

27 mac



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH SERVICES

Jeffrey A. Meyers
Commissioner

Lisa M. Morris
Director

29 HAZEN DRIVE, CONCORD, NH 03301
603-271-4501 1-800-852-3345 Ext. 4501
Fax: 603-271-4827 TDD Access: 1-800-735-2964
www.dhhs.nh.gov

May 15, 2018

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
State House
Concord, New Hampshire 03301

REQUESTED ACTION

Authorize the Department of Health and Human Services, Division of Public Health Services, to exercise a renewal option to amend an existing **sole source** contract with the University of Massachusetts (Vendor #177576-B008), 305 South Street, Jamaica Plain, MA 02130-3597 for the provision of newborn screening laboratory services by increasing the price limitation by \$2,868,523 from \$2,799,650 to an amount not to exceed \$5,668,173 and extend the completion date from June 30, 2018 to June 30, 2021, effective upon the date of Governor and Executive Council approval. This agreement was originally approved by the Governor and Executive Council on June 24, 2015 (Item #54). 100% Other Funds.

Funds are available in the following account(s) for State Fiscal Year 2019, and are anticipated to be available in State Fiscal Year 2020 and State Fiscal Year 2021, upon the availability and continued appropriation of funds in the future operating budgets, with authority to adjust encumbrances between state fiscal years through the Budget Office without further approval from the Governor and Executive Council, if needed and justified.

05-95-90-902010-5240 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH AND COMMUNITY SERVICES, NEWBORN SCREENING REVOLVING FUND

State Fiscal Year	Class / Account	Class Title	Job Number	Current Budget	Increased (Decreased) Amount	Revised Modified Budget
2016	102-500731	Contracts for Prog Svc	90080013	\$906,341	\$0	\$906,341
2017	102-500731	Contracts for Prog Svc	90080013	\$932,955	\$0	\$932,955

2018	102-500731	Contracts for Prog Svc	90080013	\$960,354	\$0	\$960,354
2019	102-500731	Contracts for Prog Svc	90080013	\$0	\$928,054	\$928,054
2020	102-500731	Contracts for Prog Svc	90080013	\$0	\$955,896	\$955,896
2021	102-500731	Contracts for Prog Svc	90080013	\$0	\$984,573	\$984,573
			Total	\$2,799,650	\$2,868,523	\$5,668,173

EXPLANATION

This request is **sole source** because the University of Massachusetts Newborn Screening Laboratory is the closest laboratory that can perform newborn screening tests. Timeliness of receipt of specimens and reporting results is of utmost importance with respect to newborn screening. The University of Massachusetts is nationally recognized for its quality work. Five out of the six New England states currently contract with this laboratory, increasing its proficiency and ability to adjust and respond to the state's needs. The University of Massachusetts has been providing newborn screening laboratory services for New Hampshire since 1988.

Funds in this amendment will be used to pay for the provision of laboratory services for newborn screening for the entire state of New Hampshire.

Since the establishment of RSA 132:10a in 1965, the state of New Hampshire has been responsible for the screening of all infants born in the state. The goal of newborn screening is the prevention of disability and untimely death of newborns from undiagnosed genetic disorders. New Hampshire is currently screening all infants born in the state for a panel of thirty-four (34) disorders.

Although some of these disorders are relatively rare, they do need to be identified and intervention initiated before the disorder presents clinically. In some cases this critical timeline for a positive outcome may be as short as one week. In 2017, the New Hampshire Newborn Screening Program identified ten (10) infants with disorders requiring treatment and ongoing specialty evaluation. In 2016, the program identified ten (10) infants with disorders, and in 2015, the program identified twenty-five (25) infants with disorders. Newborn screening results in early identification of disorders for which timely diagnosis and treatment can mean a life without disability. The lives of these infants and their families have been impacted in a very positive way by timely and accurate screening services.

Notwithstanding any other provision of the Contract to the contrary, no services shall continue after June 30, 2021, and the Department shall not be liable for any payments for services provided after June 30, 2021, unless and until an appropriation for these services has been received from the state legislature and funds encumbered for the SFY 2020-2021 biennium.

As referenced in Exhibit C-1 of this contract, this Agreement has the option to extend for up to three (3) additional years, contingent upon satisfactory delivery of services, available funding,

agreement of the parties, and approval of the Governor and Council. The Department is exercising this renewal option.

The Contractor successfully fulfilled and achieved the performance measures (or deliverables) in the original contract, which include:

- At least ninety-eight percent (98%) of Congenital Adrenal Hyperplasia results will be reported to the New Hampshire Newborn Screening Program within three (3) days of the contractor receiving the dried blood specimen.
- At least ninety-five percent (95%) of all initial screening reports will have a report date within seven days of life.

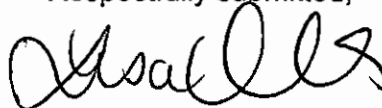
Should the Governor and Executive Council not authorize this request, New Hampshire will be out of compliance with the mandate established in RSA 132:10a, and newborns would be in jeopardy of serious harm, potentially even death.

Area served: Statewide.

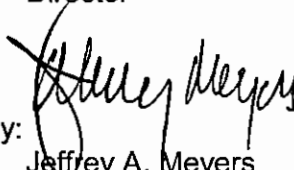
Source of Funds: 100% Other Funds (Newborn Screening Revolving Fund).

In the event that the Other Funds become no longer available, General Funds will not be requested to support this program.

Respectfully submitted,



Lisa Morris, MSSW
Director



Approved by:

Jeffrey A. Meyers
Commissioner



State of New Hampshire
Department of Health and Human Services
Amendment #1 to the Newborn Screening Laboratory Services Contract

This 1st Amendment to the Newborn Screening Laboratory Services contract (hereinafter referred to as "Amendment One") dated this 15th day of May, 2018 is by and between the State of New Hampshire, Department of Health and Human Services (hereinafter referred to as the "State" or "Department") and the University of Massachusetts, (hereinafter referred to as "the Contractor"), with a place of business at 305 South Street, Jamaica Plain, MA 02130-3597.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on June 24, 2015, (Item #54), the Contractor agreed to perform certain services based upon the terms and conditions specified in the Contract and in consideration of certain sums specified; and

WHEREAS, the State and the Contractor have agreed to make changes to the scope of work, payment schedules and terms and conditions of the contract; and

WHEREAS, pursuant to Form P-37, General Provisions, Paragraph 18, and Exhibit C-1, Paragraph 2 (10.6), the Department reserves the right to renew the Contract for up to three (3) additional years, subject to mutual agreement, continued availability of funds, satisfactory performance of service, and approval by the Governor and Executive Council; and

WHEREAS, the parties agree to extend the term of the agreement and increase the price limitation; and
THEREFORE, in consideration of the foregoing and the mutual covenants and conditions contained in the Contract and set forth herein, the parties hereto agree to amend as follows:

1. Form P-37 General Provisions, Block 1.7, Completion Date, to read:
June 30, 2021.
2. Form P-37, General Provisions, Block 1.8, Price Limitation, to read:
\$5,668,173.
3. Form P-37, General Provisions, Block 1.9, Contracting Officer for State Agency, to read:
E. Maria Reinemann, Esq., Director of Contracts and Procurement.
4. Form P-37, General Provisions, Block 1.10, State Agency Telephone Number, to read:
603-271-9330.
5. Exhibit A Newborn Screening Laboratory Services, SCOPE OF SERVICES, Section 1. General Provisions, Subsection 1.1 Required Services, Paragraph 1.1.5, to read:
1.1.5. The Contractor shall provide a courier service to all designated birthing centers in New Hampshire for transporting of blood samples to the testing facility to include Sunday through Friday pickup and Monday through Saturday delivery. Adherence to strict turnaround times is critical. The Contractor shall also monitor the courier service for performance and timeliness
6. Delete and replace Exhibit B Method and Conditions Precedent to Payment with Exhibit B Amendment #1 Method and Conditions Precedent to Payment.
7. Add Exhibit B-2 Budget Form Amendment #1, Budget for State Fiscal Year 2019.
8. Add Exhibit B-3 Budget Form Amendment #1, Budget for State Fiscal Year 2020.
9. Add Exhibit B-4 Budget Form Amendment #1, Budget for State Fiscal Year 2021.
10. Add Exhibit K, DHHS Information Security Requirements.

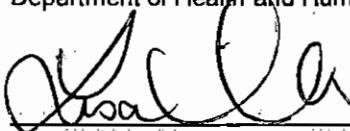


New Hampshire Department of Health and Human Services
Newborn Screening Laboratory Services

This amendment shall be effective upon the date of Governor and Executive Council approval.
IN WITNESS WHEREOF, the parties have set their hands as of the date written below,

State of New Hampshire
Department of Health and Human Services

5/2/18
Date


Name: Lisa M. Morris
Title: Director

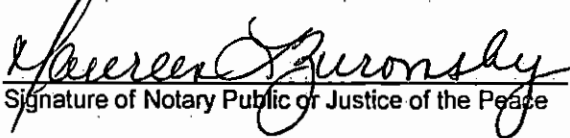
University of Massachusetts

Date

Patti Onorato 5.16.18
Name: Patti Onorato
Title: Associate Vice Chancellor, Operations, CWM

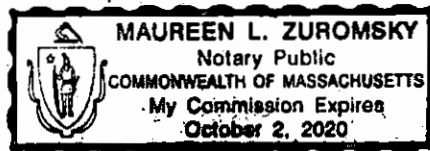
Acknowledgement of Contractor's signature:

State of Massachusetts, County of Worcester on May 16, 2018, before the undersigned officer, personally appeared the person identified directly above, or satisfactorily proven to be the person whose name is signed above, and acknowledged that s/he executed this document in the capacity indicated above.


Signature of Notary Public or Justice of the Peace

MAUREEN L. ZUROMSKY, NOTARY PUBLIC
Name and Title of Notary or Justice of the Peace

My Commission Expires: 10/2/2020



**New Hampshire Department of Health and Human Services
Newborn Screening Laboratory Services**



The preceding Amendment, having been reviewed by this office, is approved as to form, substance, and execution.

OFFICE OF THE ATTORNEY GENERAL

6/5/18
Date

[Signature]
Name: Myron A. Stabile
Title: Attorney General

I hereby certify that the foregoing Amendment was approved by the Governor and Executive Council of the State of New Hampshire at the Meeting on: _____ (date of meeting)

OFFICE OF THE SECRETARY OF STATE

Date

Name:
Title:



Exhibit B Amendment #1

Method and Conditions Precedent to Payment

1. This contract is funded from 100% other funds from the Newborn Screening Revolving Fund to provide services pursuant to Exhibit A, Scope of Services.
2. The State shall pay the Contractor an amount not to exceed the amount identified in Form P37, General Provisions, Block 1.8, price limitation for the services provided by the Contractor pursuant to Exhibit A, Scope of Services.
3. Payment for expenses shall be on a cost reimbursement basis only for actual expenditures in accordance with the approved line item budgets shown in Exhibits B-1 and B-4.
4. Payment for services shall be made as follows:
 - 4.1. The Contractor shall submit quarterly reports as specified in Exhibit A, Scope of Services, Sections 3, with an invoice for reimbursement of actual expenses incurred during the quarter.
 - 4.2. The State shall make payment to the Contractor within thirty (30) days of receipt of each invoice for Contractor services provided pursuant to this Agreement.
 - 4.3. Invoices and reports identified in Section 4.1 must be submitted to:

NH Department of Health and Human Services
Division of Public Health Services
Email address: DPHcontractbilling@dhhs.state.nh.us
5. Payments may be withheld pending receipt of required reports.
6. A final payment request shall be submitted no later than forty-five (45) days after the contract ends. Failure to submit the invoice and accompanying documentation may result in nonpayment.
7. Notwithstanding anything to the contrary herein, the Contractor agrees that funding under this Contract may be withheld, in whole or in part, in the event of noncompliance with any State or Federal law, rule or regulation applicable to the services provided, or if the said services have not been completed in accordance with the terms and conditions of this Agreement.
8. Notwithstanding paragraph 18 of Form P-37, General Provisions, an amendment limited to adjusting the encumbrances between State fiscal years within the price limitation, may be made by written agreement of both parties without obtaining further approval from the Governor and Executive Council.

Exhibit B-2 Budget Form Amendment #1

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services

Budget Period: SFY 2019

Line Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing (current, @\$68.73)	\$ 893,490.00	\$ -	\$ 893,490.00	
Specimen Shipping	\$ 34,564.00	\$ -	\$ 34,564.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 928,054.00	\$ -	\$ 928,054.00	

Indirect As A Percent of Direct

0.0%

Contractor Initials: PO

Date: 5.16.18

Exhibit B-3 Budget Form Amendment #1

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services

Budget Period: SFY 2020

Line/Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing (current, @\$70.79)	\$ 920,295.00	\$ -	\$ 920,295.00	
Specimen Shipping	\$ 35,601.00	\$ -	\$ 35,601.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 955,896.00	\$ -	\$ 955,896.00	

Indirect As A Percent of Direct

0.0%

Contractor Initials: *PD*

Date: 5.16.17

Exhibit B-4 Budget Form Amendment #1

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services

Budget Period: SFY 2021

Line/Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing (current, @\$72.92)	\$ 947,904.00	\$ -	\$ 947,904.00	
Specimen Shipping	\$ 36,669.00	\$ -	\$ 36,669.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 984,573.00	\$ -	\$ 984,573.00	

Indirect As A Percent of Direct

0.0%



A. Definitions

The following terms may be reflected and have the described meaning in this document:

1. "Breach" means the loss of control, compromise, unauthorized disclosure, unauthorized acquisition, unauthorized access, or any similar term referring to situations where persons other than authorized users and for an other than authorized purpose have access or potential access to personally identifiable information, whether physical or electronic. With regard to Protected Health Information, "Breach" shall have the same meaning as the term "Breach" in section 164.402 of Title 45, Code of Federal Regulations.
2. "Computer Security Incident" shall have the same meaning "Computer Security Incident" in section two (2) of NIST Publication 800-61, Computer Security Incident Handling Guide, National Institute of Standards and Technology, U.S. Department of Commerce.
3. "Confidential Information" or "Confidential Data" means all confidential information disclosed by one party to the other such as all medical, health, financial, public assistance benefits and personal information including without limitation, Substance Abuse Treatment Records, Case Records, Protected Health Information and Personally Identifiable Information.

Confidential Information also includes any and all information owned or managed by the State of NH - created, received from or on behalf of the Department of Health and Human Services (DHHS) or accessed in the course of performing contracted services - of which collection, disclosure, protection, and disposition is governed by state or federal law or regulation. This information includes, but is not limited to Protected Health Information (PHI), Personal Information (PI), Personal Financial Information (PFI), Federal Tax Information (FTI), Social Security Numbers (SSN), Payment Card Industry (PCI), and or other sensitive and confidential information.

4. "End User" means any person or entity (e.g., contractor, contractor's employee, business associate, subcontractor, other downstream user, etc.) that receives DHHS data or derivative data in accordance with the terms of this Contract.
5. "HIPAA" means the Health Insurance Portability and Accountability Act of 1996 and the regulations promulgated thereunder.
6. "Incident" means an act that potentially violates an explicit or implied security policy, which includes attempts (successful) to gain unauthorized access to a system or its data, unwanted disruption or denial of service, the unauthorized use of a system for the processing or storage of data; and changes to system hardware, firmware, or software characteristics without the owner's knowledge, instruction, or consent. Incidents include the loss of data through theft or device misplacement, loss or misplacement of hardcopy documents, and misrouting of physical or electronic



mail, all of which may have the potential to put the data at risk of unauthorized access, use, disclosure, modification or destruction.

7. "Open Wireless Network" means any network or segment of a network that is not designated by the State of New Hampshire's Department of Information Technology or delegate as a protected network (designed, tested, and approved, by means of the State, to transmit) will be considered an open network and not adequately secure for the transmission of unencrypted PI, PFI, PHI or confidential DHHS data.
8. "Personal Information" (or "PI") means information which can be used to distinguish or trace an individual's identity, such as their name, social security number, personal information as defined in New Hampshire RSA 359-C:19, biometric records, etc., alone, or when combined with other personal or identifying information which is linked or linkable to a specific individual, such as date and place of birth, mother's maiden name, etc.
9. "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. Parts 160 and 164, promulgated under HIPAA by the United States Department of Health and Human Services.
10. "Protected Health Information" (or "PHI") has the same meaning as provided in the definition of "Protected Health Information" in the HIPAA Privacy Rule at 45 C.F.R. § 160.103.
11. "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. Part 164, Subpart C, and amendments thereto.
12. "Unsecured Protected Health Information" means Protected Health Information that is not secured by a technology standard that renders Protected Health Information unusable, unreadable, or indecipherable to unauthorized individuals and is developed or endorsed by a standards developing organization that is accredited by the American National Standards Institute.

I. RESPONSIBILITIES OF DHHS AND THE CONTRACTOR

A. Business Use and Disclosure of Confidential Information.

1. The Contractor must not use, disclose, maintain or transmit Confidential Information except as reasonably necessary as outlined under this Contract. Further, Contractor, including but not limited to all its directors, officers, employees and agents, must not use, disclose, maintain or transmit PHI in any manner that would constitute a violation of the Privacy and Security Rule.
2. The Contractor must not disclose any Confidential Information in response to a



request for disclosure on the basis that it is required by law, in response to a subpoena, etc., without first notifying DHHS so that DHHS has an opportunity to consent or object to the disclosure.

3. If DHHS notifies the Contractor that DHHS has agreed to be bound by additional restrictions over and above those uses or disclosures or security safeguards of PHI pursuant to the Privacy and Security Rule, the Contractor must be bound by such additional restrictions and must not disclose PHI in violation of such additional restrictions and must abide by any additional security safeguards.
4. The Contractor agrees that DHHS Data or derivative there from disclosed to an End User must only be used pursuant to the terms of this Contract.
5. The Contractor agrees DHHS Data obtained under this Contract may not be used for any other purposes that are not indicated in this Contract.
6. The Contractor agrees to grant access to the data to the authorized representatives of DHHS for the purpose of inspecting to confirm compliance with the terms of this Contract.

II. METHODS OF SECURE TRANSMISSION OF DATA

1. Application Encryption. If End User is transmitting DHHS data containing Confidential Data between applications, the Contractor attests the applications have been evaluated by an expert knowledgeable in cyber security and that said application's encryption capabilities ensure secure transmission via the internet.
2. Computer Disks and Portable Storage Devices. End User may not use computer disks or portable storage devices, such as a thumb drive, as a method of transmitting DHHS data.
3. Encrypted Email. End User may only employ email to transmit Confidential Data if email is encrypted and being sent to and being received by email addresses of persons authorized to receive such information.
4. Encrypted Web Site. If End User is employing the Web to transmit Confidential Data, the secure socket layers (SSL) must be used and the web site must be secure. SSL encrypts data transmitted via a Web site.
5. File Hosting Services, also known as File Sharing Sites. End User may not use file hosting services, such as Dropbox or Google Cloud Storage, to transmit Confidential Data.
6. Ground Mail Service. End User may only transmit Confidential Data via *certified* ground mail, UPS or Federal Express within the continental U.S. and when sent to a named individual.
7. Laptops and PDA. If End User is employing portable devices to transmit Confidential Data said devices must be encrypted and password-protected.
8. Open Wireless Networks. End User may not transmit Confidential Data via an open



Exhibit K

DHHS Information Security Requirements

wireless network. End User must employ a virtual private network (VPN) when remotely transmitting via an open wireless network.

9. Remote User Communication. If End User is employing remote communication to access or transmit Confidential Data, a virtual private network (VPN) must be installed on the End User's mobile device(s) or laptop from which information will be transmitted or accessed.
10. SSH File Transfer Protocol (SFTP), also known as Secure File Transfer Protocol. If End User is employing an SFTP to transmit Confidential Data, End User will structure the Folder and access privileges to prevent inappropriate disclosure of information. The two UMMS automated NH SFTP jobs running is acceptable to DHHS; One is on a 24 hour cycle and is deleted the next time it is run. The other is a weekly extract. This one sits on the SFTP server for one week and is deleted once per week.
11. Wireless Devices. If End User is transmitting Confidential Data via wireless devices, all data must be encrypted to prevent inappropriate disclosure of information.

III. RETENTION AND DISPOSITION OF IDENTIFIABLE RECORDS

The Contractor will only retain the data and any derivative of the data for the duration of this Contract. After such time, the Contractor will have 30 days to destroy the data and any derivative in whatever form it may exist, unless, otherwise required by law or permitted under this Contract. To this end, the parties must:

A. Retention

1. The Contractor agrees it will not store, transfer or process data collected in connection with the services rendered under this Contract outside of the United States. This physical location requirement shall also apply in the implementation of cloud computing, cloud service or cloud storage capabilities, and includes backup data and Disaster Recovery locations.
2. The Contractor agrees to ensure proper security monitoring capabilities are in place to detect potential security events that can impact State of NH systems and/or Department confidential information for contractor provided systems.
3. The Contractor agrees to provide security awareness and education for its End Users in support of protecting Department confidential information.
4. The Contractor agrees to retain all electronic and hard copies of Confidential Data in a secure location and identified in section IV. A.2
5. The Contractor agrees Confidential Data stored in a Cloud must be in a FedRAMP/HITECH compliant solution and comply with all applicable statutes and regulations regarding the privacy and security. All servers and devices must have currently-supported and hardened operating systems, the latest anti-viral, anti-hacker, anti-spam, anti-spyware, and anti-malware utilities. The environment, as a



whole, must have aggressive intrusion-detection and firewall protection.

6. The Contractor agrees to and ensures its complete cooperation with the State's Chief Information Officer in the detection of any security vulnerability of the hosting infrastructure.

B. Disposition

1. If the Contractor will maintain any Confidential Information on its systems (or its sub-contractor systems), the Contractor will maintain a documented process for securely disposing of such data upon request or contract termination; and will obtain written certification for any State of New Hampshire data destroyed by the Contractor or any subcontractors as a part of ongoing, emergency, and or disaster recovery operations. When no longer in use, electronic media containing State of New Hampshire data shall be rendered unrecoverable via a secure wipe program in accordance with industry-accepted standards for secure deletion and media sanitization, or otherwise physically destroying the media (for example, degaussing) as described in NIST Special Publication 800-88, Rev 1, Guidelines for Media Sanitization, National Institute of Standards and Technology, U. S. Department of Commerce. The Contractor will document and certify in writing at time of the data destruction, and will provide written certification to the Department upon request. The written certification will include all details necessary to demonstrate data has been properly destroyed and validated. Where applicable, regulatory and professional standards for retention requirements will be jointly evaluated by the State and Contractor prior to destruction.
2. Unless otherwise specified, within thirty (30) days of the termination of this Contract, Contractor agrees to destroy all hard copies of Confidential Data using a secure method such as shredding.
3. Unless otherwise specified, within thirty (30) days of the termination of this Contract, Contractor agrees to completely destroy all electronic Confidential Data by means of data erasure, also known as secure data wiping.

IV. PROCEDURES FOR SECURITY

- A. Contractor agrees to safeguard the DHHS Data received under this Contract, and any derivative data or files, as follows:

1. The Contractor will maintain proper security controls to protect Department confidential information collected, processed, managed, and/or stored in the delivery of contracted services.
2. The Contractor will maintain policies and procedures to protect Department confidential information throughout the information lifecycle, where applicable, (from creation, transformation, use, storage and secure destruction) regardless of the media used to store the data (i.e., tape, disk, paper, etc.).



3. The Contractor will maintain appropriate authentication and access controls to contractor systems that collect, transmit, or store Department confidential information where applicable.
4. The Contractor will ensure proper security monitoring capabilities are in place to detect potential security events that can impact State of NH systems and/or Department confidential information for contractor provided systems.
5. The Contractor will provide regular security awareness and education for its End Users in support of protecting Department confidential information.
6. If the Contractor will be sub-contracting any core functions of the engagement supporting the services for State of New Hampshire, the Contractor will maintain a program of an internal process or processes that defines specific security expectations, and monitoring compliance to security requirements that at a minimum match those for the Contractor, including breach notification requirements.
7. The Contractor will work with the Department to sign and comply with all applicable State of New Hampshire and Department system access and authorization policies and procedures, systems access forms, and computer use agreements as part of obtaining and maintaining access to any Department system(s). Agreements will be completed and signed by the Contractor and any applicable sub-contractors prior to system access being authorized.
8. If the Department determines the Contractor is a Business Associate pursuant to 45 CFR 160.103, the Contractor will execute a HIPAA Business Associate Agreement (BAA) with the Department and is responsible for maintaining compliance with the agreement.
9. The Contractor will work with the Department at its request to complete a System Management Survey. The purpose of the survey is to enable the Department and Contractor to monitor for any changes in risks, threats, and vulnerabilities that may occur over the life of the Contractor engagement. The survey will be completed annually, or an alternate time frame at the Departments discretion with agreement by the Contractor, or the Department may request the survey be completed when the scope of the engagement between the Department and the Contractor changes.
10. The Contractor will not store, knowingly or unknowingly, any State of New Hampshire or Department data offshore or outside the boundaries of the United States unless prior express written consent is obtained from the Information Security Office leadership member within the Department.
11. Data Security Breach Liability. In the event of any security breach Contractor shall make efforts to investigate the causes of the breach, promptly take measures to prevent future breach and minimize any damage or loss resulting from the breach. The State shall recover from the Contractor all costs of response and recovery from

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



the breach, including but not limited to: credit monitoring services, mailing costs and costs associated with website and telephone call center services necessary due to the breach.

12. Contractor must, comply with all applicable statutes and regulations regarding the privacy and security of Confidential Information, and must in all other respects maintain the privacy and security of PI and PHI at a level and scope that is not less than the level and scope of requirements applicable to federal agencies, including, but not limited to, provisions of the Privacy Act of 1974 (5 U.S.C. § 552a), DHHS Privacy Act Regulations (45 C.F.R. §5b), HIPAA Privacy and Security Rules (45 C.F.R. Parts 160 and 164) that govern protections for individually identifiable health information and as applicable under State law.
13. Contractor agrees to establish and maintain appropriate administrative, technical, and physical safeguards to protect the confidentiality of the Confidential Data and to prevent unauthorized use or access to it. The safeguards must provide a level and scope of security that is not less than the level and scope of security requirements set forth in the principles of NIST 800-53, as defined by that Federal Standard at a Moderate level .
14. Contractor agrees to maintain a documented breach notification and incident response process. The Contractor will notify the State's Privacy Officer, and additional email addresses provided in this section, of any security breach within three (3) business days of the time that the Contractor learns of its occurrence. This includes a confidential information breach, computer security incident, or suspected breach which affects or includes any State of New Hampshire systems that connect to the State of New Hampshire network.
15. Contractor must restrict access to the Confidential Data obtained under this Contract to only those authorized End Users who need such DHHS Data to perform their official duties in connection with purposes identified in this Contract.
16. The Contractor must ensure that all End Users:
 - a. comply with such safeguards as referenced in Section IV A. above, implemented to protect Confidential Information that is furnished by DHHS under this Contract from loss, theft or inadvertent disclosure.
 - b. safeguard this information at all times.
 - c. ensure that laptops and other electronic devices/media containing PHI, PI, or PFI are encrypted and password-protected.
 - d. send emails containing Confidential Information only if encrypted and being sent to and being received by email addresses of persons authorized to receive such information.

DHHS Information Security Requirements



- e. limit disclosure of the Confidential Information to the extent permitted by law.
- f. Confidential Information received under this Contract and individually identifiable data derived from DHHS Data, must be stored in an area that is physically and technologically secure from access by unauthorized persons during duty hours as well as non-duty hours (e.g., door locks, card keys, biometric identifiers, etc.).
- g. only authorized End Users may transmit the Confidential Data, including any derivative files containing personally identifiable information, and in all cases, such data must be encrypted at all times when in transit, at rest, or when stored on portable media as required in section IV above.
- h. in all other instances Confidential Data must be maintained, used and disclosed using appropriate safeguards, as determined by a risk-based assessment of the circumstances involved.
- i. understand that their user credentials (user name and password) must not be shared with anyone. End Users will keep their credential information secure. This applies to credentials used to access the site directly or indirectly through a third party application.

Contractor is responsible for oversight and compliance of their End Users. DHHS reserves the right to conduct onsite inspections to monitor compliance with this Contract annually, upon thirty (30) days' notice, including the privacy and security requirements provided in herein, HIPAA, and other applicable laws and Federal regulations until such time the Confidential Data is disposed of in accordance with this Contract.

V. LOSS REPORTING

The Contractor must notify the State's Privacy Officer, Information Security Office and Program Manager of any Security Incidents and Breaches within three (3) business days of the time that the Contractor learns of their occurrence.

The Contractor must further handle and report Incidents and Breaches involving PHI in accordance with the agency's documented Incident Handling and Breach Notification procedures and in accordance with 42 C.F.R. §§ 431.300 - 306. In addition to, and notwithstanding, Contractor's compliance with all applicable obligations and procedures, Contractor's procedures must also address how the Contractor will:

1. Identify Incidents;
2. Determine if personally identifiable information is involved in Incidents;
3. Report suspected or confirmed Incidents as required in this Exhibit or P-37;
4. Identify and convene a core response group to determine the risk level of Incidents and determine risk-based responses to Incidents; and



5. Determine whether Breach notification is required, and, if so, identify appropriate Breach notification methods, timing, source, and contents from among different options, and bear costs associated with the Breach notice as well as any mitigation measures.

Incidents and/or Breaches that implicate PI must be addressed and reported, as applicable, in accordance with NH RSA 359-C:20.

VI. PERSONS TO CONTACT

- A. DHHS contact for Data Management or Data Exchange issues:

DHHSInformationSecurityOffice@dhhs.nh.gov

- B. DHHS contacts for Privacy issues:

DHHSPrivacyOfficer@dhhs.nh.gov

- C. DHHS contact for Information Security issues:

DHHSInformationSecurityOffice@dhhs.nh.gov

- D. DHHS contact for Breach notifications:

DHHSInformationSecurityOffice@dhhs.nh.gov

DHHSPrivacy.Officer@dhhs.nh.gov

**EXTRACT FROM THE RECORDS OF
UNIVERSITY OF MASSACHUSETTS**

Granting Authority to Execute Contracts and All Other Instruments

I, Zunilka Barrett, Secretary of the Board of Trustees of the University of Massachusetts, do hereby certify that the following is a true and complete copy of a vote duly adopted by the Board of Trustees of the University of Massachusetts at a meeting duly called and held on the fifth day of February, nineteen hundred and ninety-seven at the University of Massachusetts, Chancellor's Conference Room, Boston, Massachusetts:

“Further, to affirm that, except as to matters governed by the University of Massachusetts Intellectual Property Policy (Doc. T96-040), the Treasurer of the University of Massachusetts or his designee shall be the sole contracting officer of the University with the Authority to execute all contract, grants, restricted gifts (excluding endowments), and amendments thereto for sponsored programs in instruction, research, or public service, unless and until otherwise voted by the Board of Trustees.”

I further certify that the Senior Vice President for Administration & Finance and Treasurer of the University, Lisa A. Calise, has retained the right to remain the sole contracting officer of the University of Massachusetts, but in her absence, she has designated Andrew W. Russell, Senior Assistant Vice President of Operations and Associate Treasurer.

I further certify that effective February 26, 2018, the following is a list of designated individuals authorized in accordance with the afore referenced votes to review and execute all grants and contracts for sponsored programs in instruction, research and public service that are applicable to and received on behalf of the University of Massachusetts for their respective campuses.

