ 572

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	2017	2016
Summary of net investment income		
Change in unrealized net gain (loss)	\$ 23,974	\$ (6,703)
Net realized gain	10,733	572
	<u>34,707</u>	<u>(6,131)</u>
Interest and dividend income	9,329	8,640
Other	<u>(212)</u>	<u>(593)</u>
Investment income before management fees	43,824	1,916
Less: Management fees	<u>1,315</u>	<u>1,237</u>
Net investment income	<u>\$ 42,509</u>	<u>\$ 679</u>

The University's investments reported at fair value on a recurring basis have been categorized based on the fair value hierarchy in Note 1 at June 30, 2017 and 2016 as follows:

	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Investments Not Categorized Within the Fair Value Hierarchy
2017					
Money market funds	\$ 4,716	\$ 4,716	\$ -	\$ -	\$ -
Fixed income securities	283,541	123,220	140,504	-	19,817
Equity securities	6,328	6,328	-	-	-
Mutual funds	183,210	177,658	-	-	5,552
Time certificates of deposit	161,022	-	-	-	161,022
Limited partnerships	121,954	-	-	-	121,954
Absolute return	16,322	-	-	-	16,322
Real estate	23,161	-	-	15,050	8,111
Other investments	62,539	-	-	1,956	60,583
Total investments	<u>\$ 862,793</u>	<u>\$ 311,922</u>	<u>\$ 140,504</u>	<u>\$ 17,006</u>	<u>\$ 393,361</u>
2016					
Money market funds	\$ 11,679	\$ 11,679	\$ -	\$ -	\$ -
Fixed income securities	210,172	88,576	90,247	-	31,349
Equity securities	5,866	5,866	-	-	-
Mutual funds	179,089	169,292	-	-	9,797
Time certificates of deposit	192,518	-	-	-	192,518
Limited partnerships	74,376	-	-	-	74,376
Absolute return	19,612	-	-	-	19,612
Real estate	17,105	-	-	6,440	10,665
Other investments	63,325	-	-	2,375	60,950
Total investments	<u>\$ 773,742</u>	<u>\$ 275,413</u>	<u>\$ 90,247</u>	<u>\$ 8,815</u>	<u>\$ 399,267</u>

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The following is a general description of the terms and conditions upon which the University through the Foundation may redeem investments that are carried at net asset value:

- **Mutual funds** – Domestic mutual funds can be redeemed on a quarterly basis, with notification provided between 30 and 60 days prior to redemption. Investments in foreign mutual funds can be redeemed on a monthly basis with notification provided between 10 and 30 days prior to redemption.
- **Limited partnerships and other investments** – Redemption frequency for investments in this class range from monthly to annually, with notification provided between 2 and 90 days prior to redemption. Additionally, certain investments can be redeemed at the discretion of the investment managers.
- **Absolute return and real estate and other investments** – These investments can be redeemed at the discretion of the investment managers. Through the Foundation, the University has commitments to contribute additional amounts to this class of investments of approximately \$34,168 at June 30, 2017.

The Board is responsible for the establishment of policies over and monitoring of operating investments and endowments held by the University. Investments authorized by the Board include equity investments, bond investments, certificates of deposit, money market funds, U.S. Government, its Agencies, or its Instrumentalities securities, securities guaranteed or collateralized by the U.S. Government, its Agencies or its Instrumentalities, and other types of investments.

The Board of Directors of the Foundation is responsible for the establishment of policies over and monitoring of investments and endowments held by the Foundation.

The University's investment strategy incorporates certain financial instruments, which involve, to varying degrees, elements of market risk and credit risk. Market risk is the potential for changes in the value of financial instruments due to market changes, including interest and foreign exchange rate movements and fluctuations embodied in forward and futures, commodity or security prices. Market risk is directly impacted by the volatility and liquidity of the markets in which the related underlying assets are traded. Credit risk is the possibility that a loss may occur due to the failure of a counterparty to perform according to the terms of the contract. The University's risk of loss in the event of counterparty default is typically limited to the amounts recognized in the Consolidated Statements of Net Position and is not represented by the contract or notional amounts of the instruments.

Investment Risk Factors

There are many factors that affect the value of investments. Some, such as custodial credit risk, concentration risk, and foreign currency risk may affect both equity and fixed income securities. Equity securities respond to such factors as economic conditions, individual company earnings performance and market liquidity, while fixed income securities are particularly sensitive to credit risks and changes in interest rates.

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Concentration Risk

Concentration risk is the risk associated with a lack of diversification, such as having substantial investments in a few individual issuers, thereby exposing the organization to greater risks resulting from adverse economic, political, regulatory, geographic or credit development. The University limits its risk of concentration of assets by limiting individual bond positions other than obligations of the U.S. government to not more than five percent of the total fixed income portion of the portfolio. Individual equities are limited to not more than five percent of the total market value of the stock portfolio. In addition, investment in any one stock is not to exceed five percent of a corporation's outstanding common stock.

Credit Risk

Credit risk for fixed income securities is the risk that the issuer will not fulfill its obligations. Nationally recognized statistical rating organizations, such as Moody's and Standard and Poor's ("S&P"), assign credit ratings to security issuers and issues that indicate a measure of potential credit risk to investors. To manage credit risk, the University specifies that all nonconvertible bonds should have at least a "BBB" rating or higher and be readily marketable. In addition, no more than 15 percent of the fixed income investments may be graded with an S&P quality rating below "A". The University's mutual bond funds are not rated and classified as such. The underlying securities of the mutual bond funds are graded with an S&P quality rating of "A" or higher.

The composition of fixed income securities at June 30, 2017 and 2016, along with credit quality ratings, is summarized below:

		Credit Quality Rating					
		U.S. Govt- Exempt	AAA	AA	A	BBB	Not Rated
2017							
U.S. Treasury	\$ 126,823	\$ 126,823	\$ -	\$ -	\$ -	\$ -	\$ -
U.S. government agencies	156,234	-	-	156,234	-	-	-
Corporate bonds	484	-	28	61	233	162	-
Mutual bond funds	99,766	-	4,079	-	4,350	-	91,337
Total fixed income securities	<u>\$ 383,307</u>	<u>\$ 126,823</u>	<u>\$ 4,107</u>	<u>\$ 156,295</u>	<u>\$ 4,583</u>	<u>\$ 162</u>	<u>\$ 91,337</u>
2016							
U.S. Treasury	\$ 88,076	\$ 88,076	\$ -	\$ -	\$ -	\$ -	\$ -
U.S. government agencies	121,536	-	-	121,536	-	-	-
Corporate bonds	560	-	29	117	232	182	-
Mutual bond funds	99,517	-	10,810	-	-	-	88,707
Total fixed income securities	<u>\$ 309,689</u>	<u>\$ 88,076</u>	<u>\$ 10,839</u>	<u>\$ 121,653</u>	<u>\$ 232</u>	<u>\$ 182</u>	<u>\$ 88,707</u>

Interest Rate Risk

Interest rate risk is the risk that the value of fixed income securities will decline because of changing interest rates. The prices of fixed income securities with a longer time to maturity tend to be more sensitive to changes in interest rates and, therefore, are more volatile than those with shorter maturities.

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At June 30, 2017, the composition of the University's fixed income investments and maturities are summarized below:

	Fair Value	Investment Maturities (in Years)			
		Less than 1	1 to 5	6 to 10	More than 10
U.S. Treasury	\$ 126,823	\$ 33,819	\$ 79,677	\$ 13,310	\$ 17
U.S. government agencies	156,234	32,879	122,307	989	59
Corporate bonds	484	185	111	188	-
Mutual bond funds	99,766	10,980	65,657	23,129	-
Total fixed income securities	<u>\$ 383,307</u>	<u>\$ 77,863</u>	<u>\$ 267,752</u>	<u>\$ 37,616</u>	<u>\$ 76</u>

Foreign Currency Risk

Foreign currency risk is the risk that investments denominated in foreign currencies may lose value due to adverse fluctuations in the value of the U.S. dollar relative to foreign currencies. The University's investment policy permits investments in publicly-traded foreign securities.

At June 30, 2017 and 2016, the University's exposure to foreign currency risk expressed in U.S. dollars was not significant.

3. Accounts Receivable

The composition of accounts receivable, net of allowance for uncollectable receivables, of \$30,457 and \$28,278 at June 30, 2017 and 2016, respectively, is summarized as follows:

	2017	2016
U.S. government	\$ 44,448	\$ 49,258
State and local government	9,405	8,217
Private agencies	9,333	8,019
Student tuition and fees	7,350	10,147
Other	7,734	11,272
	<u>\$ 78,270</u>	<u>\$ 86,913</u>

4. U.S. Government Funding

The federal government reimburses the University for certain overhead costs (e.g., facilities and administrative costs) incurred in support of federally-sponsored programs based on cost reimbursement rates negotiated with the University's cognizant agency, the U.S. Department of Health and Human Services. These reimbursements amounted to approximately \$42,464 in 2017 and \$43,579 in 2016 and are reported in federal appropriations, grants and contracts revenue.

The University's federal grants and contracts are subject to periodic audit by federal examiners. In the opinion of the University, any adjustments which may be required as a result of these audits would not be material to the overall financial position of the University.

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5. Notes and Contributions Receivable

The composition of notes and contributions receivable at June 30, 2017 and 2016 is summarized as follows:

	2017	2016
Student notes		
Federal loan programs	\$ 16,653	\$ 17,036
State loan programs	7,528	7,901
University loan funds	67	68
Other notes receivable	43	52
Total student and other notes outstanding	24,291	25,057
Less: Allowance for uncollectible receivables	7,393	7,410
Total student and other notes receivable, net	16,898	17,647
Contributions receivable	36,965	45,211
Less: Allowance for uncollectible pledges	1,801	1,557
Less: Discount to present value	408	4,261
Total contributions receivable, net	34,756	39,393
Total student notes and contributions receivable, net	51,654	57,040
Less: Current portion, net	17,035	16,972
	<u>\$ 34,619</u>	<u>\$ 40,068</u>

The allowance for uncollectible receivables at June 30, 2017 and 2016 is comprised of:

	2017	2016
Federal Perkins loan program	\$ 3,806	\$ 4,035
State of Hawai'i Higher Education loans	3,545	3,333
Nursing/Health Profession loans	10	10
Short-term loans	32	32
	<u>\$ 7,393</u>	<u>\$ 7,410</u>

Payments on contributions receivable at June 30, 2017 are expected to be collected in:

Less than one year	\$ 15,137
One year to five years	21,828
	<u>\$ 36,965</u>

The principal repayment and interest rate terms of federal and University loans vary considerably. The allowance for uncollectible receivables only applies to University funded notes and the University's portion of federal student loans, as the University is not obligated to fund the federal portion of uncollected student loans. Federal loan programs are funded principally with federal advances to the University under the Perkins and various health profession loan programs.

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The Federal Perkins loan program provides for the assignment of uncollectible loans to the U.S. Department of Education for collection. Uncollectible Nursing and Health Profession loans may be written off with the approval of the U.S. Department of Health and Human Services, Division of Financing Services. Uncollectible State of Hawai'i Higher Education loans, Hawai'i Educator loans, and University short-term loans may be written off with the approval of the University's General Counsel.

During the years ended June 30, 2017 and 2016, the University distributed \$2,359 and \$2,484 in student loans through the U.S. Department of Education Federal Perkins Loan Program, respectively, and \$150,389 and \$156,333 in Direct Loan programs, respectively. These distributions and related funding sources are not included as expenses or revenues in the accompanying financial statements.

As discussed in Note 1 to the consolidated financial statements, pledges for permanent endowments that do not meet eligibility requirements, as defined by GASB Statement No. 33, are not recorded as assets until the related gift is received. Accordingly, permanent endowment pledges totaling approximately \$5,866 and \$39,020 at June 30, 2017 and 2016, respectively, were not recognized as assets in the accompanying consolidated financial statements because of uncertainties with regard to their realizability, valuation, bequest intentions and other conditional promises until the specified conditions are met.

Unconditional promises to give (contributions receivable) that are expected to be collected within one year are recorded at net realizable value. Pledges receivable that are expected to be collected in future years are recorded at the present value of their estimated future cash flows. The discounts on those amounts are computed using the risk-free interest rates applicable to the years in which the promises are received. Amortization of the discounts is included in private gift revenues.

6. Inventories

The inventories and the methods of valuation at June 30, 2017 and 2016 are summarized below:

		2017	2016
University of Hawai'i Bookstore merchandise inventory	Lower of cost or market using the first-in, first-out retail inventory method.	\$ 5,051	\$ 7,121
University of Hawai'i Chemistry Stockroom	Cost applied on the first-in, first-out basis.	888	885
University of Hawai'i Facilities Management Warehouse	Cost applied on the first-in, first-out basis.	695	927
University of Hawai'i Press merchandise inventory	Job order or specific identification method. Books remaining in the inventory after the first year of publication are written off on the straight-line basis over a five-year period.	944	699
University of Hawai'i other inventory	Lower of cost or market using the weighted average cost method.	324	618
		<u>\$ 7,902</u>	<u>\$ 10,250</u>

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7. Capital Assets

A summary of capital assets at June 30, 2017 and 2016 is as follows:

	Beginning Balance	Additions	Deductions	Transfers	Ending Balance
2017					
Nondepreciable capital assets					
Land	\$ 45,354	\$ 5,900	\$ -	\$ 3,941	\$ 55,195
Construction in progress	182,872	132,013	5,007	(139,851)	170,027
Total capital assets not being depreciated	228,226	137,913	5,007	(135,910)	225,222
Depreciable capital assets					
Land improvements	128,969	224	-	2,552	131,745
Infrastructure	218,284	594	-	24,152	243,030
Buildings	2,340,153	12,969	28,282	97,041	2,421,881
Equipment	382,445	18,627	15,766	12,165	397,471
Library materials	168,836	2,769	-	-	171,605
Total capital assets being depreciated	3,238,687	35,183	44,048	135,910	3,365,732
Less: Accumulated depreciation	1,413,528	122,841	33,148	-	1,503,221
Capital assets, net	\$ 2,053,385	\$ 50,255	\$ 15,907	\$ -	\$ 2,087,733
2016					
Nondepreciable capital assets					
Land	\$ 37,596	\$ 3,783	\$ -	\$ 3,975	\$ 45,354
Construction in progress	249,788	78,079	3,915	(141,080)	182,872
Total capital assets not being depreciated	287,384	81,862	3,915	(137,105)	228,226
Depreciable capital assets					
Land improvements	129,013	82	126	-	128,969
Infrastructure	174,376	1,034	-	42,874	218,284
Buildings	2,248,626	17,851	14,545	88,221	2,340,153
Equipment	377,355	13,194	14,114	6,010	382,445
Library materials	164,410	4,426	-	-	168,836
Total capital assets being depreciated	3,093,780	36,587	28,785	137,105	3,238,687
Less: Accumulated depreciation	1,312,473	124,937	23,882	-	1,413,528
Capital assets, net	\$ 2,068,691	\$ (6,488)	\$ 8,818	\$ -	\$ 2,053,385

Capital assets consist of land, land improvements, infrastructure, buildings, equipment, library materials, and construction in progress. Construction in progress (“CIP”) additions represent costs for new projects, net of the amount of capital assets placed in service. CIP is not depreciated until the asset is placed in service. Assets acquired are recorded at cost, or if donated, at appraised value at the date of the gift. Land parcels comprising 1,206 acres, or 22 percent of the University’s property, are recorded at the State’s value of \$1 per parcel. Assets owned by the federal government, although in the custody of the University, are not included in the capital asset total.

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8. Other Noncurrent Assets

Other noncurrent assets at June 30, 2017 and 2016 were comprised of:

	2017	2016
Interest in beneficial trusts held by others	\$ 94,081	\$ 16,343
Prepaid bond insurance	275	295
Other	250	2,252
	<u>\$ 94,606</u>	<u>\$ 18,890</u>

9. Due From and Due To the State of Hawai'i

Amounts due from and due to the State of Hawai'i at June 30, 2017 and 2016 were as follows:

	2017		2016	
	Due from	Due to	Due from	Due to
State appropriations for current operations	\$ 1,355		\$ 102	
State capital appropriations – noncurrent	<u>378,310</u>		<u>329,751</u>	
Total due from State of Hawai'i	<u>\$ 379,665</u>		<u>\$ 329,853</u>	
Imprest/petty cash advances		\$ 80		\$ 80
Advance		6,000		6,000
General obligation bonds – current		-		195
Employee fringe adjustments		<u>37</u>		<u>19</u>
Due to State of Hawai'i – current		6,117		6,294
General obligation bonds – noncurrent		<u>-</u>		<u>-</u>
Total due to State of Hawai'i		<u>\$ 6,117</u>		<u>\$ 6,294</u>

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10. Due to the State of Hawai'i for General Obligation Bonds

Activity related to amounts due to the State for general obligation bonds for the years ended June 30, 2017 is as follows:

	Original Amount	Beginning Balance	Principal Repayment	Ending Balance
Series DB (interest rate, 2.80% to 5.25%)				
Student Housing				
Mānoa	\$ 731	\$ 99	\$ 99	\$ -
Hilo	143	20	20	-
Parking Structure Phase I	425	58	58	-
	<u>1,299</u>	<u>177</u>	<u>177</u>	<u>-</u>
Series DG (interest rate, 5.00%)				
Student Housing				
Mānoa	82	11	11	-
Hilo	16	1	1	-
Parking Structure Phase I	47	6	6	-
	<u>145</u>	<u>18</u>	<u>18</u>	<u>-</u>
	<u>\$ 1,444</u>	<u>\$ 195</u>	<u>\$ 195</u>	<u>\$ -</u>

Activity related to amounts due to the State for general obligation bonds for the year ended June 30, 2016 is as follows:

	Original Amount	Beginning Balance	Principal Repayment	Ending Balance
Series DB (interest rate, 2.80% to 5.25%)				
Student Housing				
Mānoa	\$ 731	\$ 193	\$ 94	\$ 99
Hilo	143	38	18	20
Parking Structure Phase I	425	112	54	58
	<u>1,299</u>	<u>343</u>	<u>166</u>	<u>177</u>
Series DG (interest rate, 5.00%)				
Student Housing				
Mānoa	82	22	11	11
Hilo	16	3	2	1
Parking Structure Phase I	47	12	6	6
	<u>145</u>	<u>37</u>	<u>19</u>	<u>18</u>
	<u>\$ 1,444</u>	<u>\$ 380</u>	<u>\$ 185</u>	<u>\$ 195</u>

General obligation bonds are payable in annual installments, including semi-annual interest payments. The University made the final principal and interest payment to the State for general obligation bonds in June 2017.