Amherst Campus

Kumble R. Subbaswamy, Chancellor, Amherst Campus, Amherst, Massachusetts,
Robert S. Feldman, Deputy Chancellor, Amherst Campus, Amherst, Massachusetts,
Michael Malone, Vice Chancellor, Amherst Campus, Amherst, Massachusetts,
Carol P. Sprague, Director of the Office of Grants and Contracts Administration, Amherst Campus, Amherst, Massachusetts,
Jennifer A. Donais, Director of Research Compliance, Amherst Campus, Amherst, Massachusetts,
Theresa W. Girardi, Assistant Director, Amherst Campus, Amherst, Massachusetts,
Nancy E. Stewart, Assistant Director, Amherst Campus, Amherst, Massachusetts,
James B. Ayres, Assistant Director, Amherst Campus, Amherst, Massachusetts,
Laura J. Howard, Associate Director, Division of Continuing Education, Amherst Campus, Amherst, Massachusetts
Steven D. Goodwin, Deputy Chancellor, Amherst Campus, Amherst, Massachusetts

Boston Campus

Barry Mills, Interim Chancellor, Boston Campus, Boston, Massachusetts,
Kathleen Kirleis, Vice Chancellor for Administration and Finance, Boston Campus, Boston, Massachusetts,

Emily McDermott, Interim Provost & Vice Chancellor for Academic Affairs, Boston Campus, Boston, Massachusetts,

Bala Sundaram, Vice Provost for Research and Strategic Initiatives and Dean of Graduate Studies, Boston Campus, Boston, Massachusetts,

Matthew L. Meyer, Associate Vice Provost for Research and Director of the Office of Research & Sponsored Programs, Boston Campus, Boston, Massachusetts,

Shala A. Bonyun, Assistant Director for the Office of Research and Sponsored Programs, Boston Campus, Boston, Massachusetts

Dartmouth Campus

Robert E. Johnson, Chancellor, Dartmouth Campus, Dartmouth, Massachusetts,

Mohammad A. Karim, Provost & Executive Vice Chancellor for Academic and Student Affairs & Chief Operating Officer, Dartmouth Campus, Dartmouth, Massachusetts,

Mary Louise Nunes, Associate Vice Chancellor for Financial Services, Administration & Finance, Dartmouth Campus, Dartmouth, Massachusetts,

Tesfay Meressi, Interim Vice Chancellor for Research & Economic Development, Dartmouth Campus, Dartmouth, Massachusetts,

Elena Glatman, Director of Research Administration, Dartmouth Campus, Dartmouth, Massachusetts,

Michelle M. Plaud, Manager of Pre and Post Award Administration, Dartmouth Campus, Dartmouth, Massachusetts,

Deborah Dolan, Pre-Award and Subrecipient Manager, Dartmouth Campus, Dartmouth Massachusetts,

Michael Barone, Interim Vice Chancellor for Administration and Finance, Dartmouth Campus, Dartmouth, Massachusetts,

Lowell Campus

Jacqueline F. Moloney, Chancellor, Lowell Campus, Lowell, Massachusetts,

Joanne Yestramski, Senior Vice Chancellor for Finance, Operations and Strategic Planning, Lowell Campus, Lowell, Massachusetts,

Michael Vayda, Provost, Lowell Campus, Lowell, Massachusetts,

Steven O’Riordan, Associate Vice Chancellor for Financial Services, Lowell Campus, Lowell, Massachusetts,

Susan Puryear, Director, Office of Research Administration, Lowell Campus, Lowell, Massachusetts,

Julie Chen, Vice Chancellor for Research & Innovation, Lowell Campus, Lowell, Massachusetts,

Anne Maglia, Associate Vice Chancellor, Research Administration, Lowell Campus, Lowell, Massachusetts,

President’s Office

Katie Stebbins, Vice President for Economic Development, President’s Office, Boston, Massachusetts,

Eric Heller, Deputy Director for the Donahue Institute, President’s Office, Boston, Massachusetts,

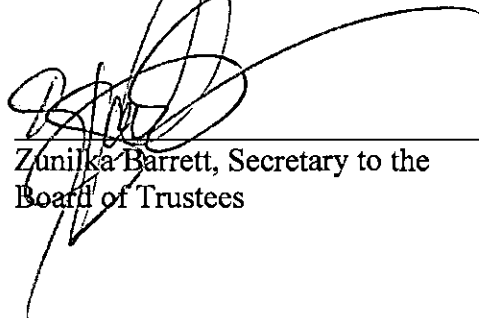
Worcester

Michael F. Collins, M.D., Chancellor, University of Massachusetts Medical School, Worcester, Massachusetts,

Joyce A. Murphy, Executive Vice Chancellor for Commonwealth Medicine, University of Massachusetts Medical School, Worcester, Massachusetts,
James Glasheen, Executive Vice Chancellor Innovation & Business Development, University of Massachusetts Medical School, Worcester, Massachusetts,
John C. Lindstedt, Executive Vice Chancellor for Administration & Finance, University of Massachusetts Medical School, Worcester, Massachusetts,
Katherine Luzuriaga, M.D., Vice Provost for Clinical and Translational Research, University of Massachusetts Medical School, Worcester, Massachusetts,
Janice Lagace, Associate Director Research Funding Services, University of Massachusetts Medical School, Worcester, Massachusetts,
Patti Onorato, Associate Vice Chancellor for Operations, Commonwealth Medicine, University of Massachusetts Medical School, Worcester, Massachusetts,
Terence R. Flotte, M.D., Dean, School of Medicine, Provost and Executive Deputy Chancellor, University of Massachusetts Medical School, Worcester, Massachusetts,
James McNamara, Executive Director, Office of Technology Management, University of Massachusetts Medical School, Worcester, Massachusetts,
Marcy Culverwell, Associate Vice Chancellor for Administration & Finance, University of Massachusetts Medical School, Worcester, Massachusetts,
Amy Miarecki, Senior Director Post Award Administration & Compliance, University of Massachusetts Medical School, Worcester, Massachusetts,
Danielle Howard, Director Clinical Research Operations, University of Massachusetts Medical School, Worcester Massachusetts

I further certify that Lisa A. Calise, Andrew W. Russell, Kumble R. Subbaswamy, Robert S. Feldman, Michael Malone, Carol P. Sprague, Jennifer A. Donais, Theresa W. Girardi, Nancy E. Stewart, James B. Ayres, Laura J. Howard, Steven D. Goodwin, Barry Mills, Kathleen Kirleis, Emily McDermott, Bala Sundaram, Matthew L. Meyer, Shala A. Bonyun, Robert E. Johnson, Mohammad A. Karim, Michael Barone, Mary Louise Nunes, Tesfay Meressi, Elena Glatman, Michelle M. Plaud, Deborah Dolan, Jacqueline F. Moloney, Joanne Yestranski, Steven O’Riordan, Julie Chen, Michael Vayda, Anne Maglia, Susan Puryear, Katie Stebbins, Eric Heller, Michael F. Collins, MD, Joyce A. Murphy, James Glasheen, John C. Lindstedt, Katherine Luzuriaga, MD, Janice Lagace, Patti Onorato, Terence R. Flotte, MD, James McNamara, Marcy Culverwell, Amy Miarecki, and Danielle Howard are members of the University Administration with its principal office located at 333 South Street, Shrewsbury, County of Worcester, in the Commonwealth of Massachusetts.

Date: May 8, 2018



Zunilka Barrett, Secretary to the
Board of Trustees



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
05/09/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Aon Risk Services Northeast, Inc. Providence RI Office 100 Westminster Street, 10th Floor Providence RI 02903-2393 USA	CONTACT NAME: PHONE (A/C. No. Ext): (866) 283-7122 FAX (A/C. No.): (800) 363-0105		
	E-MAIL ADDRESS:		
INSURED University of Massachusetts Medical School New England & Newborn Screening Program 333 South Street, Suite 450 Shrewsbury MA 01545 USA	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: Navigators Insurance Co		42307
	INSURER B: United Educators Ins, a Reciprocal RRG		10020
	INSURER C:		
	INSURER D:		
	INSURER E:		

Holder Identifier :

COVERAGES **CERTIFICATE NUMBER: 570071110651** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			U4075A SIR applies per policy terms & conditions	05/01/2018	05/01/2019	EACH OCCURRENCE	\$750,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	Included
							MED EXP (Any one person)	Excluded
							PERSONAL & ADV INJURY	Included
							GENERAL AGGREGATE	\$3,000,000
							PRODUCTS - COMPIOP AGG	Included
							SIR	\$250,000
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident)	
							BODILY INJURY (Per person)	
							BODILY INJURY (Per accident)	
							PROPERTY DAMAGE (Per accident)	
B	<input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$1,000,000			U4075A	05/01/2018	05/01/2019	EACH OCCURRENCE	\$10,000,000
							AGGREGATE	\$10,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						PER STATUTE	
							OTH-ER	
							E.L. EACH ACCIDENT	
							E.L. DISEASE-EA EMPLOYEE	
							E.L. DISEASE-POLICY LIMIT	
A	Products Liab			OC17LE0031706NC Claims Made/incl Prof Ser	08/10/2017	08/10/2018	Each claim Deductible	\$10,000,000 \$100,000
							Aggregate	\$10,000,000

Certificate No : 570071110651

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 The Excess Liability policy is excess of the General Liability. RE: Renewal of NH Department of Health and Human Services - Newborn Screening Laboratory Services contract, 07/01/2018. NH Department of Health & Human Services is included as Additional Insured in accordance with the policy provisions of the General Liability policy.

CERTIFICATE HOLDER**CANCELLATION**

NH Department of Health & Human Services Attn: Christine A. Morin 129 Pleasant Street Concord NH 03301 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Aon Risk Services Northeast Inc</i>
---	---

Mission Statements

This contract will be carried out by the New England Newborn Screening Program, which is part of Commonwealth Medicine, a division of the University of Massachusetts Medical School. We provide the mission statements for each of these levels of the organization here.

Of the University of Massachusetts Medical School:

The mission of the University of Massachusetts Medical School is to advance the health and well-being of the people of the commonwealth and the world through pioneering advances in education, research and health care delivery.

Of Commonwealth Medicine:

To apply knowledge to improve health outcomes for those served by public health and human service programs.

Of the New England Newborn Screening Program:

We provide timely, low cost, quality laboratory screening, clinical follow-up, and research to prevent disorders that can lead to death, mental retardation, and life compromising conditions in newborns.

University of Massachusetts Mission Statement

To provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation, and the world.

2017

Annual Financial

Report



The University of Massachusetts
Amherst • Boston • Dartmouth • Lowell • Medical School • UMassOnline

University Administration

As of December 2017

Board of Trustees:

Robert Manning (Chairman), Boston, MA
Norman Peters (Vice Chair), Paxton, MA
James Buonomo, Shrewsbury, MA
Mary L. Burns, Lowell, MA
Robert Epstein, Norton, MA
David G. Fubini, Brookline, MA
Maria D. Furman, Wellesley, MA
Stephen R. Karam, Fall River, MA
Michael O'Brien, Southborough, MA
Kerri Osterhaus-Houle, M.D., Hudson, MA
Imari K. Paris Jeffries, Boston, MA
James A. Peyser, Secretary of Education, Commonwealth of MA, Boston MA
Elizabeth D. Scheibel J.D., South Hadley, MA
Henry M. Thomas III, J.D., Springfield, MA
Steven A. Tolman
Victor Woolridge, Springfield, MA
Charles F. Wu, Newton, MA

Gray R. Milkowski (UMass Boston Student Trustee), Shirley, MA
(Non-Voting Student)
Samantha E. Reid (UMass Dartmouth Student Trustee), Leominster, MA
(Non-Voting Student)
Derek J. Dunlea (UMass Amherst Student Trustee), Randolph, MA
(Voting Student)
Melinda Reed, UMass Lowell Student Trustee), Lowell, MA
(Non-Voting Student)
Camilla D. Yu (UMass Worcester Student Trustee), Worcester, MA
(Voting Student)

Officers of the University:

Martin T. Meehan J.D., President
Kumble R. Subbaswamy, Ph.D., Chancellor, UMass Amherst
Barry Mills, J.D., Ph.D. Interim Chancellor, UMass Boston
Robert E. Johnson, Ph.D., Chancellor, UMass Dartmouth
Jacqueline Moloney, Ed.D., Chancellor, UMass Lowell
Michael F. Collins, M.D., Chancellor, UMass Worcester
and Senior Vice President for Health Sciences
James R. Julian, J.D., Executive Vice President and Chief Operating Officer
Lisa A. Calise, Senior Vice President for Administration and Finance & Treasurer
Marcellette G. Williams, Ph.D., Senior Vice President for Academic Affairs and International Relations
Zunilka Barrett, Secretary to the Board of Trustees



December 14, 2017

To the Board of Trustees
and President Martin T. Meehan J.D.

We are pleased to submit the annual Financial Report of the University of Massachusetts for the year ended June 30, 2017. The enclosed financial statements incorporate all financial activity of the University and its five campuses. These statements have been audited by an independent certified public accountant and are fully represented in the financial report of the Commonwealth of Massachusetts. Detailed information about each campus is provided as supplemental information.

The financial information presented in the Financial Report is designed to aid a wide variety of readers to assess the effectiveness of the University's management of its resources in meeting its primary mission of instruction, research, and public service. This report is intended to form a comprehensive and permanent record of the finances of the University of Massachusetts, and it is submitted as the public accounting of the University's financial affairs for the fiscal year ended June 30, 2017 including comparative information as of June 30, 2016.

The University's net position increased \$250 million from \$2.8 billion in fiscal year 2016 to \$3.1 billion in fiscal year 2017. This increase is primarily attributed to strong investment return, increases in tuition and auxiliary revenue from both a rate increase and enrollment increase, grant revenue due to new government and private grant activity, and statutory changes that resulted in a change in tuition retention and other non-operating revenue for the University.

Each year, the Board of Trustees reviews a five-year projection for key financial indicators that are likely to determine the success of the University over the long term. For the key indicators of operating margin, primary reserve, and debt service to operations, for FY2017, the University was on target with meeting projections. Overall, the University continues to make strategic investments that support the achievement of its long-term financial objectives of growth and stability.

Respectfully submitted,

A handwritten signature in black ink that reads "Lisa A. Calise". The signature is written in a cursive, flowing style.

Lisa A. Calise
Senior Vice President for Administration and
Finance & Treasurer

**University of Massachusetts
2017 Annual Financial Report
Table of Contents**

	<u>Page</u>
Report of Independent Certified Public Accountants	5
Management's Discussion and Analysis (unaudited)	7
Consolidated Statements of Net Position as of June 30, 2017 and 2016	17
Consolidated Statements of Revenues, Expenses, and Changes in Net Position for the Years Ended June 30, 2017 and 2016	18
Consolidated Statements of Cash Flows for the Years Ended June 30, 2017 and 2016	19
Notes to Consolidated Financial Statements	20
Required Supplementary Information (unaudited)	53
Supplemental Financial Information	54



Grant Thornton LLP
75 State Street, 13th Floor
Boston, MA 02109
T 617.723.7900
F 617.723.3640
www.GrantThornton.com
[linkd.in/GrantThorntonUS](https://www.linkedin.com/company/grantthorntonus)
twitter.com/GrantThorntonUS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees of the
University of Massachusetts

Report on the financial statements

We have audited the accompanying financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the "University"), an enterprise fund of the Commonwealth of Massachusetts, as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

Management's responsibility for the financial statements

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

Auditor's responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit 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 audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

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

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

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts as of June 30, 2017 and June 30, 2016, and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other matters

Required supplementary information

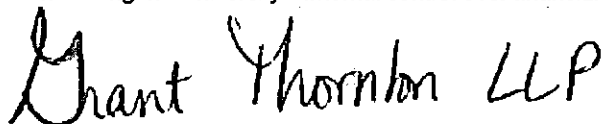
Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis on pages 7 through 16 and the Schedule of the University's Proportionate Share of the Net Pension Liability and the Schedule of the University's Contributions for the Massachusetts State Employees' Retirement System on page 53 be presented to supplement the basic financial statements. Such information, although not a required 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. This required supplementary information is the responsibility of management. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America. These limited procedures 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.

Emphasis of Matter

The financial statements of the University are intended to present the financial position, the changes in financial position and cash flows that are attributable to the transactions of the University. They do not purpose to, and do not present fairly the position of the Commonwealth of Massachusetts as of June 30, 2017 and 2016, the changes in its financial position, or where applicable, its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other reporting required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report, dated December 14, 2017, on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.



Boston, Massachusetts

December 14, 2017

**University of Massachusetts
Management's Discussion and Analysis (unaudited)
June 30, 2017**

Introduction

The University of Massachusetts Annual Financial Report presents our discussion and analysis of the financial position and performance of the University and its component units during the fiscal year ended June 30, 2017 with comparative information as of June 30, 2016 and June 30, 2015. This discussion and analysis has been prepared by management along with the accompanying financial statements and related footnote disclosures and should be read in conjunction with, and is qualified in its entirety by, the financial statements and footnotes. The accompanying financial statements, footnotes and this discussion are the responsibility of management.

The University of Massachusetts is a state coeducational institution for higher education with separate campuses at Amherst, Boston, Dartmouth, Lowell and Worcester all located in the Commonwealth of Massachusetts. The University was established in 1863 in Amherst, under the provisions of the 1862 Morrill Land Grant Acts, as the Massachusetts Agricultural College. It became known as the Massachusetts State College in 1932 and in 1947 became the University of Massachusetts. The Boston campus was opened in 1965 and the Worcester campus, Medical School, was opened in 1970. The Lowell and Dartmouth campuses (previously the University of Lowell and Southeastern Massachusetts University, respectively) were made a part of the University by a legislative act of the Commonwealth, effective September 1, 1991.

The University's mission is to provide an affordable and accessible education of high quality and to conduct programs of research and public service that advance knowledge and improve the lives of the people of the Commonwealth, the nation and the world. In the fall of 2016, the University enrolled 63,978 full-time equivalent ("FTE") students. The University is committed to providing, without discrimination, diverse program offerings to meet the needs of the whole of the state's population. The University's five campuses are geographically dispersed throughout Massachusetts and possess unique and complementary missions.

Financial Highlights

The University's combined net position increased \$250 million from \$2.8 billion in fiscal year 2016 to \$3.1 billion in fiscal year 2017. Net position at June 30, 2015 was \$2.7 billion.

From fiscal year 2016 to fiscal year 2017, the University's operating revenues increased by \$39.5 million driven by an increase in tuition & fee and auxiliary revenue from both a rate increase and enrollment increases and grant revenue due to new government and private grant activity. Operating expenses increased by \$22.6 million primarily driven by a collective bargaining rate increase, a state fringe rate increase and depreciation associated with the University's capital plan. Non-operating revenues increased \$68.4 million primarily attributed to strong double-digit investment gains and two changes in state laws. The first allowed for the University to retain tuition revenue without remitting a portion back to the Commonwealth, and adjusted State Appropriations as a result. The second change in state law relates to learning contracts entered into by the Medical School and certain medical students. These contracts give students the option of deferring a portion of their tuition until after residency training, and cancelling all or a portion of their tuition if they practice primary care medicine in the Commonwealth for a prescribed time period. As a result of changes in legislation, outstanding balances from these learning contracts were recorded as non-operating income in 2017.

Using the Annual Financial Report

The Statement of Net Position, Statement of Revenues, Expenses and Changes in Net Position and the Statement of Cash Flows present financial information in a form similar to that used by private sector companies. The University's net position (the difference between assets and liabilities) is one indicator of the University's financial health. Over time, increases or decreases in net position is one indicator of the improvement or erosion of an institution's financial health when considered with non-financial facts such as enrollment levels, operating expenses, and the condition of the facilities.

The Statement of Net Position includes all assets and liabilities, as well as deferred inflows and outflows of resources of the University. It is prepared under the accrual basis of accounting, whereby revenues and assets are recognized when the services are provided and expenses and liabilities are recognized when services are incurred, regardless of when cash is exchanged. Net Position is further broken down into three categories: invested in capital assets-net of related debt, restricted and unrestricted. Amounts reported in invested in capital assets-net of related debt represent the historical cost of property and equipment, reduced by the balance of related debt outstanding and depreciation expense charged over the years. Net Position is reported as restricted when constraints are imposed by third parties, such as donors or enabling legislation. Restricted net position is either non-expendable, as in the case of endowment gifts to be held in perpetuity, or expendable, as in the case of funds to be spent on scholarships and research. All other

assets are unrestricted; however, they may be committed for use under contract or designation by the Board of Trustees.

The Statement of Revenues, Expenses and Changes in Net Position present the revenues earned or received and expenses incurred during the year. Activities are reported as either operating or non-operating. Operating revenues and expenses include tuition and fees, grant and contract activity, auxiliary enterprises and activity for the general operations of the institution not including appropriations from state and federal sources. Non-operating revenues and expenses include appropriations, capital grants and contracts, endowment, gifts, investment income, and non-operating federal grants (Pell Grants). With a public University's dependency on support from the state, Pell grants, and gifts, it is common for institutions to have operating expenses exceed operating revenues. That is because the prescribed financial reporting model classifies state appropriations, Pell grants, and gifts as non-operating revenues. The utilization of long-lived assets, referred to as capital assets, is reflected in the financial statements as depreciation expense, which amortizes the cost of a capital asset over its expected useful life.

Another important factor to consider when evaluating financial viability is the University's ability to meet financial obligations as they mature. The statement of cash flows presents information related to cash inflows and outflows summarized by operating, capital and non-capital, financing and investing activities.

The footnotes provide additional information that is essential to understanding the information provided in the financial statements.

Reporting Entity

The financial statements report information about the University as a whole using accounting methods similar to those used by private-sector companies. The financial statements of the University are separated between University (including its blended component units) and its discretely presented Component Unit activities. The University's discretely presented Component Units (or Related Organizations) are the University of Massachusetts Foundation, Inc., and the University of Massachusetts Dartmouth Foundation, Inc.

Condensed Statements of Net Position - University (excludes Related Organizations)

University of Massachusetts				
Condensed Statements of Net Position				
As of June 30, 2017, 2016, and 2015				
(in thousands of dollars)				
	University June 30, 2017	University June 30, 2016	FY17-16 Change	University June 30, 2015
ASSETS				
Current Assets	\$ 739,847	\$ 677,927	\$ 61,920	\$ 692,679
Noncurrent Assets				
Investment in Plant Net of Accumulated Depreciation	4,930,912	4,615,776	315,136	4,333,761
All Other Noncurrent Assets	1,283,546	1,294,028	(10,482)	1,501,421
Total Assets	6,954,305	6,587,731	366,574	6,527,861
DEFERRED OUTFLOWS OF RESOURCES	275,725	293,432	(17,707)	178,410
LIABILITIES				
Current Liabilities	619,250	774,837	(155,587)	856,460
Noncurrent Liabilities	3,522,756	3,294,183	228,573	3,133,710
Total Liabilities	4,142,006	4,069,020	72,986	3,990,170
DEFERRED INFLOWS OF RESOURCES	37,671	12,050	25,621	48,753
NET POSITION				
Invested in Capital Assets Net of Related Debt	2,204,001	2,013,966	190,035	1,887,941
Restricted				
Nonexpendable	27,443	18,384	9,059	18,378
Expendable	201,710	218,272	(16,562)	169,591
Unrestricted	617,199	549,471	67,728	591,438
Total Net Position	\$ 3,050,353	\$ 2,800,093	\$ 250,260	\$ 2,667,348

At June 30, 2017, total University net position was \$3.1 billion. The University's largest asset continues to be its net investment in its physical plant of \$4.9 billion at June 30, 2017, \$4.6 billion at June 30, 2016 and \$4.3 billion at June 30, 2015.

University liabilities totaled \$4.1 billion at June 30, 2017, an increase of \$73 million over fiscal year 2016. Long-term liabilities represent 85.0% of the total liabilities which primarily consist of bonds payable amounting to \$3.1 billion and net pension liability of \$429.9 million at June 30, 2017.

The University's current assets as of June 30, 2017 of \$739.8 million were above the current liabilities of \$619.3 million, and as a result the current ratio was \$1.19 in assets to every one dollar in liabilities. Current assets of \$677.9 million at June 30, 2016 were below the current liabilities of \$774.8 million, resulting in a current ratio of 0.9.

The unrestricted and restricted expendable net position totaled \$818.9 million in fiscal year 2017, which represents 26% of total operating expenditures of \$3.2 billion for fiscal year 2017. The unrestricted and restricted expendable net position totaled \$767.7 million in fiscal year 2016, which represented 24% of total operating expenditures of \$3.1 billion in 2016. The unrestricted and restricted expendable net position totaled \$761 million in fiscal year 2015, which represents 27% of total operating expenditures of \$2.9 billion in 2015.

Condensed Statements of Net Position - Related Organizations

University of Massachusetts				
Condensed Statements of Net Position for Related Organizations				
As of June 30, 2017, 2016, and 2015				
(in thousands of dollars)				
	University Related Organizations June 30, 2017	University Related Organizations June 30, 2016	FY17-16 Change	University Related Organizations June 30, 2015
ASSETS				
Current Assets	\$ 3,062	\$ 2,094	\$ 968	\$ 1,373
Noncurrent Assets				
Investment in Plant Net of Accumulated Depreciation	17,421	8,090	9,331	8,293
All Other Noncurrent Assets	535,829	472,478	63,351	478,645
Total Assets	556,312	482,662	73,650	488,311
LIABILITIES				
Current Liabilities	28,644	29,194	(550)	31,421
Noncurrent Liabilities	2,764	3,502	(738)	3,505
Total Liabilities	31,408	32,696	(1,288)	34,926
NET POSITION				
Invested in Capital Assets Net of Related Debt	17,421	8,090	9,331	8,293
Restricted				
Nonexpendable	385,856	374,566	11,290	330,301
Expendable	98,145	46,275	51,870	90,413
Unrestricted	23,482	21,035	2,447	24,378
Total Net Position	\$ 524,904	\$ 449,966	\$ 74,938	\$ 453,385

Statement of Revenues, Expenses and Changes in Net Position

Total operating revenues for fiscal year 2017 were \$2.4 billion. This represents a \$39.5 million (1.6%) increase from the \$2.4 billion in operating revenues in fiscal year 2016. The most significant sources of operating revenue for the University are tuition and fees, grants and contracts, auxiliary services and public service activities at the Worcester Medical School campus categorized in the chart as "Other Operating Revenues". While not classified on the financial statements as operating revenue, state appropriations serve as a primary source for funding the core mission of the University. State appropriation revenue, described in detail below, is used almost exclusively to fund payroll for University employees.

In fiscal year 2017, operating expenditures, including depreciation and amortization, totaled \$3.2 billion. Of this total, \$1.8 billion or 53% was used to support the academic core activities of the University, including \$447.4 million in research. The Academic Core represents functional expenses in the following categories: Instruction, Research, Public Service, Academic Support, and Student Services. In fiscal year 2016, operating expenditures, including depreciation and amortization, totaled \$3.1 billion.

Condensed Statements of Revenues, Expenses, and Changes in Net Position - University (excludes Related Organizations)

University of Massachusetts Condensed Statements of Revenues, Expenses, and Changes in Net Position For the Years Ended June 30, 2017, 2016 and 2015 (in thousands of dollars)				
	University June 30, 2017	University June 30, 2016	FY17-16 Change	University June 30, 2015
Operating Revenues				
Tuition and Fees (net of scholarship allowances)	\$ 847,832	\$ 826,815	\$ 21,017	\$ 765,218
Grants and Contracts	560,081	528,352	31,729	510,741
Auxiliary Enterprises	400,822	383,281	17,541	362,193
Other Operating Revenues	634,245	665,048	(30,803)	474,632
Total Operating Revenues	2,442,980	2,403,496	39,484	2,112,784
Operating Expenses	3,163,322	3,140,753	22,569	2,782,297
Operating Loss	(720,342)	(737,257)	16,915	(669,513)
Nonoperating Revenues/(Expenses)				
Federal Appropriations	6,602	6,827	(225)	6,619
State Appropriations	720,817	669,748	51,069	621,200
Interest on Indebtedness	(110,069)	(105,276)	(4,793)	(100,332)
Other Nonoperating Income	114,437	90,443	23,994	74,892
Nonoperating Federal Grants	74,050	75,743	(1,693)	76,539
Net Nonoperating Revenues	805,837	737,485	68,352	678,918
Income Before Other Revenues, Expenses, Gains and Losses	85,495	228	85,267	9,405
Capital Appropriations, Grants and Other Sources	150,412	172,557	(22,145)	118,405
Disposal of Plant Facilities	(4,274)	(10,462)	6,188	(12,120)
Other Additions/(Deductions)	18,627	(29,578)	48,205	(27,731)
Total Other Revenues, Expenses, Gains and Losses	164,765	132,517	32,248	78,554
Total Increase in Net Position	260,260	132,745	117,515	87,959
Net Position				
Net Position at the Beginning of the Year	2,800,093	2,667,348	132,745	2,818,295
Cumulative effect of change in accounting principle **	-	-	-	(238,906)
Net Position at the Beginning of the Year, adjusted	2,800,093	2,667,348	132,745	2,579,389
Net Position at the End of the Year	\$ 3,060,353	\$ 2,800,093	\$ 260,260	\$ 2,667,348

** Adoption of GASB 68 for the year ended 6/30/2015

Condensed Statements of Revenues, Expenses, and Changes In Net Position - Related Organizations

University of Massachusetts				
Condensed Statements of Revenues, Expenses, and Changes In Net Position for University Related Organizations				
For the Years Ended June 30, 2017, 2016 and 2015				
(in thousands of dollars)				
	University Related Organizations June 30, 2017	University Related Organizations June 30, 2016	University Related Organizations June 30, 2015	
		FY17-16 Change		
Operating Expenses	\$ 14,090	\$ 17,068	\$ (2,978)	\$ 16,709
Operating Loss	(14,090)	(17,068)	(2,978)	(16,709)
Nonoperating Revenues/(Expenses)				
Other Nonoperating Income	13,631	20,351	(6,720)	18,480
Net Nonoperating Revenues	13,631	20,351	(6,720)	18,480
Income Before Other Revenues, Expenses, Gains and Losses	(459)	3,283	(3,742)	1,771
Additions to Permanent Endowments	42,173	25,864	16,309	21,618
Other Additions/Deductions	33,224	(32,566)	65,790	(15,798)
Total Other Revenues, Expenses, Gains and Losses	75,397	(6,702)	82,099	5,820
Total Increase In Net Position	74,938	(3,419)	78,357	7,591
Net Position				
Net Position at the Beginning of the Year	449,966	453,385	(3,419)	445,794
Net Position at the End of the Year	\$ 524,904	\$ 449,966	\$ 74,938	\$ 453,385

Public Service Activities

Other operating revenues includes Public Service Activities and consists largely of sales and services provided to third parties by the UMass Medical School campus through its Commonwealth Medicine ("CWM") programs, which provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. In addition to CWM activities, Public Service Activities also includes payments received by the Medical School for educational services it provides to its clinical affiliate UMass Memorial Health Care, Inc. ("UMass Memorial") as required by the enabling legislation enacted by the Commonwealth in 1997. Finally, Public Service Activity expenditures also include payments made to the Commonwealth of Massachusetts pursuant to requirements of legislation enacted by the State Legislature of Massachusetts. See footnote 1 for additional information regarding "Other Operating Revenues and Expenditures, Sales and Services, Public Service Activities".

State Appropriations

	FY2017	FY2016	FY2015
Gross Commonwealth Appropriations	\$ 512,900	\$ 546,952	\$ 516,794
Plus: Fringe Benefits*	207,917	178,032	159,403
	720,817	724,984	676,197
Less: Mandatory Waivers	-	(24,653)	(23,942)
Less: Tuition Remitted	-	(30,583)	(31,055)
Net Commonwealth Support	\$ 720,817	\$ 669,748	\$ 621,200

**The Commonwealth pays the fringe benefits for University employees paid from Commonwealth operating appropriations. Therefore, such fringe benefit support is added to the "State Appropriations" financial statement line items as presented in the above table. The University pays the Commonwealth for the fringe benefit cost of the employees paid from funding sources other than Commonwealth operating appropriations.*

In July 2015, the Legislature passed and the Governor signed into law, provisions in the fiscal year 2016 State budget that would give the University the tools to adopt a new system of billing that conforms to national norms across higher education, known as tuition retention. The passage of this legislation allowed for 100% of tuition to be retained by the University (out of state tuition retention was granted in FY04). As a result, the gross appropriation was reduced in 2017 to reflect the \$30.6 million in tuition that the University retained. In addition, the amounts that were previously deducted from the appropriation in the form of mandatory waivers are now reflected in gross tuition revenue and the offsetting scholarship allowances.

In fiscal year 2017, state appropriations represented 22% of all operating and non-operating revenues. The level of state support is a key factor influencing the University's overall financial condition. Although the state appropriation is unrestricted revenue, nearly 100% of the state appropriation supports payroll and benefits for University employees. The net state appropriation for the University increased by \$51.1 million from fiscal year 2016, with the increase attributable to a higher level of State Appropriation and related fringe benefit support and a change in policy regarding the treatment of mandatory waivers and tuition remitted as a result of full Tuition Retention implemented in FY17 as discussed above. The Commonwealth pays the fringe benefits for University employees paid from Commonwealth operating appropriations. Therefore, such fringe benefit support is added to the "State Appropriations" financial statement line item as presented in the table above. The University pays the Commonwealth for the fringe benefit cost of the employees paid from funding sources other than Commonwealth operating appropriations (details of the payment are referenced in footnote 11). The table above details the Commonwealth operating appropriations and the change as a result of full tuition retention.