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11. Long-Term Liabilities

Long-term liability activity for the years ended June 30, 2017 and 2016 is summarized as follows:

	Beginning Balance	Additions	Reductions	Ending Balance	Current Portion
2017					
Bonds payable					
Revenue bonds payable	\$ 562,620	\$ -	\$ 18,940	\$ 543,680	\$ 19,115
Other liabilities					
Workers' compensation	18,100	2,106	1,773	18,433	6,247
Accrued vacation	75,174	28,552	27,819	75,907	30,627
Net pension liability (Note 14)	1,144,564	657,300	97,394	1,704,470	-
Postemployment health care/life insurance benefits (Note 15)	722,757	115,716	49,700	788,773	-
Long-term debt	17,000	8,200	-	25,200	17,000
Total other liabilities	1,977,595	811,874	176,686	2,612,783	53,874
Total long-term liabilities	\$ 2,540,215	\$ 811,874	\$ 195,626	\$ 3,156,463	\$ 72,989
2016					
Bonds payable					
Revenue bonds payable	\$ 578,585	\$ 166,285	\$ 182,250	\$ 562,620	\$ 18,940
Other liabilities					
Workers' compensation	15,512	4,636	2,048	18,100	6,353
Accrued vacation	73,840	28,219	26,885	75,174	29,923
Net pension liability (Note 14)	1,089,882	148,576	93,894	1,144,564	-
Postemployment health care/life insurance benefits (Note 15)	650,805	117,052	45,100	722,757	-
Long-term debt	17,000	-	-	17,000	-
Total other liabilities	1,847,039	298,483	167,927	1,977,595	36,276
Total long-term liabilities	\$ 2,425,624	\$ 464,768	\$ 350,177	\$ 2,540,215	\$ 55,216

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Revenue Bonds Payable

The University's revenue bonds payable at June 30, 2017 and 2016 is as follows:

	Series	Date Issued	Authorized	2017	2016
Frear Hall Construction, Student Housing System at Mānoa, Food Service System and Student Housing System at Hilo (interest rate, 3.25% to 5.0%)	2006A	December 13, 2006	\$ 100,000	\$ 17,490	\$ 19,970
University Health & Wellness Center (interest rate, 3.5% to 5.0%)	Ref 2006A	October 25, 2006	133,810	16,045	20,590
Various acquisition and construction projects (interest rate, 2.5% to 6.0%)	2009A	April 15, 2009	100,000	84,765	87,340
University's Cancer Center (interest rate, 2.5% to 6.0%)	2010A-1, 2010A-2	October 7, 2010	138,640	121,455	124,590
Various construction projects (interest rate, 2.5% to 6.0%)	2010B-1, 2010B-2	October 7, 2010	154,090	138,995	142,490
Student Housing System at Mānoa and Telecommunications System (interest rate, 2.0% to 5.0%)	2012A(R)	February 22, 2012	8,575	1,775	3,245
Hilo College of Pharmacy and Law School Expansion and Modernization (interest rate, 1.0% to 4.7%)	2015A	September 24, 2015	8,575	8,400	8,575
Frear Hall Construction, Student Housing System at Mānoa, Food Service System and Student Housing System at Hilo (interest rate, 3.0% to 5.0%)	2015B(R)	September 24, 2015	47,010	47,010	47,010
Frear Hall Construction, Student Housing System at Mānoa, Food Service System and Student Housing System at Hilo (interest rate, 0.8% to 3.0%)	2015C(R)	September 24, 2015	17,585	15,510	15,945
University Health & Wellness Center (interest rate, 0.8% to 2.8%)	2015D(R)	September 24, 2015	25,715	24,835	25,465
University Health & Wellness Center (interest rate, 5.0%)	2015E(R)	April 20, 2016	67,400	67,400	67,400
			<u>\$ 801,400</u>	<u>\$ 543,680</u>	<u>\$ 562,620</u>

In September 2015, the University issued \$166,285 in Series 2015A (\$8,575, taxable new money), 2015B(R) (\$47,010, tax-exempt refunding), 2015C(R) (\$17,585, taxable refunding), 2015D(R) (\$25,715, taxable refunding), and 2015E(R) (\$67,400, tax-exempt forward delivery refunding) bonds (collectively, the "Series 2015 Bonds") for the purpose of financing the costs of University projects and refunding previously issued bonds. All Series 2015 bonds were delivered on September 24, 2015 with the exception of the forward delivery Series 2015E(R) bonds which were delivered on April 20, 2016. Total premium for the Series 2015 Bonds approximated \$13,698. The University projects include the UH Mānoa Law School Expansion and Modernization Project and the UH Hilo College of Pharmacy Project.

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The proceeds of the Series 2015B(R), 2015C(R), 2015D(R) and 2015E(R) bonds were deposited into an irrevocable trust with an escrow agent to provide for a portion of the future debt service payments on the Series 2006A University Revenue Bonds and the Refunding Series 2006A University Bonds. Accordingly, the trust account assets and liabilities relating to the defeased bonds are not recorded in the consolidated financial statements of the University. During the year ended June 30, 2016, \$163,245 of bonds outstanding from the Series 2006A University Revenue Bonds and the Refunding Series 2006A University Bonds were considered defeased. The defeasance resulted in an accounting gain of \$15,080 and an economic gain (difference between the present values of the debt service payment on the old and new debt) of \$9,573. The coupon interest rates for the Series 2015 Bonds range from 0.811 percent to 5.000 percent (first interest payment due on April 1, 2016) with the last maturity on October 1, 2044.

In February 2012, the University issued \$8,575 in Series 2012A(R) revenue bonds to retire (current refund) \$8,955 of the outstanding Series 2001B revenue bonds. The proceeds of the Series 2012A(R) bonds were deposited into a trust account with an escrow agent to fully defease the outstanding principal of the Series 2001B bonds. The defeasance resulted in an accounting gain of \$943 and an economic loss of \$27. The coupon interest rates for the Series 2012A(R) bonds range from two percent to five percent (first interest payment due on April 1, 2012) and mature on October 1, 2018.

In October 2010, the University issued \$292,730 in Series 2010A-1 (\$111,265), 2010A-2 (\$27,375), 2010B-1 (\$127,535), and 2010B-2 (\$26,555) bonds (collectively, the "Series 2010 Bonds") for the purpose of financing the costs of certain University projects. The Series 2010A-1 and Series 2010B-1 bonds are designated as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009. These University projects may include the construction and maintenance of the University's Cancer Center, renovations and additions to the Mānoa Campus Center, construction and equipment for an Information Technology Building, renovations to the Sinclair Library basement on the Mānoa campus, further development of the University of Hawai'i at West O'ahu ("UH-West O'ahu") Kapolei campus, various energy conservation/efficiency projects on the community college campuses on O'ahu and Maui, land acquisition for the Leeward Community College Wai'anae Education Center, construction of the Kapi'olani Community College Culinary Institute of the Pacific, and renovation of the observatory for the Panoramic Survey Telescope & Rapid Response System 2 telescope. The coupon interest rates for the Series 2010 Bonds range from 2.50 percent to 6.03 percent (first interest payment due on April 1, 2011) and mature on October 1, 2030 and 2040.

The University receives funds from the State of Hawai'i Tobacco Settlement Special Fund for the payment of principal and interest on the Refunding Series 2006A, Series 2015D(R) and 2015E(R) bonds to finance the cost of construction of the medical school facility and for annual operating expenses incurred by the facility. The funds received from the State of Hawai'i Tobacco Settlement Special Fund for debt service amounted to \$11,799 and \$9,549 in 2017 and 2016, respectively.

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The revenue bonds are paid from certain unrestricted revenues in annual installments, including semi-annual interest payments ranging from \$12 to \$13,512 with the final payment due in October 2044. Series 2006A, 2009A, 2010, 2012A(R) and Series 2015 bonds interest is payable semi-annually on April 1 and October 1, and the principal is payable on October 1 of each year. The Refunding Series 2006A interest is payable semi-annually on January 15 and July 15, and the principal is payable on July 15 of each year. The Bond Resolution adopted on May 17, 2002 and supplemented, stipulates that all available moneys on deposit in any special fund or revolving fund of the University, excluding moneys on deposit in the University Revenue – Undertakings Fund derived from the University Bond System, are pledged to the payment of the Refunding Series 2006A bonds, interest and premiums (if any). All available moneys on deposit in any special fund or revolving fund of the University, including moneys on deposit in the University Bond System, are pledged to the payment of the Series 2006A, 2009A, 2010, 2012A(R) and Series 2015 bonds, interest and premiums (if any).

The University entered into continuing disclosure certificates for the benefit of revenue bondholders, where it agreed to provide certain financial information and operating data relating to the University with respect to its revenue bonds to the Municipal Securities Rulemaking Board. The University, based on consultation with its bond counsel and bond underwriter, has complied in all material respects with the continuing disclosure requirements.

At June 30, 2017, future maturities of revenue bonds are as follows:

	Principal	Interest
Year ending June 30,		
2018	\$ 19,115	\$ 26,739
2019	18,360	26,155
2020	18,745	25,533
2021	19,375	24,864
2022	20,000	24,120
2023–2027	112,075	105,388
2028–2032	135,480	75,043
2033–2037	124,310	39,744
2038–2042	74,755	8,864
2043–2045	1,465	105
	<u>\$ 543,680</u>	<u>\$ 356,555</u>

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Bond Premiums

Activity related to the premiums on general obligation and revenue bonds for the years ended June 30, 2017 and 2016 is as follows:

	Series	Beginning Balance	Additions	Reductions	Ending Balance
2017					
John A. Burns School of Medicine	Ref 2006A	\$ 191	\$ -	\$ 13	\$ 178
University's Cancer Center	2010A	452	-	203	249
Various construction projects	2010B	708	-	303	405
Student Housing	2015B(R)	5,443	-	273	5,170
John A. Burns School of Medicine	2015E(R)	7,960	-	550	7,410
Total bond premiums		<u>\$ 14,754</u>	<u>\$ -</u>	<u>\$ 1,342</u>	<u>\$ 13,412</u>
2016					
John A. Burns School of Medicine	Ref 2006A	\$ 1,183	\$ -	\$ 992	\$ 191
University's Cancer Center	2010A	715	-	263	452
Various construction projects	2010B	1,074	-	366	708
Student Housing	2015B(R)	-	5,639	196	5,443
John A. Burns School of Medicine	2015E(R)	-	8,059	99	7,960
Total bond premiums		<u>\$ 2,972</u>	<u>\$ 13,698</u>	<u>\$ 1,916</u>	<u>\$ 14,754</u>

Note Payable

On May 4, 2012, the University entered into a five-year, unsecured loan agreement ("Note") with Hawaii Regional Center LP III ("Lender") for a commitment amount not to exceed \$18,000, subject to certain limitations. The proceeds were used to facilitate and fund construction of the UH-West O'ahu campus located in Kapolei, Hawai'i.

The Note bears interest at the rate of 1.5 percent per annum and is due and payable semi-annually to the Lender on January 1 and July 1 each year until the Note has been paid in full. Under the terms of the Note, repayment each fiscal year is limited and subject to specific appropriations by the State to make such payments. The Note matures on April 22, 2018, at which time the unpaid principal will be due. As of June 30, 2017 and 2016, \$17,000 remained outstanding.

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12. Line of Credit

The Research Corporation has a revolving line of credit with First Hawaiian Bank in the amount of \$5,000 for short-term working capital, expiring on February 1, 2018. The terms of the revolving line of credit require repayment as specified in the credit agreement. All borrowings are collateralized by a security agreement over the Research Corporation's accounts receivable. The rate of interest on borrowings was 3.28 percent at June 30, 2017 and 2016. At June 30, 2017 and 2016, there were no borrowings under this line.

On April 20, 2017, the Foundation entered into a 10-year \$13,200 acquisition and construction credit facility (the "Loan") for the purchase and renovation of the Charles Atherton House and the Mary Atherton Richards House (the "Atherton Property"). The Loan is secured by the fee simple interest and improvements on the Atherton Property, along with an assignment of a long-term lease and rents due thereunder from the University. Under terms of the credit facility, interest-only payments are required for the first 36 months at a fixed rate of three percent and, thereafter monthly installments of principal and interest, based on a 25-year amortization schedule, at a fixed rate of four percent through the remaining term of the Loan. The Loan matures on April 1, 2027. As of June 30, 2017, the outstanding balance on the Loan was \$8,200.

13. Property Leases

The University has entered into real property operating lease agreements with future minimum payments as follows:

	Lease Amount
Year ending June 30,	
2018	\$ 1,944
2019	785
2020	346
2021	81
2022	76
2023–2027	334
2028–2032	334
Thereafter	1,734
	<u>\$ 5,634</u>

Rent expense for outside space for the years ended June 30, 2017 and 2016 approximated \$6,420 and \$7,904, respectively.

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14. Employee Benefits

Employees' Retirement System
General Information on the Pension Plan

Plan Description

Generally, all full-time employees of the University are required to be members of the Employees' Retirement System of the State of Hawai'i ("ERS"), a cost-sharing multiple-employer defined benefit pension plan that administers the University's pension benefits program. Benefits, eligibility and contribution requirements are governed by HRS Chapter 88 and can be amended through legislation. The ERS issues publicly available annual financial reports that can be obtained at ERS's website: <http://www.ers.ehawaii.gov>.

Benefits Provided

The ERS Pension Trust is comprised of three pension classes for membership purposes and considered to be a single plan for accounting purposes since all assets of the ERS may legally be used to pay the benefits of any of the ERS members or beneficiaries. The ERS provides retirement, disability and death benefits with three membership classes known as the noncontributory, contributory and hybrid retirement classes. The three classes provide a monthly retirement allowance equal to the benefit multiplier (generally 1.25 percent or 2.00 percent) multiplied by the average final compensation multiplied by years of credited service. Average final compensation for members hired prior to July 1, 2012 is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation for members hired January 1, 1971 or later and the average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation for members hired prior to January 1, 1971. For members hired after June 30, 2012, average final compensation is an average of the highest salaries during any five years of credited service excluding any salary paid in lieu of vacation.

Each retiree's original retirement allowance is increased on each July 1 beginning the calendar year after retirement. Retirees first hired as members prior to July 1, 2012 receive a 2.5 percent increase each year of their original retirement allowance without a ceiling. Retirees first hired as members after June 30, 2012 receive a 1.5 percent increase each year of their original retirement allowance without a ceiling. The annual increase is not compounded.

Noncontributory Class

- **Retirement Benefits** – General employees' retirement benefits are determined as 1.25 percent of average final compensation multiplied by the years of credited service. Employees with 10 years of credited service are eligible to retire at age 62. Employees with 30 years of credited service are eligible to retire at age 55.
- **Disability Benefits** – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35 percent of their average final compensation. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 12.5 percent of average final compensation.

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- Death Benefits – For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a monthly benefit of 30 percent of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. Additional benefits are payable to surviving dependent children up to age 18. If there is no spouse/reciprocal beneficiary or dependent children, no benefit is payable.

Ordinary death benefits are available to employees who were active at time of death with at least ten years of credited service. The surviving spouse/reciprocal beneficiary (until remarriage/reentry into a new reciprocal beneficiary relationship) and dependent children (up to age 18) receive a benefit equal to a percentage of the member's accrued maximum allowance unreduced for age or, if the member was eligible for retirement at the time of death, the surviving spouse/reciprocal beneficiary receives 100 percent joint and survivor lifetime pension and the dependent children receive a percentage of the member's accrued maximum allowance unreduced for age.

Contributory Class for Members Hired Prior to July 1, 2012

- Retirement Benefits – General employees' retirement benefits are determined as two percent of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 55.
- Disability Benefits – Members are eligible for service-related disability benefits regardless of length of service and receive a one-time payment of the member's contributions and accrued interest plus a lifetime pension of 50 percent of their average final compensation. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined as 1.75 percent of average final compensation multiplied by the years of credited service but are payable immediately, without an actuarial reduction, and at a minimum of 30 percent of average final compensation.
- Death Benefits – For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50 percent of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least one year of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death, or 50 percent Joint and Survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100 percent Joint and Survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

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Contributory Class for Members Hired After June 30, 2012

- Retirement Benefits – General employees' retirement benefits are determined as 1.75 percent of average final compensation multiplied by the years of credited service. General employees with ten years of credited service are eligible to retire at age 60.
- Disability and Death Benefits – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 50 percent of their average final compensation plus refund of contributions and accrued interest. Ten years of credited service is required for ordinary disability.

Death benefits for contributory members hired after June 30, 2012 are generally the same as those for contributory members hired June 30, 2012 and prior.

Hybrid Class for Members Hired Prior to July 1, 2012

- Retirement Benefits – General employees' retirement benefits are determined as two percent of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 62. General employees with 30 years of credited service are eligible to retire at age 55.
- Disability Benefits – Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35 percent of their average final compensation plus refund of their contributions and accrued interest. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 25 percent of average final compensation.
- Death Benefits – For service-connected deaths, the designated surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50 percent of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least five years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage multiplied by 150 percent, or 50 percent Joint and Survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100 percent Joint and Survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

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Hybrid Class for Members Hired After June 30, 2012

- Retirement Benefits – General employees' retirement benefits are determined as 1.75 percent of average final compensation multiplied by the years of credited service. General employees with 10 years of credited service are eligible to retire at age 65. Employees with 30 years of credited service are eligible to retire at age 60.
- Disability and Death Benefits – Provisions for disability and death benefits generally remain the same except for ordinary death benefits. Ordinary death benefits are available to employees who were active at time of death with at least 10 years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest, or 50 percent Joint and Survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100 percent Joint and Survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributions

Contributions are governed by HRS Chapter 88 and may be amended through legislation. The employer rate is set by statute based on the recommendations of the ERS actuary resulting from an experience study conducted every five years. Since July 1, 2005, the employer contribution rate is a fixed percentage of compensation, including the normal cost plus amounts required to pay for the unfunded actuarial accrued liabilities. The contribution rate was 17 percent for fiscal years 2017 and 2016. Contributions to the pension plan from the University for the years ended June 30, 2017 and 2016 were \$98,865 and \$96,977, respectively.

On May 18, 2017, the Governor signed into law Act 17 SLH 2017. Per Act 17, future employer contributions from the University is expected to increase pursuant to a phased-in contribution rate increase over four years beginning July 1, 2017. The rate for general employees increases to 18 percent on July 1, 2017; 19 percent on July 1, 2018; 22 percent on July 1, 2019; and 24 percent on July 1, 2020.

The University is required to make all contributions for noncontributory members. Contributory members hired prior to July 1, 2012 are required to contribute 7.8 percent of their salary. Contributory members hired after June 30, 2012 are required to contribute 9.8 percent of their salary. Hybrid members hired prior to July 1, 2012 are required to contribute 6.0 percent of their salary. Hybrid members hired after June 30, 2012 are required to contribute 8.0 percent of their salary.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2017 and 2016, the University reported a liability of \$1,704,470 and \$1,144,564, respectively, for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2016 and 2015, respectively, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The University's proportion of the net pension liability was based on a projection of the University's long-term share of contributions to the pension plan relative to projected contributions of all participants, actuarially determined. At June 30, 2016 and 2015, the University's proportion was 12.75 percent and 13.11 percent, respectively, which was a decrease of 0.36 percent and 0.48 percent from its proportion measured as of June 30, 2015 and 2014, respectively.

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There were significant changes in actuarial assumptions effective June 30, 2016 based on the Five-Year Experience Study report dated July 5, 2016 that resulted in a significant increase in the measurement of the total pension liability. Primary drivers for the increase include a decrease in the investment return assumption and discount rate from 7.65 percent as of June 30, 2015 to 7.00 percent as of June 30, 2016; and a decrease in the mortality assumptions for longer life expectancy and an explicit assumption for continued future mortality improvement (generational approach).

There were no other changes between the measurement date, June 30, 2016, and the reporting date, June 30, 2017, that are expected to have a significant effect on the proportionate share of the net pension liability.

For the years ended June 30, 2017 and 2016, the University recognized pension expense of \$190,485 and \$84,899, respectively. At June 30, 2017 and 2016, the University reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
2017		
Difference between expected and actual experience	\$ 33,943	\$ 24,671
Net difference between projected and actual investment earnings on pension plan investments	104,272	-
Change in assumptions	320,145	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	40,500
Contributions subsequent to the measurement date	98,865	-
Total deferred inflows and outflows of resources	<u>\$ 557,225</u>	<u>\$ 65,171</u>
2016		
Difference between expected and actual experience	\$ 10,720	\$ 32,030
Net difference between projected and actual investment earnings on pension plan investments	-	39,056
Change in assumptions	27,018	-
Changes in proportion and differences between employer contributions and proportionate share of contributions	-	40,278
Contributions subsequent to the measurement date	96,977	-
Total deferred inflows and outflows of resources	<u>\$ 134,715</u>	<u>\$ 111,364</u>

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The \$98,865 reported as deferred outflows of resources related to pensions resulting from University contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2018. The \$96,977 reported as deferred outflows of resources related to pensions resulting from University contributions subsequent to the measurement date was recognized as a reduction of the net pension liability during the year ended June 30, 2017. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ending June 30,	
2018	\$ (72,251)
2019	(72,251)
2020	(103,439)
2021	(94,733)
2022	(50,515)
	<u>\$ (393,189)</u>

Actuarial Assumptions

The total pension liability in the June 30, 2016 and 2015 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

	2017	2016
Inflation	2.50 %	3.00 %
Payroll growth rate	3.50 %	3.50 %
Investment rate of return	7.00 %	7.65 %

The June 30, 2016 valuation was determined using actuarial assumptions adopted by the Board of Trustees of the ERS on December 12, 2016, based on the most recent experience study dated July 5, 2016. The actuarial assumptions used in the June 30, 2015 valuation were based on the experience study dated December 20, 2010.

The same rates were applied to all periods. There were no changes to ad hoc postemployment benefits including Cost-of-Living Adjustments.

For the June 30, 2016 actuarial valuation, post-retirement mortality rates are based on the 2016 Public Retirees of Hawai'i mortality table with adjustments based on generational projections of the BB projection table for 2016 and full generational projection in future years. Pre-retirement mortality rates are based on multiples of RP-2014 mortality table based on the occupation of the member. For the June 30, 2015 actuarial valuation, post-retirement mortality rates are based on Client Specific Tables and the 1994 U.S. Group Annuity Mortality Static Tables. Pre-retirement mortality rates are based on custom tables with RP-2000 rates.

The long-term expected rate of return on pension plan investments was determined using a "top down approach" of the Bespoke Client-Constrained Simulation-based Optimization Model (a statistical technique known as "re-sampling with a replacement" that directly keys in on specific plan-level risk factors as stipulated by the ERS Board) in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by

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the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Strategic Allocation (risk-based classes)	Target Allocation	Long-Term Expected Real Rate of Return
Broad growth	63.0%	8.35%
Principal protection	7.0%	2.20%
Real return	10.0%	6.15%
Crisis risk offset	<u>20.0%</u>	5.50%
Total	<u>100.0%</u>	

Discount Rate

The discount rate used to measure the net pension liability was 7.00 percent, a decrease from the 7.65 percent rate used at the prior measurement date. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from the University will be made at statutorily required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the University's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the University's proportionate share of the net pension liability, calculated using the discount rate of 7.00 percent and 7.65 percent, for the measurement date June 30, 2016 and 2015, respectively, as well as what the University's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00 percent and 6.65 percent, respectively) or one percentage point higher (8.00 percent and 8.65 percent, respectively) than the current rate:

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
2017			
The University's proportionate share of the net pension liability	<u>\$ 2,179,604</u>	<u>\$ 1,704,470</u>	<u>\$ 1,311,313</u>
	1% Decrease (6.65%)	Discount Rate (7.65%)	1% Increase (8.65%)
2016			
The University's proportionate share of the net pension liability	<u>\$ 1,440,967</u>	<u>\$ 1,144,564</u>	<u>\$ 848,162</u>

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Pension Plan Fiduciary Net Position

The pension plan's fiduciary net position is determined on the same basis used by the pension plan. The ERS financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, and revenues are recorded in the accounting period in which they are earned and become measurable. Employer and member contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded as of their trade date. Administrative expenses are financed exclusively with investment income.

There were no significant changes after the report measurement date. Detailed information about the pension plan's fiduciary net position is available in the separately issued ERS financial report. ERS's complete financial statements are available at <http://www.ers.ehawaii.gov>.

Payable to the Pension Plan

At June 30, 2017 and 2016, the amount payable to the ERS was \$768 and \$1,184, respectively.

Other Benefits

The State absorbs the fringe benefit cost for employees paid from State and federal appropriations. In fiscal years 2016 and 2015, the State appropriated funds to the Department of Budget and Finance to pay for these fringe benefit costs on behalf of the University. Fringe benefit costs included in total revenue and total expenditures amounted to \$223,116 and \$195,332 for fiscal years 2017 and 2016, respectively.

All regular employees, with certain exceptions, earn vacation leave at the rate of 14 hours for each month of service. Employees who are entitled to annual vacation may accumulate for the succeeding year or years up to 15 working days annual vacation allowance, provided that the total accumulation shall not exceed 90 working days at the end of the calendar year. Accumulated vacation leave earned, but not taken, is reflected as an accrual in the accompanying consolidated financial statements. When termination of services takes place, the employees are paid for their vacation allowance in a lump sum.

Sick leave accumulates at the rate of 14 hours for each full month of service without limit, but can be taken only in the event of an illness and is not convertible to pay upon termination of employment. Accordingly, accumulated sick leave, earned but not taken, is not reflected as an accrual in the accompanying consolidated financial statements. Employees who retire with 60 days of unused sick leave are entitled to three months of service credit in the ERS. For each additional 20 days, or major fraction thereof, of unused sick leave they have in excess of 60 days, their service period is increased by one month. As of June 30, 2017 and 2016, accumulated sick leave approximated \$463,682 and \$454,343, respectively.

The University's regular employees may enter into deferred compensation arrangements directly with authorized insurance companies or agencies through a payroll deduction plan. Accordingly, the University has no deferred compensation or withholding payable.

The University manages its workers' compensation program. Medical-related payments for fiscal years 2017 and 2016 were \$3,556 and \$2,480, respectively. Temporary wage loss payments for fiscal years 2017 and 2016 amounted to \$1,156 and \$1,073, respectively.

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15. Postemployment Health Care and Life Insurance Benefits

In addition to providing pension benefits, the State of Hawai'i, pursuant to HRS Chapter 87, provides other postemployment benefits ("OPEB") such as health care and life insurance benefits to all retired University employees. Effective July 1, 2007, the University implemented GASB Statement 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, prospectively, which establishes standards for the measurement, recognition and display of OPEB expense and related liabilities, note disclosure and required supplementary information in the financial reports.

Plan Description

The State provides certain health care and life insurance benefits to all qualified employees. Pursuant to Act 88, SLH 2001, the State contributes to the Hawai'i Employer-Union Health Benefits Trust Fund ("EUTF"), an agent, multiple-employer defined benefit plan that replaced the Hawai'i Public Employees Health Fund effective July 1, 2003. The EUTF was established to provide a single delivery system of health benefits for state and county workers, retirees and their dependents. The EUTF issues an annual financial report that is available to the public. The report may be obtained by writing to:

Hawai'i Employer-Union Health Benefits Trust Fund
P.O. Box 2121
Honolulu, Hawai'i 96805-2121

For employees hired before July 1, 1996, the State pays the entire base monthly contribution for employees retiring with 10 years or more of credited service, and 50 percent of the base monthly contribution for employees retiring with fewer than 10 years of credited service. A retiree can elect a family plan to cover dependents.

For employees hired after June 30, 1996, but before July 1, 2001, and who retire with less than 10 years of service, the State makes no contributions. For those retiring with at least 10 years, but fewer than 15 years of service, the State pays 50 percent of the base monthly contribution. For employees retiring with at least 15 years, but fewer than 25 years of service, the State pays 75 percent of the base monthly contribution. For employees retiring with at least 25 years of service, the State pays 100 percent of the base monthly contribution. Retirees in this category can elect a family plan to cover dependents.

For employees hired on or after July 1, 2001 and who retire with less than 10 years of service, the State makes no contributions. For those retiring with at least 10 years, but fewer than 15 years of service, the State pays 50 percent of the base monthly contribution. For those retiring with at least 15 years, but fewer than 25 years of service, the State pays 75 percent of the base monthly contribution. For employees retiring with at least 25 years of service, the State pays 100 percent of the base monthly contribution. Only single plan coverage is provided for retirees in this category. Retirees can elect family coverage, but must pay the difference.

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Funding Policy and Annual OPEB Cost

Effective July 1, 2006, the University implemented GASB Statement No. 43, *Financial Reporting for Postemployment Benefit Plans Other Than Pensions*. Statement No. 43 establishes accounting and financial reporting standards for plans that provide OPEB other than pensions. Statement No. 43 requires defined benefit OPEB plans that are administered as trust or equivalent arrangements to prepare a statement of plan assets and a statement of changes in plan assets.

The reporting of active and retiree (including their respective beneficiaries) healthcare benefits provided through the same plan should separate those benefits for accounting purposes between active and retiree healthcare benefits. Accordingly, the University reports the retiree healthcare benefits as OPEB in conformity with Statement No. 43 and the active employee healthcare benefits as risk financing in conformity with GASB Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*, as amended.

The University is required by GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, to obtain an actuarial valuation every other year. Therefore, an actuarial valuation was performed as of July 1, 2015.

The University's base contribution levels to EUTF are established by statutes and the retiree is responsible to pay the difference if the base contribution is less than the cost of the monthly premium.

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Employer contributions are financed on a pay-as-you-go basis. The University's contributions are calculated as part of the State's total contribution requirements and are reimbursed to the State's General Fund as part of the fringe benefit rate on the University employees' actual salaries. The University's annual OPEB cost is calculated based on the annual required contribution of the employer ("ARC"), an amount actuarially determined in accordance with the parameters in Statement No. 45. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and to amortize any unfunded actuarial liabilities over a period not to exceed 30 years. The following table presents the annual OPEB cost, contributions made, the net OPEB liability, and the funding status for the University for the fiscal year ended June 30, 2017:

Annual required contribution	\$ 105,500
Interest on net OPEB obligation	50,593
Adjustment to annual required contribution	<u>(40,377)</u>
Annual OPEB cost	115,716
Contributions made	<u>(49,700)</u>
Increase in net OPEB obligation	66,016
Net OPEB obligation	
Beginning of year	<u>722,757</u>
End of year	<u>\$ 788,773</u>
Actuarial accrued liability ("AAL") July 1, 2015	\$ 1,262,765
Funded OPEB plan assets	<u>(30,076)</u>
Unfunded actuarial accrued liability ("UAAL") July 1, 2015	<u>\$ 1,232,689</u>
Funded ratio	2.4%
Covered payroll	\$ 587,203
UAAL as percentage of covered payroll	209.9%

The University remitted \$93,101 and \$68,184 in State-assessed OPEB contributions for the years ended June 30, 2017 and 2016, respectively. The University's actuarially determined minimum OPEB contribution was \$49,700 and \$45,100 for the years ended June 30, 2017 and 2016, respectively. The difference between the State assessed and University actuarially determined OPEB contribution is reported net with Transfers from State for Fringe Benefits in the accompanying Consolidated Statements of Revenues, Expenses and Changes in Net Position.

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The University's annual OPEB cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for the fiscal year 2017 and the preceding years were as follows:

OPEB Summary

Fiscal Year Ending	Annual OPEB Cost	Percentage of Annual OPEB Cost Contributed	Net OPEB Obligation
June 30, 2017	\$115,716	42.9%	\$788,773
June 30, 2016	\$117,052	38.5%	\$722,757
June 30, 2015	\$113,009	36.6%	\$650,805

Funded Status

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Actuarially determined amounts are subject to continual revisions as actual results are compared with past expectations and new estimates are made about the future. The schedule of funding progress, presented as required supplementary information following the notes to the consolidated financial statements, is designed to present multiyear trend information that shows whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.

Actuarial Methods and Assumptions

Projections of benefits for financial reporting purposes are based on the plan and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employer and plan members to that point. The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. Significant methods and assumptions were as follows:

Actuarial valuation date	July 1, 2015	July 1, 2013
Actuarial cost method	Entry age normal	Entry age normal
Amortization method	Level percent, closed	Level percent, closed
Remaining amortization period	28 years	30 years
Asset valuation method	Market	Market
Actuarial assumptions		
Investment rate of return	7.0%	7.0%
Projected salary increases	3.5%	3.5%
Healthcare inflation rates		
PPO	9.0% initial, 5.0% after 8 years	9.0% initial, 5.0% after 10 years
HMO	7.0% initial, 5.0% after 8 years	7.5% initial, 5.0% after 10 years
Dental	4.0%	4.0%
Vision	3.0%	3.0%
Medicare Part B	3.0% initial, 5.0% after 2 years	5.0%

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The July 1, 2015 actuarial valuation was used to determine the amounts reported in the University’s consolidated financial statements for the year ended June 30, 2017. The July 1, 2013 actuarial valuation was used to determine the amounts reported in the University’s consolidated financial statements for the year ended June 30, 2016.

Effective July 1, 2017, the active employee health benefit contracts were extended through June 30, 2018.

16. Other Noncurrent Liabilities

Other noncurrent liabilities at June 30, 2017 and 2016 are comprised of:

	2017	2016
Liabilities under split interest agreements	\$ 12,608	\$ 10,565
Amounts held for others	3,882	3,369
Refundable advance from the Federal Perkins loan program	13,596	-
Other	3,404	3,210
	<u>\$ 33,490</u>	<u>\$ 17,144</u>

17. State Appropriations

By statutory provision, the University prepares a biennium budget for its programs. Budgeted expenditures are derived primarily from the General Appropriations Act and from other specific appropriations acts in various Sessions Laws of Hawai‘i (“SLH”).

An allotment system and encumbrance accounting are utilized by the University for statutory budgetary control purposes. Obligations in the form of purchase orders or contracts are recorded as encumbrances at the time purchase orders or contracts are awarded and executed. To the extent they are not expended or encumbered, general fund appropriations generally lapse at the end of the fiscal year. The State Legislature specifies the lapse date and any other particular conditions relating to terminating the authorizations for other appropriations.

Act 124, SLH 2016 Section 39, provided \$111,314 in general fund appropriations directly to the Department of Budget and Finance to pay for debt service on general obligation bonds issued for the University. As a result, the University itself received no appropriations and made no transfers for debt service on general obligation bonds for the year ended June 30, 2017.

Act 124, SLH 2016 Section 39, provided \$106,789 in general fund appropriations directly to the Department of Budget and Finance to pay for debt service on general obligation bonds issued for the University. As a result, the University itself received no appropriations and made no transfers for debt service on general obligation bonds for the year ended June 30, 2016.

The net amount of the University’s State general and capital appropriations for the years ended June 30, 2017 and 2016 were \$471,453 and \$159,094 and \$441,373 and \$16,547, respectively.

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Net general and capital appropriations for the year ended June 30, 2017 were as follows:

General appropriations

Act 119, SLH 2015, Appropriation Warrant No. 10	\$ 433,581
Act 51, SLH 2016, Appropriation Warrant No. 74	2,560
Act 150, SLH 2016, Appropriation Warrant No. 91-A	750
Act 208, SLH 2016, Appropriation Warrant No. 105	560
Act 262, SLH 2016, Appropriation Warrant No. 118	450
Total funds lapsed	(3)
Executive restriction	(2,297)
Collective bargaining adjustment	35,852
Total general appropriations	<u>\$ 471,453</u>

Capital appropriations

Sections 47 & 83 of Act 119, SLH 2015, Amended by Act 124 SHL 2016	\$ 150,600
Section 47 of Act 119, SLH 2015, Amended by Act 124 SLH 2016	9,000
Total funds lapsed	(506)
Total capital appropriations	<u>\$ 159,094</u>

Net general and capital appropriations for the year ended June 30, 2016 were as follows:

General appropriations

Act 119, SLH 2015, Appropriation Warrant No. 10	\$ 427,575
Act 104, SLH 2015, Appropriation Warrant No. 69	500
Act 105, SLH 2015, Appropriation Warrant No. 70	350
Total funds lapsed	(2)
Executive restriction	(4,612)
Collective bargaining adjustment	17,562
Total general appropriations	<u>\$ 441,373</u>

Capital appropriations

Sections 39 & 71 of Act 134, SLH 2013, Amended by Act 122 SLH 2014	\$ 10,405
Sections 47 & 83 of Act 119, SLH 2015	51,930
Total funds lapsed	(45,788)
Total capital appropriations	<u>\$ 16,547</u>

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18. Blended Component Information

The following condensed combining information summarizes the individual components of the University's consolidated financial position, results of operations and cash flows as of and for the years ended June 30, 2017 and 2016:

Condensed Consolidating Statements of Net Position

	2017				
	University	Research Corporation	Foundation	Consolidation Adjustments	Total
Assets and Deferred Outflows of Resources					
Current assets	\$ 492,372	\$ 24,799	\$ 26,887	\$ -	\$ 544,058
Interdepartmental receivables	7,705	15,813	5,866	(29,384)	-
Capital assets, net	2,074,693	2,527	10,513	-	2,087,733
Other assets	493,031	-	522,117	-	1,015,148
Total assets	3,067,801	43,139	565,383	(29,384)	3,646,939
Deferred outflows of resources	567,220	-	-	-	567,220
Total deferred outflows of resources	567,220	-	-	-	567,220
Total assets and deferred outflows of resources	\$ 3,635,021	\$ 43,139	\$ 565,383	\$ (29,384)	\$ 4,214,159
Liabilities, Deferred Inflows of Resources and Net Position					
Current liabilities	\$ 259,153	\$ 25,898	\$ 4,034	\$ -	\$ 289,085
Interdepartmental payables	17,828	1,649	3,877	(23,354)	-
Noncurrent liabilities	3,100,502	5,184	24,713	(23)	3,130,376
Total liabilities	3,377,483	32,731	32,624	(23,377)	3,419,461
Deferred inflows of resources	65,171	-	-	-	65,171
Total deferred inflows of resources	65,171	-	-	-	65,171
Net position					
Net investment in capital assets	1,536,885	2,527	2,313	-	1,541,725
Restricted					
Nonexpendable	10,494	-	337,443	(5,866)	342,071
Expendable	393,585	-	193,240	-	586,825
Unrestricted	(1,748,597)	7,881	(237)	(141)	(1,741,094)
Total net position	192,367	10,408	532,759	(6,007)	729,527
Total liabilities, deferred inflows of resources and net position	\$ 3,635,021	\$ 43,139	\$ 565,383	\$ (29,384)	\$ 4,214,159

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	2016				
	University	Research Corporation	Foundation	Consolidation Adjustments	Total
Assets and Deferred Outflows of Resources					
Current assets	\$ 468,113	\$ 34,760	\$ 25,558	\$ -	\$ 528,431
Interdepartmental receivables	24,967	10,342	39,020	(74,329)	-
Capital assets, net	2,049,087	2,021	2,277	-	2,053,385
Other assets	450,764	-	412,985	-	863,749
Total assets	2,992,931	47,123	479,840	(74,329)	3,445,565
Deferred outflows of resources	146,098	-	-	-	146,098
Total deferred outflows of resources	146,098	-	-	-	146,098
Total assets and deferred outflows of resources	\$ 3,139,029	\$ 47,123	\$ 479,840	\$ (74,329)	\$ 3,591,663
Liabilities, Deferred Inflows of Resources and Net Position					
Current liabilities	\$ 237,548	\$ 28,057	\$ 1,346	\$ -	\$ 266,951
Interdepartmental payables	26,637	3,790	2,711	(33,138)	-
Noncurrent liabilities	2,498,297	4,665	13,935	-	2,516,897
Total liabilities	2,762,482	36,512	17,992	(33,138)	2,783,848
Deferred inflows of resources	111,364	-	-	-	111,364
Total deferred inflows of resources	111,364	-	-	-	111,364
Net position					
Net investment in capital assets	1,500,637	2,021	2,277	-	1,504,935
Restricted					
Nonexpendable	10,493	-	272,923	(39,020)	244,396
Expendable	370,406	-	190,687	-	561,093
Unrestricted	(1,616,353)	8,590	(4,039)	(2,171)	(1,613,973)
Total net position	265,183	10,611	461,848	(41,191)	696,451
Total liabilities, deferred inflows of resources and net position	\$ 3,139,029	\$ 47,123	\$ 479,840	\$ (74,329)	\$ 3,591,663

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**Condensed Consolidating Statements of Revenues, Expenses
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	2017				
	University	Research Corporation	Foundation	Consolidation Adjustments	Total
Operating revenues					
Student tuition and fees, net	\$ 270,375	\$ -	\$ -	\$ (252)	\$ 270,123
Federal appropriations, grants and contracts	295,349	-	-	(5)	295,344
State and local grants and contracts	38,417	1,958	-	(1,201)	39,174
Nongovernmental sponsored programs	48,949	-	-	(14,575)	34,374
Sales and services of educational departments, other	31,456	5,452	5,027	(8,507)	33,428
Auxiliary enterprises	97,439	-	-	-	97,439
Other operating revenues	535	-	1,113	-	1,648
Total operating revenues	782,520	7,410	6,140	(24,540)	771,530
Operating expenses					
Depreciation	122,310	448	83	-	122,841
Other operating expenses	1,617,942	7,296	63,707	(33,541)	1,655,404
Total operating expenses	1,740,252	7,744	63,790	(33,541)	1,778,245
Operating income (loss)	(957,732)	(334)	(57,650)	9,001	(1,006,715)
Nonoperating activity					
Nonoperating revenues	511,928	131	64,434	(2,398)	574,095
Capital contributions and additions to permanent and term endowments	164,899	-	64,127	28,581	257,607
Transfers	208,089	-	-	-	208,089
Total nonoperating activity	884,916	131	128,561	26,183	1,039,791
Increase (decrease) in net position	(72,816)	(203)	70,911	35,184	33,076
Net position					
Beginning of year	265,183	10,611	461,848	(41,191)	696,451
End of year	\$ 192,367	\$ 10,408	\$ 532,759	\$ (6,007)	\$ 729,527