Capital Appropriations from the Commonwealth

The University faces a financial challenge to maintain and upgrade its capital assets including its infrastructure, buildings and grounds. In order to have a successful capital program, the University must rely on a combination of revenue sources to fund its investment. In fiscal year 2017, there was \$121.4 million of capital support provided to the University through appropriations and grants from the Commonwealth. This funding is attributed to the Commonwealth's Division of Capital Asset Management ("DCAM") which funded several large capital projects in fiscal year 2017 through the State's Higher Education Bond Bill and Life Sciences Bond Bill, which were passed in 2008 and have projects funded on each of the campuses. Major construction and deferred maintenance projects are underway at all five of the University's campuses. These projects are funded by a combination of University and State funds.

Grant and Contract Revenue

Most research at the University is externally funded, with the federal government providing a majority of the funding through the National Institutes of Health, the National Science Foundation, and other agencies. Among Massachusetts colleges and universities, UMass ranks third in research and development expenditures, behind only MIT and Harvard.

Collectively, the University's Amherst Campus and Medical School in Worcester account for 78% of University grant and contract activity. The following table details the University's grant and contract revenues:

	FY2017	FY2016	FY2015
Federal Grants and Contracts	\$ 354,110	\$ 329,403	\$ 313,754
State Grants and Contracts	78,417	75,306	70,871
Local Grants and Contracts	2,489	2,445	1,717
Private Grants and Contracts	125,065	121,198	124,399
Total Grants and Contracts	\$ 560,081	\$ 528,352	\$ 510,741

Discretely Presented Component Units

University of Massachusetts Foundation, Inc.

The combined University and Foundation endowment has increased to \$819.7 million at June 30, 2017 from \$734.2 million at June 30, 2016 and from \$768.4 million at June 30, 2015.

The Foundation utilizes the pooled investment concept whereby all invested funds are in one investment pool, except for investments of certain funds that are otherwise restricted. Pooled investment funds receive an annual distribution of 4% of the endowment fund's average market value for the preceding twelve quarters on a one-year lag. Only funds that exist during each quarter-end are included in the calculation. In addition, a prudence rule is utilized to limit spending from a particular endowment fund to no lower than 93% of its book value. The Foundation distributed \$28.4 million (4%) and \$27.3 million (4%) in fiscal year 2017 and 2016, respectively.

The total investment gain of the Foundation for fiscal year 2017 was \$104.6 million as compared to 2016, which was a net loss of \$39.1 million.

University of Massachusetts Dartmouth Foundation, Inc.

Total investments of the Dartmouth Foundation were \$57.7 million at June 30, 2017 up from \$52.7 million at June 30, 2016, which are held by the University of Massachusetts Foundation, Inc. The Dartmouth Foundation total investment gain for fiscal year 2017, including realized and unrealized investment activity, was a net gain of \$4.7 million as compared to a net loss of \$1.9 million in 2016.

Tuition and Fees

For academic year 2016-2017, tuition was raised an average 5.6% for in-state undergraduate students. For academic year 2015-2016, tuition was raised on average 7.2%, which included a new mandatory technology fee at each of the campuses. For academic years 2014-2015, the Board of Trustees voted to freeze the mandatory curriculum fee for in state undergraduate students based on the increase to the State appropriation. Affordability will continue to be a priority of the University and increases in fees will be considered in conjunction with State support on an annual basis.

Enrollment

Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. In the fall 2017, semester, Massachusetts residents accounted for approximately 82.3% and 52.4% of the University's total undergraduate and graduate enrollment, respectively. Total enrollment in the fall of 2017 was 64,533 FTE (74,655 headcount students) an increase of 8.7%. Enrollments at the University have shown significant increases over the last five years (59,480 FTE in fall 2011). The enrollment growth is consistent with the University's efforts to increase its reach across the Commonwealth and to recruit non-resident students and is reflective of the quality education provided by the University of Massachusetts.

The online learning consortium of the University, UMassOnline, has also shown significant growth in enrollments, course offerings and revenue generation benefiting the campuses and raising the profile of the University throughout this important sector of the higher education market. UMassOnline provides marketing and technology support for UMass' online offerings that enable students, professionals, and lifelong learners to take courses anywhere, anytime. With over 160 undergraduate and graduate degree, certificate and professional development programs and more than 1,500 courses available from University faculty, UMassOnline is one of the largest accredited online programs available. For fiscal year 2017, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue in excess of \$104 million and supported 75,565 course enrollments, an increase of 9.2% for revenue and an increase of 6.6% for course enrollments as compared to fiscal year 2016.

Degrees Awarded

The University awards four levels of degrees, as follows: associate, bachelors, masters and doctoral/professional degrees. A total of 18,023 degrees were awarded in the 2015-2016 academic year reflecting a 1.0% increase from the previous year. Of these awards, 67.3% were at the undergraduate level and 21.0% were at the graduate level. The remaining were associates degrees and undergraduate certificates.

Bonds Payable

As of June 30, 2017, the University had outstanding bonds of \$3.1 billion. The principal issuer of the University's debt is the University of Massachusetts Building Authority. A relatively small portion of the total (\$46.8 million) was financed through the Massachusetts Health and Educational Facilities Authority ("MHEFA"), and \$8.0 million financed through the Worcester City Campus Corporation (the "WCCC Bonds"). Bonds payable is the University's largest liability at June 30, 2017.

The Building Authority's active projects include residence hall construction and renovation, renovation of general education buildings, replacement of core infrastructure, and construction of academic, laboratory, and research facilities. The proceeds from the UMass HEFA Bonds were used to create a revolving loan program and to fund the construction of two new campus centers at the Boston and Lowell campuses (funded jointly with the Commonwealth).

On January 31, 2017, the Building Authority issued \$165.1 million of tax-exempt Project Revenue Bonds, Senior Series 2017-1 (the "2017-1 Bonds"), \$19.5 million of federally taxable Project Revenue Bonds, Senior Series 2017-2 (the "2017-2 Bonds"), and \$187.7 million of Refunding Revenue Bonds, Senior Series 2017-3 (the "2017-3 Bonds"). The Series 2017-3 Bonds were issued to refinance a portion of the MHEFA's Revenue Bonds, University of Massachusetts Issue, Series D (2007), the MHEFA's Revenue Bonds, Worcester City Campus Corporation Issue (University of Massachusetts Project), Series E & F (2007), the University of Massachusetts Building Authority Project Revenue Bonds, Senior Series 2008-2, and the University of Massachusetts Building Authority Project Revenue Bonds, Senior Series 2009-1.

University Rating

The University is relying on a carefully planned and executed debt strategy to support master and strategic planning at the campuses and for the University as a whole. Bonds issued by the University of Massachusetts and the University of Massachusetts Building Authority are rated AA, Aa2 and AA- as rated by Fitch, Moody's and Standard & Poor's rating agencies, respectively.

Limitations on Additional Indebtedness

The University may, without limit, issue additional indebtedness or request the Building Authority to issue additional indebtedness on behalf of the University so long as such indebtedness is payable from all available funds of the University. However, the University may request that the Building Authority issue additional indebtedness not payable from all available funds of the University provided that the additional indebtedness is secured by certain pledged revenues and the maximum annual debt service on all revenue indebtedness does not exceed 8% of the University's available revenues.

The Building Authority is authorized by its enabling act to issue bonds with the unconditional guarantee of the Commonwealth of Massachusetts for the punctual payment of the interest and principal payments on the guaranteed bonds. The full faith and credit of the Commonwealth are pledged for the performance of its guarantee. The enabling act, as amended, presently limits to \$200 million the total principal amount of notes and bonds of the Building Authority that may be Commonwealth guaranteed and outstanding at any one time. The amount of bond obligations guaranteed by the Commonwealth at June 30, 2017 and 2016 was \$115.3 million and \$117.4 million, respectively.

Capital Plan

In September 2016, the University's Trustees approved a five-year (fiscal years 2017-2021) update to its capital plan with \$2.3 billion of projects approved to continue or commence over the next 24 months. The University generally has funded its capital plans through a combination of funding received from University operations, bonds issued by the University of Massachusetts Building Authority and MassDevelopment, Commonwealth appropriations, and private fundraising. The execution of certain projects from the University's capital plan is due to funding from the Commonwealth through the Higher Education and Life Sciences Bond Bills.

The University's five-year capital plan for fiscal years 2017-2021 includes major projects that were previously approved by the University Trustees in prior-year capital plans. In recent years, the University enhanced its policy regarding the approval of capital projects to ensure a clear process and to provide for multiple reviews during the process so that the President's Office, Building Authority and the Board of Trustees (the "Board") are actively involved. Since the capital program requires significant investment, the President's office and the Board wanted to ensure that the proper steps were in place for reviewing and approving projects so that the University continues to live within its current capital and debt policies.

In spite of investing more than \$3.5 billion on capital improvements over the last decade, the University's capital plan projects spending another \$2.2 billion over the next five years. The commitment of operating funds for servicing debt and/or funding capital expenditures has an ongoing impact on the overall financial position of the University. In order to support the University's capital plan, the University of Massachusetts Building Authority will be issuing new bonds and State funding will be utilized to fund renovations, new construction, and deferred maintenance projects as illustrated in the capital plan.

Factors Impacting Future Periods

There are a number of issues of University-wide importance that directly impact the financial operations of the University. Many of these issues, such as improving academic quality, realizing strong financial results, investing in capital assets, expanding fundraising capacity, operating more efficiently, being the most effective University for students and the Commonwealth given the available resources, and measuring performance are ongoing activities of continuous importance to the Board and University leadership that impact the financial and budget planning each year. The level of state support, the impact of collectively bargained wage increases, and the ability of student-fee supported activities to meet inflationary pressures determine the limits of program expansion, new initiatives and strategic investments, as well as the ability of the University to meet its core mission and ongoing operational needs.

Contacting the University

This financial report is designed to provide the University, the Commonwealth, the public and other interested parties with an overview of the financial results of the University and an explanation of the University's financial condition. If you have any questions about this report or require additional information, you can contact the University by calling the University Controller, Barbara Cevallos, at (617) 287-6017 or by email at bcevallos@umassp.edu.

University of Massachusetts
Consolidated Statements of Net Position
As of June 30, 2017 and 2016
(In thousands of dollars)

	University June 30, 2017	University Related Organizations June 30, 2017	University June 30, 2016	University Related Organizations June 30, 2016
ASSETS				
Current Assets				
Cash and Cash Equivalents	\$ 92,344	\$ 1,424	\$ 101,207	\$ 1,475
Cash Held by State Treasurer	15,114	-	8,888	-
Accounts, Grants and Loans Receivable, net	275,166	-	244,178	-
Pledges Receivable, net	7,091	1,515	7,464	371
Short-Term Investments	286,171	-	206,266	-
Inventories, net	19,137	-	18,008	-
Accounts Receivable from UMass Memorial	33,818	-	35,724	-
Due From Related Organizations	21	123	69	193
Other Assets	10,985	-	56,125	55
Total Current Assets	739,847	3,062	677,927	2,094
Noncurrent Assets				
Cash Held By State Treasurer	7,599	-	8,342	-
Cash and Securities Held by Trustees	438,585	-	486,015	-
Accounts, Grants and Loans Receivable, net	48,775	-	38,526	-
Pledges Receivable, net	13,346	737	17,595	1,690
Investments	766,392	532,605	734,205	468,260
Other Assets	8,849	2,487	9,345	2,528
Investment in Plant, net	4,930,912	17,421	4,615,776	8,090
Total Noncurrent Assets	6,214,458	553,250	5,909,804	480,568
Total Assets	\$ 6,954,305	\$ 556,312	\$ 6,587,731	\$ 482,662
DEFERRED OUTFLOWS OF RESOURCES				
Change in Fair Value of Interest Rate Swaps	\$ 37,768	\$ -	\$ 65,428	\$ -
Loss on Debt Refunding	79,772	-	80,851	-
Pensions	158,185	-	147,153	-
Total Deferred Outflows of Resources	275,725	-	293,432	-
LIABILITIES				
Current Liabilities				
Accounts Payable	\$ 111,808	\$ 53	\$ 105,652	\$ 64
Accrued Salaries and Wages	83,543	-	112,521	-
Accrued Compensated Absences	81,357	-	80,730	-
Accrued Workers' Compensation	2,640	-	3,252	-
Accrued Interest Payable	22,694	-	21,976	-
Bonds Payable	206,696	-	332,996	-
Capital Lease Obligations	203	-	169	-
Accelerated Variable Rate Debt, Current	-	-	5,000	-
Assets Held on behalf of Others	-	27,408	-	27,837
Accounts Payable to UMass Memorial	4,422	-	3,707	-
Due to Related Organizations	123	21	193	69
Unearned Revenues and Credits	44,128	1,162	44,041	1,224
Advances and Deposits	8,375	-	6,712	-
Other Liabilities	53,261	-	57,888	-
Total Current Liabilities	619,250	28,644	774,837	28,184
Noncurrent Liabilities				
Accrued Compensated Absences	30,395	-	35,671	-
Accrued Workers' Compensation	11,946	-	12,160	-
Bonds Payable	2,885,146	-	2,646,626	-
Capital Lease Obligations	389	-	429	-
Interest Rate Swaps	61,839	-	90,478	-
Net Pension Liability	429,871	-	408,418	-
Unearned Revenues and Credits	32,597	-	23,936	-
Advances and Deposits	29,140	-	27,705	-
Other Liabilities	41,433	2,764	48,760	3,502
Total Noncurrent Liabilities	3,522,756	2,764	3,294,183	3,502
Total Liabilities	\$ 4,142,006	\$ 31,408	\$ 4,069,020	\$ 32,686
DEFERRED INFLOWS OF RESOURCES				
Pensions	\$ 37,671	\$ -	\$ 12,050	\$ -
Net Position:				
Invested in Capital Assets Net of Related Debt	\$ 2,204,001	\$ 17,421	\$ 2,013,966	\$ 8,090
Restricted				
Nonexpendable	27,443	385,856	18,384	374,566
Expendable	201,710	98,145	218,272	46,275
Unrestricted	617,199	23,482	549,471	21,035
Total Net Position	\$ 3,050,353	\$ 524,904	\$ 2,800,093	\$ 449,988

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

University of Massachusetts
Consolidated Statements of Revenues, Expenses, and Changes in Net Position
For The Years Ended June 30, 2017 and 2016
(in thousands of dollars)

	University Related		University Related	
	University	Organizations	University	Organizations
	June 30, 2017	June 30, 2017	June 30, 2016	June 30, 2016
REVENUES				
Operating Revenues				
Tuition and Fees (net of scholarship allowances of \$288,708 at June 30, 2017 and \$244,025 at June 30, 2016)	\$ 847,832	\$ -	\$ 826,815	\$ -
Federal Grants and Contracts	354,110	-	329,403	-
State Grants and Contracts	78,417	-	75,306	-
Local Grants and Contracts	2,489	-	2,445	-
Private Grants and Contracts	125,065	-	121,198	-
Sales and Service, Educational	28,910	-	27,500	-
Auxiliary Enterprises	400,822	-	383,281	-
Other Operating Revenues:				
Sales and Service, Independent Operations	79,261	-	47,613	-
Sales and Service, Public Service Activities	418,726	-	476,831	-
Other	107,348	-	113,104	-
Total Operating Revenues	2,442,980	-	2,403,496	-
EXPENSES				
Operating Expenses				
Educational and General				
Instruction	824,042	-	794,691	-
Research	447,370	-	434,213	-
Public Service	68,083	11,278	71,457	16,502
Academic Support	177,173	-	181,057	-
Student Services	151,033	-	141,915	-
Institutional Support	247,740	-	248,379	-
Operation and Maintenance of Plant	240,501	-	228,406	-
Depreciation and Amortization	249,669	314	240,865	202
Scholarships and Fellowships	47,710	2,498	44,645	364
Auxiliary Enterprises	306,850	-	297,089	-
Other Expenditures				
Independent Operations	57,276	-	47,930	-
Public Service Activities	345,875	-	410,106	-
Total Operating Expenses	3,163,322	14,090	3,140,753	17,068
Operating Loss	(720,342)	(14,090)	(737,257)	(17,068)
NONOPERATING REVENUES/(EXPENSES)				
Federal Appropriations	6,602	-	6,827	-
State Appropriations	720,817	-	669,748	-
Gifts	26,253	3,620	42,415	7,396
Investment Income	28,756	(219)	29,381	182
Unrealized Gain/(Loss) on Investments	15,466	-	(7,633)	-
Endowment Income Distributed for Operations	26,877	-	24,740	1,386
Interest on Indebtedness	(110,069)	-	(105,276)	-
Nonoperating Federal Grants	74,050	-	75,743	-
Other Nonoperating Income	17,085	10,011	1,540	11,387
Net Nonoperating Revenues	805,837	13,412	737,485	20,351
Income Before Other Revenues, Expenses, Gains, and Losses	85,495	(678)	228	3,283
OTHER REVENUES, EXPENSES, GAINS, AND LOSSES				
Capital Appropriations	121,380	-	121,298	-
Capital Grants and Contracts	29,080	-	51,259	-
Endowment Return, Net of Amount Used for Operations	21,278	30,441	(28,958)	(36,524)
Additions to Permanent Endowments	-	42,173	-	25,864
Capital Contribution	-	-	2,985	-
Disposal of Plant Facilities	(4,274)	-	(10,462)	-
Other Additions/(Deductions)	(2,699)	3,002	(3,605)	3,958
Total Other Revenues, Expenses, Gains, and Losses	164,765	75,616	132,517	(6,702)
Total Increase in Net Position	250,260	74,938	132,745	(3,419)
NET POSITION				
Net Position at Beginning of Year	2,800,093	449,966	2,667,348	453,385
Net Position at End of Year	\$ 3,050,353	\$ 524,904	\$ 2,800,093	\$ 449,966

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

**University of Massachusetts
Consolidated Statements of Cash Flows
For The Years Ended June 30, 2017 and 2016
(in thousands of dollars)**

	University June 30, 2017	University June 30, 2016
CASH FLOWS FROM OPERATING ACTIVITIES		
Tuition and Fees	\$ 852,889	\$ 829,654
Grants and Contracts	814,018	791,533
Payments to Suppliers	(1,131,219)	(1,295,707)
Payments to Employees	(1,461,100)	(1,444,036)
Payments for Benefits	(401,143)	(354,120)
Payments for Scholarships and Fellowships	(47,675)	(44,635)
Loans Issued to Students and Employees	(8,105)	(5,596)
Collections of Loans to Students and Employees	6,989	7,099
Auxiliary Enterprises Receipts	357,968	369,715
Sales and Service, Educational	25,118	24,328
Sales and Service, Independent Operations	76,221	57,451
Sales and Service, Public Service Activities	428,012	493,461
Net Cash Used for Operating Activities	(488,027)	(570,853)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
State Appropriations	720,819	724,985
Tuition Remitted to the State	-	(30,583)
Federal Appropriations	6,602	6,827
Gifts and Grants for Other Than Capital Purposes	32,854	26,831
Nonoperating Federal Grants	74,050	75,743
Student Organization Agency Transactions	155	527
Net Cash Provided by Noncapital Financing Activities	834,480	804,330
CASH FLOWS FROM CAPITAL AND OTHER FINANCING ACTIVITIES		
Proceeds from Capital Debt	236,666	8,668
Bond Issuance Costs Paid	(620)	2
Capital Appropriations	121,333	121,297
Capital Grants and Contracts	9,332	58,759
Purchases of Capital Assets and Construction	(105,493)	(191,039)
Principal Paid on Capital Debt and Leases	(120,353)	(78,287)
Interest Paid on Capital Debt and Leases	(115,201)	(113,746)
Use of Debt Proceeds on Deposit with Trustees	(369,995)	(321,964)
Net Cash Used for Capital Financing Activities	(344,331)	(516,310)
CASH FLOWS FROM INVESTING ACTIVITIES		
Proceeds from Sales and Maturities of Investments	1,124,176	1,138,588
Interest on Investments	10,605	8,862
Purchase of Investments	(1,187,713)	(1,090,191)
Net Cash (Used for) Provided by Investing Activities	(52,932)	57,259
NET (DECREASE) IN CASH AND CASH EQUIVALENTS	(50,810)	(225,574)
Cash and Cash Equivalents - Beginning of the Year	604,452	830,026
Cash and Cash Equivalents - End of Year	\$ 553,642	\$ 604,452
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES		
Operating Loss	\$ (720,342)	\$ (737,257)
Adjustments to reconcile loss to net cash used by Operating Activities:		
Depreciation and Amortization Expense	249,669	240,865
Changes in Assets and Liabilities:		
Receivables, net	(36,615)	(2,969)
Inventories	(1,131)	(534)
Due to Related Organizations	(118)	-
Accounts Receivable/Payable UMass Memorial	2,621	(17,341)
Other Assets	45,821	(44,077)
Accounts Payable (non-capital)	8,412	(17,821)
Accrued Liabilities	(34,453)	(5,835)
Deferred Revenue	8,748	(4,374)
Advances and Deposits	3,098	(395)
Other Liabilities	(13,737)	18,885
Net Cash Used for Operating Activities	\$ (488,027)	\$ (570,853)
SUPPLEMENTAL DISCLOSURE OF NONCASH ACTIVITIES:		
Bonds to refund existing debt	\$ 130,325	\$ -
Assets acquired and included in accounts payable and other liabilities	60,853	63,109

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

**University of Massachusetts
Notes to Consolidated Financial Statements
June 30, 2017 and 2016**

1. SUMMARY OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES

ORGANIZATION

The consolidated financial statements herein present the financial position, results of operations, changes in net position, and cash flows of the University of Massachusetts ("University"), a federal land grant institution. The financial statements of the University include the Amherst, Boston, Dartmouth, Lowell and Worcester Medical School campuses, and the Central Administration office of the University, Worcester City Campus Corporation ("WCCC"), the University of Massachusetts Amherst Foundation ("UMass Amherst Foundation"), as well as the University of Massachusetts Building Authority (the "Building Authority").

The Building Authority is a public instrumentality of the Commonwealth created by Chapter 773 of the Acts of 1960 (referred to as the "Enabling Act"), whose purpose is to provide dormitories, dining commons, and other buildings and structures for use by the University. WCCC is a tax exempt organization founded to support research and real property activities for the University. The UMass Amherst Foundation was established in 2003 as a tax exempt organization founded to foster and promote the growth, progress, and general welfare of the University. These component units are included in the financial statements of the University because of the significance and exclusivity of their financial relationships with the University.

The University Related Organizations column in the accompanying financial statements includes the financial information of the University's discretely presented component units. The University of Massachusetts Foundation, Inc. ("Foundation") and the University of Massachusetts Dartmouth Foundation, Inc. ("Dartmouth Foundation") are related tax exempt organizations founded to foster and promote the growth, progress and general welfare of the University, and are reported in a separate column to emphasize that they are Massachusetts not-for-profit organizations legally separate from the University. These component units are included as part of the University's financial statements because of the nature and the significance of their financial relationship with the University. The financial statement presentation of the discretely presented component units has been reclassified to conform to the University presentation. The financial reports of all above mentioned component units are available upon request from the University.

The University is an enterprise fund of the Commonwealth of Massachusetts ("Commonwealth"). The financial balances and activities included in these financial statements are, therefore, also included in the Commonwealth's comprehensive annual financial report.

BASIS OF PRESENTATION

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP") as prescribed by the Governmental Accounting Standards Board ("GASB") using the economic resources measurement focus and the accrual basis of accounting. These financial statements are reported on a consolidated basis, and all intra-University transactions are eliminated.

Operating revenues consist of tuition and fees, grants and contracts, sales and services of educational activities (including royalties from licensing agreements) and auxiliary enterprise revenues. Operating expenses include salaries, wages, fringe benefits, utilities, subcontracts on grants and contracts, supplies and services (including independent operations and public service activities), and depreciation and amortization. All other revenues and expenses of the University are reported as non-operating revenues and expenses including state general appropriations, federal appropriations, non-capital gifts, short-term investment income, endowment income used in operations, interest expense, and capital additions and deductions. Other revenues, expenses, gains and losses represent all capital items, other changes in long term plant, and changes in endowment net position. Revenues are recognized when earned and expenses are recognized when incurred with the exception of revenue earned on certain public service activities. Restricted grant revenue is recognized only when all eligibility requirements have been met. Contributions, including unconditional promises to give (pledges) for non-endowment or non-capital purposes, are recognized as revenues in the period received. Pledges to restricted non-expendable endowments are recognized as revenues in the period received. Conditional promises to give are not recognized until they become unconditional, that is when the conditions on which they depend are substantially met. The University applies restricted net assets first when an expense or outlay is incurred for purposes for which both restricted and unrestricted net assets are available.

The preparation of financial statements in accordance with US GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, and disclosures of contingencies at the date of the financial statements, revenues and expenditures recognized during the reporting period. Significant estimates include the accrual for employee compensated absences, and workers' compensation liability, the allowance for doubtful accounts, valuation of certain investments, valuation of derivatives, amounts recorded in connection with the pension obligation and the related defined inflows and outflows. Actual results could differ from those estimates.

The University reports its financial statements as a "business-type activity" ("BTA") under GASB Statement No. 35, *Basic Financial Statements - and Management's Discussion and Analysis - for Public Colleges and Universities (GASB 35)*. BTAs are defined as activities are financed in whole or in part by fees charged to external parties for goods or services. GASB 35 establishes standards for external financial reporting by public colleges and universities that resources be classified into the following net position categories:

- **Invested in capital assets, net of related debt:** Capital assets, at historical cost or fair market value on date of gift, net of accumulated depreciation and outstanding principal balances of debt attributable to the acquisition, construction or improvement of those assets.
- **Restricted Nonexpendable:** Resources subject to externally imposed stipulations that they be maintained permanently by the University.
- **Restricted Expendable:** Resources whose use by the University is subject to externally imposed stipulations. Such assets include restricted grants and contracts, the accumulated net gains/losses on true endowment funds, as well as restricted funds loaned to students, restricted gifts and endowment income, and other similar restricted funds.
- **Unrestricted:** The net position that is not subject to externally imposed restrictions governing their use are classified as unrestricted net position. The University's unrestricted net position may be designated for specific purposes by management or the Board of Trustees. Substantially all of the University's unrestricted net position is designated to support academic and research initiatives or programs, auxiliary enterprises, unrestricted funds functioning as endowments, or are committed to capital construction projects.

Revenues are reported net of discounts and allowances. As a result, student financial aid expenditures are reported as an allowance against tuition and fees revenue while stipends and other payments made directly to students are recorded as scholarship and fellowship expenditures on the statements of revenues, expenses, and changes in net position. Discounts and allowances for tuition and fees and auxiliary enterprises are calculated using the Alternate Method which reports tuition and fee revenue net of scholarship allowances.

NEW GASB PRONOUNCEMENTS

In June 2015, the GASB released Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. This Statement replaces the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. The University is required to adopt this standard in fiscal year 2018. Management is evaluating the impact this pronouncement will have on the University.

CLASSIFICATION OF ASSETS AND LIABILITIES

The University presents current and non-current assets and liabilities in the statements of net position. Assets and liabilities are considered current if they mature in one year or less, or are expected to be received, used, or paid within one year or less. Investments with a maturity of greater than one year and balances that have externally imposed restrictions as to use are considered non-current. Cash Held by State Treasurer includes balances with restrictions as to use and balances that may be rolled forward for use toward the restricted purposes in future years, and such balances are classified as non-current. Cash held by trustees is presented based upon its expected period of use and the restrictions imposed on the balances by external parties.

CASH AND CASH EQUIVALENTS AND INVESTMENTS

Cash and cash equivalents consist primarily of petty cash, demand deposit accounts, savings accounts, and money market accounts with a maturity of three months or less when purchased.

Investments are reported at their respective fair values. Short-term investments consist of deposits with original maturities of less than one year and are available for current use. Securities received as a gift are recorded at estimated fair value at the date of the gift.

Private equity and certain other non-marketable securities held by the Foundation are valued using current estimates of fair value by management based on information provided by the general partner or investment manager for the respective securities. The Foundation believes that the carrying amounts of these investments are a reasonable estimate of fair value, however, 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.

Investment securities are exposed to various risks, such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the accompanying financial statements.

Investment income includes dividends and interest income and is recognized on the accrual basis. In computing realized gains and losses, cost is determined on a specific identification basis.

RESTRICTED GRANTS AND CONTRACTS

The University receives monies from federal and state government agencies under grants and contracts for research and other activities including medical service reimbursements. The University records the recovery of indirect costs applicable to research programs, and other activities which provide for the full or partial reimbursement of such costs, as revenue. Recovery of indirect costs for the years ended June 30, 2017 and 2016 was \$131.6 million and \$119 million, respectively, and is a component of grants and contracts revenue. The costs, both direct and indirect, charged to these grants and contracts are subject to audit by the granting agency. The University believes that any audit adjustments would not have a material effect on the University's financial statements.

PLEDGES AND ENDOWMENT SPENDING

Pledges for non-endowment purposes are presented net of amounts deemed uncollectible, and after discounting to the present value of the expected future cash flows. Because of uncertainties with regard to whether they are realizable, bequests and intentions and other conditional promises are not recognized as assets until the specified conditions are met.

The Foundation utilizes the pooled investment concept whereby all invested funds are in one investment pool, except for investments of certain funds that are otherwise restricted. Pooled investment funds will receive an annual distribution of 4% of the endowment fund's average market value for the preceding twelve quarters on a one year lag. Only funds that exist during each quarter-end are included in the calculation. In addition, a prudence rule will be utilized limiting spending from a particular endowment fund to no lower than 93% of its book value. The actual spending rate approved was 4% for 2017 and 2016. Future utilization of gains is dependent on market performance. Deficiencies for donor-restricted endowment funds resulting from declines in market value would be offset by an allocation from unrestricted net position to restricted expendable net position, and would be recorded in realized and unrealized gains (losses) on sale of investments. In fiscal years 2017 and 2016, the deficiencies were \$0.5 million and \$3.2 million, respectively. The Foundation believes that these adjustments are temporary and will not require permanent funding.

INVENTORIES

The University's inventories consist of books, general merchandise, central stores, vaccines, and operating supplies which are carried at the lower of cost (first-in, first-out and average cost methods) or market value.

INVESTMENT IN PLANT

Capital assets are stated at cost or fair value upon receipt as a gift. Net interest costs incurred during the construction period for major capital projects are capitalized. Repairs and maintenance costs are expensed as incurred, whereas major improvements that extend the estimated useful lives of the assets are capitalized as additions to property and equipment. Depreciation of capital assets is provided on a straight-line basis over the estimated useful lives of the respective assets. Prior to the fiscal year ended June 30, 2017, the University recorded a full year of depreciation in the year of acquisition. Beginning in the fiscal year ended June 30, 2017, to be consistent with the Building Authority, the University applied a half-year convention to the straight-line basis of depreciation. This change in accounting estimate is reported prospectively for all depreciable assets. Management estimates that the adoption of the half-year convention reduced depreciation expense by \$5 million in fiscal year 2017.

Following is the range of useful lives for the University's depreciable assets:

Buildings	15-50 years
Building Improvements	3-20 years
Equipment, Furniture and IT Infrastructure	3-15 years
Software	5 years
Land Improvements	20 years

COMPENSATED ABSENCES

Employees earn the right to be compensated during absences for annual vacation leave and sick leave. The accompanying statements of net position reflect an accrual for the amounts earned and ultimately payable for such benefits as of the end of the fiscal year. The accrual equates to the entire amount of vacation time earned and an actuarially determined liability for the sick leave component of compensated absences. Employees are only entitled to 20% of their sick leave balance upon retirement. The actuarial calculation utilized the probability of retirement for this estimate.

UNEARNED REVENUE

Unearned revenue consists of amounts billed or received in advance of the University providing goods or services. Unearned revenue is recognized as revenue as expenses are incurred and therefore earned.

ADVANCES AND DEPOSITS

Advances from the U.S. Government for Federal Perkins Loans to students are reported as part of advances and deposits. Future loans to students are made available only from repayments of outstanding principal amounts plus accumulated interest received thereon. Funding for the low-interest Federal Perkins Loan program will expire September 30, 2017. Universities and colleges are not allowed to make Federal Perkins Loans to new borrowers after this date.

TUITION AND STATE APPROPRIATIONS

The accompanying financial statements for the year ended June 30, 2016 present as tuition revenue \$30.6 million of in-state tuition received by the University and remitted to the State Treasurer's Office for the general fund of the Commonwealth of Massachusetts.