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	2016				Total
	University	Research Corporation	Foundation	Consolidation Adjustments	
Operating revenues					
Student tuition and fees, net	\$ 273,043	\$ -	\$ -	\$ (737)	\$ 272,306
Federal appropriations, grants and contracts	322,266	-	-	-	322,266
State and local grants and contracts	31,957	2,129	-	(1,255)	32,831
Nongovernmental sponsored programs	47,070	-	-	(11,936)	35,134
Sales and services of educational departments, other	33,809	4,609	4,954	(7,609)	35,763
Auxiliary enterprises	99,024	-	-	-	99,024
Other operating revenues	727	-	1,484	-	2,211
Total operating revenues	807,896	6,738	6,438	(21,537)	799,535
Operating expenses					
Depreciation	124,553	319	65	-	124,937
Other operating expenses	1,496,300	6,310	57,960	(23,970)	1,536,600
Total operating expenses	1,620,853	6,629	58,025	(23,970)	1,661,537
Operating income (loss)	(812,957)	109	(51,587)	2,433	(862,002)
Nonoperating activity					
Nonoperating revenues	483,129	107	30,779	(3,491)	510,524
Capital contributions and additions to permanent and term endowments	21,003	-	8,316	(108)	29,211
Transfers	204,297	-	-	-	204,297
Total nonoperating activity	708,429	107	39,095	(3,599)	744,032
Increase (decrease) in net position	(104,528)	216	(12,492)	(1,166)	(117,970)
Net position					
Beginning of year	397,711	10,395	474,340	(40,025)	842,421
Adjustment for change in accounting principle	(28,000)	-	-	-	(28,000)
Beginning of year, as restated	369,711	10,395	474,340	(40,025)	814,421
End of year	\$ 265,183	\$ 10,611	\$ 461,848	\$ (41,191)	\$ 696,451

Condensed Consolidating Statements of Cash Flows

	2017			
	University	Research Corporation	Foundation	Total
Net cash provided by (used in)				
Operating activities	\$ (502,943)	\$ (7,673)	\$ (13,355)	\$ (523,971)
Noncapital financing activities	568,647	-	10,234	578,881
Capital and related financing activities	(58,249)	(954)	8,200	(51,003)
Investing activities	(24,892)	(6,374)	(6,724)	(37,990)
Total change in cash	(17,437)	(15,001)	(1,645)	(34,083)
Cash and cash equivalent balances				
Beginning of year	71,485	23,157	8,537	103,179
End of year	\$ 54,048	\$ 8,156	\$ 6,892	\$ 69,096

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	2016			
	University	Research Corporation	Foundation	Total
Net cash provided by (used in)				
Operating activities	\$ (482,355)	\$ (4,338)	\$ (7,747)	\$ (494,440)
Noncapital financing activities	553,040	-	7,729	560,769
Capital and related financing activities	(42,935)	(583)	-	(43,518)
Investing activities	(3,693)	(2,896)	(2,854)	(9,443)
Total change in cash	24,057	(7,817)	(2,872)	13,368
Cash and cash equivalent balances				
Beginning of year	47,428	30,974	11,409	89,811
End of year	\$ 71,485	\$ 23,157	\$ 8,537	\$ 103,179

19. Litigation, Other Contingent Liabilities and Commitments

Hawai'i Revised Statutes §304A-108 stipulates that any liability arising from a claim, action or suit brought against the University shall be payable solely from the moneys and property of the University and shall not constitute a general obligation of the State. The Board is not precluded from requesting and securing legislative appropriations to fund the settlement of any such claim or judgment against the University.

The University is contingently liable in connection with certain other claims and contracts, including those currently in litigation, arising in the normal course of its activities. Although there are inherent uncertainties in any litigation, the University's management and general counsel are of the opinion that the outcome of such matters will not have a material effect on the University's financial position.

Substantial amounts are received and expended by the University under federal and state programs which are subject to audit by cognizant governmental agencies and independent auditors under Uniform Guidance. This funding relates to research, student aid and other programs. University management believes that any liabilities arising from such audits will not have a material effect on the University's financial position.

The State and the Office of Hawaiian Affairs ("OHA") are involved in an ongoing dispute relating to certain lands transferred by the former Republic of Hawai'i to the United States which were re-conveyed to the State upon Hawai'i's admission to the Union in 1959. These lands (collectively, the "ceded lands") are the subject of a number of claims, litigation and legislation, which are being addressed by the State on behalf of all State agencies, including the University. These matters are more fully described in the State's Comprehensive Annual Financial Report ("CAFR") that includes financial statements and required supplementary information which may be obtained from the following address:

State of Hawai'i Department of Accounting and General Services
1151 Punchbowl Street
Honolulu, Hawai'i 96813

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Although the ultimate outcome and financial impact to the University of these OHA matters are not presently known, the University has come to an agreement with the State with respect to the University's estimated pro rata portion of its obligation due to OHA related to revenues generated from ceded lands. The University's financial statements reflect the liabilities and disbursements in connection with this agreement.

Risk Management

In general, the University obtains third-party insurance coverage directly from third-party insurers or is covered under the umbrella of the State's insurance program. However, the University is partially or entirely self-insured for certain risks, such as unemployment and workers' compensation claims.

Construction and Other Contracts

The University is committed under contracts awarded for construction and other services. These commitments amounted to approximately \$294,017 and \$217,163 as of June 30, 2017 and 2016.

Collective Bargaining Agreements

The Hawaii State Constitution under Article XIII, Section 2, grants public employees in the State the right to organize for the purpose of collective bargaining as provided by law. Chapter 89, Hawai'i Revised Statutes ("HRS"), provides for 15 recognized bargaining units for all public employees throughout the State, including State, county and municipal employees. Each bargaining unit is represented by an employee organization otherwise known as the exclusive bargaining representative of all employees within each unit which negotiates with the public employer.

As part of the State, depending on the nature of their positions, most employees working at the University are included in a bargaining unit as defined in HRS §89-6(a). The University is responsible for properly administering the eight CBAs associated with the aforementioned bargaining units and further defined as follows:

- Unit 1 (nonsupervisory employees in blue collar positions).
- Unit 2 (supervisory employees in blue collar positions).
- Unit 3 (nonsupervisory employees in white collar positions).
- Unit 4 (supervisory employees in white collar positions).
- Unit 7 (faculty of the University and the community college system).
- Unit 8 (personnel of the University and the community college system, other than faculty).
- Unit 9 (registered professional nurses) or Unit 10 (institutional health and correctional workers).
- Civil service personnel working at the University are included in BUs 1, 2, 3, 4, 9 and 10. Non-civil service personnel such as faculty members and administrative, professional and technical ("APT") staff are Board appointees and are included in BUs 7 and 8, respectively. Employees in executive/managerial positions, as well as certain other personnel designated as excluded from collective bargaining pursuant to HRS, §89-6(f) and whose responsibilities concern confidential matters affecting employee-employer relations, are not represented by any union. Wages, hours and other terms and conditions of employment for these personnel are provided by law or action of the Board, as applicable. Some employees (e.g., certain contractual hires) are not parties to any recognized bargaining unit.

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Notes to Consolidated Financial Statements
June 30, 2017 and 2016
(All dollars reported in thousands)

In 2017, the relevant Employer Groups and the Hawai‘i Government Employees Association (“HGEA”) engaged in interest arbitration over salaries and other cost items for Units 2, 3, 4, 8, and 9. In each case, the parties entered into two year contracts for the period of July 1, 2017 to June 30, 2019 and covering both cost and non-cost items, including the adoption of uniform coverage and options for the Employer-Union Health Benefits Trust Fund. All of these contracts have subsequently been ratified by the respective union membership and approved by the relevant legislative bodies. The salary increases for each Unit are as follows:

Major Salary Adjustments	Unit 1	Unit 2	Unit 3	Unit 4	Unit 7	Unit 8	Unit 9	Unit 10
July 2017	no increase	2.00%	2% and \$150 one-time bonus	2% and \$150 one-time bonus	2.13% and \$500 to base pay	2.00%	2.00%	no increase
October 2017	—	—	—	—	—	—	—	2.00%
November 2017	\$1,000 one-time lump sum	—	—	—	—	—	—	—
January 2018	—	1.20%	1.50%	1.50%	—	1.20%	2.25%	—
June 2018	3.20%	—	—	—	—	—	—	—
July 2018	—	2.25%	2.25% and \$150 one-time bonus	2.25% and \$150 one-time bonus	2.82% and \$500 to base pay	2.25%	1.20%	—
November 2018	\$1,000 one-time lump sum	—	—	—	—	—	—	—
January 2019	—	1.20%	1.25%	1.25%	—	1.20%	1.25%	—
April 2019	—	—	—	—	—	—	—	1.35%
May 2019	3.45%	—	—	—	—	—	—	—
June 2019	—	—	—	—	6.89%	—	—	—
July 2019	2.00%	—	—	—	2.00%	—	—	2.00%
July 2020	2.00%	—	—	—	2.00%	—	—	2.00%

**Required Supplementary Information
Other Than Management's
Discussion and Analysis**

University of Hawai'i**State of Hawai'i**

(A Component Unit of the State of Hawai'i)

Schedule of Proportionate Share of the Net Pension Liability (Unaudited)**Schedule of Contributions (Unaudited)****Year Ended June 30, 2017***(All dollars reported in thousands)***Net Pension Liability**

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Proportionate Share of the Net Pension Liability

Fiscal Year Ending	Proportionate Share of the Net Pension Liability as a Percentage	Proportionate Share of the Net Pension Liability as an Amount (a)	Annual Covered Payroll (b)	Proportion of the Net Pension Liability as a Percentage of Covered Payroll (a) / (b)	Plan Fiduciary Net Position as a Percentage of the Total Pension Liability
June 30, 2017	12.75%	\$1,704,470	\$587,203	290%	51.28%
June 30, 2016	13.11%	\$1,144,564	\$572,907	200%	63.42%
June 30, 2015	13.60%	\$1,089,882	\$564,736	193%	63.92%
June 30, 2014	13.75%	\$1,227,787	\$550,758	223%	57.96%

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Contributions

Fiscal Year Ending	Statutorily Required Contribution (a)	Contributions in Relation to the Statutorily Required Contribution (b)	Contribution Deficiency (Excess) (a) - (b)	Covered Annual Payroll (c)	Contributions as a Percentage of Covered Payroll (a) / (c)
June 30, 2017	\$98,865	\$98,865	\$0	\$587,203	16.84%
June 30, 2016	\$97,394	\$97,394	\$0	\$572,907	17.00%
June 30, 2015	\$93,949	\$93,949	\$0	\$564,736	16.64%
June 30, 2014	\$88,381	\$88,381	\$0	\$550,758	16.05%

1. Changes of Benefit Terms

There were no changes of benefit terms in 2017, 2016, 2015, and 2014.

2. Changes of Assumptions

There were significant changes in actuarial assumptions effective in the University's fiscal year 2017 based on the Five-Year Experience Study report dated July 5, 2016 that resulted in a significant increase in the measurement of the total pension liability. Primary drivers for the increase include a decrease in the investment return assumption and discount rate from 7.65 percent as of June 30, 2015 to 7.00 percent as of June 30, 2016; and a decrease in the mortality assumptions for longer life expectancy and an explicit assumption for continued future mortality improvement (generational approach).

In fiscal year 2016, the only significant change in actuarial assumptions was the investment return assumption which decreased from 7.75 percent to 7.65 percent. There were no changes of assumptions in 2015 or 2014.

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Schedule of Funding Progress (Unaudited)
Year Ended June 30, 2017
(All dollars reported in thousands)

Postemployment Benefits Other than Pensions

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b) - (a)	Funded Ratio (a) / (b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (b) - (a) / (c)
July 1, 2015	\$30,076	\$1,262,765	\$1,232,689	2%	\$572,907	215.2%
July 1, 2013	\$0	\$1,185,790	\$1,185,790	0%	\$550,758	215.3%
July 1, 2011	\$0	\$1,860,680	\$1,860,680	0%	\$503,900	369.3%
July 1, 2009	\$0	\$1,849,949	\$1,849,949	0%	\$495,498	373.4%

Other Supplementary Information

Report of Independent Auditors on Supplemental Information

To the Board of Regents
University of Hawai'i

We have audited the consolidated financial statements of the University of Hawai'i as of and for the years ended June 30, 2017 and 2016, and our report thereon dated December 7, 2017, which expressed an unmodified opinion, appears on pages 1 and 2. Our audits were conducted for the purpose of forming an opinion on the consolidated financial statements taken as a whole. The supplemental information (Schedules I, II, III, IV, V, VI, VII, VIII, IX and X) included hereinafter is presented for purposes of additional analysis and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the consolidated financial statements as a whole.

Acuity LLP

Honolulu, Hawai'i
December 7, 2017

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Condensed Statements of Net Position

Condensed Statements of Revenues, Expenses and Changes in Net Position

Current Unrestricted Funds Excluding General Fund and University Bond System

As of and for the Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule I

	2017	2016
Condensed statements of net position		
Assets		
Current assets	\$ 290,653	\$ 277,045
Noncurrent assets	251	2,252
Total assets	<u>\$ 290,904</u>	<u>\$ 279,297</u>
Liabilities		
Current liabilities	\$ 83,366	\$ 85,267
Noncurrent liabilities	11,496	14,340
Total liabilities	<u>94,862</u>	<u>99,607</u>
Net position		
Unrestricted	<u>196,042</u>	<u>179,690</u>
Total net position	<u>196,042</u>	<u>179,690</u>
Total liabilities and net position	<u>\$ 290,904</u>	<u>\$ 279,297</u>
Condensed statements of revenues, expenses and changes in net position		
Operating revenues	\$ 367,945	\$ 374,434
Operating expenses	<u>354,884</u>	<u>346,624</u>
Operating income	13,061	27,810
Nonoperating revenues and transfers	49,040	49,118
Nonoperating expenses and transfers	<u>45,749</u>	<u>53,320</u>
Change in net position	16,352	23,608
Net position		
Beginning of year	<u>179,690</u>	<u>156,082</u>
End of year	<u>\$ 196,042</u>	<u>\$ 179,690</u>

1. Basis of Presentation

The accompanying condensed statements of net position and related condensed statements of revenues, expenses and changes in net position present the financial position and results of operations of certain of the University's Special and Revolving Funds, which are pledged as collateral on the Refunding Series 2006A University Bonds, and are presented on the accrual basis of accounting. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Condensed Statements of Net Position

Condensed Statements of Revenues, Expenses and Changes in Net Position

Current Unrestricted Funds Excluding General Fund and University Bond System

As of and for the Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule I

2. Employee Benefits

In accordance with University policy, the University's liability for other postemployment benefits ("OPEB") is not allocated internally to individual departments and funds. Accordingly, no liability for OPEB is reflected in this schedule.

In accordance with University policy, the University's liability for pension benefits, deferred outflows and deferred inflows of resources related to pensions ("pension benefits") are not allocated internally to individual departments and funds. Accordingly, pension benefits are not reflected in this schedule.

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Schedules of Series 2002A University Bond Proceeds Activity

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule II

	2017	2016
Beginning balance	\$ 5,519	\$ 5,516
Additions		
Interest and investment income	27	7
Total additions	27	7
Deductions		
Payments – building, construction in progress, other	1	-
Management fees	5	4
Total deductions	6	4
Ending balance	\$ 5,540	\$ 5,519

1. Basis of Presentation

The accompanying schedules of Series 2002A University Bond proceeds activity present the sources and uses of bond proceeds associated with the construction of the John A. Burns School of Medicine facility at Kaka'ako. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

2. Refinancing

In October 2006, the University refinanced a majority of the outstanding Series 2002A University Bonds through the issuance of Refunding Series 2006A University Bonds and in September 2015, sold Series 2015D(R) and 2015E(R) revenue bonds to refinance a portion of the outstanding Refunding Series 2006A University Bonds. The Series 2015D(R) revenue bonds were delivered on September 24, 2015 and the forward delivery Series 2015E revenue bonds were delivered on April 20, 2016. Proceeds from the State's settlement agreement with tobacco companies are expected to be utilized to service the debt.

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Condensed Statements of Net Position

Condensed Statements of Revenues, Expenses and Changes in Net Position

Current Unrestricted Funds Excluding General Fund

As of and for the Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule III

	2017	2016
Condensed statements of net position		
Assets		
Current assets	\$ 328,460	\$ 312,210
Noncurrent assets	251	2,252
Total assets	<u>\$ 328,711</u>	<u>\$ 314,462</u>
Liabilities		
Current liabilities	\$ 97,681	\$ 100,843
Noncurrent liabilities	12,439	15,364
Total liabilities	<u>110,120</u>	<u>116,207</u>
Net position		
Unrestricted	<u>218,591</u>	<u>198,255</u>
Total net position	<u>218,591</u>	<u>198,255</u>
Total liabilities and net position	<u>\$ 328,711</u>	<u>\$ 314,462</u>
Condensed statements of revenues, expenses and changes in net position		
Operating revenues	\$ 443,227	\$ 450,135
Operating expenses	<u>407,023</u>	<u>401,007</u>
Operating income	36,204	49,128
Nonoperating revenues and transfers	49,330	49,488
Nonoperating expenses and transfers	<u>65,198</u>	<u>72,723</u>
Change in net position	20,336	25,893
Net position		
Beginning of year	<u>198,255</u>	<u>172,362</u>
End of year	<u>\$ 218,591</u>	<u>\$ 198,255</u>

1. Basis of Presentation

The accompanying condensed statements of net position and related condensed statements of revenues, expenses and changes in net position present the financial position and results of operations of certain of the University's Special and Revolving Funds, which are pledged as collateral on the University's Series 2006A, 2009A, 2010A, 2010B, 2012A(R), 2015A, 2015B(R), 2015C(R), 2015D(R) and 2015E(R) revenue bonds, and are presented on the accrual basis of accounting. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

University of Hawai'i

State of Hawai'i

(A Component Unit of the State of Hawai'i)

Condensed Statements of Net Position

Condensed Statements of Revenues, Expenses and Changes in Net Position

Current Unrestricted Funds Excluding General Fund

As of and for the Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule III

2. Employee Benefits

In accordance with University policy, the University's liability for other postemployment benefits ("OPEB") is not allocated internally to individual departments and funds. Accordingly, no liability for OPEB is reflected in this schedule.

In accordance with University policy, the University's liability for pension benefits, deferred outflows and deferred inflows of resources related to pensions ("pension benefits") are not allocated internally to individual departments and funds. Accordingly, pension benefits are not reflected in this schedule.

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(A Component Unit of the State of Hawai'i)

Schedules of Series 2006A Revenue Bond Proceeds Activity

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule IV

	2017	2016
Beginning balance	\$ 4,018	\$ 4,074
Additions		
Interest and investment income	16	7
Total additions	16	7
Deductions		
Payments – building, construction in progress, other	37	60
Management fees	3	3
Total deductions	40	63
Ending balance	\$ 3,994	\$ 4,018

1. Basis of Presentation

The accompanying schedules of Series 2006A revenue bond proceeds activity present the sources and uses of bond proceeds associated with the construction of the Frear Hall dormitory at the Mānoa campus and repair and maintenance of various housing projects on the Mānoa and Hilo campuses. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

2. Refinancing

In September 2015, the University refinanced a portion of the outstanding Series 2006A revenue bonds through the issuance of Series 2015B(R) and 2015C(R) revenue bonds.