In July of 2015, the Legislature passed and the Governor signed into law provisions in the fiscal year 2016 State budget that would give the University the tools to adopt a new system of billing that conforms to national norms across higher education. The University restructured its tuition and fees in a way that is transparent and consistent with peer institutions across the nation. Beginning in the year ended June 30, 2017, the State Appropriation decreased to reflect the reduction in appropriation to offset the tuition that previously had been remitted to the State. Gross tuition and fees revenue and the related scholarship allowances on the Statement of Revenues, Expenses and Changes in Net Position increased to reflect the amounts previously credited as mandatory waivers as noted below.

Impact of Tuition Retention on State Appropriations

	Year Ended	
	2017	2016
Gross Commonwealth Appropriations	\$ 512,900	\$ 546,953
Plus: Fringe Benefits	207,919	178,032
	720,819	724,985
Less: Mandatory Waivers	-	(24,654)
Less: Tuition Remitted	-	(30,583)
Net Commonwealth Support	\$ 720,819	\$ 669,748

AUXILIARY ENTERPRISES

An auxiliary enterprise is an entity that exists to furnish a service to students, faculty or staff acting in a personal capacity, and that charges a fee for the use of goods and services. For the years ended June 30, 2017 and 2016, the University recognized Auxiliary Enterprise revenue of \$400.8 million and \$383.3 million, respectively.

OTHER OPERATING REVENUES AND EXPENDITURES, SALES AND SERVICES, PUBLIC SERVICE ACTIVITIES

Public Service Activities consist largely of sales and services provided to third parties by the UMass Medical School campus under its Commonwealth Medicine ("CWM") programs, which provide public consulting and services in health care financing, administration and policy to federal, state and local agencies and not-for-profit health and policy organizations. Included in this category of activities are Commonwealth Medicine revenues of \$296 million and \$283.8 million for the years ended June 30, 2017 and 2016, respectively. Included in expenditures are Commonwealth Medicine expenditures of \$248.8 million and \$244.1 million for the years ended June 30, 2017 and 2016, respectively.

Public Service Activities also include payments received by the Medical School for educational services it provides to its clinical affiliate, UMass Memorial, as required by the enabling legislation enacted by the Commonwealth in 1997. Educational services revenues included in public service revenues were \$140 million and \$209.9 million for the years ended June 30, 2017 and 2016, respectively. Finally, Public Service Activity expenditures include payments made to the Commonwealth of Massachusetts of \$96.5 million and \$166 million for the years ended June 30, 2017 and 2016, pursuant to requirements of legislation enacted by the State Legislature of Massachusetts.

Other non-operating income included revenue of \$15.2 million and \$ 0.5 million for the years ended June 30, 2017 and 2016, respectively. In 2017, other non-operating income consists of amounts due to the University Medical School campus for its learning contracts.

FRINGE BENEFITS FOR CURRENT EMPLOYEES AND POST EMPLOYMENT OBLIGATIONS - PENSION AND NON-PENSION

The University participates in the Commonwealth's Fringe Benefit programs, including active employee and post-employment health insurance, unemployment compensation, pension, and workers' compensation benefits. Health insurance and pension costs for active employees and retirees are paid through a fringe benefit rate charged to the University by the Commonwealth. Workers' compensation costs are assessed separately based on actual University experience.

In addition to providing pension benefits, under Chapter 32A of the Massachusetts General Laws, the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth, housing authorities, redevelopment authorities, and certain other governmental agencies. Substantially all of the Commonwealth's employees may become eligible for these benefits if they reach retirement age while working for the Commonwealth. Eligible retirees are required to contribute a specified percentage of the health care benefit costs which is comparable to contributions required from employees. The Commonwealth is reimbursed for the cost of benefits to retirees of the eligible authorities and non-state agencies.

The Commonwealth's Group Insurance Commission ("GIC") was established by the Legislature in 1955 to provide and administer health insurance and other benefits to the Commonwealth's employees and retirees, and their dependents and survivors. The GIC also covers housing and redevelopment authorities' personnel, certain authorities and other offline agencies, retired municipal teachers from certain cities and towns and municipalities as an agent multiple employer program, accounted for as an agency fund activity of the Commonwealth, not the University.

The GIC administers a plan included within the State Retiree Benefits Trust Fund, an irrevocable trust. Any assets accumulated in excess of liabilities to pay premiums or benefits or administrative expenses are retained in that fund. The GIC's administrative costs are financed through Commonwealth appropriations and employee investment returns. The Legislature determines employees' and retirees' contribution ratios.

The GIC is a quasi-independent state agency governed by an eleven-member body (the "Commission") appointed by the Governor. The GIC is located administratively within the Executive Office of Administration and Finance, and is responsible for providing health insurance and other benefits to the Commonwealth's employees and retirees and their survivors and dependents. During the fiscal years that ended on June 30, 2017 and 2016, respectively, the GIC provided health insurance for its members through indemnity, PPO, and HMO plans. The GIC also administered carve-outs for the pharmacy benefit and mental health and substance abuse benefits for certain of its health plans. In addition to health insurance, the GIC sponsors life insurance, long-term disability insurance (for active employees only), dental and vision coverage for employees not covered by collective bargaining, a retiree discount vision plan and retiree dental plan, and finally, a pre-tax health care spending account and dependent care assistance program (for active employees only).

Pursuant to the provisions of Paragraph (e), Section 5 of Chapter 163 of the Acts of 1997 and consistent with the September 22, 1992 Memorandum of Understanding between the Commonwealth of Massachusetts Executive Office of Administration and Finance and the University of Massachusetts, the University's Medical School campus has assumed the obligation for the cost of fringe benefits provided by the Commonwealth to University Medical School employees (other than those employees paid from state appropriated funds) for all periods on or after July 1, 1989.

The Medical School determines the actual costs for the health insurance benefits and actuarially calculates the incurred service costs for pensions and retiree health insurance.

INCOME TAX STATUS

The University and the Building Authority are component units of the Commonwealth of Massachusetts and are exempt from Federal and state income tax under the doctrine of intergovernmental tax immunity found in the U.S. Constitution. The University qualifies as a public charity eligible to receive charitable contributions under Section 170(b)(1)(A)(ii) of the Internal Revenue Code, as amended (the "Code"). The Building Authority qualifies as a public charity under Section 170(b)(1)(A)(iv) of the Code.

The WCCC and the University Related Organizations are organizations described in Section 501(c)(3) of the Code, and are generally exempt from income taxes pursuant to Section 501(a) of the Code. WCCC and the University Related Organizations are required to assess uncertain tax positions and have determined that there were no such positions that are material to the financial statements.

COMPARATIVE INFORMATION AND RECLASSIFICATIONS

The University's financial statements include prior year comparative information. Certain reclassifications were made in prior year to conform to current year presentation.

2. CASH AND CASH EQUIVALENTS AND INVESTMENTS

The University's investments are made in accordance with the Investment Policy and Guidelines Statement Operating Cash Portfolio adopted in May 2005 and later amended in June 2009 by the Board of Trustees (the "Investment Policy") and the Statement of Investment and Spending Policies of the University of Massachusetts Foundation, Inc. The goals of these documents are to preserve capital, provide liquidity, and generate investment income. The University of Massachusetts has statutory authority under Massachusetts General Laws Chapter 75 to collect, manage, and disburse trust funds of the University.

Investments are reported at their respective fair values. The values of publicly traded fixed income and equity securities are based upon quoted market prices at the close of business on the last day of the fiscal year. Private equities and certain other non-marketable securities are valued using current estimates in fair value by management based on information provided by the general partner or investment manager for the respective securities. Investments in units of non-publicly traded pooled funds are valued at the unit value determined by the fund's administrator based on quoted market prices of the underlying investments. Private equities and other non-marketable securities represent 18.7% and 23.5% of the University's investments at June 30, 2017 and 2016, respectively.

Custodial Credit Risk - Custodial Credit Risk is the risk that, in the event of a failure of the counterparty, the University would not be able to recover the value of its deposits, investments or collateral securities that were in the possession of an outside party. The University does not have a formal policy related to mitigation of custodial credit risk. Deposits are exposed to custodial risk if they are uninsured and uncollateralized. Investment securities are exposed to custodial credit risk if they are uninsured or not registered in the name of the University and are held by either the counterparty or the counterparty's trust department or agent but not in the University's name. As of June 30, 2017 and 2016, all cash and investment accounts were held on behalf of the University by the Trustees, in the Trustees' name.

The University maintains depository, payroll, disbursement, receipt, and imprest accounts. In addition to bank account deposits, the University held money market instruments which are classified as investments. Interest bearing and money market accounts carry Federal Deposit Insurance Corporation ("FDIC") insurance up to \$250,000 per account. None of the accounts are collateralized above the FDIC insured amounts.

At June 30, 2017 and 2016, the carrying amounts of bank balances with uninsured or uncollateralized operating cash deposits were \$293.9 million and \$246.9 million, respectively.

At June 30, 2017, the University held a carrying and fair market value of \$778.0 million in non-money market investments compared to a carrying and fair market value of \$737.3 million at June 30, 2016. In the event of negligence due to the University's custodian and/or investment manager(s), it is expected that investment balances of \$778.0 million and \$737.3 million at June 30, 2017 and 2016, respectively, would be fully recovered. However, these amounts are subject to both interest rate risk and credit risk.

Concentration of Credit Risk - Concentration of credit risk is assumed to arise when the amount of investments that the University has with one issuer exceeds 5% or more of the total value of the University's investments. The University does not have a formal policy for concentration of credit risk.

As of June 30, 2017 and 2016, there is no concentration of investments with one issuer of the University portfolio, excluding U.S. Government guaranteed obligations, which exceed 5% of the portfolio.

Credit Risk - Credit risk is the risk that the University will lose money because of the default of the security issuer or investment counterparty. The University's Investment Policy and Guidelines Statement allows each portfolio manager full discretion within the parameters of the investment guidelines specific to that manager.

The table below presents the fair value (in thousands) and average credit quality of the fixed income component of the University's investment portfolio as of June 30, 2017 and 2016, respectively:

Asset Class	2017		2016	
	Fair Value	Average Credit Quality	Fair Value	Average Credit Quality
Short Duration	\$ 356,026	AAA	\$ 270,117	AAA
Intermediate Duration	249,365	A	239,218	A

The table below presents the fair value (in thousands) by credit quality of the rated debt investments component, which includes cash and cash equivalents, of the University's investment portfolio as of June 30, 2017 and 2016, respectively:

Rated Debt Investments - 2017

(in thousands)

S&P Quality Ratings

	Fair Value	AAA	AA	A	BBB	BB	B	<B	Unrated
U.S. Agencies	\$ 432	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 432
U.S. Government	52,217	-	-	-	-	-	-	-	52,217
Certificates of Deposit	10,500	-	-	-	-	-	-	-	10,500
Corporate Debt	91,358	16,243	3,178	23,990	34,951	195	-	-	12,801
Municipal/Public Bonds	4,149	427	1,773	459	1,490	-	-	-	-
Bond Mutual Funds	161,355	61,128	25,099	18,617	27,621	13,038	5,683	1,225	8,944
Money Market Funds	285,380	31,276	-	-	-	-	-	269	253,835
	\$ 605,391	\$ 109,074	\$ 30,050	\$ 43,066	\$ 64,062	\$ 13,233	\$ 5,683	\$ 1,494	\$ 338,729

Rated Debt Investments - 2016

(in thousands)

S&P Quality Ratings

	Fair Value	AAA	AA	A	BBB	BB	B	<B	Unrated
U.S. Agencies	\$ 535	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 535
U.S. Government	34,641	-	-	-	-	-	-	-	34,641
Certificates of Deposit	20,500	-	-	-	-	-	-	-	20,500
Corporate Debt	107,428	20,736	7,017	28,393	38,716	-	-	-	12,564
Municipal/Public Bonds	5,455	442	1,875	2,040	1,098	-	-	-	-
Bond Mutual Funds	151,385	65,982	19,627	14,766	23,002	13,016	6,717	1,592	6,683
Money Market Funds	189,391	21,038	-	-	-	-	-	-	168,353
	\$ 509,335	\$ 108,198	\$ 28,519	\$ 45,199	\$ 62,818	\$ 13,016	\$ 6,717	\$ 1,592	\$ 243,276

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates will adversely affect the fair market value of an investment. The University's Investment Policy and Guidelines Statement establishes targets for the preferred duration of the fixed income component of the investment portfolio by asset class by limiting investments through targeted allocations to different asset classes.

The table below shows the allocation for each asset class and the fair value (in thousands) for each as of June 30, 2017 and 2016, respectively:

<u>Asset Class</u>	<u>2017</u>		<u>2016</u>	
	<u>Allocation</u>	<u>Fair Value</u>	<u>Allocation</u>	<u>Fair Value</u>
Short Duration	34%	\$ 356,026	29%	\$ 270,117
Intermediate Duration	24%	249,365	25%	239,218
Alternatives	18%	196,376	23%	220,543
Commodities	1%	8,330	1%	9,108
Equities	21%	224,437	20%	183,027
Real Estate	2%	18,029	2%	18,458
	<u>100%</u>	<u>\$ 1,052,563</u>	<u>100%</u>	<u>\$ 940,471</u>

The table below presents the fair value (in thousands) by investment maturity of the rated debt investments component, which includes cash and cash equivalents, of the University's investment portfolio as of June 30, 2017 and 2016, respectively:

INVESTMENTS - 2017
(in thousands)

Investment Type:	Investment Maturity (In Years)				
	Fair Value	Less than 1	1 to 5	6 to 10	More than 10
Debt Securities					
U.S. Agencies	\$ 432	\$ 296	\$ 136	\$ -	\$ -
U.S. Government	52,217	448	47,233	4,536	-
Certificates of Deposit	10,500	10,500	-	-	-
Corporate Debt	91,358	30,648	55,812	4,486	412
Municipal/Public Bonds	4,149	4,003	146	-	-
Bond Mutual Funds	161,355	24,751	81,212	44,488	10,904
Money Market Funds	285,380	285,380	-	-	-
Sub Total Debt Securities	\$ 605,391	\$ 356,026	\$ 184,539	\$ 53,510	\$ 11,316
Other Investments					
Alternative Assets	\$ 196,376				
Equity Securities - International	128,458				
Equity Securities - Domestic	95,979				
Commodities	8,330				
Real Estate	18,029				
Grand Total	\$ 1,052,563				

INVESTMENTS - 2016
(in thousands)

Investment Type:	Investment Maturity (In Years)				
	Fair Value	Less than 1	1 to 5	6 to 10	More than 10
Debt Securities					
U.S. Agencies	\$ 535	\$ 343	\$ 192	\$ -	\$ -
U.S. Government	34,641	1,180	29,935	3,526	-
Certificates of Deposit	20,500	20,500	-	-	-
Corporate Debt	107,428	34,560	67,054	5,814	-
Municipal/Public Bonds	5,455	5,455	-	-	-
Bond Mutual Funds	151,385	18,688	82,901	36,419	13,377
Money Market Funds	189,391	189,391	-	-	-
Sub Total Debt Securities	\$ 509,335	\$ 270,117	\$ 180,082	\$ 45,759	\$ 13,377
Other Investments					
Alternative Assets	\$ 220,543				
Equity Securities - International	106,102				
Equity Securities - Domestic	76,925				
Commodities	9,108				
Real Estate	18,458				
Grand Total	\$ 940,471				

Fair Value Measurements - GASB No. 72 *Fair Value Measurements and Application* sets forth the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under GASB No. 72 are described as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the University has the ability to access.

Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly and include:

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

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value measurement. Unobservable inputs are developed based on the best information available in the circumstances and may include the University's own data.

The following table presents the investments carried at fair value, as of June 30, 2017, by the GASB No. 72 valuation hierarchy defined above (in thousands):

	2017	Fair Value Measurements Determined Using:		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Debt Securities				
U.S. Treasury Securities	\$ 49,198	\$ 49,198	\$ -	\$ -
Government Agency Bonds	432	-	432	-
Asset-Backed Securities	20,571	-	20,571	-
Commercial Mortgage-Backed Securities	5,771	-	5,771	-
Government Issued Commercial Mortgage-Backed Securities	253	-	253	-
Government Mortgage-Backed Securities	3,047	-	3,047	-
Non Government Backed CMO's	886	-	886	-
Corporate Bonds	63,866	-	63,629	237
Municipal and Provincial Bonds	4,149	-	4,149	-
Other Fixed Income	161,353	147,948	13,405	-
Total Debt Securities	309,626	197,146	112,143	237
Equity Securities				
Domestic Equities	95,979	94,729	-	1,250
International Equities	128,458	128,458	-	-
Total Equity Securities	224,437	223,187	-	1,250
Other Securities				
Commodities	8,330	8,330	-	-
REITS	18,029	18,029	-	-
Total Other Securities	26,369	26,359	-	-
Total Investments by Fair Value Level	\$ 660,322	\$ 446,692	\$ 112,143	\$ 1,487
Investments Measured at the Net Asset Value ("NAV")				
Multi-Strategy Hedge Funds				
Equity	\$ 46,681			
Long/Short	12,640			
Fixed Income	48,196			
Absolute Return	50,623			
Real Assets	11,784			
Private Equity	3,402			
Private Debt	19,221			
Private Real Estate	3,829			
Total Investments Measured at the NAV	196,376			
Total Investments Measured at Fair Value	\$ 766,698			
Cash and Cash Equivalents	295,865			
Total Investments Per Financial Statements	\$ 1,062,563			

The following table presents the investments carried at fair value, as of June 30, 2016, by the GASB No. 72 valuation hierarchy defined above (in thousands):

	2016	Fair Value Measurements Determined Using:		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Investments by Fair Value Level				
Debt Securities				
U.S. Treasury Securities	\$ 31,873	\$ 31,873	\$ -	\$ -
Government Agency Bonds	535	-	535	-
Asset-Backed Securities	23,951	-	23,951	-
Commercial Mortgage-Backed Securities	11,552	-	11,552	-
Government Issued Commercial Mortgage-Backed Securities	421	-	421	-
Government Mortgage-Backed Securities	3,911	-	3,911	-
Non Government Backed CMO's	404	-	404	-
Corporate Bonds	71,756	-	71,598	158
Municipal and Provincial Bonds	5,455	-	5,455	-
Other Fixed Income	151,386	137,608	13,778	-
Total Debt Securities	301,244	169,481	131,605	158
Equity Securities				
Domestic Equities	76,925	76,074	-	851
International Equities	106,102	106,102	-	-
Total Equity Securities	183,027	182,176	-	851
Other Securities				
Commodities	9,108	9,108	-	-
REITS	18,458	18,458	-	-
Total Other Securities	27,566	27,566	-	-
Total Investments by Fair Value Level	\$ 511,837	\$ 379,223	\$ 131,605	\$ 1,009
Investments Measured at the NAV				
Multi-Strategy Hedge Funds				
Equity	\$ 41,970			
Long/Short	28,614			
Fixed Income	59,131			
Absolute Return	59,139			
Real Assets	12,055			
Private Equity	1,147			
Private Debt	14,989			
Private Real Estate	3,498			
Total Investments Measured at the NAV	220,543			
Total Investments Measured at Fair Value	\$ 732,380			
Cash and Cash Equivalents	208,091			
Total Investments Per Financial Statements	\$ 940,471			

3. CASH HELD BY STATE TREASURER

Accounts payable, accrued salaries and outlays for future capital projects to be funded from state-appropriated funds totaled \$14.4 million at June 30, 2017 and \$17.3 million at June 30, 2016. The University has recorded a comparable amount of cash held by the State Treasurer for the benefit of the University, which will be subsequently utilized to pay for such liabilities. The cash is held in the State Treasurer's pooled cash account. The Commonwealth requires all bank deposits in excess of insurance coverage by the FDIC to be collateralized with a perfected pledge of eligible collateral. Eligible collateral must be pledged in an amount equal to 102% of the amount of the deposits that exceed FDIC insurance. Sufficient collateral to cover total Commonwealth deposits in excess of the FDIC insured amount must be pledged and held in safekeeping by a custodian that is approved by and under the control of the Treasurer and Receiver - General.

4. CASH AND SECURITIES HELD BY TRUSTEES

Cash and securities held by trustees consist primarily of unspent bond proceeds, amounts held for the future payment of debt service on such borrowings and designated funds from the Building Authority. At June 30, 2017 and 2016, there was \$1 million and \$0.9 million, respectively, available from the Revolving Loan Fund established with 2000 Series A bond proceeds issued to acquire and implement enterprise resource planning technology along with other projects (see Note 8) and \$438.6 million and \$485.1 million, respectively, held by trustees related to the Building Authority.

Pursuant to Trust Agreements between the Building Authority and its bond trustees, all funds deposited with those trustees (\$438.6 million at June 30, 2017 and \$437.6 million at June 30, 2016) shall be continuously maintained for the benefit of the Building Authority and Registered owners of the Bonds. All investments shall be (a) held with a bank or trust company approved by the Trustees and the Building Authority, as custodians, or (b) in such other manner as may be required or permitted by applicable state and Federal laws and regulations. Investments shall consist of (a) direct obligations of, or obligations which are unconditionally guaranteed by the United States of America, or any other agency or corporation which has been created pursuant to an act of Congress of the United States as an agency or instrumentality thereof; or (b) other marketable securities eligible as collateral for the deposit of trust funds under regulations of the Comptroller of the Currency having a market value not less than the amount of such deposit. Direct obligations of, or obligations which are unconditionally guaranteed by the United States of America or any other agency or corporation which has been created pursuant to an act of Congress of the United States as an agency or instrumentality thereof, may be subject to repurchase upon demand by the owner pursuant to a repurchase agreement with a bank or trust company.

Cash Deposits - Custodial Credit Risk - The Building Authority holds a majority of its cash and cash equivalents in high quality money market mutual funds that invest in securities that are permitted investments under the Building Authority's Enabling Act or in money market mutual funds that have been specifically permitted by state legislation. The Building Authority's cash and cash equivalents consisted of the following as of June 30 (in thousands):

	2017	2016
Cash	\$ 5,553	\$ 4,577
Permitted money market accounts ("MMA")	426,797	475,240
Total cash and cash equivalents	\$ 432,350	\$ 479,817

Custodial credit risk is the risk that, in the event of a bank failure, the University will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. The University does not have a deposit policy for custodial credit risk. As of June 30, 2017 and June 30, 2016, the bank balances of uninsured deposits totaled \$5.1 million and \$4.1 million, respectively. For purposes of disclosure under GASB Statement No. 40, *Deposit and Investment Risk Disclosures*, money market accounts investing in debt securities are considered investments and therefore, are included in the investment disclosures that follow.

Interest Rate Risk - The Building Authority has a formal investment policy that establishes minimum credit quality of certain instruments, outlines investment procedures, and provides for periodic reporting. Generally, the Building Authority holds its investments until maturity.

Credit Risk - Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. The risk is measured by the assignment of a rating by a nationally recognized statistical rating organization.

The Enabling Act specifies the permitted investments of the Building Authority. These permitted investments include direct obligations of or obligations which are unconditionally guaranteed by the United States of America ("Treasuries"), obligations of an agency or organization created pursuant to an act of Congress of the United States as an agency or instrumentality thereof ("Agencies"), time deposits or certificate of deposits fully secured by Treasuries or Agencies, and Treasuries and Agencies subject to repurchase agreements. Other legislation allows the Building Authority to invest in the Massachusetts Municipal Depository Trust (the "MMDT"), a money market account sponsored by the Treasurer of the Commonwealth and managed by Federated Investors, Inc. Additionally, the Building Authority's Bond Trustee invests some of the Building Authority's funds in money market accounts that are permitted and collateralized by Treasuries.

No credit risk disclosures are required under GASB 40 relating to the Building Authority's investment in Treasuries. The Building Authority's investments in repurchase agreements are not rated but are fully collateralized by Treasuries and Agencies. MMDT is unrated.

Custodial Credit Risk the Building Authority's Enabling Act does not contain legal or policy requirements that would limit the exposure to custodial credit risk except that interest-bearing time deposits or certificates of deposit of banking institutions or trust companies must be continuously and fully secured by Treasuries or Agencies.

Custodial credit risk generally applies only to direct investments in marketable securities. Custodial credit risk does not apply to indirect investment in securities through the use of mutual funds or government investment pools, such as MMDT. Direct investments in marketable securities are held by the Building Authority's Bond Trustee as the Building Authority's agent. In accordance with the Building Authority's repurchase agreements, collateral for the agreements is held in segregated accounts with market values between 100% and 105% of the repurchase price, depending on the type of asset used as security and the specific repurchase agreement.

Concentrations of Credit Risk the Building Authority places no limit on the amount it may invest in any one issuer. As of June 30, 2017, the Building Authority had 98.8% of its investments in MMDT. As of June 30, 2016, the Building Authority had 98% of its investments in MMDT.

5. ACCOUNTS, GRANTS AND LOANS RECEIVABLE

Accounts, grants and loans receivable as of June 30, 2017 and 2016 are as follows (in thousands):

	2017	2016
Student Accounts Receivable	\$ 58,065	\$ 56,661
Less allowance for uncollectible accounts	(20,258)	(23,077)
	<u>37,807</u>	<u>33,584</u>
Grants and Contracts Receivable	94,583	98,383
Less allowance for uncollectible accounts	(1,189)	(2,108)
	<u>93,394</u>	<u>96,275</u>
Student Loans Receivable	63,660	44,760
Less allowance for uncollectible accounts	(4,499)	(303)
	<u>59,161</u>	<u>44,457</u>
Commonwealth Medicine	76,093	69,489
Less allowance for uncollectible accounts	(2,029)	(500)
	<u>74,064</u>	<u>68,989</u>
Other	60,304	39,996
Less allowance for uncollectible accounts	(789)	(597)
	<u>59,515</u>	<u>39,399</u>
Total, net	323,941	282,704
Less current portion, net	(275,166)	(244,178)
Long-term, net	<u>\$ 48,775</u>	<u>\$ 38,526</u>

UMASS MEMORIAL

The University and UMass Memorial have the following ongoing agreements:

- UMass Memorial has been granted the right to occupy portions of the University's Worcester Medical School campus for a period of 99 years and UMass Memorial has agreed to share responsibility for various capital and operating expenses relating to the occupied premises. UMass Memorial has also agreed to contribute to capital improvements to shared facilities.
- UMass Memorial has agreed to make certain payments to the University and its related organizations, including: 1) an annual fee of \$12 million (plus an inflation adjustment), for 99 years as long as the University continues to operate a medical school; and 2) a participation payment based on a percentage of net operating income of UMass Memorial for which revenue is recognized by the University when the amounts are received.

The University is reimbursed by, and reimburses UMass Memorial for shared services, cross-funded employees, and other agreed upon activities provided and purchased. For the years ended June 30, 2017 and 2016, the reimbursements for services provided to UMass Memorial were \$147.7 million and \$125.2 million, respectively. Included in these amounts are payroll paid by the University on behalf of UMass Memorial in an agency capacity in the amount of \$89.2 million and \$71.3 million for fiscal years 2017 and 2016, respectively. At June 30, 2017 and 2016, the University has recorded a receivable in the amount of \$33.8 million and \$35.7 million, respectively from UMass Memorial which includes \$19.4 million and \$22.9 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$4.4 million and \$3.6 million at June 30, 2017 and 2016, respectively, primarily for cross-funded payroll.

6. RELATED ORGANIZATIONS

Related party activity with the Foundation includes loan agreements and investments of the University's endowment assets and Intermediate Term Investment Fund ("ITIF") with the Foundation.

As of June 30, 2017, the net position of the Foundation included as related organization in the accompanying financial statements of the University is \$538.6 million, of which \$500.2 million are restricted funds and \$38.4 million are unrestricted funds. During the fiscal year ended June 30, 2017, the University received \$33.0 million from the Foundation, and transferred \$11.6 million to the Foundation of which \$1.6 million related to the establishment of quasi-endowment. At June 30, 2017, the University's investments include \$331.5 million of endowment funds held in a custodial relationship at the Foundation, and \$301.1 million in ITIF.

As of June 30, 2016, the net position of the Foundation included as related organization in the accompanying financial statements of the University is \$465.8 million, of which \$438.9 million are restricted funds and \$26.9 million are unrestricted funds. During the fiscal year ended June 30, 2016, the University received \$29.7 million from the Foundation, and transferred \$14.7 million to the Foundation. At June 30, 2016, the University's investments include \$309 million of endowment funds held in a custodial relationship at the Foundation, and \$283.2 million in ITIF.

The Building Authority and the Commonwealth have entered into various lease agreements under which the Commonwealth leases to the Building Authority certain property for nominal amounts.

7. INVESTMENT IN PLANT

Investment in plant activity for the year ended June 30, 2017 is comprised of the following (in thousands):

University:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Retirements</u>	<u>Ending Balance</u>
Buildings and Improvements	\$ 5,691,000	\$ 456,293	\$ (14,652)	\$ 6,132,641
Equipment and Furniture	658,968	80,119	(45,586)	693,501
Software	136,503	4,272	(29,737)	111,038
Library Books	65,978	-	(5,834)	60,144
	<u>6,552,449</u>	<u>540,684</u>	<u>(95,809)</u>	<u>6,997,324</u>
Accumulated Depreciation	<u>(2,697,213)</u>	<u>(249,974)</u>	<u>82,907</u>	<u>(2,864,280)</u>
Sub-Total	<u>3,855,236</u>	<u>290,710</u>	<u>(12,902)</u>	<u>4,133,044</u>
Land	84,161	14,394	(895)	97,660
Construction in Progress	676,379	478,566	(454,737)	700,208
Sub-Total	<u>760,540</u>	<u>492,960</u>	<u>(455,632)</u>	<u>797,868</u>
Total	<u>\$ 4,615,776</u>	<u>\$ 783,670</u>	<u>\$ (468,534)</u>	<u>\$ 4,930,912</u>

University Related Organizations:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Ending Balance</u>
Buildings and Improvements	\$ 7,942	\$ 7,900	\$ 15,842
Equipment and Furniture	168	7	175
	<u>8,110</u>	<u>7,907</u>	<u>16,017</u>
Accumulated Depreciation	<u>(1,439)</u>	<u>(315)</u>	<u>(1,754)</u>
Sub-Total	<u>6,671</u>	<u>7,592</u>	<u>14,263</u>
Land	1,419	1,650	3,069
Total	<u>\$ 8,090</u>	<u>\$ 9,242</u>	<u>\$ 17,332</u>

Investment in plant activity for the year ended June 30, 2016 is comprised of the following (in thousands):

University:

	Beginning Balance	Additions	Retirements	Ending Balance
Buildings and Improvements	\$ 5,447,343	\$ 251,688	\$ (8,031)	\$ 5,691,000
Equipment and Furniture	634,270	59,330	(34,632)	658,968
Software	136,570	1,052	(1,119)	136,503
Library Books	74,576	-	(8,598)	65,978
	<u>6,292,759</u>	<u>312,070</u>	<u>(52,380)</u>	<u>6,552,449</u>
Accumulated Depreciation	<u>(2,494,718)</u>	<u>(240,957)</u>	<u>38,462</u>	<u>(2,697,213)</u>
Sub-Total	<u>3,798,041</u>	<u>71,113</u>	<u>(13,918)</u>	<u>3,855,236</u>
Land	71,579	12,582	-	84,161
Construction in Progress	464,142	428,789	(216,552)	676,379
Sub-Total	<u>535,721</u>	<u>441,371</u>	<u>(216,552)</u>	<u>760,540</u>
Total	<u>\$ 4,333,762</u>	<u>\$ 512,484</u>	<u>\$ (230,470)</u>	<u>\$ 4,615,776</u>

University Related Organizations:

	Beginning Balance	Additions	Ending Balance
Buildings and Improvements	\$ 7,942	\$ -	\$ 7,942
Equipment and Furniture	168	-	168
	<u>8,110</u>	<u>-</u>	<u>8,110</u>
Accumulated Depreciation	<u>(1,238)</u>	<u>(201)</u>	<u>(1,439)</u>
Sub-Total	<u>6,872</u>	<u>(201)</u>	<u>6,671</u>
Land	1,419	-	1,419
Total	<u>\$ 8,291</u>	<u>\$ (201)</u>	<u>\$ 8,090</u>

The University has capitalized interest on borrowings, net of interest earned on related debt reserve funds, during the construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets being constructed, and is amortized over the useful lives of the assets. For the years ended June 30, 2017 and 2016, the University capitalized net interest costs of \$20.5 million and \$22.1 million, respectively.

On November 8, 2016, the Building Authority entered into an agreement whereby the Building Authority sub-leased property on the University of Boston campus to Provident Commonwealth Educational Resources Inc., a Massachusetts not-for-profit corporation. The land is leased to the Authority by the Commonwealth. Provident Commonwealth Educational Resources, Inc. will engage a contractor to construct a 1,082 bed student housing facility on the site. The Building Authority will sub-lease the property to Provident Commonwealth Educational Resources Inc. for a term of approximately 40 years. Commencing approximately one year following the completion of the project (estimated completion August 2018), the annual rental amount payable to the Building Authority under the ground lease will be \$1.0 million.

Pursuant to the Dining Facility Sublease dated November 8, 2016 between Provident Commonwealth Education Resources Inc., as sub-lessor and the Building Authority, as sub-lessee, Provident Commonwealth Educational Resources Inc. shall lease the dining facility, located within the residential hall, to the Building Authority and the Building Authority shall operate the Dining Facility.

8. BONDS PAYABLE

Amounts outstanding at June 30, 2017 are as follows (in thousands)

Issue Borrowing	Original Borrowing	Maturity Date	Interest Rate	Amount Outstanding
University of Massachusetts Building Authority:				
Series 2008-A	26,580	2038	variable	19,145
Series 2008-1	232,545	2038	variable	171,430
Series 2008-2	120,560	2038	4.00-5.00%	3,065
Series 2009-1	247,810	2039	3.00-5.00%	28,400
Series 2009-2	271,855	2039	6.42-6.57%	271,855
Series 2009-3	28,570	2039	5.82-6.17%	25,685
Series 2010-1	118,985	2020	5.00%	59,230
Series 2010-2	430,320	2040	3.80-5.45%	430,320
Series 2010-3	3,005	2040	5.75%	2,730
Series 2011-1	135,040	2034	variable	126,540
Series 2011-2	101,700	2034	variable	96,115
Series 2013-1	212,585	2043	2.00-5.00%	198,655
Series 2013-2	71,970	2043	0.43-2.69%	65,090
Series 2013-3	24,640	2043	4.00 - 5.00%	24,640
Series 2014-1	293,890	2044	3.00 - 5.00%	293,015
Series 2014-2	14,085	2019	0.44-2.10%	8,555
Series 2014-4	157,855	2025	0.20 - 3.38%	122,125
Series 2014-3	67,635	2029	2.00-5.00%	61,640
Series 2015-1	298,795	2036	4.00 - 5.00%	298,795
Series 2015-2	191,825	2036	3.00 - 5.00%	191,825
Series 2017-1	165,130	2047	3.25-3.77%	165,130
Series 2017-2	19,510	2027	1.58-3.37%	19,510
Series 2017-3	35,945	2038	3.00-5.00%	187,680
				<u>2,871,175</u>
			Unamortized Bond Premium	<u>164,887</u>
			SUBTOTAL	<u>3,036,062</u>
University of Massachusetts HEFA/MDFA:				
2000 Series A	\$ 20,000	2030	variable	20,000
Series 2011	29,970	2034	2.50-4.00%	25,925
				<u>45,925</u>
			Unamortized Bond Premium	<u>870</u>
				<u>46,795</u>
WCCC HEFA/MDFA:				
Series 2005-D	\$ 99,325	2029	5.00-5.25%	715
Series 2011	10,495	2023	2.00-5.00%	6,690
				<u>7,405</u>
			Unamortized Bond Premium	<u>624</u>
			SUBTOTAL	<u>8,029</u>
MDFA:				
Clean Renewable Energy Bonds	\$ 1,625	2027	3.50%	956
			TOTAL	<u>\$ 3,091,842</u>

Bond Payable activity for the year ended June 30, 2017 is summarized as follows (in thousands):

	Beginning Balance	Additions	Retirements/ Repayment/ Amortization	Ending Balance
University of Massachusetts Building Authority:				
Series 2004-1	\$ 1,515	\$ -	\$ (1,515)	\$ -
Series 2008-A	20,105	-	(960)	19,145
Series 2008-1	179,425	-	(7,995)	171,430
Series 2008-2	63,025	-	(59,960)	3,065
Series 2009-1	108,365	-	(79,965)	28,400
Series 2009-2	271,855	-	-	271,855
Series 2009-3	26,235	-	(550)	25,685
Series 2010-1	72,310	-	(13,080)	59,230
Series 2010-2	430,320	-	-	430,320
Series 2010-3	2,785	-	(55)	2,730
Series 2011-1	128,245	-	(1,705)	126,540
Series 2011-2	97,265	-	(1,150)	96,115
Series 2013-1	203,420	-	(4,765)	198,655
Series 2013-2	67,335	-	(2,245)	65,090
Series 2013-3	24,640	-	-	24,640
Series 2014-1	293,465	-	(450)	293,015
Series 2014-2	11,330	-	(2,775)	8,555
Series 2014-4	149,975	-	(27,850)	122,125
Series 2014-3	64,470	-	(2,830)	61,640
Series 2015-1	298,795	-	-	298,795
Series 2015-2	191,825	-	-	191,825
Series 2017-1	-	165,130	-	165,130
Series 2017-2	-	19,510	-	19,510
Series 2017-3	-	187,680	-	187,680
Plus: unamortized bond premium	122,146	55,987	(13,246)	164,887
Subtotal	2,828,851	428,307	(221,096)	3,036,062
UMass HEFA/MDFA:				
2000 Series A	20,000	-	-	20,000
2007 Series D	8,645	-	(8,645)	-
Series 2011	26,940	-	(1,015)	25,925
Plus: unamortized bond premium	949	-	(79)	870
Subtotal	56,534	-	(9,739)	46,795
WCCC HEFA/MDFA:				
WCCC 2005 Series D	1,335	-	(620)	715
WCCC 2007 Series E	31,250	-	(31,250)	-
WCCC 2007 Series F	51,890	-	(51,890)	-
Series 2011	7,495	-	(805)	6,690
Plus: unamortized bond premium	1,215	-	(591)	624
Subtotal	93,185	-	(85,156)	8,029
MDFA:				
Clean Renewable Energy Bonds	1,052	-	(96)	956
Total	\$ 2,979,622	\$ 428,307	\$ (316,087)	\$ 3,091,842

Principal and interest, which is estimated using rates in effect at June 30, 2017, on bonds payable for the next five fiscal years and in subsequent five-year periods are as follows (in thousands):

<u>Fiscal Year</u>	<u>Principal</u>	<u>Interest</u>
2018	\$ 94,314	\$ 120,128
2019	100,271	116,960
2020	103,931	113,481
2021	107,866	109,470
2022	100,356	105,462
2023-2027	519,043	469,016
2028-2032	514,595	364,839
2033-2037	493,775	263,926
2038-2042	554,865	138,095
2043-2047	316,045	32,583
2048-2052	20,400	536
Total	<u>\$ 2,925,461</u>	<u>\$ 1,834,496</u>

Bond payable activity for the year ended June 30, 2016 is summarized as follows (in thousands):

	Beginning Balance	Retirements/ Repayments/ Amortization	Ending Balance
University of Massachusetts Building Authority:			
Series 2004-A	\$ 2,340	\$ (2,340)	\$ -
Series 2004-1	8,300	(6,785)	1,515
Series 2005-1	2,805	(2,805)	-
Series 2005-2	16,005	(16,005)	-
Series 2008-A	21,035	(930)	20,105
Series 2008-1	187,125	(7,700)	179,425
Series 2008-2	65,835	(2,810)	63,025
Series 2009-1	120,575	(12,210)	108,365
Series 2009-2	271,855	-	271,855
Series 2009-3	26,755	(520)	26,235
Series 2010-1	84,775	(12,465)	72,310
Series 2010-2	430,320	-	430,320
Series 2010-3	2,835	(50)	2,785
Series 2011-1	129,690	(1,445)	128,245
Series 2011-2	98,220	(955)	97,265
Series 2013-1	208,060	(4,640)	203,420
Series 2013-2	69,570	(2,235)	67,335
Series 2013-3	24,640	-	24,640
Series 2014-1	293,890	(425)	293,465
Series 2014-2	14,085	(2,755)	11,330
Series 2014-4	153,800	(3,825)	149,975
Series 2014-3	67,365	(2,895)	64,470
Series 2015-1	298,795	-	298,795
Series 2015-2	191,825	-	191,825
Plus: unamortized bond premium	133,429	(11,283)	122,146
Subtotal	2,923,929	(95,078)	2,828,851
UMass HEFA/MDFA:			
2000 Series A	20,000	-	20,000
2007 Series D	9,025	(380)	8,645
Series 2011	27,925	(985)	26,940
Plus: unamortized bond premium	895	54	949
Subtotal	57,845	(1,311)	56,534
WCCC HEFA/MDFA:			
WCCC 2005 Series D	1,785	(450)	1,335
WCCC 2007 Series E	33,945	(2,695)	31,250
WCCC 2007 Series F	54,830	(2,940)	51,890
Series 2011	8,270	(775)	7,495
Plus: unamortized bond premium	1,499	(284)	1,215
Subtotal	100,329	(7,144)	93,185
MDFA:			
Clean Renewable Energy Bonds	1,147	(95)	1,052
Total	\$ 3,083,250	\$ (103,628)	\$ 2,979,622

University of Massachusetts Building Authority

The bond agreements related to the Building Authority bonds generally provide that the net revenues of the Building Authority are pledged as collateral on the bonds and also provide for the establishment of bond reserve funds, bond funds, and maintenance reserve funds.

The University is obligated under its contracts for financial assistance, management and services with the Building Authority to collect rates, rents, fees and other charges with respect to such facilities sufficient to pay principal and interest on the Building Authority's bonds and certain other costs such as insurance on such facilities.

Pursuant to the authority given by the Building Authority's enabling act, the Commonwealth, acting by and through the Trustees of the University, has guaranteed the payment of principal and interest on the Building Authority's bonds. (The guarantee is a general obligation of the Commonwealth to which the full faith and credit of the Commonwealth are pledged. As is generally the case with other general obligations of the Commonwealth, funds with which to honor the guarantee, should it be called upon, will be provided by Commonwealth appropriation). The Building Authority's enabling act provides that the outstanding principal amount of notes and bonds of the Building Authority guaranteed by the Commonwealth cannot exceed \$200 million. The amount of bond obligations guaranteed by the Commonwealth was \$115.3 million and \$117.4 million at June 30, 2017 and 2016, respectively.

When the Building Authority no longer has any bonds outstanding, its properties revert to the Commonwealth, and all its funds (other than funds pledged to bondholders) are required to be paid into the Treasury of the Commonwealth.

Variable Rate Bonds On April 15, 2016, the Authority entered into a standby purchase agreement with Barclays Bank PLC ("Barclays") which requires Barclays to purchase bonds that are tendered and not remarketed. Under the terms of the Barclays standby bond purchase agreement, the Authority is required to pay Barclays in quarterly installments a facility fee in the amount of 29 basis points (or higher, under certain circumstances) of the commitment amount. In fiscal years 2017 and 2016 the Authority incurred fees in connection with the Barclays agreement in the amount of \$0.7 million and \$0.1 million, respectively. The agreement expires on April 22, 2019 and may be extended if a mutual interest exists between the Authority and Barclays. Previously, the 2008-1 bonds were supported with a standby purchase agreement with J.P. Morgan Chase Bank, N.A. ("J.P. Morgan"). Fees incurred by the Authority in connection with J.P. Morgan totaled \$0.4 million for the year ended June 30, 2016.

The 2008-A bonds are supported by a standby bond purchase agreement with Barclays which requires Barclays to purchase bonds that are tendered and not remarketed. Under the terms of the Barclays standby bond purchase agreement, the Authority was required to pay Barclays in quarterly installments a facility fee in the amount of 32.5 basis points (or higher, under certain circumstances) of the commitment amount. The agreement expired in April 2016. The Authority and Barclays executed a first amendment to the agreement and extended the agreement until April 15, 2019. Under the first amendment to the standby purchase agreement, the Authority is required to pay Barclays in quarterly installments a facility fee in the amount of 27.5 basis points (or higher, under certain circumstances) of the initial commitment and may be extended if a mutual interest exists between both the Authority and Barclays. Fees incurred by the Authority in connection with the Barclays agreement totaled \$0.1 million for the years ended June 30, 2017 and June 30, 2016.

The 2011-1 bonds are supported by a standby bond purchase agreement with Wells Fargo Bank, N.A. ("Wells") which requires Wells to purchase bonds tendered and not remarketed in an amount not to exceed the principal on the bonds plus accrued interest up to 185 days at an annual interest rate not to exceed 12%. Under the agreement, the Authority was required to pay Wells in quarterly installments a facility fee in the amount of 40 basis points (or higher, under certain circumstances) of the initial commitment. The initial commitment under the agreement was set at \$143.3 million and was subject to adjustment from time to time in accordance with the provisions of the agreement. The standby bond purchase agreement expired on June 9, 2014. The Authority and Wells executed a first amendment to the standby bond purchase agreement to extend the agreement until June 9, 2017. Under the first amendment to the standby purchase agreement, the Authority is required to pay Wells in quarterly installments a facility fee in the amount of 25 basis points (or higher, under certain circumstances) of the initial commitment. The initial commitment under the first amendment to the standby bond purchase agreement was set at \$139.1 million and is subject to adjustment from time to time in accordance with the provisions of the agreement. On May 17, 2017, the agreement was extended with Wells until June 9, 2019. The facility fee under the extended agreement is 32 basis points. Fees incurred by the Authority in connection with the Wells agreement totaled \$0.4 million and \$0.4 million for the years ended June 30, 2017 and 2016, respectively.

Window Bonds In fiscal year 2011, the Authority issued its 2011-2 bonds in a variable rate Window Bond mode. As with the Authority's other variable rate bonds, the Window Bondholders can tender the bonds at any time. However, unlike the Authority's other variable rate bonds, where the bondholders will receive payment on any tendered bonds 7 days from the tender, Window Bondholders are not required to receive funds for the tender until after a 30 day remarketing period and an additional 180 day funding window period. Due to this 210 day funding period, the Authority is not required to obtain any type of liquidity support for the 2011-2 bonds and the bonds are considered supported with self-liquidity. Window Bondholders receive an interest rate on the Window Bonds at a fixed spread over the Securities Industry and Financial Markets Association Municipal Swap Index™ ("SIFMA"). The initial spread to the SIFMA index is 9 basis points.

Bond Refundings In fiscal year 2017, the Authority issued \$187.7 million of Refunding Revenue Senior Series 2017-3 Bonds which advance refunded \$77.3 million of the WCCC Series 2007-E and 2007-F Bonds and \$8.3 million of Lowell bonds issued under the Massachusetts Health and Academic Facilities Authority (MHEFA) Series 2007-D. The Series 2017-3 bonds also refunded \$57.0 million of the Authority's 2008-2 bonds and \$65.0 million of the Authority's 2009-1 bonds. The Authority deposited into trust accounts funds sufficient to provide for all future debt service payments on the refunded bonds until the bonds are called. These advanced refunded bonds are considered defeased and, accordingly, the liability for the bonds payable and the assets held to repay the debt are not recorded in the University's financial statements.

In connection with the Authority's refundings, the Authority recorded a difference between the reacquisition price and the net carrying amount of the refunded debt of \$5.8 million. This balance is being reported as a component of deferred outflows, loss on debt refunding, and will be amortized as an increase in interest expense over the remaining term of the original life of the refunded bonds. These refundings reduced the Authority's debt service payments in future years by \$30.2 million and resulted in an economic gain (the present value of the savings) of \$21.4 million.

There were no refundings of bonds in fiscal year 2016.

Bond Premium and Issuance Expenses In fiscal year 2017, the Authority received premiums at issuance totaling \$56.0 million. The Authority amortizes the premiums received as a reduction in interest expense over the life of the respective bond issue. There were no new bond issues in fiscal year 2016, thus no bond premiums were recorded in 2016.

In connection with the Authority's bond issues in fiscal 2017, the Authority incurred certain issuance costs associated with the bond offerings. In fiscal year 2017, these costs amounted to \$2.3 million and were expensed in accordance with the provisions of GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*.

Debt Covenants There were no financial debt covenants related to the above debt instruments.

Interest Rate Swaps The Authority uses derivative instruments to manage the impact of interest rate changes on its cash flows and net position by mitigating its exposure to certain market risks associated with operations, and does not use derivative instruments for trading or speculative purposes.

The Authority's contracts are evaluated pursuant to GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments* ("GASB 53") to determine whether they meet the definition of derivative instruments, and if so, whether they effectively hedge the expected cash flows associated with interest rate risk exposures. The Authority applies hedge accounting for derivative instruments that are deemed effective hedges and under GASB No. 53 are referred to as hedging derivative instruments. Under hedge accounting, changes in the fair value of a hedging derivative instrument are reported as a deferred inflow or deferred outflow in the statement of net position until the contract is settled or terminated.

All settlement payments or receipts for hedging derivative instruments are recorded as interest expense in the period settled.

The Authority's hedging derivative instruments at June 30, 2017 and 2016 were as follows (in thousands):

	Derivative Instruments - Liability		Derivative Instruments - Liability		Type of Hedge	Financial Statement Classification for Changes in Liability
	June 30, 2016	Net Change in Liability	June 30, 2017			
Series 2008-1 Swap	\$ (38,227)	\$ 12,960	\$ (25,267)		Cash Flow	Deferred Outflow of Resources
Series 2008-A Swap	(4,338)	1,454	(2,884)		Cash Flow	Deferred Outflow of Resources
Series 2006-1 Swap	(47,913)	14,225	(33,688)		Cash Flow	Deferred Outflow of Resources
Total	<u>\$ (90,478)</u>	<u>\$ 28,639</u>	<u>\$ (61,839)</u>			

The terms of the Authority's financial derivative instruments that were outstanding at June 30, 2017 are summarized in the table below (in thousands):

	Type	Effective Date	Termination Date	Rate Authority		Original Notional Value
				Pays	Authority Receives	
Series 2008-1 Swap	Synthetic Fixed	May 1, 2008	May 1, 2038	3.39 %	70% of 1-Month LIBOR	\$ 232,545
Series 2008-A Swap	Synthetic Fixed	Nov 13, 2008	May 1, 2038	3.38 %	70% of 1-Month LIBOR	\$ 26,580
Series 2006-1 Swap	Synthetic Fixed	Apr. 20, 2006	Nov. 1, 2034	3.48 %	60% of 3-Month LIBOR + .18%	\$ 243,830

Fair Values - GASB 72 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between swap counterparties at the measurement date, which includes the non-performance risk. The Authority engaged an independent party to perform the valuations. The expected swap cash flows are calculated using the zero-coupon discounting method which takes into consideration the prevailing interest rate environment, the specific terms and conditions of a given transaction, and assumes that the current forward rates implied by the yield curve are the market's best estimate of future spot interest rates. The income approach is then used to obtain the fair value of the swaps, where future amounts (the expected swap cash flows) are converted to a single current (discounted) amount, using a rate of return that takes into account the relative risk of non-performance associated with the cash flows, and time value of money. Where applicable under the income approach, the option pricing model technique, such as the Black-Derman-Toy model, or other appropriate option pricing model is used. As the interest rate swaps are valued using the LIBOR swap rate observed at commonly quoted intervals for the full term of the swaps, the measurement results in the swap fair values being categorized as Level 2.

Credit risk - As of June 30, 2017 and 2016, the Authority was not exposed to credit risk on the swaps as the fair value was negative. Since changes in interest rates affect the fair values of swap agreements, it is possible that the swap agreements with negative fair values become positive which would expose the Authority to credit risk. To mitigate the potential for credit risk, when a counterparty has a positive fair value and if the counterparty's credit quality falls below A3/A/A, the fair value of the swap will be fully collateralized by the counterparty with U.S. Government Securities or U.S. Government Agency Securities. Collateral posted by the counterparty will be held by a third-party custodian.

The credit ratings for the Authority's counterparties at June 30, 2017 are as follows:

	Credit Ratings		
	Moody's	S&P	Fitch
UBS AG	A1	A	A
Deutsche Bank AG	Baa2	A-	A-
Citibank NA	A1	A+	A+

Basis risk - The Authority is exposed to basis risk on its pay-fixed interest rate swaps because the variable-rate payment received by the Authority (a percent of LIBOR) on these hedging derivative instruments is based on indexes other than the actual interest rates the Authority pays on its hedged variable rate debt. Should the relationship between LIBOR and the actual variable rate interest payments on the bonds converge, the expected cost savings may not materialize. The terms of the related hedging fixed rate swap transactions are summarized in the chart at the top of this page.

Termination risk - The Authority's swaps are governed under the International Swap Dealers Association Master Agreement (the "Master Agreement"), which includes standard termination events, such as failure to pay and bankruptcy. Additionally, the Master Agreement was amended so that the swap may be terminated by the Authority if the counterparty's credit quality rating falls below certain levels or the counterparty fails to have a rating. Further, the swap may be terminated by the counterparties if the long-term, unsecured, unenhanced senior debt rating of any bonds issued by the Authority is withdrawn, suspended or falls below certain levels or the Authority fails to have a rating. The Authority or the counterparties may terminate the swaps if the other party fails to perform under the terms of the contract. The Authority may also terminate the swaps at its option. If the swap is terminated, the variable-rate bonds would no longer carry a synthetic fixed interest rate and the Authority's interest payment will be based solely upon the rate required by the related bonds as issued. When a termination event occurs, a mark-to-market (or "fair market value") calculation is performed to determine whether the Authority is owed or must pay cash to close out the swap position. A negative fair value means the Authority would incur a loss and need to make a termination payment to settle the swap position. A positive fair value means the Authority would realize a gain and receive a termination payment in settlement of the swap position.

Contingencies - All of the Authority's swaps include provisions that require the Authority to post collateral in the event its credit rating falls below certain levels. In the event the Authority is rated A2 by Moody's Investors Service or A by Standard & Poor's, the Authority would need to post collateral equal to amounts above the fair value of its swaps in liability positions above \$10.0 million. In the event the Authority is not rated or rated below A3 by Moody's Investors Service or below A- by Standard & Poor's, the Authority must post collateral in the amount of the fair value of the swaps in liability positions. The collateral posted is to be in the form of cash obligations guaranteed by the U.S. Treasury, or negotiable debt obligations issued by the Federal Home Loan Mortgage Association or the Federal National Mortgage Association. If the Authority does not post collateral, the derivative instrument may be terminated by the counterparty. The Authority's credit rating is Aa2 from Moody's Investors Service, AA from Fitch Ratings, and AA- from Standard and Poor's at June 30, 2015; therefore, no collateral was required to be posted.

Termination of hedge accounting - In June of 2011, the Authority undertook an advance refunding of the 2008-3 and 2008-4 variable rate bonds hedged by the Series 2006-1 Swap. As part of the refunding, the Series 2006-1 swap was re-assigned to a new underlying notional (the 2011-1 and 2011-2 Bonds) with identical terms. This refunding and reassignment effectively terminated the original hedge. At June 30, 2011, the Series 2006-1 Swap was considered a hedging derivative instrument. In accordance with GASB No. 53, at the time of a termination event related to an advance refunding of the hedged debt, the balance of the amounts in deferred outflows is to be included in the net carrying amount of the refunded debt for the purposes of calculating the deferred loss on refunding. The balance of the deferred outflows that was included in the net carrying amount of the refunded debt at the time of the refunding was \$22.2 million. The change in fair value of the Series 2006-1 Swap from the refunding date to June 30, 2017 is reported as a deferred outflow as the swap was determined to be effective at June 30, 2017.

Swap payments and associated debt - Using rates as of June 30, 2017, the debt service requirements of the variable-rate debt and net swap payments, assuming current interest rates remain the same for their term, were as follows (in thousands):

Fiscal Year Ending June 30,	Interest Rate			Total
	Principal	Interest	Swaps, Net	
2018	\$ 11,770	\$ 378	\$ 10,446	\$ 22,594
2019	12,215	369	10,145	22,729
2020	12,720	360	9,831	22,911
2021	28,390	341	9,315	38,046
2022	29,545	314	8,586	38,445
2022-2026	158,250	1,109	30,831	190,190
2027-2031	124,330	427	12,313	137,070
2032-2036	35,035	52	1,435	36,522
2037-2038	825	1	21	847
Total	\$ 413,080	\$ 3,351	\$ 92,923	\$ 509,354

MassDevelopment

University of Massachusetts Series A, D and 2011

The University, through the Massachusetts Development Finance Agency ("MassDevelopment"), has issued bonds in order to construct new student centers on the Boston and Lowell campuses; to create a pool of funds to acquire telecommunications, electronics, computer, office, research, equipment and administrative systems; and to fund the related renovation costs and to refund previously issued bonds.

Variable Rate Debt In March 2000, the University issued \$20.0 million of MHEFA Variable Rate Demand Revenue Bonds, University of Massachusetts Issue, Series A (the "Series A Bonds") to create a pool of funds from which the University could finance and refinance the acquisition of certain equipment and related renovation costs at the various University campuses on a revolving basis throughout the term of the Series A Bonds. The Series A Bonds were remarketed on April 1, 2016 and now bear interest at the long term rate of 1.2%. The newest long term rate period will end on March 31, 2019 and the Remarketed Series A Bonds will be subject to mandatory tender for purchase on April 1, 2019. The purchase price of the bonds will be paid from the remarketing of such bonds. However, if the remarketing proceeds are insufficient, the University will be obligated to purchase the bonds tendered, up to an aggregate principal amount of \$20.0 million. The Remarketed Series A Bonds will mature on November 1, 2030 and are subject to mandatory purchase prior to maturity as described above. Interest on the Remarketed Series A Bonds in the newest long-term rate period is payable on October 1 and April 1. The Remarketed Series A Bonds are considered a reissuance for federal tax purposes. The Remarketed Series A Bonds are not supported by any insurance policy, liquidity facility or other credit enhancement. The Remarketed Series A Bonds are a general obligation of the University payable from all funds of the University permitted to be applied thereto. The University's unrestricted net position secures the obligations of the University with respect to the Remarketed Series A Bonds. The University is required to certify annually that there are sufficient funds in the unrestricted net position to cover the debt service on the Remarketed Series A Bonds.

Debt covenants The University of Massachusetts Series A and 2011 bonds include a covenant for the maintenance of a debt service fund as outlined in the related debt agreement. The University is required to make deposits in this debt service fund on or before the twenty-fifth day of each March and September. As of June 30, 2017 and 2016, the University is in compliance with this covenant.

Refundings In November 2011, the University issued \$30 million of Massachusetts Development Finance Agency Revenue Refunding Bonds (the "Series 2011 Bonds"). The University deposited the proceeds into an irrevocable trust fund to provide for payment of the MHEFA Revenue Bonds, University of Massachusetts Issue, 2002 Series C (the "Series C Bonds"). This payment was made as a lump sum in October 2012. The Series 2011 bonds were issued at a premium of \$1.2 million. As a result of the change in future payments, the University will reduce its aggregate debt service payments by \$4.8 million and achieve an economic gain of \$3.4 million.

In January 2007, the University issued \$10.4 million of MHEFA Revenue Bonds, University of Massachusetts Issue Series D. The proceeds from this issuance were used to advance refund a portion of the MHEFA Revenue Bonds, University of Massachusetts Issue, 2001 Series B (the "Series B Bonds"). These advance refunded bonds were

deceased, and accordingly, the liability for the bonds payable and the assets held to repay the debt have not been included in the University's financial statements. The Series D Bonds were refunded in 2017 using proceeds from Series 2017-3.

Worcester City Campus Corporation Series D, E, F and 2011

The WCCC through MassDevelopment has issued bonds to finance the construction or acquisition of the Lazare Research Building, South Road parking garage, Ambulatory Care Center ("ACC"), two buildings housing the operations of MassBiologics, One Innovation Drive, 373, 377 and 381 Plantation Street, Worcester and to refund previously issued bonds. WCCC is obligated under the terms of indebtedness to make debt service payments from revenues received from certain facility leases. Total applicable pledged revenues were \$5.9 million and \$6.5 million for fiscal years 2017 and 2016, respectively.

9. LEASES

The University leases certain equipment and facilities under operating leases with terms exceeding one year, which are cancelable at the University's option with 30 day notice. The rent expense related to these operating leases amounted to \$24.6 million and \$27.1 million for the years ended June 30, 2017 and 2016, respectively. The master leases primarily consist of telecommunications, software, and co-generation systems. The University also leases space to third-party tenants. During 2017 and 2016, the amount reported as rental income was \$18.9 million and \$18.3 million, respectively.

The following presents a schedule of future minimum payments under non-cancelable operating leases for the next five years and in subsequent five-year periods for the University as of June 30, 2017 (in thousands):

<u>Year</u>	<u>Operating Leases</u>
2018	\$ 26,770
2019	25,413
2020	24,602
2021	24,049
2022	22,719
2023 and thereafter	<u>134,557</u>
Total Payments	<u>\$ 258,110</u>

10. OTHER LONG-TERM LIABILITIES

During the year ended June 30, 2017, the following changes occurred in long-term liabilities as recorded in the statements of net position (in thousands):

	<u>Beginning Balance</u>	<u>Additions/ Adjustments</u>	<u>Reductions/ Adjustments</u>	<u>Ending Balance</u>
University:				
Capital lease obligations	\$ 429	\$ 180	\$ (220)	\$ 389
Compensated absences	35,671	-	(5,276)	30,395
Workers' compensation	12,160	-	(214)	11,946
Unearned revenues and credits	23,936	24,391	(15,596)	32,731
Advances and deposits	27,705	1,834	(399)	29,140
Other liabilities	48,760	800	(8,127)	41,433
University Related Organization:				
Other liabilities	\$ 3,502	\$ -	\$ (738)	\$ 2,764

During the year ended June 30, 2016, the following changes occurred in long-term liabilities as recorded in the statement of net position (in thousands):

	Beginning Balance	Additions/ Adjustments	Reductions/ Adjustments	Ending Balance
University:				
Capital lease obligations	\$ 562	\$ 198	\$ (331)	\$ 429
Compensated absences	31,813	3,858	-	35,671
Workers' compensation	10,886	1,274	-	12,160
Unearned revenues and credits	26,822	13,049	(15,935)	23,936
Advances and deposits	28,621	1,056	(1,972)	27,705
Other liabilities	41,583	8,536	(1,359)	48,760
University Related Organization:				
Other liabilities	\$ 3,505	\$ -	\$ (3)	\$ 3,502

11. FRINGE BENEFITS

Expenditures for the years ended June 30, 2017 and 2016 include \$329.3 million and \$295.1 million, respectively, for the employer portion of fringe benefit costs (pension expense, health insurance for active employees and retirees, and terminal leave) that was paid directly by the Commonwealth of Massachusetts. Of this amount, \$123.8 million for 2017 and \$117.1 million for 2016 was reimbursed to the Commonwealth and \$205.5 million and \$178 million, respectively, is included in revenue as state appropriations.

12. PENSIONS

The Massachusetts State Employees' Retirement System ("MSERS") is a public employee retirement system ("PERS") that administers a cost-sharing multi-employer defined benefit plan as defined by Governmental Accounting Standards Board ("GASB") Statement No. 67, *Financial Reporting for Pension Plans*, covering substantially all employees of the Commonwealth. Management of MSERS is vested in the Massachusetts State Retirement Board (the MSRB) which consists of five members- two elected by current and active MSERS members, one by the remaining members of the MSRB, one who is appointed by the State Treasurer and the State Treasurer, who serves as ex-officio and is the Chair of the MSRB.

MSERS provides retirement, disability, survivor and death benefits to members and their beneficiaries. Massachusetts General Laws ("MGL") establishes uniform benefit and contribution requirements for all contributory PERS. These requirements provide for superannuation retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation. For employees hired after April 1, 2012, retirement allowances are calculated on the basis of the last five years or any five consecutive years, whichever is greater in terms of compensation. Benefit payments are based upon a member's age, length of creditable service, and group creditable service, and group classification. The authority for amending these provisions rests with the Legislature.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of twenty years of creditable service or upon reaching the age of 55 with ten years of service. Normal retirement for most employees occurs at age 65; for certain hazardous duty and public safety positions, normal retirement is at age 55. Most employees who joined the system after April 1, 2012 cannot retire prior to age 60.

The MSERS' funding policies have been established by Chapter 32 of MGL. The Legislature has the authority to amend these policies. The annuity portion of the MSERS retirement allowance is funded by employees, who contribute a percentage of their regular compensation. Costs of administering the plan are funded out of plan assets.