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Schedules of Series 2009A Revenue Bond Proceeds Activity

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule V

	2017	2016
Beginning balance	\$ 1,553	\$ 2,247
Additions		
Interest and investment income	7	2
Total additions	7	2
Deductions		
Payments – building, construction in progress, other	10	695
Management fees	1	1
Total deductions	11	696
Ending balance	<u>\$ 1,549</u>	<u>\$ 1,553</u>

1. Basis of Presentation

The accompanying schedules of Series 2009A revenue bond proceeds activity present the sources and uses of bond proceeds associated with the financing of costs of certain University projects. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

University of Hawai'i**State of Hawai'i**

(A Component Unit of the State of Hawai'i)

Schedules of Series 2010A Revenue Bond Proceeds Activity**Years Ended June 30, 2017 and 2016***(All dollars reported in thousands)***Schedule VI**

	2010A-1	2010A-2
Balance at June 30, 2015	\$ 111	\$ 4,332
Additions		
Interest and investment income	-	6
Total additions	-	6
Deductions		
Payments – building, construction in progress, other	-	1,031
Management fees	-	3
Total deductions	-	1,034
Balance at June 30, 2016	<u>111</u>	<u>3,304</u>
Additions		
Interest and investment income	1	14
Total additions	1	14
Deductions		
Payments – building, construction in progress, other	-	2,197
Management fees	-	2
Total deductions	-	2,199
Balance at June 30, 2017	<u>\$ 112</u>	<u>\$ 1,119</u>

1. Basis of Presentation

The accompanying schedules of Series 2010A-1 and Series 2010A-2 revenue bond proceeds activity present the sources and uses of the bond proceeds associated with construction and maintenance of the University's Cancer Center. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in these schedules.

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Schedules of Series 2010B Revenue Bond Proceeds Activity

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule VII

	2010B-1	2010B-2
Balance at June 30, 2015	\$ 10,020	\$ 4,047
Additions		
Interest and investment income	15	6
Total additions	15	6
Deductions		
Payments – building, construction in progress, other	3,853	1,224
Management fees	8	3
Total deductions	3,861	1,227
Balance at June 30, 2016	6,174	2,826
Additions		
Interest and investment income	14	7
Total additions	14	7
Deductions		
Payments – building, construction in progress, other	5,603	1,980
Management fees	1	1
Total deductions	5,604	1,981
Balance at June 30, 2017	\$ 584	\$ 852

1. Basis of Presentation

The accompanying schedules of Series 2010B-1 and Series 2010B-2 revenue bond proceeds activity present the sources and uses of the bond proceeds associated with renovations and additions to the Mānoa Campus Center, construction and equipment for an Information Technology Building, renovations to the Sinclair Library basement on the Mānoa campus, further development of the West O'ahu campus, various energy conservation/efficiency projects on the community college campuses on O'ahu and Maui, and the financing of costs of renovation and construction of other University projects. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in these schedules.

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Schedules of Series 2015A Revenue Bond Proceeds Activity

Years Ended June 30, 2017 and 2016

(All dollars reported in thousands)

Schedule VIII

	2017	2016
Beginning balance	\$ 8,507	\$ -
Additions		
Bond proceeds	-	8,575
Interest and investment income	30	9
Total additions	30	8,584
Deductions		
Payments – building, construction in progress, other	2	73
Management fees	7	4
Total deductions	9	77
Ending balance	<u>\$ 8,528</u>	<u>\$ 8,507</u>

1. Basis of Presentation

The accompanying schedules of Series 2015A revenue bond proceeds activity present the sources and uses of bond proceeds associated with the UH Mānoa Law School Expansion and Modernization Project and the UH Hilo College of Pharmacy Project. The financial information of the Research Corporation of the University of Hawai'i and the University of Hawai'i Foundation is not reflected in this schedule.

University of Hawai'i**State of Hawai'i**

(A Component Unit of the State of Hawai'i)

Condensed Statements of Net Position**Condensed Statements of Revenues, Expenses and Changes in Net Position****University Bond System****As of and for the Years Ended June 30, 2017 and 2016***(All dollars reported in thousands)***Schedule IX**

	2017	2016
Condensed statements of net position		
Assets and deferred outflows of resources		
Current assets	\$ 105,095	\$ 97,701
Capital assets, net	521,300	541,344
Other assets	16,738	26,492
Total assets	<u>643,133</u>	<u>665,537</u>
Deferred outflows of resources	9,206	10,534
Total deferred outflows of resources	<u>9,206</u>	<u>10,534</u>
Total assets and deferred outflows of resources	<u>\$ 652,339</u>	<u>\$ 676,071</u>
Liabilities		
Current liabilities	\$ 35,839	\$ 34,124
Noncurrent liabilities	522,974	543,515
Total liabilities	<u>558,813</u>	<u>577,639</u>
Net position		
Net investment in capital assets	9,603	23,234
Restricted expendable	1,037	1,037
Unrestricted	82,886	74,161
Total net position	<u>93,526</u>	<u>98,432</u>
Total liabilities and net position	<u>\$ 652,339</u>	<u>\$ 676,071</u>
 Condensed statements of revenues, expenses and changes in net position		
Operating revenues		
Bookstores	\$ 22,479	\$ 22,936
Room and other rentals	33,715	33,487
Parking	5,955	6,305
Telecommunications	3,657	3,312
Other operating revenues	9,721	9,661
Total operating revenues	<u>75,527</u>	<u>75,701</u>
Operating expenses (including \$29,362 and \$30,602 in depreciation expense in 2017 and 2016, respectively)	<u>(85,909)</u>	<u>(88,941)</u>
Operating loss	<u>(10,382)</u>	<u>(13,240)</u>
Nonoperating revenues	31,509	32,474
Nonoperating expenses	<u>(26,033)</u>	<u>(53,273)</u>
Change in net position	<u>(4,906)</u>	<u>(34,039)</u>
Net position		
Beginning of year	<u>98,432</u>	<u>132,471</u>
End of year	<u>\$ 93,526</u>	<u>\$ 98,432</u>

University of Hawai‘i
State of Hawai‘i
(A Component Unit of the State of Hawai‘i)
Condensed Statements of Cash Flows
University Bond System
As of and for the Years Ended June 30, 2017 and 2016
(All dollars reported in thousands)

Schedule X

	2017	2016
Condensed statements of cash flows		
Net cash flows provided by operating activities	\$ 16,027	\$ 18,056
Net cash flows provided by non-capital financing activities	2,013	3,738
Net cash flows used in capital and related financing activities	(19,747)	(13,276)
Net cash flows used in investing activities	<u>(2,675)</u>	<u>(2,170)</u>
Net increase (decrease) in cash and cash equivalents	(4,382)	6,348
Cash and cash equivalents		
Beginning of year (revised)	<u>15,779</u>	<u>9,431</u>
End of year	<u>\$ 11,397</u>	<u>\$ 15,779</u>

1. Reporting Entity

The University Bond System consists of several University projects funded by bond proceeds. The University projects, operated and maintained jointly as a system, include: (1) all existing University housing units located on the Mānoa campus and connecting food service facilities; (2) the University's student center known as the Campus Center and food service activities on the Mānoa campus; (3) all existing University housing units located on the Hilo campus and connecting food service facilities; (4) the telecommunication system located on the Mānoa campus; (5) all existing bookstores located on any campus of the University; (6) the parking operations for the Mānoa Campus which were financed in whole or in part from certain revenue or general obligation bonds; and (7) certain other University projects.

The University Bond System's outstanding debt was issued pursuant to the bond resolution adopted in November 2001 and as amended and supplemented by supplemental resolutions adopted in November 2006, February 2009, August 2010 and January 2012. The bond resolutions established a network of the University consisting of the University Bond System and any University purpose which, at the election of the Board, is included in the network pursuant to a supplemental resolution. The bond resolutions provide that all revenues collected or received from the Network be used to support the Network (which includes the University projects of the University Bond System) and bond related expenses.

On August 20, 2015, the University of Hawai‘i Board of Regents adopted a supplemental resolution authorizing the issuance of University Revenue Bonds. The University, in September 2015, sold \$166,285 in Series 2015A (\$8,575, taxable new money), 2015B(R) (\$47,010, tax-exempt refunding), 2015C(R) (\$17,585, taxable refunding), 2015D(R) (\$25,715, taxable refunding), and 2015E(R) (\$67,400, tax-exempt forward delivery refunding) bonds (collectively, the "Series 2015 Bonds") for the purpose of financing the costs of University projects and refunding previously issued bonds. The Series 2015 Bonds were delivered on September 24, 2015 with the exception of the forward delivery Series 2015E(R) bonds which were delivered on April 20, 2016. The Series 2015B(R) and 2015C(R) bonds were issued to refund a portion of the Series 2006A University Revenue Bonds and the Series 2015D(R) and 2015E(R) bonds to refund a portion of the Refunding Series 2006A University Bonds issued under a different bond resolution.

University of Hawai‘i
State of Hawai‘i
(A Component Unit of the State of Hawai‘i)
Condensed Statements of Cash Flows
University Bond System
As of and for the Years Ended June 30, 2017 and 2016
(All dollars reported in thousands)

Schedule X

2. Basis of Presentation

The accompanying condensed statements of net position and related condensed statements of revenues, expenses and changes in net position and condensed statement of cash flows present the financial position and results of operations of the University Bond System, and are presented on the accrual basis of accounting.

3. Employee Benefits

In accordance with University policy, the University’s liability for other postemployment benefits (“OPEB”) is not allocated internally to individual departments and funds. Accordingly, no liability for OPEB is reflected in these schedules.

In accordance with University policy, the University’s liability for pension benefits, deferred outflows and deferred inflows of resources related to pensions (“pension benefits”) are not allocated internally to individual departments and funds. Accordingly, pension benefits are not reflected in these schedules.

4. Revisions

Certain amounts in the 2016 supplemental schedules have been revised to conform to the 2017 presentation. Such revisions had no impact on the 2016 net position as previously reported.

	2016 As Previously Reported	Revisions	2016 Revised
Cash flows from operating activities			
Net cash provided by operating activities	\$ 18,074	\$ (18)	\$ 18,056
Cash flows from investing activities			
Net cash provided by (used in) investing activities	203	(2,373)	(2,170)
Net increase in cash and cash equivalents	8,739	(2,391)	6,348
Cash and cash equivalents			
Beginning of year (revised)	99,089	(89,658)	9,431
End of year	107,828	(92,049)	15,779

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTION

The following is a summary of certain provisions of the resolution adopted by the Board of Regents of the University of Hawaii (the “*Board*”) on November 16, 2001, entitled “A RESOLUTION CREATING AND ESTABLISHING A NETWORK CONSISTING OF A UNIVERSITY SYSTEM, INCLUDING CERTAIN UNIVERSITY PROJECTS, AND UNIVERSITY PURPOSES, OF THE BOARD OF REGENTS, UNIVERSITY OF HAWAII; CREATING AND ESTABLISHING AN ISSUE OF REVENUE BONDS OF THE BOARD OF REGENTS, UNIVERSITY OF HAWAII, AND PROVIDING FOR THE SECURITY FOR AND PAYMENT OF SAID BONDS AND LIMITING SUCH PAYMENT TO THE REVENUES OF SAID NETWORK; SETTING FORTH THE TERMS AND CONDITIONS FOR THE ISSUANCE OF BONDS; SETTING FORTH THE TERMS AND CONDITIONS FOR THE ISSUANCE OF ADDITIONAL SERIES OF SAID BONDS; PROVIDING FOR THE RIGHTS OF THE HOLDERS OF SAID BONDS; AND MAKING CERTAIN OTHER COVENANTS AND AGREEMENTS IN CONNECTION WITH THE FOREGOING,” as amended and supplemented by the resolutions adopted by the Board on November 16, 2006, February 20, 2009, August 30, 2010, January 19, 2012 and August 20, 2015 (herein referred to collectively as the “*Resolution*”). This summary is not a complete recital of the terms of the aforementioned documents and reference should be made to the Resolution for its complete terms. Words and terms used in this summary and not defined herein shall have the same meaning as in the Resolution. Copies of the Resolution will be available for inspection after delivery of the Bonds to any registered owner of the Bonds upon request by such owner at the principal corporate trust office of the Director of Finance.

DEFINITIONS OF CERTAIN TERMS

“*Additional Bond*” or “*Additional Bonds*” means any Bond or Bonds issued pursuant to the provisions of the Resolution relating to the issuance of additional bonds, including Bonds issued to refund Outstanding Bonds.

“*Certificate of Determination*” means a certificate of the Designated Financial Officer authorizing the issuance of refunding Bonds as permitted in Section 2.04 of the Resolution and/or fixing the terms, conditions and other details of Bonds in accordance with the delegation of powers to do so under the Resolution or under a Supplemental Resolution.

“*Construct*” and “*Construction*” mean and include respectively, (i) acquire, purchase, plan, construct, reconstruct, remodel, renovate, improve, better and extend, and (ii) acquisition, purchase, planning, construction, reconstruction, remodeling, renovation, improvement, betterment and extension.

“*Cost of Construction*” means all costs and estimated costs of construction, and without limiting the generality of the foregoing, shall include all costs and estimated costs of the preparation and issuance of revenue bonds and obtaining of a loan; cost of land acquisition; engineering, architectural, supervisory, inspection, fiscal, legal, administrative and clerical fees, costs and expenses; interest which it is estimated will accrue during the construction period and for six months thereafter on money obtained by loan or through the issuance of Bonds, or both; amounts necessary to establish or increase reserves; costs of utilities, equipment, fixtures and apparatus necessary or convenient for the use and occupancy of a University Project, and, if so determined by the Board, the initial furnishings of a University Project; and necessary travel expenses.

“*Current Expenses*” means the costs and estimated costs of operation, maintenance and repair and without limiting the generality of the foregoing, shall include all necessary operating expenses; charges for and expenses of repairs, upkeep, replacement and renewals occurring in the ordinary course; salaries, wages and fees of officers, employees and contractors of the Board engaged in the maintenance of the

Network; costs of supplies and equipment including ordinary and current rentals of equipment or property or fees and charges for equipment or property incurred under agreement to the extent permitted by the fourth paragraph of Section 6.10 of the Resolution; cost of food, beverages and merchandise; a properly allocated share of charges for insurance; costs and expenses of administration arising out of, and properly allocable to, the operation, maintenance and repair of the Network and the servicing of the debt (including the Bonds) incurred with respect thereto; Integrated Swap Agreement Payments; payments required to be made by the Board pursuant to law to the extent such payments constitute Current Expenses of the Network; and all other expenses incident to the operation, maintenance and repair of the Network; provided that the term "Current Expenses" shall not include depreciation, general administration expenses of the Board, and the credits to the University Network Repair and Replacement Account or any subaccount therein required by the Resolution.

"Designated Financial Officer" means the chief financial officer of the University or such other person as may be designated and authorized by the Board to sign for the Board.

"Director of Finance" means the single executive heading the Department of Budget and Finance of the State pursuant to Section 26 8, Hawaii Revised Statutes.

"Federal Government" means the United States of America or the Department of Housing and Urban Development or any other department or agency acting for and on behalf of the United States of America.

"Fiscal Year" means the fiscal year for the State of Hawaii as established from time to time by said State, being on the date of adoption of the Resolution the period from July 1 in any year to and including the following June 30.

"Hedge Agreement" means an interest rate swap or exchange agreement, including an Integrated Swap Agreement, a payment exchange agreement, forward purchase agreement or any other hedge agreement entered into by the Board for any purpose providing for payments between the parties based on levels of, or changes in, interest rates, stock or other indices or contracts to exchange cash flows or a series of payments or contracts, including without limitation, interest rate floors or caps, options, puts or calls to hedge payment, rate, spread or similar risk.

"Holder of a Bond" or *"Bondholder"* means any person who shall be the bearer of any Bond not then registered, or the registered owner or his duly authorized attorney-in-fact, representative or assigns, of any Bond which shall at the time be registered other than to bearer.

"Integrated Swap Agreement" means any interest rate swap agreement entered into by the Board with respect to a series of Bonds having a notional amount equal to the principal amount of such series of Bonds and pursuant to which the Board agrees to make payments on the basis of (a) a fixed rate of interest or (b) a variable rate of interest.

"Integrated Swap Agreement Payments" means payments made pursuant to an Integrated Swap Agreement on the basis of fixed or variable rates of interest; specifically excluding, however, termination payments, fees, expenses and other amounts payable under an Integrated Swap Agreement not specifically made on the basis of interest rates.

"Integrated Swap Agreement Payments" means payments made pursuant to an Integrated Swap Agreement on the basis of fixed or variable rates of interest; specifically excluding, however, termination payments, fees, expenses and other amounts payable under an Integrated Swap Agreement not specifically made on the basis of interest rates.

“Interest Increment Amount” means, as of any particular date of computation and for any particular period or year, with respect to any Bonds the difference, if any, between the rate of interest per annum borne by Variable Rate Bonds in accordance with their terms as set forth in the Supplemental Resolution or Certificate of Determination authorizing the issuance thereof for all Holders other than an issuer or issuers of a Support Facility, and the rate such Variable Rate Bonds bear when such Variable Rate Bonds are held by an issuer or issuers of a Support Facility.

“Investment Securities” means any of the following which at the time are legal investments under the laws of the State for the moneys held hereunder then proposed to be invested therein: (i) direct general obligations of, or obligations the payment of the principal and interest of which are unconditionally guaranteed by, the United States of America; and interest of which are unconditionally guaranteed by the United States of America; (ii) obligations of any of the following which constitute the full faith and credit of the United States of America: Export-Import Bank, Farm Credit System Financial Assistance Corporation, Farmers Home Administration, General Services Administration, U.S. Maritime Administration, Small Business Administration, Government National Mortgage Association, U.S. Department of Housing & Urban Development, and Federal Housing Administration; (iii) senior debt obligations rated “AAA” by Standard & Poor’s Ratings Group (“*S&P*”) and/or “Aaa” by Moody’s Investors Service (“*Moody’s*”) and/or “AAA” by Fitch, Inc. (“*Fitch*”) issued by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation; (iv) U.S. dollar denominated deposit accounts, federal funds and banker’s acceptances with domestic commercial banks which have a rating on their short-term certificates of deposit on the date of purchase of “A-1” or “A-1+” by “S&P” and/or “P-1” by Moody’s and/or “F-1” by Fitch, Inc. and maturing not more than 360 days after the date of purchase; (v) commercial paper rated “A-1+” by S&P and/or “P-1” by Moody’s and/or “F-1+” by Fitch, Inc. at the time of purchase and which matures not more than 270 days after the date of purchase; (vi) investments in a money market fund rated “AAAm” or AAm-G” or better by S&P; (vii) repurchase agreements collateralized by direct obligations of the U.S. Treasury or GNMA’s, each at a collateral percentage of 103% or FNMA’s or FHLMC’s each at a collateral percentage of 104% with any registered Broker/Dealer (a “*Broker/Dealer*”) or any commercial bank insured by the FDIC (a “*Bank*”), if at the time of the investment such Broker/Dealer (or its parent) has long-term uninsured, unsecured and unguaranteed debt rated “A3” or better by Moody’s or “A-” or better by S&P or “A-” or better by Fitch such Bank has long-term uninsured, unsecured and unguaranteed debt rated “Aa” or better by Moody’s and “AA” or better by S&P or “AA” or better by Fitch, provided:

(a) a master repurchase agreement or specific written repurchase agreement governs the transaction; and (b) the securities are held free and clear of any lien of the Resolution or of an independent third party acting solely as agent (“*Agent*”) for the Board, and such third party is (i) a Federal Reserve Bank, or (ii) a bank which is a member of the Federal Deposit Insurance Corporation and which has combined capital, surplus and undivided profits of not less than \$50 million and the Board shall have received written confirmation from such third party that it holds such securities, free and clear of any lien, as agent for the Board; and (c) a security interest under the Uniform Commercial Code, or book entry procedures prescribed at 31 C.F.R. 306.1 et seq. or 31 C.F.R. 350.0 et seq. in such securities is created for the benefit of the Bondholders; and (d) the Board will be provided with a valuation for the collateral securities no less frequently than weekly and will liquidate the collateral securities if any deficiency in the required collateral percentage is not restored within two business days of such valuation; and (e) the Board has the option of terminating the repurchase agreement in the event that the long-term debt ratings of the provider, are reduced below “Baa3” by Moody’s and/or “BBB-” by S&P, and/or “BBB-” by Fitch if such provider is a Broker/Dealer and below “A3” by Moody’s and/or “A-” by S&P and/or “A-” by Fitch if such provider is a Bank; (viii) investment agreements with: (a) a Broker/Dealer (or its parent) which has long-term unsecured, uninsured and unguaranteed debt rated “A3” or better by Moody’s or “A-” or better by S&P or “A-” or better by Fitch; provided, that such Broker/Dealer collateralizes the obligations under the investment agreement with securities described in clause (vii) above meeting the

requirements of subparagraphs (b) through (d) of clause (vii) above; provided further, that such agreement shall include a provision to the effect that if the long-term rating of the Broker/Dealer (or its parent, where applicable) is downgraded below “Baa3” by Moody’s and “BBB-” by S&P and/or “BBB-” by Fitch, the Board shall have the option of terminating such agreement; (b) a Bank which has a long-term unsecured, uninsured and unguaranteed debt rating “Aa” or better by Moody’s and/or “AA” or better by S&P and/or “AA” or better by Fitch provided, that such Bank collateralizes the obligations under the investment agreement with securities described in clause (vii) above meeting the requirements of subparagraphs (b) through (d) of clause (vii) above; provided further that if such Bank’s rating falls below “A3” by Moody’s and/or “A-” by S&P, and/or “A-” or better by Fitch, the Board shall have the option to terminate such agreement; and (c) a corporation whose principal business is to enter into such investment agreements provided that such corporation has been assigned a “Aaa” counterparty rating by Moody’s, S&P or Fitch has rated the investment agreements of such corporation “AAA” provided further that if such counterparty rating is downgraded below “Aaa” by Moody’s and/or the investment agreement of such corporation is downgraded below “AAA” by S&P and/or [such counterparty] [the investment agreement] is downgraded below “AAA” by Fitch, the Board shall have the option to terminate the agreement; and (ix) such other investments as may from time to time to be permitted by the laws of the State but are not described above.

“Legislative Appropriations” means moneys in any revolving fund or special fund appropriated or allocated by the Legislature of the State to the Board, the University, the University System or the Network and permitted to be expended for Current Expenses of the Board, the University, the University System or the Network or for Aggregate Debt Service or Debt Service, or a combination thereof; provided that so long as any bonds of the Board are outstanding under the resolution adopted on May 17, 2002, Legislative Appropriations shall be subject and subordinate to the lien on such moneys imposed by such resolution, except to the extent that such Legislative Appropriations are not permitted to be used to pay debt service on such bonds or to pay costs of any project financed with such bonds.

“Network” means the University System and any University Purpose which, at the election of the Board, is included as a part of the Network pursuant to a Supplemental Resolution, provided that the inclusion of such University Purpose in the Network under the Resolution would not be in violation of law or in violation of the terms of any grant, gift, bequest or devise.

“Resolution” means the Resolution as originally adopted by the Board on November 16, 2001 as it may from time to time be supplemented, modified or amended by any resolution supplemental thereto.

“Revenues” means and includes all moneys and other income of whatever nature received or derived by the Board from its ownership or operation and management of the Network or which the Board is entitled to receive as a result of such ownership, operation and management, or as a result of the financing thereof, including Legislative Appropriations to the extent permitted by law; provided, however, that the term “Revenues” shall not include moneys received as proceeds from the sale of Bonds except to the extent such proceeds are credited to the University Bond Account in the University System Revenue-Undertakings Fund or a subaccount therein, or the moneys derived from any University Project or University Purpose which is not included in the Network hereunder, or the moneys derived from any other network or university system that may hereafter be established separate and apart from the Network established hereunder, or gifts the terms of which preclude their being used for the payment of cost of construction, cost of maintenance, or both, of the Network or for the payment of the principal of or interest on the Bonds or, unless permitted by law, general appropriations or taxes.

“Supplemental Resolution” means a resolution duly adopted by the Board for any of the purposes of the Resolution or otherwise supplemental to or amendatory to the Resolution but only if and to the extent specifically authorized thereunder.

“University Project” means any undertaking or improvement, whether or not capable of producing revenue, constructed, maintained, or both, by the Board, in furtherance of the purposes of the University, including facilities defined in the Chapter 304A, Hawaii Revised Statutes. A University Project shall include, but not be limited to, all land, fixtures, appurtenances, improvements, utilities, equipment, and furnishings necessary or convenient for the use and occupancy of a University Project for the purposes for which it was constructed or is used.

“University Purpose” means any action, undertaking or improvement by the Board reasonably related to the development and promotion of the University as an institution of higher learning or an action or undertaking related thereto.

“University Revenue-Undertakings Fund” means the special fund of the name created in the treasury of the State of Hawaii by Section 304A-2167.5, Hawaii Revised Statutes.

“University System” shall mean that portion of the Network established in Section 2.01 of the Resolution.

“Variable Rate Bonds” means any Bonds issued bearing interest at a rate per annum subject to adjustment from time to time pursuant to the terms thereof and calculated in a manner which precludes the actual rate for the entire term of such debt from being ascertainable in advance. For the purposes of this definition, Bonds shall not be considered to be Variable Rate Bonds upon the establishment of or conversion of the rate of interest thereon to a fixed interest rate.

THE RESOLUTION

The Resolution authorizes the issuance and sale or exchange of revenue bonds of the Board, which bonds may be issued in series from time to time, without limit as to the aggregate principal amount, except as may be provided by law and subject to the limitations contained in the provisions of the Resolution relating to the issuance of Additional Bonds, including refunding Bonds.

Authorization of Bonds; Equal Security; Validity (Section 2.02)

The Bonds shall be payable solely from and secured solely by the Revenues, all of which Revenues are pledged to the punctual payment of the Bonds and interest and premium thereon. The foregoing pledge constitutes a lien on the Revenues prior and paramount to any claim or obligation of any nature against the Revenues subsequently arising or subsequently incurred, subject to the application of the Revenues to the payment of the Current Expenses of the Network, as provided in the Resolution.

All of the Bonds shall rank *pari passu*, and shall be equally and ratably secured, without priority by reason of series, number, date or maturity of Bonds, date of sale, date of issuance, date of execution, or delivery of Bonds.

The Bonds shall not constitute general or moral obligations of the State of Hawaii or an indebtedness of the State within the meaning of any limitation of law, or a charge upon the general fund of the State, nor shall the full faith and credit of the State be pledged to the payment of the principal and interest thereof. No holder of a Bond shall have the right to compel any exercise of the taxing power of the State to pay any such Bond or interest thereon.

Authorization and Issuance of Additional Bonds
(Sections 2.03, 2.04 and 2.05)

At any time and from time to time, the Board may issue one or more additional series of Bonds under the Resolution upon compliance with certain conditions enumerated therein, including the following:

1. The Additional Bonds are to be issued for lawful purpose.
2. The University Project or Projects and/or the University Purpose to be financed from the proceeds of the Additional Bonds of such series, is or are made part of the Network and the moneys, if any, to be derived therefrom, or Legislative Appropriations or other moneys made a part of the Revenues shall thereafter constitute Revenues pledged as additional security for the Bonds, including the Bonds then outstanding and the Proposed Additional Bonds.
3. Except in the case of Additional Bonds issued to refund outstanding Bonds, the Supplemental Resolution providing for the issuance of the Additional Bonds shall provide that any accrued interest received upon the sale of the Additional Bonds shall be paid into the University Revenue-Undertakings Fund and credited to the Interest Subaccount in the University Network Bond Account.
4. Except in the case of Additional Bonds issued to refund certain Bonds for which sufficient funds are not available for payment thereon, at the time of the issuance of the Additional Bonds, (a) no default shall exist in the payment of the principal of and premium, if any, and interest on any Bond; (b) the Board shall have made all payments into the several funds and accounts created under the Resolution to the extent required at the time of the issuance of the Additional Bonds; and (c) no deficiencies shall exist in the University Network Revenue Account, the University Network Bond Account (including any subaccounts therein) and the University Network Repair and Replacement Account.

Bonds may be issued under the Resolution at any time upon compliance with the provisions of the Resolution, (a) for the purpose of refunding, at their maturity or at any time within one year prior to their maturity, any of the then outstanding Bonds for which sufficient funds are not available for payment, and any Bonds issued for such purpose shall mature (or mandatory payments of sinking fund installments for redemption of such Bonds shall commence) not earlier than the latest stated maturity of any Bond then outstanding which shall remain outstanding after the completion of such refunding, and (b) for the purpose of refunding at any time part of the Bonds, including amounts to pay principal, redemption premiums and interest, provided that, except for a refunding of Variable Rate Bonds from the proceeds of fixed rate Bonds, the Aggregate Debt Service Requirement of all Bonds to be outstanding after such refunding shall not be greater, after such refunding, in any year in which the Bonds not refunded shall be outstanding, than would have been the Aggregate Debt Service Requirement of the Bonds for such year were such refunding not to occur. All such refunding Bonds shall constitute "Bonds" and "Additional Bonds" under the Resolution. Nothing in the Resolution shall be deemed to apply to, or be construed to prevent, a refunding at one time of all Bonds then outstanding.

In the event of the inclusion of a University Purpose in furtherance of the purposes of the University which is not capable of producing any revenue or revenue sufficient to make such University Purpose self-sufficient and is authorized by law to be designated as and included in the Network for all purposes hereof: the Board shall allocate Legislative Appropriations in an amount, together with revenues (if any) of such University Purpose, sufficient to pay Current Expenses allocable to such University Purpose and the Debt Service allocable to the Bonds issued to finance such University Purpose, all such Legislative Appropriations allocated shall continue to constitute Revenues, and all

payments thereafter required to be made by the Board as Current Expenses related to such University Purpose shall continue to constitute Current Expenses, of the Network so long as Bonds remain outstanding; in the event of the inclusion of a university parking unit or units in the University System by reason of the foregoing provisions of this paragraph, for all purposes hereof: all moneys thereafter derived by the Board under Sections 304A-2601 and 304A-2102, Hawaii Revised Statutes, from the campus or campuses on which such university parking units are located or are to be located shall constitute Revenues, and all payments thereafter required to be made by the Board by reason of the provisions of Section 304A-2102, Hawaii Revised Statutes, with respect to such campus or campuses shall constitute Current Expenses of the University System; and, in the event of the inclusion of a University Project in the University System in furtherance of the purposes of the University which is not capable of producing any revenue or revenue sufficient to make such University Project self-sufficient and is authorized by law to be designated as and included in a university system, including the Network, for all purposes hereof: the Board shall allocate Legislative Appropriations in an amount, together with revenues (if any) of such University Project, sufficient to pay Current Expenses allocable to such University Project and the Debt Service allocable to the Bonds issued to finance the cost of construction, all such Legislative Appropriations allocated shall continue to constitute Revenues, and all payments thereafter required to be made by the Board as Current Expenses related to such University Project shall continue to constitute Current Expenses, of the Network so long as Bonds remain outstanding.

The Board has authorized the Designated Financial Officer to cause to be issued one or more series of refunding Bonds for the purpose of refunding any Outstanding Bonds of the Board. In order to effect said issue, and in lieu of and substitution for a Supplemental Resolution of the Board, the Designated Financial Officer shall set forth in a Certificate of Determination:

1. a brief statement of the Designated Financial Officer that, in his opinion, the issue of the one or more series of refunding Bonds is advisable, expedient and in the best financial interest of the Board and the University;
2. except in the case of the issue of one or more series of refunding Bonds that are issued to refund Variable Rate Bonds, a statement that such issue will result in a present value savings to the University System of at least three percent (3%) of the principal amount of the Bonds to be refunded;
3. the Bonds to be refunded and the date or dates, if any, of the retirement or redemption thereof; and
4. the matters listed in clauses (a) through (m) the paragraph numbered 1 of Section 2.05 of the Resolution.

The authorization granted to the Designated Financial Officer, unless extended or renewed, shall expire one (1) year from the date of adoption of the Resolution.

Variable Rate Bonds (Section 2.06)

Nothing in the Resolution shall prohibit or prevent, or be deemed or construed to prohibit or prevent, the Board from issuing Variable Rate Bonds. The Supplemental Resolution or Certificate of Determination authorizing the issuance of such Variable Rate Bonds may provide for the Board to obtain Support Facilities or alternate Support Facilities and enter into Support Agreements in connection therewith, enter into Remarketing Agreements and appoint Remarketing Agents in accordance with standards specified in the Supplemental Resolution or Certificate of Determination, provide for interest to be payable or redetermined on such dates and to accrue over such periods as set forth in such Supplemental Resolution or Certificate of Determination, provide for the determination or establishment

of rates of interest based on determinations of a Remarketing Agent, market auction procedures or the establishment, use, composition, adjustment and change of interest indices or the establishment and use of alternate interest indices or the establishment of a fixed interest rate or rates, provide for an Interest Increment Amount, provide for the establishment of special funds and accounts in connection with the issuance of such Variable Rate Bonds, provide for special redemption or purchase provisions for such Variable Rate Bonds and establish notice provisions in connection with the purchase, redemption, delivery or tender of such Variable Rate Bonds.

Hedge, Support and Other Financial Agreements (Section 2.07)

Nothing in the Resolution shall prohibit or prevent, or be deemed or construed to prohibit or prevent, the Board from entering into Hedge Agreements, Support Agreements or other financial agreements under which payments (including but not limited to, fees, charges, expenses but excluding any termination, indemnification or other payments intended to pay any person for loss of benefits under such agreement) are payable from Revenues and secured by a lien on and pledge of Revenues on a parity with the lien on and pledge of the Revenues created for the payment and security of the Bonds; provided such payments shall meet the requirements of Section 2.02 or 2.03 of the Resolution; and provided, further, that Integrated Swap Agreement Payments shall be treated as payment of interest on Bonds. In the event any such payments, other than payments constituting principal of, premium, if any, and interest on, Bonds, shall be secured by a lien on and pledge of Revenues on a parity with the lien on and pledge of the Revenues created for the payment and security of the Bonds, a separate account shall be established in the University Network Bond Account for the payment thereof and payments to such account shall be made ratably from Revenues at the time Revenues are disbursed to the other accounts in the University Network Bond Account pursuant to Section 5.02 of the Resolution. For the purposes of Sections 2.03, 6.05, and for any other provision of the Resolution as otherwise appropriate, any obligation to make payments which are payable from Revenues and secured by a lien on and pledge of Revenues on a parity with the lien on and pledge of the Revenues created for the payment and security of the Bonds as provided in this Section 2.07 shall be deemed and treated as a “Bond” under the Resolution.

Deposit of Revenues; (Section 5.01)

From and after the delivery of any Bond and so long as any Bond remains outstanding, all Revenues are required to be deposited in the University Revenue-Undertakings Fund and credited to the University Network Revenue Account.

Use and Application of Moneys Credited to the University Network Revenue Account (Section 5.02)

The moneys in the University Revenue-Undertakings Fund on credit to the University Network Revenue Account therein shall be used and applied for the following purposes in the following order of priority:

A. **FIRST:** *Current Expenses.* Moneys on credit to the University Network Revenue Account shall be applied from time to time to pay, as a first charge and as the same become due and payable, all Current Expenses of the Network.

B. **SECOND:** *Debt Service and Subordinate Debt Service and Reserves.* To pay when due the Debt Service and the Debt Service Reserve Requirement for each series of the Bonds and, after such payments shall be provided for, to pay when due any bonds, notes, certificates, warrants or other evidences of indebtedness issued as permitted by the Resolution.

C. **THIRD:** *University Network Repair and Replacement Account Credits.* On or before the close of each Fiscal Year, but only after the Current Expenses of the Network becoming due or accruing in such Fiscal Year have been paid or provided for and the credits required by B above of this section to be made during such Fiscal Year shall have been made, there shall be transferred from the moneys on credit to the University Network Revenue Account to the University Network Repair and Replacement Account as provided in Section 5.04 of the Resolution.

D. **FOURTH:** *Reimbursement of Principal and Interest of General Obligation Bonds.* On or before the close of each Fiscal Year, but only after the Current Expenses of the Network becoming due or accruing in such Fiscal Year have been paid or provided for and the credits required by the provisions of B and C above of this section to be made during such Fiscal Year shall have been made, the moneys then remaining on credit to the University Network Revenue Account may be credited to the Reimbursable General Obligation Bond Subaccount in the University Network Reimbursable General Obligation Bond Account, to be applied to the reimbursement of the general fund of the State for any bond requirements on general obligation bonds issued for University Projects or University Purposes included in the Network to the extent such reimbursement is required by law.

E. **FIFTH:** *Surplus Revenues.* At the end of each Fiscal Year, but only after the Current Expenses of the Network becoming due or accruing in such Fiscal Year have been paid or provided for and the credits required by the provisions of B, C and D above in this section to be made in such Fiscal Year shall have been made, there shall be set aside in the University Network Revenue Account such amount of the moneys then remaining therein as may be deemed necessary by the Board to be retained therein for the purpose of the provisions of A, B, C and D above in the next following Fiscal Year. Any moneys then remaining in the University Network Revenue Account which have not been set aside therein pursuant to the preceding sentence may be used by the Board at the end of the Fiscal Year for any one or more of the following purposes:

(i) to redeem, in an amount of not less than \$5,000 principal amount at any one time, outstanding Bonds in accordance with the provisions for redemption of such Bonds and the provisions of the Resolution; or

(ii) for any expenditures, including the payment of debt service (including the payment of the principal of or interest on bond anticipation notes), in improving or restoring any existing University Project and/or University Purpose included in the Network or providing additional University Projects and/or University Purposes, which additional University Projects and/or University Purposes shall constitute part of the Network; or

(iii) to complete the restoration of University Projects and/or University Purposes included in the Network which are damaged or destroyed if the proceeds of insurance received with respect thereto are insufficient for such restoration; or

(iv) for any other lawful purpose, including without limitation, the making of loans under a loan program or programs established by the Board or the making of payments into the Debt Service Reserve Subaccount in the University Network Bond Account and the University Network Repair and Replacement Account.

University Network Bond Account (Section 5.03)

(a) *Interest Subaccount.* There shall be established a separate subaccount in the University Network Bond Account for each series of Bonds issued hereunder, each subaccount to be known as an “Interest Subaccount” and separately identified, which shall be disbursed by the Board solely for the purpose of paying interest on the Bonds of the series for which such Interest Subaccount was established as the same becomes due and may not be applied to the payment of interest on any other series of Bonds.

Moneys in an Interest Subaccount shall be used and applied solely for the purpose of paying interest on Bonds of the series for which such Interest Subaccount is established as the same becomes due and payable and may not be applied to any other series of Bonds. For each series of the Bonds, so long as any of the Bonds of such series are Outstanding, commencing with the first business day which is at least fifteen (15) calendar days prior to an Interest Payment Date for the Bonds of such series, there shall be credited to the Interest Subaccount for Bonds of the series for which such Interest Subaccount is established an amount equal to the interest coming due on such series of Bonds on the next ensuing Interest Payment Date, or to pay, or to reimburse the a provider for a draw on the Support Facility, if any, made to provide funds for the payment of, the interest payable on such series of Bonds on such Interest Payment Date.

In making the foregoing credits to each Interest Subaccount, consideration shall be given to and allowance made for accrued interest received upon the sale of a series of the Bonds, or from the proceeds of the sale of Bonds (i.e., capitalized interest) and credited to the University Network Bond Account or other lawfully available moneys credited to an Interest Subaccount; provided that in any event there shall be credited to the University Network Bond Account such amount as shall be necessary to permit the payment on the next succeeding Interest Payment Date of the amount of interest becoming due on that date on all Bonds then outstanding.

(b) There shall be established a separate subaccount in the University Network Bond Account for each series of Bonds issued hereunder, each subaccount to be known as a “Serial Bond Principal Subaccount” and separately identified, which shall be disbursed by the Board solely for the purpose of paying principal on the Bonds of the series for which such Serial Bond Principal Subaccount was established as the same becomes due and may not be applied to the payment of principal on any other series of Bonds.

Moneys in a Serial Bond Principal Subaccount shall be used and applied solely for the purpose of paying the principal on the Bonds of the series for which such Serial Bond Principal Subaccount is established as the same becomes due and payable and may not be applied to any other series of Bonds. In the event of the issuance of all or any portion of a series of the Bonds maturing at times customarily known as maturing serially, in order to provide for the payment of principal of such Bonds of such series at the stated maturity thereof, or to pay, or reimburse the provider for a draw a Support Facility made to provide funds for the payment of such principal, unless otherwise provided in a Supplemental Resolution or Certificate of Determination authorizing the issuance of such series of Bonds, commencing with the first business day which is at least fifteen (15) calendar days prior to the stated maturity of and a principal payment of any such Bonds of such series maturing serially, there shall be credited to the Serial Bond Principal Subaccount for such Bonds of the series for which such Serial Bond Principal

Subaccount is established an amount equal to the principal of any Bonds of such series maturing serially coming due on such series of Bonds on the next ensuing maturity date.