Member contributions for MSERS vary depending on the most recent date of membership:

<u>Hire Date</u>	<u>% of Compensation</u>
Prior to 1975	5% of regular compensation
1975-1983	7% of regular compensation
1984 to 6/30/1996	8% of regular compensation
7/1/1996-present	9% of regular compensation
1979 to present	An additional 2% of regular compensation in excess of \$30,000

The University makes contributions on behalf of the employees through a fringe benefit charge assessed by the Commonwealth. The fringe benefit charge amounted to \$89.9 million and \$84.5 million for the years ended June 30, 2017 and 2016, respectively. Annual covered payroll was 75.8% and 75.8% for the years ended June 30, 2017 and 2016, respectively of annual total payroll for the University. The amount of pension expense included in the fringe charge was \$26.3 million and \$25.1 million for the years ended June 30, 2017 and 2016, respectively.

Actuarial Assumptions The total pension liability for the June 30, 2016 measurement date which is the date reported in the June 30, 2017 financial statements, was determined by an actuarial valuation as of January 1, 2016 rolled forward to June 30, 2016. This valuation used the following assumptions:

1. (a) 7.5% investment rate of return, (b) 3.5% discount rate credited to an annuity savings fund and (c) 3.00% cost of living increase per year.
2. Salary increases are based on analyses of past experience but range from 4.0% to 9.0% depending on group and length of service.
3. Chapter 176 of the Acts of 2011 created a one-time election for eligible members of the Optional Retirement Plan ("ORP") to transfer to the State Employees' Retirement System ("SERS") and purchase service for the period while members of the ORP. As a result, the total pension liability of SERS has increased by \$400 million as of June 30, 2016.
4. Mortality rates were as follows:
 - a) Pre-retirement - reflects RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
 - b) Post-retirement - reflects RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
 - c) Disability - the mortality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2015 (gender distinct)
5. Experience studies were performed as follows:
 - Dated February 27, 2014 and encompasses the period January 1, 2006 to December 31, 2011

The total pension liability for the June 30, 2015 measurement date was determined by an actuarial valuation as of January 1, 2015 rolled forward to June 30, 2015. This valuation used the following assumptions:

1. (a) 7.5% investment rate of return, (b) 3.5% interest rate credited to an annuity savings fund and (c) 3.0% cost of living increase per year.
2. Salary increases are based on analyses of past experience but range from 3.5% to 9.0% depending on group and length of service.
3. In May 2015, Chapter 19 of the Acts of 2015 created an Early Retirement Incentive ("ERI") for certain members of SERS who upon election of the ERI retired effective June 30, 2015. As a result, the total pension liability for SERS has increased by \$230 million as of June 30, 2015.

4. Mortality rates were as follows:

- a. Pre-retirement - reflects RP-2000 Employees table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- b. Post-retirement - reflects RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2009 (gender distinct)
- c. Disability - the mortality rate is assumed to be in accordance with the RP-2000 Healthy Annuitant table projected generationally with Scale BB and a base year of 2015 (gender distinct)

Investment assets of MSERS are with the Pension Reserves Investment Trust ("PRIT") Fund. The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future rates of return 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 rates of return by the target asset allocation percentage.

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2016 are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Equity	40.00%	6.90%
Core Fixed Income	13.00%	1.60%
Private Equity	10.00%	8.70%
Real Estate	10.00%	4.60%
Value Added Fixed Income	10.00%	4.80%
Hedge Funds	9.00%	4.00%
Portfolio Completion Strategies	4.00%	3.60%
Timber/Natural Resources	4.00%	5.40%
Total	100.00%	

Best estimates of geometric rates of return for each major asset class included in the PRIT Fund's target asset allocation as of June 30, 2015 are summarized in the following table:

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Global Equity	40.00%	6.90%
Core Fixed Income	13.00%	2.40%
Private Equity	10.00%	8.50%
Real Estate	10.00%	6.50%
Value Added Fixed Income	10.00%	5.80%
Hedge Funds	9.00%	5.80%
Portfolio Completion Strategies	4.00%	5.50%
Timber/Natural Resources	4.00%	6.50%
Total	100.00%	

Discount Rate The discount rate used to measure the total pension liability was 7.5% at June 30, 2016 and June 30, 2015. The projection of cash flows used to determine the discount rate assumed that plan member's contributions will be made at the current contribution rates and the Commonwealth's contributions will be made at rates equal to the

difference between actuarially determined contribution rates and the member rates. Based on those assumptions, the net position was projected to be available to make all projected future benefit payments of current plan members. 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 Analysis The following illustrates the sensitivity of the collective net pension liability to changes in the discount rate. In particular, the table presents the University net collective pension liability assuming it was calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher than the current discount rate (amounts in thousands):

Fiscal Year Ended	1% Decrease to 6.5%	Current Discount Rate 7.5%	1% Increase to 8.5%
June 30, 2017	\$ 609,836	\$ 429,871	\$ 347,731
June 30, 2016	\$ 606,780	\$ 408,418	\$ 308,037

Pension Liabilities, Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions The University reported a liability of \$429.9 and \$408.4 million for its proportionate share of MSERS's net pension liability as of June 30, 2017 and 2016, respectively. The net pension liability was measured as of June 30, 2016 and 2015 and the total pension liability was used to calculate the net pension liability which 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 the total projected contributions of all participating entities, actuarially determined. There were no changes of assumptions or other inputs that affected measurement of the total pension liability during the measurement period. There were no changes of benefit terms that affected measurement of the total pension liability during the measurement period.

The following table shows the components of pension expense as of June 30, 2017 and 2016 (in thousands):

	2017	2016
Proportionate Share of Plan Pension Expense	\$ 58,723	\$ 45,628
Net Amortization of Deferred Amounts from Change in Proportion	2,935	11,224
Employer Contributions after Measurement Date	(25,618)	(22,386)
Pension Expense	\$ 36,040	\$ 34,466

At June 30, 2017, the University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pension from the following sources (in thousands):

	Deferred Inflows of Resources	Deferred Outflows of Resources
Changes of Assumptions	\$ -	\$ 47,670
Changes in Proportion Due to Internal Allocation	-	35,625
Employer Contributions after Measurement Date	-	25,618
Differences Between Expected and Actual Experience	-	20,418
Net Difference Between Projected and Actual Investment Earnings on Pension Plan Investments	-	28,854
Changes in Proportion From Commonwealth	37,671	-
	\$ 37,671	\$ 158,185

At June 30, 2016, the University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pension from the following sources (in thousands):

	Deferred Inflows of Resources	Deferred Outflows of Resources
Changes of Assumptions	\$ -	\$ 70,730
Changes in Proportion Due to Internal Allocation	-	45,965
Employer Contributions after Measurement Date	-	22,386
Differences Between Expected and Actual Experience	-	8,072
Net Difference Between Projected and Actual Investment		
Earnings on Pension Plan Investments	11,736	-
Changes in Proportion From Commonwealth	314	-
	<u>\$ 12,050</u>	<u>\$ 147,153</u>

The net amounts of the employer's balances of deferred outflows and inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Year Ending June 30:	
2018	\$ 21,201
2019	21,201
2020	32,788
2021	18,758
2022	951
Thereafter	-
	<u>\$ 94,899</u>

Non-vested faculty and certain other employees of the University can opt out of MSERS and participate in a defined contribution plan, the Massachusetts Optional Retirement Program ("ORP"), administered by the Commonwealth's Department of Higher Education. At June 30, 2017 and 2016, there were 1,674 and 1,626 University employees, respectively participating in ORP. Employees contribute at the same rate as members in SERS do and the Commonwealth matches 5% of employee contributions. The Commonwealth contributed \$7.2 million and \$8.3 million in 2017 and 2016, respectively. University employees contributed \$15.8 million and \$24.4 million in 2017 and 2016, respectively.

The MSERS and ORP retirement contributions of employees who become members of MSERS or ORP after January 1, 2011 are subject to a state compensation limit. Effective January 1, 2011, the University established a defined contribution plan, the University of Massachusetts 401(a) Retirement Gap Plan, administered by the University's Treasury Office. Employees with MSERS or ORP membership dates after January 1, 2011 are eligible employees for the Gap Plan. Eligible employees begin participation in the Gap Plan when their regular compensation exceeds the state compensation limit in effect for the plan year, at which point their contributions to MSERS or ORP are required to stop for the remainder of the plan year. Employee contributions to the Gap Plan are mandatory and at the same rate as MSERS and ORP; the University contributes 5%. At June 30, 2017 and 2016 plan assets totaled \$2.5 million and \$1.5 million, respectively.

13. CONCENTRATION OF CREDIT RISK (Other than Cash and Investments)

The receivable from UMass Memorial Medical Center ("UMMMC") which is uncollateralized represents a potential concentration of credit risk for the University. The receivable from UMass Memorial represents 9.4% and 11.2% of total accounts receivable for the University at June 30, 2017 and 2016, respectively. The University also had uncollateralized receivables from the Executive Office of Health and Human Services comprising 11.5% of the total outstanding receivables at June 30, 2017 and uncollateralized receivables from The Executive Office of Health and Human Services comprising 12% of the total outstanding receivables at June 30, 2016.

14. COMMITMENTS AND CONTINGENCIES

The Building Authority, University, and WCCC have outstanding purchase commitments under construction contracts and real estate agreements of \$283.6 million and \$157.3 million at June 30, 2017 and 2016, respectively. In connection with the investments in certain limited partnership agreements, the Foundation has \$92.9 million and \$84.7 million in committed calls as of June 30, 2017 and 2016, respectively, which are scheduled to be funded over a number of years. The University has entered an Energy Performance Contract that is being managed by the Commonwealth's Division of Capital Asset Management ("DCAM") under its Clean Energy Investment Program. This project includes 32 energy conservation measures. The installation costs will be incurred over 2 phases with Phase 1 being \$18 million and Phase 2 being \$13.5 million. The term of these transactions is 20 years. The University has a commitment to the Commonwealth for Clean Energy Investment Program Funds used through June 30, 2017 and 2016 in the amount of \$27.1 million and \$28.2 million, respectively.

The University, as an agency of the Commonwealth, is self-insured for property loss exposure, subject to appropriation from the state legislature. However, properties owned by the University of Massachusetts Building Authority located on a campus of the University, such as the Mullins Center, dining commons, and most dormitories, are insured by the Building Authority. In addition, certain properties owned by other University Related Organizations and leased to the University are insured by the related organization. The University and its employees are protected against tort claims through sovereign immunity under Chapter 258 of the Massachusetts General Laws. The University maintains certain liability insurance policies, including Commercial General Liability, leased Automotive Liability, Directors and Officers and Comprehensive Crime policies. Employees of the University are covered for Worker's Compensation protection under Chapter 152 of the Massachusetts General Laws. The University has recorded a liability for future expected costs of its workers' compensation claims of \$15.2 million as of June 30, 2017 and \$15.4 million as of June 30, 2016. Estimated future payments related to such costs have been discounted at a rate of 4.0%.

The University is a defendant in various lawsuits and is subject to various contractual matters; however, University management is of the opinion that the ultimate outcome of all litigation or potential contractual obligations will not have a material effect on the financial position, financial results or cash flows of the University.

From time to time the University and/or its affiliated organizations are subject to audits of programs that are funded through either federal and/or state agencies. The University is aware that the Office of the Inspector General for the U.S. Department of Health and Human Services performed an audit of Medicaid Supplemental Revenues ("MSR") received by UMMMC, the final report for which was issued December 2009. Portions of this report continue to be contested and the final outcome of this audit is currently unknown. Dependent on the final outcome, UMMMC may be required to repay any MSR received deemed to be disallowed as a result of the audit. Dependent on that outcome, the University, consistent with the Agreement for Medical Educational Services, made part of the Definitive Agreement between the University and UMMMC, and its subsequent amendments and the indemnification provisions in these Agreements, may be required to indemnify UMMMC for a portion of any amounts due. Although the final outcome of this audit is currently unknown, and management believes that as of the date of the financial statements it is not probable that a liability exists, management concludes it is reasonably possible that amounts could be repaid and that those amounts may be material to the University's financial position and results of operations.

15. SUBSEQUENT EVENTS

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2017 through December 14, 2017, the date on which the financial statements were available to be issued and determined that there are no other matters requiring recognition or disclosure to the accompanying financial statements.

The University of Massachusetts
Required Supplementary Information - Unaudited
Last 10 Years¹

SCHEDULE OF THE UNIVERSITY'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM

	<u>6/30/2017</u>	<u>6/30/2016</u>	<u>6/30/2015</u>
University's proportion of the net pension liability	3.394%	3.922%	3.489%
University's proportionate share of the net pension liability	\$ 429,871	\$ 408,418	\$ 237,134
University's covered-employee payroll	\$ 1,156,082	\$1,139,719	\$1,061,132
University's proportionate share of the net pension liability as a percentage of its covered-employee payroll	37.18%	35.83%	22.35%
Plan fiduciary net position as a percentage of total pension liability	63.48%	67.87%	76.32%

SCHEDULE OF THE UNIVERSITY'S CONTRIBUTIONS
MASSACHUSETTS STATE EMPLOYEES' RETIREMENT SYSTEM

	<u>6/30/2017</u>	<u>6/30/2016</u>	<u>6/30/2015</u>
Contractually required contribution	\$ 25,618	\$ 22,386	\$ 22,870
Contributions in relation to the contractually required contribution	<u>(25,618)</u>	<u>(22,386)</u>	<u>(22,870)</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
University's covered-employee payroll	\$ 1,156,082	\$1,139,719	\$1,061,132
Contributions as a percentage of covered-employee payroll	2.22%	1.96%	2.16%

¹ Until a full 10-year trend is compiled, the University is presenting only information for years for which information is available.

**University of Massachusetts
2017 Annual Financial Report
Supplemental Financial Information
Table of Contents**

	<u>Page</u>
Report of Independent Certified Public Accountants on Supplemental Information for the Years Ended June 30, 2017 and 2016	55
University Related Organizations:	
Statements of Net Position as of June 30, 2017 and 2016	56
Statements of Revenues, Expenses and Changes in Net Position for the Years Ended June 30, 2017 and 2016	57



Grant Thornton LLP
75 State Street, 13th Floor
Boston, MA 02109
T 617.723.7900
F 617.723.3640
www.GrantThornton.com
[linkedin.com/GrantThorntonUS](https://www.linkedin.com/company/grant-thornton-us)
twitter.com/GrantThorntonUS

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees
University of Massachusetts

We have audited, 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, the financial statements of the business-type activities and the aggregate discretely presented component units of the University of Massachusetts (the "University"), an enterprise fund of the Commonwealth of Massachusetts, as of and for the years ended June 30, 2017 and 2016, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and our report thereon dated December 14, 2017 expressed unmodified opinions on these financial statements. Our audits were performed for the purpose of forming opinions on the financial statements that collectively comprise the University's basic financial statements.

The accompanying Combining Statements of Net Position for University Related Organizations and of Revenues, Expenses, and Changes in Net Position as of and for the years ended June 30, 2017 and 2016 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The supplementary information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures. These additional procedures included comparing and reconciling the information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Grant Thornton LLP

Boston, Massachusetts
December 14, 2017

Combining Statements of Net Position for University Related Organizations as of June 30, 2017 and 2016
(In thousands of dollars)

Supplemental Schedule I

	2017				2016			
	Total June 30, 2017	Eliminations and Adjustments June 30, 2017	The University of Massachusetts Foundation, Inc. June 30, 2017	University of Massachusetts Dartmouth Foundation, Inc. June 30, 2017	Total June 30, 2016	Eliminations and Adjustments June 30, 2016	The University of Massachusetts Foundation, Inc. June 30, 2016	University of Massachusetts Dartmouth Foundation, Inc. June 30, 2016
ASSETS								
Current Assets								
Cash and Cash Equivalents								
Accounts, Grants and Loans Receivable, net	\$ 1,424	\$ -	\$ 116	\$ 1,308	\$ 1,475	\$ -	\$ 98	\$ 1,377
Pledges Receivable, net	1,515	(11,480)	12,211	784	371	(7,296)	6,635	1,032
Due From Related Organizations	123	123	-	-	193	193	-	-
Other Assets	-	-	-	-	55	-	55	-
Total Current Assets	3,062	(11,357)	12,327	2,092	2,094	(7,103)	6,788	2,409
Noncurrent Assets								
Pledges Receivable, net	\$ 737	\$ (12,190)	\$ 12,287	\$ 640	\$ 1,690	\$ (19,392)	\$ 19,904	\$ 1,178
Investments	532,605	(685,728)	1,160,597	57,736	468,260	(641,171)	1,058,774	52,657
Other Assets	2,487	-	-	2,487	2,528	-	-	2,528
Investment in Plant, net	17,421	-	17,421	-	8,090	-	8,090	-
Total Noncurrent Assets	553,250	(697,918)	1,190,305	60,863	480,568	(660,563)	1,084,768	56,363
Total Assets	\$ 556,312	\$ (709,275)	\$ 1,202,632	\$ 62,955	\$ 482,662	\$ (667,666)	\$ 1,091,556	\$ 58,772
LIABILITIES								
Current Liabilities								
Accounts Payable	\$ 53	\$ (21)	\$ 52	\$ 22	\$ 64	\$ -	\$ 63	\$ 1
Due To Related Organizations	21	(7,668)	-	7,689	69	(6,575)	-	6,644
Assets Held on Behalf of the University	-	(632,665)	632,665	-	-	(593,116)	593,116	-
Assets Held on Behalf of Others	27,408	-	27,408	-	27,837	-	27,837	-
Unearned Revenues and Credits	1,162	-	1,162	-	1,224	-	1,224	-
Total Current Liabilities	28,644	(640,354)	661,287	7,711	29,194	(599,691)	622,240	6,645
Noncurrent Liabilities								
Other Liabilities	\$ 2,764	\$ -	\$ 2,764	\$ -	\$ 3,502	\$ -	\$ 3,502	\$ -
Total Noncurrent Liabilities	2,764	-	2,764	-	3,502	-	3,502	-
Total Liabilities	\$ 31,408	\$ (640,354)	\$ 664,051	\$ 7,711	\$ 32,696	\$ (599,691)	\$ 625,742	\$ 6,645
Net Position:								
Invested in Capital Assets Net of Related Debt	\$ 17,421	\$ 17,421	\$ -	\$ -	\$ 8,090	\$ 8,090	\$ -	\$ -
Restricted								
Nonexpendable	385,856	(58,728)	\$407,979	\$36,605	374,566	(37,235)	\$374,566	\$37,235
Expendable	98,145	(10,193)	92,219	16,119	46,275	(30,740)	64,380	12,635
Unrestricted	23,482	(17,421)	38,383	2,520	21,035	(8,090)	26,868	2,257
Total Net Position	\$ 524,904	\$ (68,921)	\$ 538,581	\$ 55,244	\$ 449,966	\$ (67,975)	\$ 465,814	\$ 52,127

Combining Statements of Revenues, Expenses, and Changes in Net Position for University Related Organizations
For The Years Ended June 30, 2017 and 2016:
(in thousands of dollars)

Supplemental Schedule II

	Total June 30, 2017	Eliminations and Adjustments June 30, 2017	The University of Massachusetts Foundation, Inc. June 30, 2017	University of Massachusetts Dartmouth Foundation, Inc. June 30, 2017	Total June 30, 2016	Eliminations and Adjustments June 30, 2016	The University of Massachusetts Foundation, Inc. June 30, 2016	University of Massachusetts Dartmouth Foundation, Inc. June 30, 2016
EXPENSES								
Operating Expenses								
Educational and General								
Public Service	\$ 11,278	\$ (5,202)	\$ 13,749	\$ 2,731	\$ 16,502	\$ (971)	\$ 13,927	\$ 3,546
Depreciation	314	-	314	-	202	-	202	-
Scholarships and Fellowships	2,498	-	1,504	994	354	(1,497)	811	1,050
Total Operating Expenses	14,090	(5,202)	15,567	3,725	17,068	(2,468)	14,940	4,596
Operating Income/(Loss)	(14,090)	5,202	(15,567)	(3,725)	(17,068)	2,468	(14,940)	(4,596)
NON-OPERATING REVENUES/(EXPENSES)								
Gifts	\$ 3,620	\$ 611	\$ -	\$ 3,009	\$ 7,396	\$ 1,074	\$ -	\$ 6,322
Investment Income	(219)	(219)	-	-	182	(79)	126	135
Endowment Income Distributed for Operations	-	-	-	-	1,388	40,568	(39,182)	-
Other Non-Operating Revenue	10,011	(3,204)	13,215	-	11,387	-	11,387	-
Net Non-operating Revenues	13,412	(2,812)	13,215	3,009	20,351	41,563	(27,669)	6,457
Income/(Loss) Before Other Revenues, Expenses, Gains, and Losses	(678)	2,390	(2,352)	(716)	3,283	44,031	(42,609)	1,861
OTHER REVENUES, EXPENSES, GAINS, AND LOSSES								
Additions to Permanent Endowments	\$ 42,173	\$ 2,162	\$ 40,011	\$ -	\$ 25,854	\$ (3,094)	\$ 28,958	\$ -
Less: Amounts Earned/Received on Behalf of the University	-	38,633	(38,633)	-	-	(36,498)	36,498	-
Less: Amounts Earned/Received on Behalf of Others	-	489	(489)	-	-	(1,831)	1,831	-
Endowment Return Net of Amounts Used in Operations	30,441	(78,833)	104,599	4,675	(36,524)	(34,671)	-	(1,853)
Distribution to University	-	32,299	(32,299)	-	-	28,637	(28,637)	-
Other Additions/Deductions	3,002	1,914	1,930	(842)	3,958	3,170	1,382	(594)
Total Other Revenues, Expenses, Gains, and Losses	75,616	(3,336)	75,119	3,833	(6,702)	(44,287)	40,032	(2,447)
Total Increase/(Decrease) in Net Assets	74,938	(946)	72,767	3,117	(3,419)	(256)	(2,577)	(586)
NET POSITION								
Net Position at Beginning of Year	449,966	(67,975)	465,814	52,127	453,385	(67,719)	468,391	52,713
Net Position at End of Year	\$ 524,904	\$ (68,921)	\$ 538,581	\$ 55,244	\$ 449,966	\$ (67,975)	\$ 465,814	\$ 52,127

University of Massachusetts Office of the President

Board of Trustees

Robert J. Manning, Chairman

R. Norman Peters, JD, Vice Chair

James R. Buonomo

Mary L. Burns

Derek J. Dunlea

Robert Epstein

David G. Fubini

Maria D. Furman

Stephen R. Karam

Gray R. Milkowski

Michael V. O'Brien

Kerri E. Osterhaus-Houle, MD

Imari K. Paris Jeffries, BA, MEd, MA

James A. Peyser

Malinda E. Reed

Samantha E. Reid

Elizabeth D. Scheibel, JD

Henry M. Thomas III, JD

Steven A. Tolman

Victor Woolridge

Charles F. Wu

Camilla D. Yu

Zunilka M. Barrett, Secretary

CURRICULUM VITAE

ROGER B. EATON, Ph.D.

Director
New England Newborn Screening Program
University of Massachusetts Medical School
377 Plantation Street
Worcester, Massachusetts 01605

TEL: (774) 455-4600
FAX: (774) 455-4657
roger.eaton@umassmed.edu

Education

1976-1981	M.S. and Ph.D.	State University of New York at Buffalo, Buffalo, New York (Department of Microbiology)
1970-1974	B.A.	University of Vermont, Burlington, Vermont.

Appointments

1998-Present	Acting Director, then Director, New England Newborn Screening Program, 305 South Street, Jamaica Plain, MA 02130
	Associate Professor, Department of Pediatrics, University of Massachusetts Medical School, Worcester, MA 01655
1991-Present	Chief of Laboratory-Serology, New England Newborn Screening Program, 305 South Street, Jamaica Plain, MA 02130
1987-1991	Associate in Rheumatology and Immunology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115
1984-1991	Instructor in Medicine, Harvard Medical School, Department of Rheumatology and Immunology, Boston, MA 02115
1981-1984	Postdoctoral Fellow, Harvard Medical School, and Research Fellow, Brigham and Women's Hospital (joint appointment), Boston, MA 02115

Additional Professional Experience

2016	Invited expert, Quality Indicator Working Group, NewSteps, Association of Public Health Laboratories. National workgroup conference. Feb. 10, 2016, Silver Spring, MD. Association of Public Health Laboratories,
2014 – Present	Member, Steering Committee for the Newborn Screening Technical assistance and Evaluation Program (NewSTEPS), Association of Public Health Laboratories,

2014-Present	Member, Association of Public Health Laboratories, Health Information Technology Workgroup
2013-2015	Advisory Board Member, HRSA-grant Sickle Cell Disease Newborn Screening Program Advisory Board. (Barry Zuckerman, M.D., Boston Medical Center, Principal Investigator).
2012-2013	Member, Massachusetts Department of Health Critical Congenital Heart Disease (CCHD) Screening Advisory Group
2011	Member of Organizing Committee, APHL Newborn Screening and Genetic Testing Symposium, San Diego, CA (November, 2011)
2010-2016	Member, UMass Medical School Commonwealth Medicine Division Strategic Planning Goal #1 (Quality Improvement) Workgroup
2010-2013	Member, Newborn Screening Translational Research Network (NBSTRN) Newborn Screening Laboratories Workgroup
2010	Member, Health Information Technology Workgroup for the Secretary's Advisory Committee on Heritable Disorders in Newborns and Children (HIT Workgroup for SACHDNC)
2009	NBSTRN participation: a) Participant, NCC Meeting with State Public Health, NBS and Diagnostic Providers, April 6-7, Bethesda, MD b) Participant, NCC NBSTRN Planning Meeting, April 16-17.
2009-2013	Member, National Coordinating Center for the Genetics and Newborn Screening Regional Collaborative Groups (NCC) Emergency Preparedness Workgroup.
2009	Invited Expert: A Stakeholder's Conference - Determine the Feasibility of G6PD Deficiency Identification for Prevention of Severe Neonatal Hyperbilirubinemia. Jointly Sponsored by HRSA and HHS. July 29-29, 2009, Bethesda, MD.
2008	Invited Expert to the National Contingency Planning for Newborn Screening Stakeholders Workgroup Meeting, Sept. 24-26, CDC, Atlanta, GA. A workgroup co-sponsored by CDC and APHL to develop the national newborn screening emergency response plan, which was required by the Newborn Screening Saves Lives Act of 2007 (Public Law 110-204)
2007-Present	Committee Member, Clinical Affairs Committee of the Commonwealth Medicine Division, University of Massachusetts Medical School.
2007-2011	Project Leader, <i>Multicenter Validation of Algorithms to Improve Communications of Positive Newborn Screening Results to the Medical Home</i> . Priority Focus I of Region 1, New England Regional Genetics and Newborn Screening Collaborative Grant. HRSA

- 2006-Present Member, Leadership Forum, Commonwealth Medicine Division, University of Massachusetts Medical School.
- 2006 Invited expert to workgroup co-sponsored by APHL, CDC, HRSA, and NNSRG to develop strategy to definitively determine the need for routine second specimens for effective newborn screening in the USA. Washington, D.C.
- 2005-Present Expert Consultant and Presenter, Newborn Screening Advisory Committee to the State of New Hampshire Department of Public Health
- 2004-2015 Expert Consultant and Presenter, Newborn Screening Technical Advisory Committee to the Commonwealth of Pennsylvania Department of Public Health
- 2000-Present Member, International Society of Newborn Screening.
- 1998-Present Expert Consultant and Presenter, Newborn Screening Advisory Committee to the Commissioner of the Massachusetts Department of Public Health.
- 2006 and 2016 Participant, Strategic Planning Workshop Series for Strategic Planning and Development of Commonwealth Medicine Division, University of Massachusetts Medical School.
- 2006 Invited expert to workgroup co-sponsored by APHL, CDC, HRSA, and NNSRG to develop strategy to definitively determine the need for routine second specimens for effective newborn screening in the USA. Washington, D.C.
- 2003-2006 Member, HRSA sponsored National Laboratory Workgroup, for newborn screening Program Evaluation and Assessment Scheme (PEAS) development
- 2003-2006 Member, The Systematic Review On Congenital Toxoplasmosis (SYOCOT) study group (European-based)
- 2001-2003 Principal Investigator, HRSA 6H46MC 00198. *Development of a Multistate Database and Other Materials for Assessing the Validity and Utility of Tandem Mass Spectrometry-based and Cystic Fibrosis Newborn Screening.*
- 2002 Participant, NIH National Workshop “Workshop to Develop Newborn Screening Technology for SCID”
- 2002 Participant, CDC National Workshop “Banking of Newborn Dried Blood Spots for Public Health”
- 2002 Participant, HRSA National Workshop “Challenges for the Future: Newborn Screening State Policies and Procedures”

- 2001 Participant, HRSA National Workshop “Interfacing MS-MS Outcome Information into Newborn Screening Systems”
- 2001 Participant, CDC National Workshop “Applying Genetic and Public Health Strategies to Primary Immunodeficiency Diseases”
- 1998 Member, Centers for Disease Control, National Workgroup on Toxoplasmosis.

Major National and International Presentations

- 2010 Special Challenges of State Programs that Screen for Other States: Program – to – Program Communications. Issues and Answers Series: Newborn Screening Laboratory Health Information Exchange Bethesda , MD. November 1-2, 2010
- 2010 Hemoglobin Codes: Some Issues Still Requiring Resolution. Issues and Answers Series: Newborn Screening Laboratory Health Information Exchange Bethesda , MD. November 1-2, 2010
- 2008 *Evaluation of State Data on Congenital Hypothyroidism: Massachusetts.* Presentation to a national workshop co-sponsored by the Division of Birth Defects and Developmental Disabilities, CDC: Newborn Screening and Molecular Biology Branch, CDC: Genetics Services Branch, HRSA: National Newborn Screening and Genetics Resource Center. CDC, Atlanta, Georgia. February 2008.
- 2008 *Newborn Screening Systems: Utilizing Partnerships For Follow-up ; New England Newborn Screening Program: Follow-up Activities for Massachusetts and Rhode Island.* Invited Speaker, Secretary’s Advisory Committee on Heritable Disorders and Genetic Diseases in Newborns and Children. Washington, DC. January 2008
- 2007 *Programa de Tamizaje Neonatal UMASS Medical Center.* Plenary Speaker, I Congreso Centro Americano de Neonatología and XX Curso Internacional de Perinatología y Neonatología. Guatemala City, Guatemala. November 2007
- 2007 *Quality Assurance Plan: Making it Work to Improve Laboratory Quality.* Plenary Lecture to 2007 Newborn Screening and Genetic Testing Symposium, Minneapolis, MN.
- 2005 *Panorama del Desarrollo y Evolución de los Programas de Tamiz Neonatal.* Conferencias Magistrales, 35th Congreso Mexicano de Patología Clínica, Monterrey, Mexico.

- 2000 Co-Chairman and Presenter at the session "Focus on Preventive Strategies." *Newborn Screening for Congenital Toxoplasmosis*. European Conference on Congenital Toxoplasmosis, Vienna.
- 1999 *Newborn Screening for Congenital Toxoplasmosis: The Boston Experience*. Presentation at the meeting "Toxoplasmosi Congenita", organized by the National Institute of Health of Italy in Rome, May 24, 1999.
- 1994 *Progress and Problems of Serologic Screening: The New England Experience*. Presented the laboratory aspects of toxoplasmosis screening to the 2nd Annual Meeting of the European Research Network on Congenital Toxoplasmosis, Bonn, Germany.
- 1988 *Pruebas Inmunoenzimaticas En Immunologia (Immunoenzymatic Assays in Immunology)*. Delivered lecture to the Simposio de Immunologia Clinica Talleres de Histocompatibilidad y Autoinmunidad, December 1-3, 1988, Bogota, Colombia.

BIBLIOGRAPHY

1. Eaton RB, Schneider G, Schur PH. *Enzyme immunoassay for antibodies to dsDNA: Specificity and quality of antibodies*. *Arthritis and Rheum* 26:52-62 (1983).
2. Eaton RB, Campbell W, Milgrom F. *Distribution of P2 antigen in neural and non-neural bovine tissues*. *Immunological Communications* 13:337-350 (1984).
3. Milgrom F, Abeyounis CJ, Eaton RB. *Immunochemistry of tissue-specific and tumor antigens*. In *Molecular Immunology*, Ed. Atassi MZ, Van Oss CJ, Absolom DR. Marcel Dekker, New York and Basel. 1984.
4. Valle RR, Eaton RB, Schneider G, Schur PH. *Complement activation by antibodies to DNA in systemic lupus erythematosus measured by enzyme immunoassay*. *Clin Immunol Immunopathol* 34:345-354 (1985).
5. Wood JJ, O'Mahoney JB, Roderick ML, Eaton RB, Demling RH, Mannick JA. *Abnormalities of antibody production following thermal injury*. *Arch Surg* 121:108-115 (1986).
6. Fronck Z, Vale RR, Eaton RB, Schur PH. *The relationship between Sm and RNP antigens*. *Clin Immunol Immunopathol* 41:91-107 (1986).
7. Jandl RC, George JL, Silberstein DS, Eaton RB, Schur PH. *The effect of adherent cell-derived factors on immunoglobulin and anti-DNA synthesis in systemic lupus erythematosus*. *Clin Immunol Immunopathol* 42:344-359 (1987).
8. LaFond RE, Eaton RB, Watt RA, Villee CA, Actor JK, Schur PH. *Autoantibodies to c-myc protein: Elevated levels in patients with African Burkitt's Lymphoma and normal Ghanians*. *Autoimmunity* 13:215-224 (1992).
9. Chang D-M, Eaton RB, Schur PH. *Characterization of native and recombinant interleukin-1 inhibitor on T cell, monocyte, and B cell response to interleukin-1*. *Biomedical Research* 13:113-124 (1992).

10. De Mendonca NEC, Kumar A, Shadick NA, Michon AM, Matsudaira P, **Eaton RB**, Kumar P, Schur PH. Antibodies to T- and L-isoforms of the cytoskeletal protein, fimbrin, in patients with systemic lupus erythematosus. *J Clin Invest* 90:1037-1042 (1992).
11. Guerina NG, Hsu H-W, Meissner HC, Maguire JH, Lynfield R, Stechenberg B, Abroms I, Pasternak MS, Hoff R, **Eaton RB**, Grady GF. Neonatal serologic screening and early treatment for congenital *Toxoplasma gondii* infection. *N Engl J Med* 330:1858-1863 (1994).
12. Lynfield R, **Eaton RB**. *Teratogen update: congenital toxoplasmosis*. *Teratology* 52:176-180 (1995).
13. Zytковicz TH, **Eaton RB**, Foley TP, Lister BC, Rojas DA, Schwerzler ME. *Instability of enzymes, antibodies, and other analytes in dried blood spots - is the major problem heat or humidity?* In Proc 11th Nat Neonatal Screening Symposium, Ed. Therrell BL and Aldis BG. ASTPHLD, Washington, DC, 1995.
14. **Eaton RB**, Lynfield R, Grady GF. Immunology of the newborn, *In* Proceedings of the Third Meeting of the International Society for Neonatal Screening. Ed. Levy HL, Hermos RJ, Grady GF. Presentation of a review of the field, October 21-24, 1996.
15. **Eaton RB**, Petersen E, Seppänen H, Tuuminen T. *Multicenter evaluation of a fluorometric enzyme immunocapture assay to detect toxoplasma-specific immunoglobulin M in dried blood filter paper specimens from newborns*. *J Clin Micro* 34:3147-3150 (1996).
16. Petersen E, **Eaton RB**. *Control of congenital infection with Toxoplasma gondii by neonatal screening based on detection of specific immunoglobulin M antibodies eluted from phenylketonuria filter-paper blood-spot samples*. *Acta Paediatr Suppl* 432: 36-9 (1999).
17. Petersen E, **Eaton RB**. Neonatal screening for congenital infection with *Toxoplasma gondii*. In *Congenital toxoplasmosis. Scientific background, clinical management and control*. Springer-Verlag, 305-311 (2000).
18. **Eaton RB**, Lynfield, RL, Hsu, HW, Grady, GF. Newborn Screening for Congenital *Toxoplasma* Infection. In *Toxoplasmosis – A Comprehensive Clinical Guide*. Joynson D and Wreghitt, T., Eds. Cambridge University Press. (2001).
19. Zytковicz TH, Fitzgerald EF, Marsden D, Larson CA, Shih VE, Johnson DM, Strauss AW, Comeau, AM., **Eaton RB**, and Grady GF. *Tandem Mass Spectrometry Analysis for Amino Acid, Organic and Fatty Acid Disorders in Newborn Dried Blood Spots: A Two Year Summary by the New England Newborn Screening Program*. *Clin Chem* 47:1945-1955 (2001).
20. **Eaton RB**, Comeau AM, Zytковicz T, Larson C. *Newborn Screening: New Developments in a Proven Field*. *Clinical Laboratory Science* 15: 239-244 (2002).
21. Jara M, Hsu HW, **Eaton RB**, Demaria A Jr. *Epidemiology of congenital toxoplasmosis identified by population-based newborn screening in Massachusetts*. *Pediatr Infect Dis J*. 2001 Dec;20(12):1132-5.
22. Waisbren SE, Albers S, Amato S, Ampola M, Brewster TG, Demmer L, **Eaton RB**, Greenstein R, Korson M, Larson C, Marsden D, Msall M, Naylor EW, Puschel S, Seashore M, Shih VE, Levy HL. *Effect of expanded newborn screening for biochemical genetic disorders on child outcomes and parental stress*. *JAMA*. 2003 Nov 19;290(19):2564-72.
23. Comeau AM, Larson C, **Eaton RB**. *Integration of new genetic diseases into statewide newborn screening: New England experience*. *Am J Med Genet C Semin Med Genet*. 2004 Feb 15;125(1):35-41.

24. Comeau AM, Parad RB, Dorkin HL, Dovey M, Gerstle R, Haver K, Lapey A, O'Sullivan BP, Waltz DA, Zwerdling RG, **Eaton RB**. *Population-based newborn screening for genetic disorders when multiple mutation DNA testing is incorporated: a cystic fibrosis newborn screening model demonstrating increased sensitivity but more carrier detections*. Pediatrics. 2004 Jun;113(6):1573-81.
25. Comeau AM, Parad R, Gerstle R, O'Sullivan BP, Dorkin HL, Dovey M, Haver K, Martin T, **Eaton RB**. *Communications systems and their models: Massachusetts parent compliance with recommended specialty care after positive cystic fibrosis newborn screening result*. J Pediatr. 2005 Sep;147(3 Suppl):S98-100.
26. Comeau AM, Parad R, Gerstle R, O'Sullivan BP, Dorkin HL, Dovey M, Haver K, Martin T, **Eaton RB**. *Challenges in implementing a successful newborn cystic fibrosis screening program*. J Pediatr. 2005 Sep;147(3 Suppl):S89-93. Review.
27. The SYROCOT (Systematic Review on Congenital Toxoplasmosis) Study Group. *Effectiveness of prenatal treatment for congenital toxoplasmosis: a meta-analysis of individual patients' data*. The Lancet. 2007;369:115-22.
28. B Therrell, F Lorey, **R Eaton**, D Frazier, G Hoffman, C Boyle, D Green, O Devine, H Hannon. *Impact of Expanded Newborn Screening --- United States, 2006*. MMWR, September 19, 2008 / 57(37):1012-1015.
29. Hsu HW, Zytovicz TH, Comeau AM, Strauss AW, Marsden D, Shih VE, Grady GF, **Eaton RB**. *Spectrum of Medium Chain Acyl-CoA Dehydrogenase Deficiency Detected by Newborn Screening*. Pediatrics (2008) May;121:e1108-e1114.
30. Cynthia F. Hinton, Katharine B.Harris, Lynette Borgfeld, Margaret Drummond-Borg, **Roger Eaton**, Fred Loreyf Bradford L. Therrell, Jill Wallace, and Kenneth A. Pass, PhD. *Trends in Incidence Rates of Congenital Hypothyroidism Related to Select Demographic Factors: Data From the United States, California, Massachusetts, New York, and Texas*. Pediatrics. 2010;125 Supplement:S37-S47
31. Thompson JG, Wilkey JF, Baptiste JC, Navas JS, Pai S-Y, Pass KA, **Eaton RB**, Comeau AM. *Development of a High Throughput Multiplexed TREC qPCR Assay with Internal Controls for Detection of Severe Combined Immunodeficiency in Population-based Newborn Screening*. Clinical Chemistry 2010 Sep;56(9):1466-74.
32. Comeau AM, Hale JE, Pai S-Y, Bonilla FA, Notarangelo LD, Pasternack MS, Meissner HC, Cooper, ER, DeMaria A, Sahai I, **Eaton RB**. *Guidelines for Implementation of Population-based newborn screening for severe combined immunodeficiency*. Journal of Inherited Metabolic Disease. 2010, October:33 (Supplement 2): 273-281.
33. Sahai I, **Eaton RB**, Hale JE, Mulcahy EA, Comeau AM. *Long-term follow-up to ensure quality care of individuals diagnosed with newborn screening conditions: early experience in New England*. Genetics in Medicine. 2010 Dec; 12(12):S220-S227.
34. Sahai I, Bailey JC, **Eaton RB**, Zytovicz T, Harris DJ. *A near-miss: very long chain acyl-CoA dehydrogenase deficiency with normal primary markers in the initial well-timed newborn screening specimen*. J Pediatr. 2010 Nov 11.
35. Sahai I, Zytkowicz T, Rao Kotthuri S, Lakshmi Kotthuri A, **Eaton RB**, Akella RR. *Neonatal Screening for Inborn Errors of Metabolism Using Tandem Mass Spectrometry: Experience of the Pilot Study in Andhra Pradesh, India*, Indian J Pediatr. 2011 Mar 17.

36. Marquardt G, Currier R, McHugh DMS, Gavrilov D, Magera MJ, Matern D, Oglesbee D, Raymond K, Rinaldo P, Smith EH, Tortorelli S, Turgeon CT, Lorey F, Wilcken B, Wiley V, Greed LC, Lewis B, Boemer F, Schoos R Sandrine Marie S, Vincent MF, Cleverthon Sica Y, Torquado Domingos M, Al-Thihli K, Sinclair G, Al-Dirbashi OY, Chakraborty P, Dymerski M, Porter C, Manning A, Seashore MR, Quesada J, Reuben A, Petr Chrastina P, Hornik P, Atef Mandour I, Atty Sharaf SA, Bodamer O, Dy B, Torres J, Zori R, Cheillan D, Vianey-Saban C, Ludvigson D, Stembridge A, Bonham J, Downing M, Dotsikas Y, Loukas YL, Papakonstantinou V, Zacharioudakis GSA, Baráth A, Karg E, Franzson L, Jonsson JJ, Breen NN, Lesko BG, Berberich SL, Turner K, Ruoppolo M, Scolamiero E, Antonozzi I, Carducci C, Caruso U, Cassanello M, la Marca G, Pasquini E, Di Gangi IM, Giordano G, Camilot M, Teofoli F, Manos SM, Peterson CK, Mayfield Gibson SK, Sevier DW, Lee SY, Park HD, Khneisser I, Browning P, Gulamali-Majid F, Watson MS, **Eaton RB**, Sahai I, Ruiz C, Torres R, Seeterlin MA, Stanley EL, Hietala A, McCann M, Campbell C, Hopkins PV, de Sain-Van der Velden MG, Elvers B, Morrissey MA, Sunny S, Knoll D, Webster D, Frazier DM, McClure JD, Sesser DE, Willis SA, Rocha H, Vilarinho L, John C, Lim J, Caldwell SG, Tomashitis K, Castiñeiras Ramos DE, Cocho de Juan JA, Rueda Fernández I, Yahyaoui Macías R, Egea Mellado JM, González Gallego I, Delgado Pecellin C, García-Valdecasas Bermejo MS, Chien YH, Hwu WL, Childs T, McKeever CD, Tanyalcin T, Abdulrahman M, Queijo C, Lemes A, Davis T, Hoffman W, Baker M, Hoffman GL. (2012) *Enhanced interpretation of newborn screening results without analyte cutoff values. Enhanced interpretation of newborn screening results without analyte cutoff values. Genet in Med 2012(7);14:648-655.*
37. Zytovicz TH, Sahai I, Rush A, Odewale A, Johnson D, Fitzgerald E, Britton D, **Eaton RB**. Newborn screening for hepatorenal tyrosinemia-I by tandem mass spectrometry using pooled samples: a four-year summary by the New England newborn screening program. *Clin Biochem.* 2013 May;46(7-8):681-4.
38. Sahai I, Garganta CL, Bailey J, James P, Levy HL, Martin M, Neilan E, Phornphutkul C, Sweetser DA, Zytovicz TH, **Eaton RB**. Newborn Screening for Glutaric Aciduria-II: The New England Experience. *JIMD Rep.* 1014 Nov; 13: 1-14.

CONTRACTOR NAME

Key Personnel

Name	Job Title	Salary	% Paid from this Contract	Amount Paid from this Contract
Roger B. Eaton	Director, New England Newborn Screening Program	\$145,080	0	0



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6527
603-271-4501 1-800-852-3345 Ext. 4501
Fax: 603-271-4827 TDD Access: 1-800-735-2964



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

May 20, 2015

G&C Approved

Her Excellency, Governor Margaret Wood Hassan
and the Honorable Council
State House
Concord, New Hampshire 03301

Date 6/24/15
Item # 54

REQUESTED ACTION

Authorize the Department of Health and Human Services, Division of Public Health Services, to enter into a **sole source** agreement with University of Massachusetts (Vendor #177576-B008), 305 South Street, Jamaica Plain, MA 02130-3597, in an amount not to exceed \$2,799,650 to provide newborn screening laboratory services for the state of New Hampshire, to be effective July 1, 2015, or date of Governor and Council approval, whichever is later, through June 30, 2018. 100% Other Funds.

Funds are anticipated to be available in SFY 2016, SFY 2017 and SFY 2018, upon the availability and continued appropriation of funds in the future operating budget, with authority to adjust encumbrances between State Fiscal Years through the Budget Office, without further approval from the Governor and Executive Council, if needed and justified.

05-95-90-902010-5240 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH AND COMMUNITY SERVICES, NEWBORN SCREENING REVOLING FUND

Fiscal Year	Class/Account	Class Title	Job Number	Total Amount
SFY 2016	102-500731	Contracts for Prog Svc	90080013	906,341
SFY 2017	102-500731	Contracts for Prog Svc	90080013	932,955
SFY 2018	102-500731	Contracts for Prog Svc	90080013	960,354
			Total	\$2,799,650

EXPLANATION

This request is **sole source** because the University of Massachusetts has been providing newborn screening laboratory services to New Hampshire since 1988. Five out of the six New England states currently contract with the University of Massachusetts, increasing its proficiency and ability to adjust and respond to the State's needs. It is also the closest laboratory geographically to New Hampshire that can perform newborn screening tests. Timeliness is of utmost importance with respect to newborn screening. In addition, there has not been another bid in response to a Request for Proposals in more than a decade.

Funds in this agreement will be used to pay for the provision of laboratory services for newborn screening for the entire state of New Hampshire.

Since the establishment of RSA 132:10a in 1965, the state of New Hampshire has been responsible for the screening of all infants born in the state. The goal of newborn screening is the prevention of disability and untimely death of newborns from undiagnosed genetic disorders. New Hampshire is currently screening all infants born in the state for a panel of thirty-four (34) disorders.

Although some of these disorders are relatively rare, they do need to be identified and intervention initiated before the disorder presents clinically. In some cases this critical timeline for a positive outcome may be as short as one week. In 2014, the New Hampshire Newborn Screening Program identified eighteen (18) infants with disorders requiring treatment and ongoing specialty evaluation. In 2013 the program identified twenty-six (26) infants with disorders. Newborn screening results in early identification of disorders for which timely diagnosis and treatment can mean a life without disability. Clearly the lives of these infants and their families have been impacted in a very positive way.

Should Governor and Executive Council not authorize this Request, New Hampshire would be out of compliance with the mandate (RSA 132:10a) and newborns would be in jeopardy of serious harm, potentially even death.

This Agreement has the option to extend for three (3) additional year(s), contingent upon satisfactory delivery of services, available funding, agreement of the parties and approval of the Governor and Council.

The following performance measures will be used to measure the effectiveness of the agreement:

- At least ninety-eight (98%) of Congenital Adrenal Hyperplasia results will be reported to the New Hampshire Newborn Screening Program within three (3) days of the contractor receiving the dried blood specimen.
- At least ninety-five percent (95%) of all initial screening reports will have a report date within seven days of life.

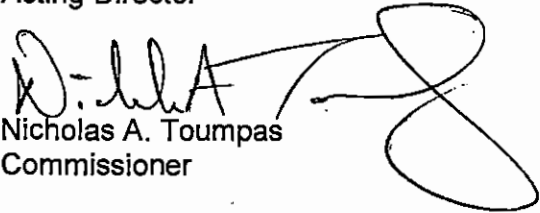
Area served: Statewide.

Source of Funds: 100% Other Funds (Newborn Screening Revolving Fund).

In the event that the Other Funds become no longer available, General Funds will not be requested to support this program.

Respectfully submitted,

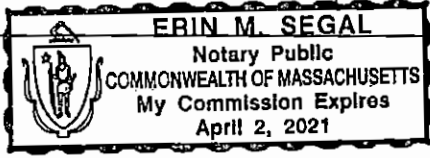

Marcella Jordan Bobinsky
Acting Director

Approved by: 
Nicholas A. Toumpas
Commissioner

Subject: Newborn Screening Laboratory Services

AGREEMENT
The State of New Hampshire and the Contractor hereby mutually agree as follows:
GENERAL PROVISIONS

1. IDENTIFICATION.

1.1 State Agency Name NH Department of Health and Human Services Division of Public Health Services		1.2 State Agency Address 29 Hazen Drive Concord, NH 03301-6504	
1.3 Contractor Name University of Massachusetts		1.4 Contractor Address 305 South Street Jamaica Plain, Massachusetts 02130	
1.5 Contractor Phone Number 617-983-6300	1.6 Account Number 05-95-90-902010-5240-102-500731	1.7 Completion Date June 30, 2018	1.8 Price Limitation \$2,799,650
1.9 Contracting Officer for State Agency Eric D. Borrin, Director Contracts and Procurement Unit		1.10 State Agency Telephone Number 603-271-9558	
1.11 Contractor Signature <i>Joyce A. Murphy</i>		1.12 Name and Title of Contractor Signatory <i>Joyce A. Murphy, Executive Vice Chancellor Commonwealth Medicine</i>	
1.13 Acknowledgement: State of <u>MA</u> , County of <u>Worcester</u> On <u>5/14/15</u> before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.			
1.13.1 Signature of Notary Public or Justice of the Peace [Seal] <i>E. Segal</i>			
1.13.2 Name and Title of Notary or Justice of the Peace <i>Erin Segal, Notary Public</i>			
1.14 State Agency Signature <i>Brook Dupee</i>		1.15 Name and Title of State Agency Signatory Brook Dupee, Bureau Chief	
1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable)			
By: _____ Director, On: _____			
1.17 Approval by the Attorney General (Form, Substance and Execution)			
By: <i>Megan A. Yule</i> - Attorney On: <u>6/10/15</u>			
1.18 Approval by the Governor and Executive Council			
By: _____ On: _____			

2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.
3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("Effective Date").
3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT. Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.
5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.
5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.

5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.
6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Contractor shall comply with all applicable copyright laws.
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.
6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.
7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or performance of this Agreement. This provision shall survive termination of this Agreement.
7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State's representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer's decision shall be final for the State.

Contractor Initials:
Date: 6/19/15

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):

8.1.1 failure to perform the Services satisfactorily or on schedule;

8.1.2 failure to submit any report required hereunder; and/or

8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;

8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;

8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or

8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/PRESERVATION.

9.1 As used in this Agreement, the word "data" shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. **TERMINATION.** In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report ("Termination Report") describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination

Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. **CONTRACTOR'S RELATION TO THE STATE.** In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. **ASSIGNMENT/DELEGATION/SUBCONTRACTS.** The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the N.H. Department of Administrative Services. None of the Services shall be subcontracted by the Contractor without the prior written consent of the State.

13. **INDEMNIFICATION.** The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

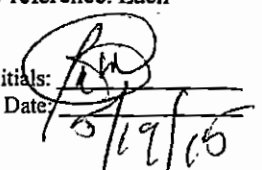
14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$250,000 per claim and \$2,000,000 per occurrence; and

14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each

The signature is written in black ink and appears to be 'AW'. Below the signature, the date '5/19/05' is written in black ink.

certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

15. WORKERS' COMPENSATION.

15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A ("Workers' Compensation").

15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain; and require any subcontractor or assignee to secure and maintain, payment of Workers' Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers' Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

19. CONSTRUCTION OF AGREEMENT AND TERMS. This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.

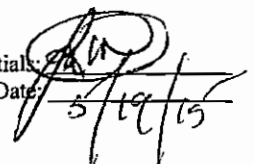
Handwritten signature and date: 5/19/15



Exhibit A

SCOPE OF SERVICES

1. General Provisions

1.1. Required Services

1.1.1. The University of Massachusetts, hereinafter referred to as the "Contractor", shall provide laboratory screening services for newborn screening of all infants born in New Hampshire. The goal of New Hampshire Department of Health and Human Services (DHHS), Newborn Screening Program (NBSP) is the prevention of disability and untimely death of newborns from undiagnosed genetic disorders. New Hampshire is currently screening all infants born in the state for a panel of thirty-four (34) disorders. Although some of these disorders are relatively rare, they do need to be identified and intervention initiated before the disorder presents clinically.

1.1.2. Contractors considering clinical or sociological research using clients as subjects must adhere to the legal requirements governing human subjects' research. Contractors must inform the DHHS prior to initiating any research related to this contract.

1.1.3. The contractor shall carry out the laboratory analysis utilizing standardized, approved laboratory methods for the following disorders, for all New Hampshire births for the following mandated panel of disorders:

1. Phenylketonuria (PKU)
2. Galactosemia (GALT)
3. Homocystinuria (HCY)
4. Maple Syrup Urine Disease (MSUD)
5. Congenital Hypothyroidism (CH)
6. Congenital Toxoplasmosis (TOXO)
7. Biotinidase (BIOT)
8. Congenital Adrenal Hyperplasia (CAH)
9. Cystic Fibrosis (CF)
10. Hemoglobinopathies (Hb SS)
11. Hemoglobinopathies HbS/Bth
12. Hemoglobinopathies Hb S/C
13. Medium Chain Acyl CoA Dehydrogenase Deficiency (MCAD)
14. Argininosuccinic Aciduria (ASA)
15. Argininemia (ARG)
16. Carnitine Uptake Defect (CUD)
17. Carnitine Palmitoyltransferase II Deficiency (CPTII)
18. Citrullinemia I (ASA Synthetase Def) (CIT)
19. Cobalamin A, B (Cbl A,B)
20. Glutaric Aciduria Type I (GAI)
21. 3-Hydroxy-3-Methylglutaryl-CoA Lysase Deficiency (HMG)
22. Hyperornithinemia Hyperammoninemia, Homocitrullinemia Syndrome (HHH)
23. Isovaleric Acidemia (IVA)
24. Long Chain 3-hydroxyacyl-CoA Dehydrogenase Deficiency (LCHAD)
25. 3-Methylcrotonyl-CoA Carboxylase Deficiency (3MCC)
26. Methylmalonic Acidemia (MUT)
27. Mitochondrial Acetoacetyl-CoA Thiolase Deficiency (BKT)
28. Multiple Acyl-CoA Dehydrogenase Deficiency (GA2)
29. Multiple Carboxylase Deficiency (MCD)
30. Propionic Acidemia (PROP)

[Handwritten Signature]
Date 5/19/15



Exhibit A

- 31. Severe Combined Immunodeficiency (SCID)
 - 32. Trifunctional Protein Deficiency (TFP)
 - 33. Tyrosinemia
 - 34. Very Long Chain Acyl-CoA Dehydrogenase Deficiency (VLCAD)
- 1.1.4. The Contractor shall supply approved filter paper collection kits as required for the collection and identification of blood samples, and for gathering the necessary clinical information. A supply of pre-addressed envelopes for mailing repeat specimens to the lab via the US Postal Services will also be provided.
- 1.1.5. The Contractor shall provide a courier service to all designated birthing centers in New Hampshire for transporting of blood samples to the testing facility to include weekend and holiday pick-up. Adherence to strict turnaround times is critical. The Contractor shall also monitor the courier service for performance and timeliness.
- 1.1.6. The Contractor shall report to the Newborn Screening Program all out-of-range test results according to the urgency of the laboratory findings. In addition, the laboratory shall make available to the Newborn Screening Program, condition-specific FACT SHEETS as a resource on the probable significance of the findings and recommendations for appropriate follow-up action.
- 1.1.7. The Contractor shall report normal test results to the Newborn Screening Program via a secure web connection in a timely manner.
- 1.1.8. The New Hampshire DHHS shall remain in full ownership of all residual screening specimens. Decisions about retention/use of dried blood spots (DBS) are at the sole discretion of DHHS, and must be consistent with the Newborn Screening Program policies. Additional testing of specimens for other disorders is prohibited without express permission from the Newborn Screening Program.
- 1.1.9. The Contractor shall maintain storage of New Hampshire's residual screening specimens in an appropriate, climate-controlled, secure facility, in sealed bags of low gas permeability containing a desiccant and humidity indicator at -20C for six months.
- 1.1.10. Residual DBS shall be destroyed six months after the collection date, in a manner consistent with applicable state and federal requirements relating to disposal of human blood and body fluids per OSHA regulations 29 CFR, standard number 1910.1030. In the event that the storage environment of any DBS is found to have deviated from the required conditions described above, such that the stability of the specimen is likely to have been affected, the DBS shall be destroyed and the Newborn Screening Program shall be notified.
- 1.1.11. The Contractor will describe the contingency plan of operations to assure maintenance of screening services in the event of a major disaster or emergency.

2. Compliance and Data Reporting Requirements

2.1. Compliance Requirements

- 2.1.1. The Contractor shall submit a detailed description of the language assistance services they will provide to persons with Limited English Proficiency to ensure meaningful access to their programs and/or services, within 10 days of the contract effective date.

2.2. Data Reporting Requirements

The Contractor shall:

- 2.2.1. Provide sufficient data, upon request, on the occurrence of disorders not mandated by the State to assist the Newborn Screening Program in making appropriate decisions about what services it offers.



Exhibit A

- 2.2.2. Provide a computerized system of records to show the date each sample was received from New Hampshire birth hospitals and/or community-based health care providers, the date the laboratory tests were performed and the date results of the laboratory analyses were reported to the New Hampshire Newborn Screening Program.
- 2.2.3. Maintain all newborn laboratory test and result data in a computerized record system accessible to the laboratory performing the services and to the Newborn Screening Program, for a period no less than 21 years from the date of the test.
- 2.2.4. Provide critical data elements necessary to and determined by the New Hampshire Maternal and Child Health Section (MCHS) Data Linkage Project on a daily basis, or other schedule determined by MCHS, to enable the state to match the screening results with the electronic birth certificate (EBC).
- 2.2.5. Comply with minor modifications and/or additions to the proposed activities and report format as requested by MCHS. The MCHS will provide the Contractor with advance notice of such changes and the Contractor is not expected to incur any substantial costs relative to such changes.
- 2.2.6. Provide documentation of current CLIA Laboratory Certification.
- 2.2.7. Provide documentation of participation in the CDC/APHL Newborn Screening Quality Assurance Program or other acceptable proficiency-testing program.
- 2.2.8. In years when contracts or amendments are not required, the DPHS Budget Form, Budget Justification, Sources of Revenue and program Staff list forms must be completed according to the relevant instructions and submitted as requested by DPHS and, at minimum, by April 30 of each year.
- 2.2.9. The Sources of Revenue report must be resubmitted at any point when changes in revenue threaten the ability of the agency to carry out the planned program.
- 2.2.10. The contractor will agree to participate in DPHS planning, as needed, including planning for Electronic Medical Record (EMR) enhancements and Health Information Exchange (HIE).

3. State and Federal Laws

- 3.1. The Contractor is responsible for compliance with all relevant state and federal laws, with special attention called to the following statutory responsibilities:
- 3.2. The Contractor shall report all cases of communicable diseases according to New Hampshire RSA 141-C and He-P 30, effective 01/05.
- 3.3. Persons employed by the Contractor shall comply with the reporting requirements of New Hampshire RSA 169:C, Child Protection Act; RSA 161:F46, Protective Services to Adults and RSA 631:6, Assault and Related Offenses.

4. Staffing

- 4.1. Staffing Provisions
 - 4.1.1. Maintain a listing of "on call" qualified specialists who are available by beeper response, seven days/week, 24 hours/day to provide medical consultation as needed to the Newborn Screening Program and/or the physician of record.
 - 4.1.2. Provide coverage for the Newborn Screening Program staff, upon request, when Newborn Screening Program staff is unavailable, for notifying attending physicians of out-of-range lab results (i.e. after normal work hours, on weekends, holidays, and with advance notice, when there is no staff available to cover the Newborn Screening Program).

Handwritten signature and date "01/19/15".



Exhibit A

4.2. Staffing Changes

4.2.1. The Contractor shall notify the DHHS within one month of hire when a new administrator or coordinator or any staff person essential to carrying out this scope of services is hired to work in the program. A resume of the employee shall accompany this notification.

4.2.2. The Contractor must notify the DHHS if any of the critical positions required for the delivery of these services are vacant for more than three months.

4.3. Subcontractors

4.3.1. If services required to comply with this Exhibit are provided by a subcontracted agency or provider, the DPHS, Maternal and Child Health Section (MCHS) must be notified in writing prior to initiation of the subcontract. In addition, subcontractors must be held responsible to fulfill all relevant requirements included in this Exhibit.

5. Meetings and Trainings

The Contractor shall:



Date 5/19/15



Exhibit A

- 5.1. Provide assistance to the Newborn Screening Program staff and others, upon request, on issues related to supporting the infrastructure and facilitating the Newborn Screening Program's operations, including the provision of in-services and educational programs to include:
 - 5.1.1. Technical support for the Newborn Screening Program on computer issues as needed and as related to the interface between the state system and the laboratory computerized system.
 - 5.1.2. Technical support and assistance upon request to the state in support of the work of the New Hampshire Newborn Screening Advisory Committee.
 - 5.1.3. Technical support for the Newborn Screening Program's management information system on accessing the laboratory results database

6. On Site Reviews

- 6.1. The Contractor shall allow a team or person authorized by the DHHS to periodically review the contractor's systems of governance, administration, data collection and submission, clinical and financial management in order to assure systems are adequate to provide the contracted services.

7. Publications

- 7.1. The DHHS and/or its funders will retain COPYRIGHT ownership for any and all original materials produced with DHHS contract funding, including, but not limited to, brochures, resource directories, protocols or guidelines, posters, or reports.
- 7.2. All documents (written, video, audio) produced, reproduced or purchased under the contract shall have prior approval from DPHS before printing, production, distribution, or use.
- 7.3. The Contractor shall credit DHHS on all materials produced under this contract following the instructions outlined in Exhibit C-1 (5).

8. Performance Measures

- 8.1. The Contractor shall ensure that following performance measures are annually achieved and monitored monthly to measure the effectiveness of the agreement:
 - 8.1.1. At least ninety-eight (98%) of Congenital Adrenal Hyperplasia results will be reported to the New Hampshire Newborn Screening Program within three (3) days of the contractor receiving the dried blood specimen.
 - 8.1.2. At least ninety- five percent (95%) of all initial screening reports will have a report date within seven days of life.
- 8.2. Annually, the Contractor shall develop and submit to the DHHS, a corrective action plan for any performance measure that was not achieved.


Date 5/19/15



Exhibit B

Method and Conditions Precedent to Payment

1) Funding Sources:

a. \$2,799,650 = 100% Other Funds from the Newborn Screening Revolving Fund, \$906,341 in SFY 2016, \$932,955 in SFY 2017, and \$960,354 in SFY 2018.

2) The State shall pay the Contractor an amount not to exceed the Price Limitation, block 1.8, for the services provided by the Contractor pursuant to Exhibit A, Scope of Services.

a. Payment for said services shall be made as follows:

The Contractor will submit an invoice in a form satisfactory to the State by the twentieth working day of each month, which identifies and requests reimbursement for authorized expenses incurred in the prior month. The State shall make payment to the Contractor within thirty (30) days of receipt of each invoice for Contractor services provided pursuant to this Agreement. The final invoice shall be due to the State no later than thirty (30) days after the contract Completion Date.

b. The invoice must be submitted to:

Department of Health and Human Services
Division of Public Health Services
Email address: DPHScontractbilling@dhhs.state.nh.us

3) This is a cost-reimbursement contract. The Contractor agrees to use and apply all contract funds from the State for direct and indirect costs and expenses including, but not limited to, personnel costs and operating expenses related to the Services, as detailed in Exhibit B-1 Budgets for SFY 2016, SFY 2017, and SFY 2018, and reimbursement shall be made monthly based on actual costs incurred during the previous month. Allowable costs and expenses shall be determined by the State in accordance with applicable state and federal laws and regulations. The Contractor agrees not to use or apply such funds for capital additions or improvements, entertainment costs, or any other costs not approved by the State. DHHS funding may not be used to replace funding for a program already funded from another source.