In any event there shall be credited to the University Network Bond Account such amount as shall be necessary to permit the payment on the next succeeding date of maturing principal the amount of principal becoming due on that date on all Bonds then outstanding.

(c) There shall be established a separate subaccount in the University Network Bond Account for each series of Bonds issued hereunder, each subaccount to be known as a "Term Bond Principal Subaccount" and separately identified, which shall be disbursed by the Board solely for the purpose of paying principal on the Bonds of the Series for which such Term Bond Principal Subaccount was established as the same becomes due and may not be applied to the payment of principal on any other series of Bonds.

Moneys in a Term Bond Principal Subaccount shall be used and applied solely for the purpose of providing for the respective sinking fund installment and the retirement of the Bonds of the series for which such Term Bond Principal Subaccount is established as the same becomes due and payable and may not be applied to any other series of Bonds. In the event of the issuance of all or any portion of a series of the Bonds maturing at times customarily known as term bonds, in order to provide for the sinking fund installments and the retirement of such Bonds of such series, or to pay, or reimburse the provider for a draw a Support Facility made to provide funds for the sinking fund installment and retirement of such Bonds of such series, unless otherwise provided in a Supplemental Resolution or Certificate of Determination authorizing the issuance of such series of Bonds, commencing with the first business day which is at least fifteen (15) calendar days prior to the date upon which a sinking fund installment to provide for the retirement of such term Bonds is due, there shall be credited to the Term Bond Principal Subaccount for such Bonds of the series for which such Term Bond Principal Subaccount is established an amount equal to the sinking fund installment then due for the retirement of any Bonds of such series on the next ensuing date of the sinking fund installment. The respective amounts of moneys credited to a Term Bond Principal Subaccount for the purpose of providing for the retirement of the term Bonds of a particular series shall be applied to the redemption of such Bonds of such series on each date on which such a sinking fund installment for said Bonds is due in the respective principal amounts required by the Supplemental Resolution or Certificate of Determination authorizing the issuance of the Bonds of such series to be on credit to this Subaccount on each such date, or, if so determined in the Supplemental Resolution or Certificate of Determination authorizing the Bonds of such series, semi-annually on both such due dates and the day six months prior to such due date, in the respective principal amounts on credit to this Subaccount on such days for the Bonds of such series, so that the aggregate amount so applied in each calendar year will equal the respective principal amount required by the respective Supplemental Resolution or Certificate of Determination authorizing the issuance thereof to be credited to this Subaccount on such sinking fund installment dates. The Designated Financial Officer may also apply the moneys credited to this Subaccount for the retirement of Bonds of a particular series issued in term form to the purchase of those Bonds, in which event the principal amount of said Bonds required to be redeemed on the next respective ensuing sinking fund installment date shall be reduced by the principal amount of the Bonds so purchased; provided, however, that no Bonds shall be purchased during the interval between the date on which notice of redemption of said

Bonds from such sinking fund installment is given and the date of redemption set forth in such notice, unless the Bonds so purchased are Bonds called for redemption in such notice or are purchased from moneys other than those credited to this Subaccount; and provided further, that no purchase of Bonds shall be made if such purchase would require the sale at a loss of securities credited to the Term Bond Principal Subaccount unless the difference between the actual purchase price (including accrued interest and any brokerage or other charge) paid for such Bonds and the then maximum purchase price (plus accrued interest) permitted to be paid therefor, is greater than the loss upon the sale of any such securities. Any purchase of Bonds pursuant to this paragraph (iii) may be made with or without tenders of Bonds and at either public or private sale, but in any event at a purchase price (including accrued interest and any brokerage or other charge) not to exceed the then applicable redemption price of such Bonds, plus accrued interest. All Bonds purchased or redeemed pursuant to this paragraph shall be canceled and not reissued.

In any event there shall be credited to the University Network Bond Account such amount as shall be necessary to permit the retirement of Bonds on the next succeeding sinking fund installment date.

The moneys on credit in the University Network Bond Account on further credit to any Interest Subaccount, Serial Bond Principal Subaccount and Term Bond Principal Subaccount shall be transferred to the Director of Finance or the respective Paying Agents for said Bonds in such amounts and at such times as shall be necessary to pay the principal of, premium, if any, and interest on said Bonds as the same become due and payable, whether upon their maturity or upon the redemption or the purchase thereof from the moneys credited to any Term Bond Principal Subaccount or upon declaration, as hereinafter provided, or otherwise.

Whenever the total of the moneys on credit in the University Network Bond Account (regardless of the Subaccount therein to which such moneys are credited) with respect to a particular series of Bonds which are not required for the payment of principal and interest and premium, if any, which has theretofore become due (whether by maturity or upon redemption or by purchase or by declaration, as hereinafter provided, or otherwise) with respect to such series of Bonds, but is unpaid, is sufficient to retire at maturity, or to redeem prior to maturity in accordance with their respective terms, all of the Bonds of such series then Outstanding, together with interest thereon to their maturity date or the date fixed for the redemption thereof, no further deposits need be made to the University Network Bond Account with respect to such series of Bonds, and without further authorization or direction of the Board, the proper officers of the Board shall call for redemption all Bonds of such series which may be redeemed by their terms, on the next succeeding redemption date for which the required redemption notice may practicably be given, and shall apply such total to such retirement or redemption.

(d) After providing for the credits described in (a) through (c) above, there shall be credited to such accounts and subaccounts as may be established for the payment of bonds, notes, certificates, warrants or other evidences of indebtedness issued as permitted in Section 6.08 of the Resolution.

University Network Repair and Replacement Account (Section 5.04)

There shall be established a University Network Repair and Replacement Account for the Network. There shall be established two separate subaccounts in the University Network Repair and Replacement Account, one such subaccount to be designated "Major Repair and Maintenance Subaccount" and the other such subaccount to be designated "Sinking Fund and Ordinary Repair and Maintenance Subaccount."

There shall be credited to the University Network Repair and Replacement Account and further credited to the Major Repair and Maintenance Subaccount therein at the times specified in the Resolution, such amount as the Board or the Designated Financial Officer shall specify; provided that the amount on credit thereto shall at all times be at least \$1,000,000. In the event that any moneys are withdrawn from the Major Repair and Replacement Subaccount in the University Network Repair and Replacement Account, the Board or the Designated Financial Officer may provide for annual credits thereto in such amounts and at such times as they shall determine until there shall be on credit to the University Network Repair and Replacement Account the minimum amount specified in the preceding sentence.

Moneys on credit to the Major Repair and Replacement Subaccount in the University Network Repair and Replacement Account may be drawn on and used by for the purpose of paying the costs of unusual or extraordinary maintenance and repair, renewals or replacements, and the renovating and replacement of furniture and equipment not annually recurring, of the Network, including additions, improvements or betterments thereto, not paid as part of the ordinary and normal Current Expenses of the Network.

There shall be credited to the University Network Repair and Replacement Account and further credited to the Sinking Fund and Ordinary Repair and Maintenance Subaccount therein at the times specified in the Resolution, such amount as the Board or the Designated Financial Officer shall specify.

Moneys on credit to the Sinking Fund and Ordinary Repair and Maintenance Subaccount in the University Network Repair and Replacement Account may be drawn on and used for the purpose of paying the costs not annually recurring or paid as part of the ordinary and normal Current Expenses of the Network including without limitations, maintenance and repair, renewal or replacement, and renovation and replacement of furniture and equipment, of the Network; additions, improvements or betterments to the Network; any expenditures in improving or restoring any existing University Project and/or University Purpose in the Network; providing additional University Projects and/or University Purposes, which additional University Projects and/or University Purposes shall constitute part of the Network; or completing the restoration of University Projects and/or University Purposes included in the Network which are damaged or destroyed if the proceeds of insurance received with respect thereto are insufficient for such restoration.

University Network Reimbursable General Obligation Bond Account (Section 5.05)

There shall be established a University Network Reimbursable General Obligation Bond Account. There shall be credited to the University Network Reimbursable General Obligation Bond Account at the times and in the amounts and for the purposes specified in the Resolution.

Investment of Moneys in Accounts (Section 5.06)

Moneys on deposit in the University Revenue-Undertakings Fund for credit to the several accounts and subaccount therein established by this Article (other than a Construction Account) shall be invested in Investment Securities maturing as follows: (i) moneys on credit to the University Network Revenue Account shall, to the extent reasonable and practicable, be invested so as to mature in the

amounts and at the times so that the payments and credits to be made from said account may be made as and when the same become due; (ii) moneys on credit to any Subaccount in the University Network Bond Account shall be invested so as to mature in the amounts and at the times so that the payment of the principal of and interest on the Bonds (including any required redemptions from sinking fund installments) may be made as and when the same become due; and (iii) moneys on credit to the University Network Repair and Replacement Account shall be invested so as to mature by no later than the earlier of five (5) years from the date of such investment or the last stated maturity date of any Bond then outstanding. Unless otherwise required by the Supplemental Resolution or Certificate of Determination authorizing Bonds, the earnings on all such investments shall be credited to the University Network Revenue Account.

Construction Account (Section 5.07)

There shall be established a separate account in the University Revenue-Undertakings Fund, to be known as the "Construction Account." In the event of the issuance of a series of Bonds hereunder for the purposes of paying cost of construction of University Projects to be included in the Network, the Board or the Designated Financial Officer shall in the Supplemental Resolution or Certificate of Determination authorizing such series of Bonds create a Construction Subaccount in the Construction Account from which such cost of construction shall be paid, and shall provide for a credit to such Account of that amount of the proceeds of such Bonds which are to be applied to the payment of such cost of construction. In the event that the interest on such series of Bonds is to be provided from the proceeds of such Bonds, the Supplemental Resolution or Certificate of Determination authorizing such series of Bonds shall specify the amount of such proceeds to be applied to the payment of such interest or the formula for determining such amount, and shall establish a Construction Interest Subaccount in the Construction Account, to which shall be credited the amount of the proceeds so specified.

The moneys on credit from time to time in a Construction Subaccount or Construction Interest Subaccount in the Construction Account shall be held under and subject to the Resolution; shall be subject to the liens, pledges, charges, assignments and trusts created hereby for the security and benefit of the Holders of the series of Bonds for which such Subaccounts were established; and shall be used and applied solely to the payment of cost of construction of the Network, in accordance with law.

Proceeds of any series of Bonds may be credited in the Construction Account to be used to pay costs allocable to any portion of such series of Bonds the proceeds of which will be used to refund bonds, notes or other evidences of indebtedness or to reimburse the Board for cost paid from the University Network Repair and Replacement Account.

Moneys in the Construction Account on credit to a Construction Interest Subaccount therein shall be applied by the Board as follows: on each Interest Payment Date until the moneys in such Construction Interest Subaccount are exhausted there shall be withdrawn from the moneys credited to such account and credited to the University Network Bond Account for credit to the Interest Account established for the series of Bonds the interest on which is to be provided from the moneys on credit to such Construction Interest Subaccount an amount, together with accrued interest received upon the sale of the series of Bonds with respect to which such Construction Interest Subaccount was established, equal to the interest to become due on the next ensuing Interest Payment Date, on the series of Bonds, the interest on which is to be provided from the moneys on credit to such Construction Interest Subaccount.

Covenants to Secure Bonds (Article VI)

The Board covenants with the purchasers and holders of the Bonds that so long as the Bonds remain outstanding, the Board will (i) warrant and defend title to all property constituting a part of the

Network (ii) complete construction of any University Project or University Purpose included or to be included in the Network as planned and provide the furnishings and moveable equipment necessary to the full enjoyment and occupancy of each University Project or University Purpose; (iii) operate and maintain the Network and manage the same in the most efficient manner consistent with sound economy, public advantage and the protection of bondholders; and (iv) keep the University Network in good repair and to make additions and improvements thereto in conformity with standards customarily followed for programs of like size and character.

In addition, with respect to University Projects or University Purposes included in the Network capable of producing revenue sufficient to make all such University Projects or University Purposes self-sustaining, the Board covenants to impose and collect rates, rents, fees and charges for the use or enjoyment and services of the facilities of such University Projects or University Purposes, and shall revise such rates, rents, fees and charges from time to time whenever necessary, so that portion of the Network shall be and always remain self-sustaining.

With respect to University Projects or University Purposes included in the Network not capable of producing any revenue or revenue sufficient to make such University Project or University Purpose self-sustaining, the Board shall allocate Legislative Appropriations so that portion of the Network (with such Legislative Appropriations) shall be and always remain self-sufficient.

The rates, rents, fees and charges prescribed and collected and Legislative Appropriations so allocated shall be such as will produce Revenues at least sufficient: (1) to pay the Current Expenses of the Network; (2) to pay when due all Bonds and interest thereon; to make all sinking fund installment payments or credits which may be required with respect to Bonds issued in the form customarily known as "term Bonds" in the amounts and at the times required by any Supplemental Resolution or Certificate of Determination; and to establish and maintain the Debt Service Reserve Subaccounts; (3) to establish and maintain the University Network Repair and Replacement Account; (4) to pay when due all other bonds, notes (including bond anticipation notes), certificates or other evidences of indebtedness and interest thereon, including reserves therefor, for the payment of which the Revenues shall be pledged, charged or otherwise encumbered or which are otherwise payable from the Revenues or from a special fund or account maintained or to be maintained from the Revenues; (5) if and to the extent then required by law, to reimburse the general fund of the State for any bond requirements on general obligation bonds of the State issued for the Network or any University Project or University Purpose therein; and (6) to carry out all the covenants and provisions of the Resolution.

In addition, the Board covenants (i) to pay all taxes, assessments and other governmental charges or surcharges imposed upon the Board, the Network, the Revenues, the University Revenue-Undertakings Fund or any account created by the Resolution; (ii) to pay and discharge all lawful claims for labor, materials, supplies, rents and royalties which may become a lien on the properties included in the Network, the Revenues, the University Revenue-Undertakings Fund or any account created by the Resolution, or may in any way impair the security of the Bonds; (iii) to keep proper books of accounts and financial records relating to the operation of the Network, which shall be open to inspection by the Bondholders and their agents and representatives; (iv) within 120 days after the end of each Fiscal Year, to furnish to the Director of Finance, the original purchaser of each series of Bonds and any Bondholders who request the same 90 days prior to the end of the Fiscal Year, copies of a detailed report covering the operations of the Network for such Fiscal Year; and (v) not create or permit any mortgage, lien, pledge, charge or other encumbrance upon any real or personal property comprising the Network or the Revenues and the moneys in the University Revenue-Undertakings Fund, other than as permitted under the Resolution.

The Board also covenants (i) not to issue any bonds (other than the Bonds), notes, warrants or other obligations or evidences of indebtedness which will be payable from the Revenues prior to or on a parity with the Bonds or which will be secured by or be a lien and charge on the Revenues prior to or on a parity with the lien and charge on the Revenues pursuant to the Resolution; (ii) not to sell, convey, dispose of or lease any properties constituting the Network, except upon compliance with the conditions set forth in the Resolution relating to property that is no longer economical or that is to be replaced by a facility of substantially equal revenue-producing capabilities; (iii) to insure the properties included in the Network against risks of physical loss, damage or destruction, at least to the extent that similar insurance is carried by colleges and universities operating properties similar to the Network; and (iv) to pay solely out of Revenues principal of and premium, if any, and interest on each Bond in the manner provided therein.

The Board covenants (i) not to use the proceeds of the Bonds if such use would have caused such Bonds to be "arbitrage bonds" within the meaning of the Internal Revenue Code, and agrees to comply with the requirements of said section and all applicable regulations so long as any Bond is outstanding; (ii) to comply with the provisions of the Resolution and the Bonds, all laws and regulations, and all contractual obligations contained in any agreement with respect to the Bonds or the Network or any University Project or University Purpose; and (iii) to take all actions required to preserve the lien created by the Resolution and to carry out the provisions of the Resolution.

Adoption of Supplemental Resolution
(Sections 8.01 and 8.02)

(b) Without the consent or concurrence of any Bondholder, the Board may adopt a supplemental resolution (i) for the purpose of providing for the issuance of Additional Bonds; (ii) to make any changes, modifications, amendments or deletions to the Resolution which may be required to permit the Resolution to be qualified under the Trust Indenture Act of 1939 of the United States of America; and (iii) if the provisions of the supplemental resolution shall not adversely affect the rights of the holder of the Bonds then outstanding, for any one or more of the following purposes:

(1) to make any changes or corrections in the Resolution or any supplemental resolution as to which the Board shall have been advised by its counsel that the same are verbal corrections or changes or are required for the purpose of curing or correcting any ambiguity or defective or inconsistent provision or omission or mistake or manifest error contained in the Resolution or any supplemental resolution, or to insert in the Resolution such provisions clarifying matters or questions arising under the Resolution as are necessary or desirable;

(2) to add additional covenants and agreements of the Board for the purpose of further securing the payment of the Bonds;

(3) to surrender any right, power or privilege reserved to or conferred upon the Board by the terms of the Resolution or any supplemental resolution;

(4) to confirm as further assurance any lien, pledge or charge, or the subjection to any lien, pledge or charge, created or to be created by the provisions of the Resolution or any supplemental resolution;

(5) to grant to or confer upon the holders of the Bonds any additional rights, remedies, powers, authority or security that lawfully may be granted to or conferred upon them;

(6) to prescribe further limitations and restrictions upon the issuance of the Bonds and the incurring of other indebtedness payable from or secured by the Revenues; and

(7) to modify in any other respect any of the provisions of the Resolution or any supplemental resolution, provided that such modifications shall have no effect as to any Bond or Bonds which are outstanding as of the time of effectiveness of such supplemental resolution.

(c) With the consent of the holders of not less than 51% of the Bonds then outstanding, the Board may adopt a supplemental resolution amending or supplementing the provisions of the Resolution, for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Resolution or any supplemental resolution, or modifying or amending the rights of the holders of the Bonds; provided that, without the specific consent of the holders of each Bond which would be affected thereby, no supplemental resolution shall: (a) extend the fixed maturity date for the payment of the principal of any Bond, or reduce the principal amount of any Bond, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, or advance the date upon which any Bond may first be called for redemption prior to its fixed maturity date; or (b) reduce the amounts of any required sinking fund installment or extend the date on which such installment is required to be made, or reduce the amount of Bonds required to be redeemed from such installment or extend the date on which such redemption is required to be made; or (c) reduce the aforesaid percentage of Bonds, the holders of which are required to consent to any supplemental resolution amending or supplementing the provisions of the Resolution; or (d) give to any Bond any preference over any other Bond; or (e) permit the creation of any mortgage or lien upon any of the University Projects included in the Network; or (f) authorize the creation of any pledge of the Revenues, or any lien thereon, prior or superior or equal to the pledge of and lien and charge thereon created in the Resolution for the payment of the Bonds; or (g) deprive any holder of the Bonds of the security afforded by the Resolution. A modification or amendment of the provisions of the Resolution with respect to the University Revenue-Undertakings Fund or the University Network Revenue Account, the University Network Bond Account or the University Network Repair and Replacement Account shall not be deemed a change in the terms of payment; provided that no such modification or amendment shall, except upon the consent of the holders of all Bonds then outstanding affected thereby, reduce the amount or amounts of the Revenues required to be credited to the University Network Bond Account.

Events of Default and Remedies (Article IX)

(a) The following constitute "Events of Default":

(1) If payment of the principal and premium (if any) of any Bond is not made after the same becomes due and payable, whether at maturity or by proceedings for redemption or by declaration;

(2) If payment of any installment of interest on any Bond is not made within 30 days after the same becomes due and payable;

(3) If the credits to the University Network Bond Account are not made or satisfied in any year ending June 30 in the amounts required and such failure continues for 60 days after the expiration of such year;

(4) The Board fails to perform any of the other provisions or obligations contained in the Bonds, the Resolution or any supplemental resolution on the part of the Board to be performed, and such failure continues for 90 days after written notice is given to the Board and the Director of Finance by the holders of not less than 25% in principal amount of the Bonds then outstanding;

(5) If any proceedings shall be instituted, with the consent of the Board or the State, for the purpose of effecting a composition between the Board or the State and the creditors thereof and if the claims of the creditors are payable from the Revenues or any other moneys pledged under the Resolution or any supplemental resolution, or for the purpose of adjusting the claims of such creditors, pursuant to any federal or State statute;

(6) If any order or decree is entered with or without the consent of the Board or the State, appointing a receiver for the University System or any building thereof and such order or decree is not vacated or discharged or stayed on appeal within 60 days after entry;

(7) If, under any laws for the relief of debtors, any court assumes custody of the Network or any building thereof and such custody is not terminated within 90 days after the date of assumption; or

(8) If the Board is incapable of fulfilling its obligations under the Resolution.

(b) The Director of Finance must mail to all Bondholders whose names appear on the books of registry written notice of the occurrence of an Event of Default described in paragraphs (1), (2) and (3) above within 30 days after its occurrence.

(c) If any Event of Default shall occur and be continuing, the holders of not less than 25% in principal amounts of the Bonds then outstanding (i) may, by written notice to the Board filed in the office of the Board and with the Director of Finance, declare the principal of and accrued interest on all the Bonds then outstanding (if not then due and payable) to be due and payable immediately, as provided in the Resolution; and (ii) shall be entitled to the appointment of a receiver, who may take possession of the Network and apply all Revenues in the same manner as the Board might do, as provided in the Resolution.

If any Event of Default shall occur and be continuing, the holder of any Bond outstanding shall have the right, for the equal benefit and protection of all holders similarly situated, and subject to the provisions of the Resolution relating to the appointment of a receiver or the acceleration of the principal of all Outstanding Bonds, to bring an action at law or in equity to enforce the Resolution or to bring suit upon the Bonds, as provided in the Resolution.

Nothing in the Resolution shall be construed to limit the rights or remedies of any holders of the Bonds under any applicable statute.

Defeasance (Article XI)

(a) The obligations of the Board under the Resolution and any supplemental resolution, and the liens, pledges, covenants and agreements of the Board therein, shall be fully discharged and satisfied and the Bonds shall no longer be deemed outstanding when:

(1) the Bonds have been purchased by the Board and surrendered to the Director of Finance for cancellation or otherwise surrendered to the Director of Finance or other paying agent, transfer agent or registrar and be canceled or subject to cancellation by him or them; or

(2) payment of the principal of and applicable redemption premium (if any) of the Bonds, plus interest, either (i) has been made or (ii) has been provided by depositing with the Director of Finance or other paying agent for such Bonds, in trust and irrevocably set aside exclusively for such payment (a) moneys sufficient to make such payment or (b) Governmental Obligations, maturing as to principal and interest at such time as will insure the availability of sufficient moneys to make such payment. Governmental Obligations are defined in the Original Resolution as securities listed in clauses (1) through (iv) of the definition of Investment Securities.

(b) If any Bond is not presented for payment when it becomes due, whether at maturity or upon redemption or by declaration or otherwise, and if sufficient moneys or Government Obligations have been deposited with any paying agent therefor other than the Director of Finance, to pay the principal, interest and premium (if any) on the Bonds, then all liability of the Board for such payment shall terminate, and it will be the duty of the paying agent to hold said moneys or Government Obligations without liability for interest, in trust for the benefit of the holders.

(c) Two (2) years after the Bonds or any portion thereof become due and payable (whether at maturity or upon redemption or declaration or otherwise), any moneys or Government Obligations held by the paying agent (other than the Director of Finance) and not applied to the payment of Bonds shall, upon the written request of the Board or the Director of Finance, be paid to the Director of Finance. Thereafter, the holders of Bonds shall be entitled to look only to the Board and the Director of Finance for payment.

No Personal Liability (Section 12.02)

No officer, member, agent or employee of the Board shall be individually or personally liable for the payment of the principal of or interest or premium, if any, on the Bonds.

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APPENDIX D

BOOK-ENTRY SYSTEM

The information in this Appendix D concerning The Depository Trust Company (“DTC”), New York, New York, and DTC’s book-entry system has been obtained from DTC and neither the Board nor the Underwriters takes responsibility for the completeness or accuracy thereof. Neither the Board nor the Underwriters can or does give any assurances that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series 2017 Bonds, (b) certificates representing ownership interest in or other confirmation or ownership interest in the Series 2017 Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series 2017 Bonds, or that they will so do on a timely basis, or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Appendix. The current “Rules” applicable to DTC are on file with the Securities and Exchange Commission and the current “Procedures” of DTC to be followed in dealing with DTC Participants are on file with DTC.

The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the Series 2017 Bonds. The Series 2017 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 security certificate will be issued for each maturity of each series of the Series 2017 Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC. If, however, the aggregate principal amount of any series and maturity exceeds \$500 million, one certificate will be issued with respect to each \$500 million of principal amount, and an additional certificate will be issued with respect to any remaining principal amount of such series and maturity.

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

Purchase of Ownership Interest. Purchases of the Series 2017 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2017 Bonds on DTC’s records. The ownership interest of each actual purchaser of each Security (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2017 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 2017 Bonds, except in the event that use of the book-entry system for the Series 2017 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2017 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the Series 2017 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2017 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2017 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.

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

Redemption notices shall be sent to DTC. If less than all of the Series 2017 Bonds within a series and maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such series and maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2017 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Board 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 2017 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments. Principal, redemption proceeds, distributions, and interest payments on the Series 2017 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Board or Paying Agent, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Paying Agent or the Board, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Board or Paying Agent, 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.

Discontinuance of Book-Entry System. DTC may discontinue providing its services as depository with respect to the Series 2017 Bonds at any time by giving reasonable notice to the Board or the Paying Agent. Under such circumstances, in the event that a successor depository is not obtained, Security certificates are required to be printed and delivered.

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

APPENDIX E

PROPOSED FORM OF OPINION OF BOND COUNSEL FOR SERIES 2017 BONDS

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December __, 2017

Board of Regents of the University of Hawaii
Honolulu, Hawaii

\$110,795,000

Board of Regents of the University of Hawaii University Revenue Bonds,
Series 2017A, Series 2017B (Refunding), Series 2017C (Taxable Refunding), Series 2017D (Refunding),
Series 2017E (Taxable Refunding), Series 2017F (Refunding) and Series 2017G (Taxable Refunding)
Dear Regents:

We have examined a record of proceedings relating to the issuance of the \$3,990,000 aggregate principal amount of University Revenue Bonds, Series 2017A (the "Series 2017A Bonds"), \$12,040,000 aggregate principal amount of University Revenue Bonds, Series 2017B (Refunding) (the "Series 2017B Bonds"), \$4,110,000 aggregate principal amount of University Revenue Bonds, Series 2017C (Taxable Refunding) (the "Series 2017C Bonds"), \$13,185,000 aggregate principal amount of University Revenue Bonds, Series 2017D (Refunding) (the "Series 2017D Bonds"), \$4,450,000 aggregate principal amount of University Revenue Bonds, Series 2017E (Taxable Refunding) (the "Series 2017E Bonds"), \$52,275,000 aggregate principal amount of University Revenue Bonds, Series 2017F (Refunding) (the "Series 2017F Bonds" and, together with the Series 2017A Bonds, Series 2017B Bonds and Series 2017D Bonds, the "Tax-Exempt Bonds") and \$20,745,000 aggregate principal amount of University Revenue Bonds, Series 2017G (Taxable Refunding) (the "Series 2017G Bonds," and, together with the Tax-Exempt Bonds, the Series 2017C Bonds and the Series 2017E Bonds, the "Bonds") of the Board of Regents of the University of Hawaii (the "Board"), pursuant to a Resolution adopted by the Board on November 16, 2001 (as amended and supplemented to date, including by that certain Supplemental Resolution adopted by the Board on November 16, 2017, the "Resolution"). Capitalized terms not otherwise defined herein shall have the meanings ascribed thereto in the Resolution.

In connection with the foregoing, we have reviewed the Resolution, the Certificate of Determination of the Board dated December __, 2017 (the "Certificate of Determination"), the Tax Certificate of the Board dated December __, 2017 (the "Tax Certificate"), an opinion of counsel of the Board, certificates of the Board and others, and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

We have assumed the genuineness of all documents and signatures presented to us (whether as originals or as copies) and the due and legal execution and delivery thereof by, and validity against, all parties thereto other than the Board. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinions, referred to in the preceding paragraph. Furthermore, we have assumed compliance with all covenants and agreements contained in the Resolution, the Certificate of Determination and the Tax Certificate, including (without limitation) covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause interest on the Tax-Exempt Bonds to be included in gross income for federal income tax purposes.

The rights and obligations under the Bonds, the Resolution, the Certificate of Determination and the Tax Certificate and their enforceability may be limited by bankruptcy, insolvency or other laws affecting creditors' rights and remedies heretofore or hereafter enacted. We express no opinion with respect to any indemnification, contribution, penalty, choice of law, choice of forum or waiver provisions contained in the aforementioned documents. Finally, we undertake no responsibility for the accuracy, completeness or fairness of any offering material relating to the Bonds and express no opinion with respect thereto.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The Bonds constitute valid and binding limited obligations of the Board payable from Revenues pledged therefor under the Resolution.

2. The Resolution has been duly adopted by, and constitutes the valid and binding obligation of, the Board, and the Certificate of Determination has been duly executed and delivered by, and constitutes the valid and binding obligation of, the Board.

3. Interest on the Tax-Exempt Bonds is not includable in the gross income of the owners thereof for Federal income tax purposes. If there is continuing compliance with the requirements of the Internal Revenue Code of 1986 (the "Code"), we are of the opinion that interest on the Tax-Exempt Bonds will continue to be excluded from the gross income of the owners thereof for Federal income tax purposes. We are further of the opinion that the Tax-Exempt Bonds are not "private activity bonds" within the meaning of Section 141(a) of the Code. Accordingly, interest on the Tax-Exempt Bonds is not an item of tax preference for purposes of computing individual or corporate alternative minimum taxable income. However, interest on the Tax-Exempt Bonds is includable in corporate earnings and profits and therefore must be taken into account when computing corporate alternative minimum taxable income for purposes of the corporate alternative minimum tax. Interest on the Series 2017C Bonds, the Series 2017E Bonds and the 2017G Bonds is not excludable from gross income for federal income tax purposes. The Bonds and the income therefrom are exempt from all taxation by the State of Hawaii or any county or other political subdivision thereof, except inheritance, transfer, estate and certain franchise taxes. We express no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds.

Certain agreements, requirements and procedures contained or referred to in the Resolution, the Certificate of Determination, the Tax Certificate and other relevant documents may be changed and certain actions (including, without limitation, the defeasance of the Bonds) may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents. No opinion is expressed herein as to the effect on any Bond or the interest thereon if any such change occurs or action is taken or omitted that is not in accordance with the terms and conditions set forth in such documents.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and judicial decisions and cover certain matters not directly addressed by such authorities. We have not undertaken to determine, or to inform any person, as to any change in any existing law, regulation, ruling or judicial decision or the effect of any such change. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter.

With respect to the exclusion from gross income for Federal income tax purposes of interest on the Tax-Exempt Bonds, we have relied on the verification report of Causey Demgen & Moore P.C., regarding the computation of the arbitrage yield on the Tax-Exempt Bonds and of certain investments made with the proceeds of the Tax-Exempt Bonds.

Very truly yours,

APPENDIX F

FORM OF CONTINUING DISCLOSURE CERTIFICATE

Dated December 28, 2017

BOARD OF REGENTS OF THE UNIVERSITY OF HAWAII

University Revenue Bonds, Series 2017A, Series 2017B (Refunding), Series 2017C (Taxable Refunding), Series 2017D (Refunding), Series 2017E (Taxable Refunding), Series 2017F (Refunding) and Series 2017G (Taxable Refunding)

This Continuing Disclosure Certificate (this “*Disclosure Certificate*”) is provided in connection with the issuance by the Board of Regents of the University of Hawaii (the “*Board*”) of \$110,795,000 University Revenue Bonds, Series 2017A, Series 2017B (Refunding), Series 2017C (Taxable Refunding), Series 2017D (Refunding), Series 2017E (Taxable Refunding), Series 2017F (Refunding) and Series 2017G (Taxable Refunding) (collectively, the “*Series 2017 Bonds*”). The Series 2017 Bonds are being issued pursuant to Chapter 304A, Hawaii Revised Statutes, and a resolution of the Board adopted November 16, 2001 (the “*Resolution*”), as amended to date, including by a Supplemental Resolution of the Board adopted November 16, 2017 (the “*Supplemental Resolution*”). The Board covenants and agrees as follows:

Section 1. Purpose of Disclosure Certificate. This Disclosure Certificate is being executed and delivered on behalf of the Board for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriters in complying with Securities and Exchange Commission Rule 15c2-12(b)(5).

Section 2. Definitions. In addition to the definitions set forth in the Resolution, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“*Annual Report*” shall mean any Annual Report provided by the Board pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

“*Beneficial Owner*” shall mean any person which (a) has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries) or (b) is treated as the owner of any Bonds for federal income tax purposes.

“*Dissemination Agent*” shall mean initially the Vice President of Budget and Finance/Chief Financial Officer of the University, or any successor Dissemination Agent designated in writing by the Board and which has filed with the Board a written acceptance of such designation.

“*Holder*” shall mean the person in whose name any Bond shall be registered.

“*Listed Events*” shall mean any of the events listed in subsection 5(a) of this Disclosure Certificate.

“*MSRB*” shall mean the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (“*EMMA*”) website of the MSRB, currently located at <http://emma.msrb.org>.

“*Participating Underwriters*” shall mean any original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

“*Rule*” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3. Provision of Annual Reports. (a) The Board shall, or shall cause the Dissemination Agent to, not later than nine months after the end of the University’s Fiscal Year (presently June 30), commencing with the report for the Fiscal Year ending June 30, 2018, provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Report may cross-reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the University may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date. If the University’s Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c). The Annual Report shall be submitted on a standard form in use by industry participants or other appropriate form and shall identify the Bonds by name and CUSIP number.

(b) Not later than fifteen (15) business days prior to the date set forth in subsection (a) above, the Board shall provide the Annual Report to the Dissemination Agent. If the Board is unable to provide to the MSRB an Annual Report by the date required in subsection (a) above, the Board shall send or cause to be sent, in a timely manner, a notice to the MSRB in substantially the form attached as Exhibit A.

Section 4. Contents of Annual Reports. The University’s Annual Report shall contain or include by reference information of the type included in the final Official Statement (the “*Official Statement*”) dated December 14, 2017, relating to the Bonds, as set forth under the following headings or in the following tables or appendices: “**THE UNIVERSITY OF HAWAII — Table 1**”, **APPENDIX A – “THE UNIVERSITY OF HAWAII – Tables A-1 through A-20”**, and **APPENDIX B – AUDITED FINANCIAL STATEMENTS**”.

The audited financial statements of the University for the prior Fiscal Year shall be prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the University’s audited financial statements are not available by the time the Annual Report is required to be filed pursuant to subsection 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

Any or all of the items listed above may be set forth in one or a set of documents or may be included by specific reference to other documents, including official statements of debt issues of the Board or related public entities, which have been made available to the public on the MSRB’s website. The Board shall clearly identify each such other document so included by reference.

If the inclusion or format of the information referenced above is changed in any future official statement, thereafter the Annual Report shall instead contain or include by reference information of the type included in that official statement as so changed or, if different, the type of equivalent information included in the Board’s most recent official statement.

Section 5. Reporting of Significant Events. (a) The Board shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds in a timely manner not later than ten (10) business days after the occurrence of the event:

1. Principal and interest payment delinquencies;
2. Unscheduled draws on debt service reserves reflecting financial difficulties;
3. Unscheduled draws on credit enhancements reflecting financial difficulties;
4. Substitution of credit or liquidity providers, or their failure to perform;
5. Issuance by the Internal Revenue Service of proposed or final determination of taxability or of a Notice of Proposed Issue (IRS Form 5701 TEB);
6. Tender offers;
7. Defeasances;
8. Rating changes; or
9. Bankruptcy, insolvency, receivership or similar event of the obligated person.

Note: for the purposes of the event identified in subparagraph (9), 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 governmental 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.

(b) The Board shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, if material, in a timely manner not later than ten (10) business days after the occurrence of the event:

1. Unless described in paragraph 5(a)(5), adverse tax opinions or other material notices or determinations by the Internal Revenue Service with respect to the tax status of the Bonds or other material events affecting the tax status of the Bonds;
2. Modifications to rights of Bond holders;
3. Optional, unscheduled or contingent Bond calls;
4. Release, substitution, or sale of property securing repayment of the Bonds;
5. Non-payment related defaults;
6. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; or
7. Appointment of a successor or additional trustee or the change of name of a trustee.

(c) Whenever the Board obtains knowledge of the occurrence of a Listed Event described in Section 5(b), the Board shall determine if such event would be material under applicable federal securities laws.

(d) If the Board learns of the occurrence of a Listed Event described in Section 5(a), or determines that knowledge of a Listed Event described in Section 5(b) would be material under applicable federal securities laws, the Board shall within ten business days of occurrence file a notice of such occurrence with the MSRB. Notwithstanding the foregoing, notice of the Listed Event described in subsections (a)(7) or (b)(3) need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to Holders of affected Bonds pursuant to the Resolution.

Section 6. Termination of Reporting Obligation. The Board's obligations under this Disclosure Certificate shall terminate upon the legal defeasance or payment in full of all of the Bonds. If such termination occurs prior to the final maturity of the Bonds, the Board shall give notice of such termination in a filing with the MSRB.

Section 7. Dissemination Agent. The Board may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the Board pursuant to this Disclosure Certificate.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the Board may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of subsection 3(a), Section 4 or subsections 5(a) or (b), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Bonds in the same manner as provided in the Resolution for amendments to the Resolution with the consent of Holders or (ii) does not materially impair the interests of the Holders or Beneficial Owners of the Bonds, as determined by a party unrelated to the Board (such as a trustee or bond counsel).

In the event of any amendment or Waiver of a provision of this Disclosure Certificate, the Board shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the Board. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in a filing with the MSRB, and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the Board from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event or of any other notice required to be filed hereunder, in addition to that which is required by this Disclosure Certificate. If the Board chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the Board shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event, or any other event required to be reported.

Section 10. Default. In the event of a failure of the Board to comply with any provision of this Disclosure Certificate, any Holder or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Board to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an event of default under the Resolution with respect to the Bonds, and the sole remedy under this Disclosure Certificate in the event of any failure of the Board to comply with this Disclosure Certificate shall be an action to compel performance.

Section 11. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the Board, the Dissemination Agent, the Participating Underwriters and Holders and Beneficial Owners from time to time of the Bonds and shall create no rights in any other person or entity.

Section 12. Governing Law. This Disclosure Certificate shall be construed and interpreted in accordance with the laws of the State of Hawaii, and any suits and actions arising out of this Disclosure Certificate shall be instituted in a court of competent jurisdiction in the State of Hawaii; provided, however, that to the extent this Disclosure Certificate addresses matters of federal securities laws, including the Rule, this Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

UNIVERSITY OF HAWAII

By: _____
KALBERT YOUNG
Vice President for Budget and Finance
Chief Financial Officer

EXHIBIT A

**FORM OF NOTICE TO THE MUNICIPAL SECURITIES RULEMAKING BOARD
OF FAILURE TO FILE ANNUAL REPORT**

Name of Issuer: Board of Regents of the University of Hawaii

Names of Bond Issues: University Revenue Bonds, Series 2017A, Series 2017B (Refunding), Series 2017C (Taxable Refunding), Series 2017D (Refunding), Series 2017E (Taxable Refunding), Series 2017F (Refunding) and Series 2017G (Taxable Refunding)

Date of Issuance: December 28, 2017

NOTICE IS HEREBY GIVEN that the Board of Regents of the University of Hawaii has not provided an Annual Report with respect to the above named Bonds as required by its Continuing Disclosure Certificate dated December 28, 2017. The Board anticipates that the Annual Report will be filed by _____.

Dated:

UNIVERSITY OF HAWAII

By _____ [to be signed only if filed]
Title _____

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