4) Payment will be made by the State agency subsequent to approval of the submitted invoice and if sufficient funds are available in the Service category budget line items submitted by the Contractor to cover the costs and expenses incurred upon compliance with reporting requirements and performance and utilization review. Contractors will keep detailed records of their activities related to DHHS-funded programs and services.

5) Contractors are accountable to meet the scope of services. Failure to meet the scope of services may jeopardize the funded contractor's current and/or future funding. Corrective action may include actions such as a contract amendment or termination of the contract. The contracted organization shall prepare progress reports, as required.



Exhibit B

- 6) The Contractor shall have written authorization from the State prior to using contract funds to purchase any equipment with a cost in excess of three hundred dollars (\$300) and with a useful life beyond one year.

- 7) Notwithstanding paragraph 18 of the General Provisions P-37, an amendment limited to adjustments to amounts between and among account numbers, within the price limitation, may be made by written agreement of both parties and may be made without obtaining approval of the Governor and Executive Council.

Exhibit B – Methods and Conditions Precedent to Payment_Contractor Initials

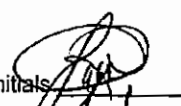

5/19/15

Exhibit B-1 Budget Form

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services
(Name of RFP)

Budget Period: SFY 2016

Line Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing	\$ 848,607.00	\$ -	\$ 848,607.00	
Specimen Shipping	\$ 57,734.00	\$ -	\$ 57,734.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 906,341.00	\$ -	\$ 906,341.00	

Indirect As A Percent of Direct

0.0%

Exhibit B-1 - Budget

Contractor Initials: 

Date: 5/19/15

Exhibit B-1 Budget Form

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services
(Name of RFP)

Budget Period: SFY 2017

Line Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing	\$ 874,066.00	\$ -	\$ 874,066.00	
Specimen Shipping	\$ 58,889.00	\$ -	\$ 58,889.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 932,955.00	\$ -	\$ 932,955.00	

Indirect As A Percent of Direct

0.0%

Exhibit B-1 - Budget

Contractor Initials: *PLW*

Date: 5/19/15

Exhibit B-1 Budget Form

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: University of Massachusetts

Budget Request for: Newborn Screening Laboratory Services
(Name of RFP)

Budget Period: SFY 2018

Line Item	Direct Incremental	Indirect Fixed	Total	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ -	\$ -	\$ -	
2. Employee Benefits	\$ -	\$ -	\$ -	
3. Consultants	\$ -	\$ -	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	
Office	\$ -	\$ -	\$ -	
6. Travel	\$ -	\$ -	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	
Postage	\$ -	\$ -	\$ -	
Subscriptions	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	
9. Software	\$ -	\$ -	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ -	\$ -	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	
Laboratory Testing	\$ 900,287.00	\$ -	\$ 900,287.00	
Specimen Shipping	\$ 60,067.00	\$ -	\$ 60,067.00	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	
TOTAL	\$ 960,354.00	\$ -	\$ 960,354.00	

Indirect As A Percent of Direct

0.0%

Exhibit B-1 - Budget

Contractor Initials: 

Date: 5/19/15



SPECIAL PROVISIONS

Contractors Obligations: The Contractor covenants and agrees that all funds received by the Contractor under the Contract shall be used only as payment to the Contractor for services provided to eligible individuals and, in the furtherance of the aforesaid covenants, the Contractor hereby covenants and agrees as follows:

1. **Compliance with Federal and State Laws:** If the Contractor is permitted to determine the eligibility of individuals such eligibility determination shall be made in accordance with applicable federal and state laws, regulations, orders, guidelines, policies and procedures.
2. **Time and Manner of Determination:** Eligibility determinations shall be made on forms provided by the Department for that purpose and shall be made and remade at such times as are prescribed by the Department.
3. **Documentation:** In addition to the determination forms required by the Department, the Contractor shall maintain a data file on each recipient of services hereunder, which file shall include all information necessary to support an eligibility determination and such other information as the Department requests. The Contractor shall furnish the Department with all forms and documentation regarding eligibility determinations that the Department may request or require.
4. **Fair Hearings:** The Contractor understands that all applicants for services hereunder, as well as individuals declared ineligible have a right to a fair hearing regarding that determination. The Contractor hereby covenants and agrees that all applicants for services shall be permitted to fill out an application form and that each applicant or re-applicant shall be informed of his/her right to a fair hearing in accordance with Department regulations.
5. **Gratuities or Kickbacks:** The Contractor agrees that it is a breach of this Contract to accept or make a payment, gratuity or offer of employment on behalf of the Contractor, any Sub-Contractor or the State in order to influence the performance of the Scope of Work detailed in Exhibit A of this Contract. The State may terminate this Contract and any sub-contract or sub-agreement if it is determined that payments, gratuities or offers of employment of any kind were offered or received by any officials, officers, employees or agents of the Contractor or Sub-Contractor.
6. **Retroactive Payments:** Notwithstanding anything to the contrary contained in the Contract or in any other document, contract or understanding, it is expressly understood and agreed by the parties hereto, that no payments will be made hereunder to reimburse the Contractor for costs incurred for any purpose or for any services provided to any individual prior to the Effective Date of the Contract and no payments shall be made for expenses incurred by the Contractor for any services provided prior to the date on which the individual applies for services or (except as otherwise provided by the federal regulations) prior to a determination that the individual is eligible for such services.
7. **Conditions of Purchase:** Notwithstanding anything to the contrary contained in the Contract, nothing herein contained shall be deemed to obligate or require the Department to purchase services hereunder at a rate which reimburses the Contractor in excess of the Contractor's costs, at a rate which exceeds the amounts reasonable and necessary to assure the quality of such service, or at a rate which exceeds the rate charged by the Contractor to ineligible individuals or other third party funders for such service. If at any time during the term of this Contract or after receipt of the Final Expenditure Report hereunder, the Department shall determine that the Contractor has used payments hereunder to reimburse items of expense other than such costs, or has received payment in excess of such costs or in excess of such rates charged by the Contractor to ineligible individuals or other third party funders, the Department may elect to:
 - 7.1. Renegotiate the rates for payment hereunder, in which event new rates shall be established;
 - 7.2. Deduct from any future payment to the Contractor the amount of any prior reimbursement in excess of costs;


Handwritten signature and date "5/29/15".



- 7.3. Demand repayment of the excess payment by the Contractor in which event failure to make such repayment shall constitute an Event of Default hereunder. When the Contractor is permitted to determine the eligibility of individuals for services, the Contractor agrees to reimburse the Department for all funds paid by the Department to the Contractor for services provided to any individual who is found by the Department to be ineligible for such services at any time during the period of retention of records established herein.

RECORDS: MAINTENANCE, RETENTION, AUDIT, DISCLOSURE AND CONFIDENTIALITY:

8. **Maintenance of Records:** In addition to the eligibility records specified above, the Contractor covenants and agrees to maintain the following records during the Contract Period:
- 8.1. **Fiscal Records:** books, records, documents and other data evidencing and reflecting all costs and other expenses incurred by the Contractor in the performance of the Contract, and all income received or collected by the Contractor during the Contract Period, said records to be maintained in accordance with accounting procedures and practices which sufficiently and properly reflect all such costs and expenses, and which are acceptable to the Department, and to include, without limitation, all ledgers, books, records, and original evidence of costs such as purchase requisitions and orders, vouchers, requisitions for materials, inventories, valuations of in-kind contributions, labor time cards, payrolls, and other records requested or required by the Department.
- 8.2. **Statistical Records:** Statistical, enrollment, attendance or visit records for each recipient of services during the Contract Period, which records shall include all records of application and eligibility (including all forms required to determine eligibility for each such recipient), records regarding the provision of services and all invoices submitted to the Department to obtain payment for such services.
- 8.3. **Medical Records:** Where appropriate and as prescribed by the Department regulations, the Contractor shall retain medical records on each patient/recipient of services.
9. **Audit:** Contractor shall submit an annual audit to the Department within 60 days after the close of the agency fiscal year. It is recommended that the report be prepared in accordance with the provision of Office of Management and Budget Circular A-133, "Audits of States, Local Governments, and Non Profit Organizations" and the provisions of Standards for Audit of Governmental Organizations, Programs, Activities and Functions, issued by the US General Accounting Office (GAO standards) as they pertain to financial compliance audits.
- 9.1. **Audit and Review:** During the term of this Contract and the period for retention hereunder, the Department, the United States Department of Health and Human Services, and any of their designated representatives shall have access to all reports and records maintained pursuant to the Contract for purposes of audit, examination, excerpts and transcripts.
- 9.2. **Audit Liabilities:** In addition to and not in any way in limitation of obligations of the Contract, it is understood and agreed by the Contractor that the Contractor shall be held liable for any state or federal audit exceptions and shall return to the Department, all payments made under the Contract to which exception has been taken or which have been disallowed because of such an exception.
10. **Confidentiality of Records:** All information, reports, and records maintained hereunder or collected in connection with the performance of the services and the Contract shall be confidential and shall not be disclosed by the Contractor, provided however, that pursuant to state laws and the regulations of the Department regarding the use and disclosure of such information, disclosure may be made to public officials requiring such information in connection with their official duties and for purposes directly connected to the administration of the services and the Contract; and provided further, that the use or disclosure by any party of any information concerning a recipient for any purpose not directly connected with the administration of the Department or the Contractor's responsibilities with respect to purchased services hereunder is prohibited except on written consent of the recipient, his attorney or guardian.


Date 5/19/15

New Hampshire Department of Health and Human Services
Exhibit C



Notwithstanding anything to the contrary contained herein the covenants and conditions contained in the Paragraph shall survive the termination of the Contract for any reason whatsoever.

11. **Reports: Fiscal and Statistical:** The Contractor agrees to submit the following reports at the following times if requested by the Department.
 - 11.1. **Interim Financial Reports:** Written interim financial reports containing a detailed description of all costs and non-allowable expenses incurred by the Contractor to the date of the report and containing such other information as shall be deemed satisfactory by the Department to justify the rate of payment hereunder. Such Financial Reports shall be submitted on the form designated by the Department or deemed satisfactory by the Department.
 - 11.2. **Final Report:** A final report shall be submitted within thirty (30) days after the end of the term of this Contract. The Final Report shall be in a form satisfactory to the Department and shall contain a summary statement of progress toward goals and objectives stated in the Proposal and other information required by the Department.
12. **Completion of Services: Disallowance of Costs:** Upon the purchase by the Department of the maximum number of units provided for in the Contract and upon payment of the price limitation hereunder, the Contract and all the obligations of the parties hereunder (except such obligations as, by the terms of the Contract are to be performed after the end of the term of this Contract and/or survive the termination of the Contract) shall terminate, provided however, that if, upon review of the Final Expenditure Report the Department shall disallow any expenses claimed by the Contractor as costs hereunder the Department shall retain the right, at its discretion, to deduct the amount of such expenses as are disallowed or to recover such sums from the Contractor.
13. **Credits:** All documents, notices, press releases, research reports and other materials prepared during or resulting from the performance of the services of the Contract shall include the following statement:
 - 13.1. The preparation of this (report, document etc.) was financed under a Contract with the State of New Hampshire, Department of Health and Human Services, with funds provided in part by the State of New Hampshire and/or such other funding sources as were available or required, e.g., the United States Department of Health and Human Services.
14. **Prior Approval and Copyright Ownership:** All materials (written, video, audio) produced or purchased under the contract shall have prior approval from DHHS before printing, production, distribution or use. The DHHS will retain copyright ownership for any and all original materials produced, including, but not limited to, brochures, resource directories, protocols or guidelines, posters, or reports. Contractor shall not reproduce any materials produced under the contract without prior written approval from DHHS.
15. **Operation of Facilities: Compliance with Laws and Regulations:** In the operation of any facilities for providing services, the Contractor shall comply with all laws, orders and regulations of federal, state, county and municipal authorities and with any direction of any Public Officer or officers pursuant to laws which shall impose an order or duty upon the contractor with respect to the operation of the facility or the provision of the services at such facility. If any governmental license or permit shall be required for the operation of the said facility or the performance of the said services, the Contractor will procure said license or permit, and will at all times comply with the terms and conditions of each such license or permit. In connection with the foregoing requirements, the Contractor hereby covenants and agrees that, during the term of this Contract the facilities shall comply with all rules, orders, regulations, and requirements of the State Office of the Fire Marshal and the local fire protection agency, and shall be in conformance with local building and zoning codes, by-laws and regulations.
16. **Equal Employment Opportunity Plan (EEOP):** The Contractor will provide an Equal Employment Opportunity Plan (EEOP) to the Office for Civil Rights, Office of Justice Programs (OCR), if it has received a single award of \$500,000 or more. If the recipient receives \$25,000 or more and has 50 or



more employees, it will maintain a current EEOP on file and submit an EEOP Certification Form to the OCR, certifying that its EEOP is on file. For recipients receiving less than \$25,000, or public grantees with fewer than 50 employees, regardless of the amount of the award, the recipient will provide an EEOP Certification Form to the OCR certifying it is not required to submit or maintain an EEOP. Non-profit organizations, Indian Tribes, and medical and educational institutions are exempt from the EEOP requirement, but are required to submit a certification form to the OCR to claim the exemption. EEOP Certification Forms are available at: <http://www.ojp.usdoj/about/ocr/pdfs/cert.pdf>.

17. **Limited English Proficiency (LEP):** As clarified by Executive Order 13166, Improving Access to Services for persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination on the basis of limited English proficiency (LEP). To ensure compliance with the Omnibus Crime Control and Safe Streets Act of 1968 and Title VI of the Civil Rights Act of 1964, Contractors must take reasonable steps to ensure that LEP persons have meaningful access to its programs.

18. **Pilot Program for Enhancement of Contractor Employee Whistleblower Protections:** The following shall apply to all contracts that exceed the Simplified Acquisition Threshold as defined in 48 CFR 2.101 (currently, \$150,000)

CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF
WHISTLEBLOWER RIGHTS (SEP 2013)

(a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.

(b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold.

19. **Subcontractors:** DHHS recognizes that the Contractor may choose to use subcontractors with greater expertise to perform certain health care services or functions for efficiency or convenience, but the Contractor shall retain the responsibility and accountability for the function(s). Prior to subcontracting, the Contractor shall evaluate the subcontractor's ability to perform the delegated function(s). This is accomplished through a written agreement that specifies activities and reporting responsibilities of the subcontractor and provides for revoking the delegation or imposing sanctions if the subcontractor's performance is not adequate. Subcontractors are subject to the same contractual conditions as the Contractor and the Contractor is responsible to ensure subcontractor compliance with those conditions.
When the Contractor delegates a function to a subcontractor, the Contractor shall do the following:
 - 19.1. Evaluate the prospective subcontractor's ability to perform the activities, before delegating the function
 - 19.2. Have a written agreement with the subcontractor that specifies activities and reporting responsibilities and how sanctions/revocation will be managed if the subcontractor's performance is not adequate
 - 19.3. Monitor the subcontractor's performance on an ongoing basis



- 19.4. Provide to DHHS an annual schedule identifying all subcontractors, delegated functions and responsibilities, and when the subcontractor's performance will be reviewed
- 19.5. DHHS shall, at its discretion, review and approve all subcontracts.

If the Contractor identifies deficiencies or areas for improvement are identified, the Contractor shall take corrective action.

DEFINITIONS

As used in the Contract, the following terms shall have the following meanings:

COSTS: Shall mean those direct and indirect items of expense determined by the Department to be allowable and reimbursable in accordance with cost and accounting principles established in accordance with state and federal laws, regulations, rules and orders.

DEPARTMENT: NH Department of Health and Human Services.

FINANCIAL MANAGEMENT GUIDELINES: Shall mean that section of the Contractor Manual which is entitled "Financial Management Guidelines" and which contains the regulations governing the financial activities of contractor agencies which have contracted with the State of NH to receive funds.


PROPOSAL: If applicable, shall mean the document submitted by the Contractor on a form or forms required by the Department and containing a description of the Services to be provided to eligible individuals by the Contractor in accordance with the terms and conditions of the Contract and setting forth the total cost and sources of revenue for each service to be provided under the Contract.

UNIT: For each service that the Contractor is to provide to eligible individuals hereunder, shall mean that period of time or that specified activity determined by the Department and specified in Exhibit B of the Contract.

FEDERAL/STATE LAW: Wherever federal or state laws, regulations, rules, orders, and policies, etc. are referred to in the Contract, the said reference shall be deemed to mean all such laws, regulations, etc. as they may be amended or revised from the time to time.

CONTRACTOR MANUAL: Shall mean that document prepared by the NH Department of Administrative Services containing a compilation of all regulations promulgated pursuant to the New Hampshire Administrative Procedures Act. NH RSA Ch 541-A, for the purpose of implementing State of NH and federal regulations promulgated thereunder.

SUPPLANTING OTHER FEDERAL FUNDS: The Contractor guarantees that funds provided under this Contract will not supplant any existing federal funds available for these services.


Date 5/19/15



ADDITIONAL SPECIAL PROVISIONS

1. Subparagraph 4 of the General Provisions of this contract, Conditional Nature of Agreement, is replaced as follows:

Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including without limitation, the continuance of payments, in whole or in part, under this Agreement are contingent upon continued appropriation or availability of funds, including any subsequent changes to the appropriation or availability of funds affected by any state or federal legislative or executive action that reduces, eliminates, or otherwise modifies the appropriation or availability of funding for this Agreement and the Scope of Services provided in Exhibit A, Scope of Services, in whole or in part. In no event shall the State be liable for any payments hereunder in excess of appropriated or available funds. In the event of a reduction, termination or modification of appropriated or available funds, the State shall provide reasonable written notification to the Contractor and, upon such notification, have the right to withhold payment until such funds become available, if ever. The State, in consultation with the Contractor, shall have the right to reduce, terminate or modify services under this Agreement immediately upon giving the Contractor notice of such reduction, termination or modification. The State shall not be required to transfer funds from any other source or account into the Account(s) identified in block 1.6 of the General Provisions, Account Number, or any other account, in the event funds are reduced or unavailable.

2. Subparagraph 10 of the General Provisions of this contract, Termination, is amended by adding the following language;

10.1 The State may terminate the Agreement at any time for any reason, at the sole discretion of the State, ninety (90) days after giving the Contractor written notice that the State is exercising its option to terminate the Agreement.

10.2 In the event of early termination, the Contractor shall, within 15 days of notice of early termination, develop and submit to the State a Transition Plan for services under the Agreement, including but not limited to, identifying the present and future needs of clients receiving services under the Agreement and establishes a process to meet those needs.

10.3 The Contractor shall fully cooperate with the State and shall promptly provide detailed information to support the Transition Plan including, but not limited to, any information or data requested by the State related to the termination of the Agreement and Transition Plan and shall provide ongoing communication and revisions of the Transition Plan to the State as requested.

10.4 In the event that services under the Agreement, including but not limited to clients receiving services under the Agreement are transitioned to having services delivered by another entity including contracted providers or the State, the Contractor shall provide a process for uninterrupted delivery of services in the Transition Plan.

10.5 The Contractor shall establish a method of notifying clients and other affected individuals about the transition. The Contractor shall include the proposed communications in its Transition Plan submitted to the State as described above.

10.6 The Department reserves the right to renew this Agreement for up to three

[Handwritten Signature]
Date: 5/19/05



(3) additional years, subject to mutual agreement, continued availability of funds, satisfactory performance of services, and approval by the Governor and Executive Council.

3. Subparagraph 13 of the General Provisions of this contract, Indemnification, is replaced as follows:

The Contractor shall comply with any and all requirements of this Agreement; in the event that the Contractor fails to comply with any such requirements, including, but not limited, to disclosure of any PHI in violation of this Agreement, the Covered Entity may pursue all available remedies, at law and in equity, including without limitation any damages or losses it suffers from Contractor's breach of this Agreement. The respective rights and obligations of Contractor under this Agreement shall survive termination for this Agreement. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this agreement.

4. Subparagraph 14 of the General Provisions of this contract, Insurance, is revised as follows:

Subparagraph 14.1.2 of the General Provisions shall be struck.

Subparagraph 14.3 is replaced as follows:

The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to provide notice in accordance with the policy provisions. The Contractor shall provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

5. Standard Exhibit C of this contract, Special Provisions, is revised as follows:

The preamble is replaced as follows:

Contractors Obligations: The Contractor covenants and agrees that all funds received by the Contractor under the Contract shall be used only as payment to the Contractor for services provided to the Department and, in the furtherance of the aforesaid covenants, the Contractor hereby covenants and agrees as follows:

Subparagraph 3 – Documentation, is replaced as follows:

3. **Documentation:** The Contractor shall furnish the Department with all forms and documentation regarding eligibility determinations that the Department may request or require. Contractor shall provide documentation as required for all applicants as described in Exhibit A – Scope of Services.

Subparagraph 6 – Retroactive Payments, shall be struck.



Subparagraphs 7, 7.1, 7.2, and 7.3 – Conditions of Purchase, shall be struck.

Subparagraph 8.2 – is replaced as follows:

Contractor shall maintain records as specified in Exhibit A – Scope of Services

Subparagraph 8.3 – Medical Records, shall be struck.

6. Standard Exhibit I of this contract, Business Associate Agreement, is revised as follows:

Subparagraph (3) a. is revised as follows:

The Business Associate shall notify the Covered Entity's Privacy Officer without unreasonable delay and in no case later than three (3) business days following the date upon which the Business Associate becomes aware of any use or disclosure of protected health information not provided for by the Agreement including breaches of unsecured protected health information and/or any security incident that may have an impact on the protected health information of the Covered Entity.

The last sentence of Subparagraph (3) b. is revised as follows:


The Business Associate shall complete the risk assessment without unreasonable delay and in no case later than three (3) business days of discovery of the breach and report the findings of the risk assessment in writing to the Covered Entity.

Subparagraph 3(e) is revised as follows:

e. Business Associate shall require all of its business associates that receive, use or have access to PHI under the Agreement, to agree in writing to adhere to the same restrictions and conditions on the use and disclosure of PHI contained herein, including the duty to return or destroy the PHI as provided under Section 3 (l). The Covered Entity shall be considered a direct third party beneficiary of the Contractor's business associate agreements with Contractor's intended business associates, who will be receiving PHI pursuant to this Agreement, with rights of enforcement from such business associates who shall be governed by standard Paragraph #13 of the standard contract provisions (P-37) of this Agreement (as amended) for the purpose of use and disclosure of protected health information.

Subparagraph (6) f. is revised as follows:

Provisions in this Exhibit I regarding the use and disclosure of PHI, return or destruction of PHI, extensions of the protections of the Agreement in section (3) l, the defense provisions of section (3) e (as amended) and Paragraph 13 of the standard terms and conditions (P-37), (as amended) shall survive the termination of the Agreement.

Contractor Initials: 
Date: 5/9/15



CERTIFICATION REGARDING DRUG-FREE WORKPLACE REQUIREMENTS

The Contractor identified in Section 1.3 of the General Provisions agrees to comply with the provisions of Sections 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701 et seq.), and further agrees to have the Contractor's representative, as identified in Sections 1.11 and 1.12 of the General Provisions execute the following Certification:

ALTERNATIVE I - FOR GRANTEES OTHER THAN INDIVIDUALS

**US DEPARTMENT OF HEALTH AND HUMAN SERVICES - CONTRACTORS
US DEPARTMENT OF EDUCATION - CONTRACTORS
US DEPARTMENT OF AGRICULTURE - CONTRACTORS**

This certification is required by the regulations implementing Sections 5151-5160 of the Drug-Free Workplace Act of 1988 (Pub. L. 100-690, Title V, Subtitle D; 41 U.S.C. 701 et seq.). The January 31, 1989 regulations were amended and published as Part II of the May 25, 1990 Federal Register (pages 21681-21691), and require certification by grantees (and by inference, sub-grantees and sub-contractors), prior to award, that they will maintain a drug-free workplace. Section 3017.630(c) of the regulation provides that a grantee (and by inference, sub-grantees and sub-contractors) that is a State may elect to make one certification to the Department in each federal fiscal year in lieu of certificates for each grant during the federal fiscal year covered by the certification. The certificate set out below is a material representation of fact upon which reliance is placed when the agency awards the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or government wide suspension or debarment. Contractors using this form should send it to:

Commissioner
NH Department of Health and Human Services
129 Pleasant Street,
Concord, NH 03301-6505

1. The grantee certifies that it will or will continue to provide a drug-free workplace by:
 - 1.1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 - 1.2. Establishing an ongoing drug-free awareness program to inform employees about
 - 1.2.1. The dangers of drug abuse in the workplace;
 - 1.2.2. The grantee's policy of maintaining a drug-free workplace;
 - 1.2.3. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - 1.2.4. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
 - 1.3. Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
 - 1.4. Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will
 - 1.4.1. Abide by the terms of the statement; and
 - 1.4.2. Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
 - 1.5. Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph 1.4.2 from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency

New Hampshire Department of Health and Human Services
Exhibit D



- has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- 1.6. Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph 1.4.2, with respect to any employee who is so convicted
 - 1.6.1. Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - 1.6.2. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
 - 1.7. Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6.
2. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant.

Place of Performance (street address, city, county, state, zip code) (list each location)

Check if there are workplaces on file that are not identified here.

Contractor Name: University of Massachusetts

5/19/15
Date

[Signature]
Name: JOYCE A. MURPHY
Title: EXECUTIVE VICE-CHANCELLOR, CUOM

Contractor Initials [Signature]
Date 5/19/15



CERTIFICATION REGARDING LOBBYING

The Contractor identified in Section 1.3 of the General Provisions agrees to comply with the provisions of Section 319 of Public Law 101-121, Government wide Guidance for New Restrictions on Lobbying, and 31 U.S.C. 1352, and further agrees to have the Contractor's representative, as identified in Sections 1.11 and 1.12 of the General Provisions execute the following Certification:

US DEPARTMENT OF HEALTH AND HUMAN SERVICES - CONTRACTORS
US DEPARTMENT OF EDUCATION - CONTRACTORS
US DEPARTMENT OF AGRICULTURE - CONTRACTORS

Programs (indicate applicable program covered):

- *Temporary Assistance to Needy Families under Title IV-A
- *Child Support Enforcement Program under Title IV-D
- *Social Services Block Grant Program under Title XX
- *Medicaid Program under Title XIX
- *Community Services Block Grant under Title VI
- *Child Care Development Block Grant under Title IV

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement (and by specific mention sub-grantee or sub-contractor).
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement (and by specific mention sub-grantee or sub-contractor), the undersigned shall complete and submit Standard Form LLL, (Disclosure Form to Report Lobbying, in accordance with its instructions, attached and identified as Standard Exhibit E-1.)
3. The undersigned shall require that the language of this certification be included in the award document for sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all sub-recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Contractor Name: University of Massachusetts

5/19/15
Date

Name: Joyce A. Murphy
Title: Executive Vice Chancellor, CWM

Date 5/19/15



**CERTIFICATION REGARDING DEBARMENT, SUSPENSION
AND OTHER RESPONSIBILITY MATTERS**

The Contractor identified in Section 1.3 of the General Provisions agrees to comply with the provisions of Executive Office of the President, Executive Order 12549 and 45 CFR Part 76 regarding Debarment, Suspension, and Other Responsibility Matters, and further agrees to have the Contractor's representative, as identified in Sections 1.11 and 1.12 of the General Provisions execute the following Certification:

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal (contract), the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. If necessary, the prospective participant shall submit an explanation of why it cannot provide the certification. The certification or explanation will be considered in connection with the NH Department of Health and Human Services' (DHHS) determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when DHHS determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, DHHS may terminate this transaction for cause or default.
4. The prospective primary participant shall provide immediate written notice to the DHHS agency to whom this proposal (contract) is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549: 45 CFR Part 76. See the attached definitions.
6. The prospective primary participant agrees by submitting this proposal (contract) that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by DHHS.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," provided by DHHS, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or involuntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List (of excluded parties).
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and

Handwritten signature and date: 5/19/15



information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, DHHS may terminate this transaction for cause or default.

PRIMARY COVERED TRANSACTIONS

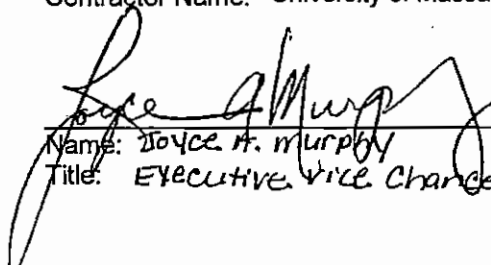
11. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - 11.1. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - 11.2. have not within a three-year period preceding this proposal (contract) been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or a contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - 11.3. are not presently indicted for otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (l)(b) of this certification; and
 - 11.4. have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
12. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal (contract).

LOWER TIER COVERED TRANSACTIONS

13. By signing and submitting this lower tier proposal (contract), the prospective lower tier participant, as defined in 45 CFR Part 76, certifies to the best of its knowledge and belief that it and its principals:
 - 13.1. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.
 - 13.2. where the prospective lower tier participant is unable to certify to any of the above, such prospective participant shall attach an explanation to this proposal (contract):
14. The prospective lower tier participant further agrees by submitting this proposal (contract) that it will include this clause entitled "Certification Regarding Debarment, Suspension, Ineligibility, and Voluntary Exclusion - Lower Tier Covered Transactions," without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

Contractor Name: University of Massachusetts

Date 5/19/15


Name: Joyce H. Murphy
Title: Executive Vice Chancellor, CWM



**CERTIFICATION OF COMPLIANCE WITH REQUIREMENTS PERTAINING TO
FEDERAL NONDISCRIMINATION, EQUAL TREATMENT OF FAITH-BASED ORGANIZATIONS AND
WHISTLEBLOWER PROTECTIONS**

The Contractor identified in Section 1.3 of the General Provisions agrees by signature of the Contractor's representative as identified in Sections 1.11 and 1.12 of the General Provisions, to execute the following certification:

Contractor will comply, and will require any subgrantees or subcontractors to comply, with any applicable federal nondiscrimination requirements, which may include:

- the Omnibus Crime Control and Safe Streets Act of 1968 (42 U.S.C. Section 3789d) which prohibits recipients of federal funding under this statute from discriminating, either in employment practices or in the delivery of services or benefits, on the basis of race, color, religion, national origin, and sex. The Act requires certain recipients to produce an Equal Employment Opportunity Plan;
- the Juvenile Justice Delinquency Prevention Act of 2002 (42 U.S.C. Section 5672(b)) which adopts by reference, the civil rights obligations of the Safe Streets Act. Recipients of federal funding under this statute are prohibited from discriminating, either in employment practices or in the delivery of services or benefits, on the basis of race, color, religion, national origin, and sex. The Act includes Equal Employment Opportunity Plan requirements;
- the Civil Rights Act of 1964 (42 U.S.C. Section 2000d, which prohibits recipients of federal financial assistance from discriminating on the basis of race, color, or national origin in any program or activity);
- the Rehabilitation Act of 1973 (29 U.S.C. Section 794), which prohibits recipients of Federal financial assistance from discriminating on the basis of disability, in regard to employment and the delivery of services or benefits, in any program or activity;
- the Americans with Disabilities Act of 1990 (42 U.S.C. Sections 12131-34), which prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, State and local government services, public accommodations, commercial facilities, and transportation;
- the Education Amendments of 1972 (20 U.S.C. Sections 1681, 1683, 1685-86), which prohibits discrimination on the basis of sex in federally assisted education programs;
- the Age Discrimination Act of 1975 (42 U.S.C. Sections 6106-07), which prohibits discrimination on the basis of age in programs or activities receiving Federal financial assistance. It does not include employment discrimination;
- 28 C.F.R. pt. 31 (U.S. Department of Justice Regulations – OJJDP Grant Programs); 28 C.F.R. pt. 42 (U.S. Department of Justice Regulations – Nondiscrimination; Equal Employment Opportunity; Policies and Procedures); Executive Order No. 13279 (equal protection of the laws for faith-based and community organizations); Executive Order No. 13559, which provide fundamental principles and policy-making criteria for partnerships with faith-based and neighborhood organizations;
- 28 C.F.R. pt. 38 (U.S. Department of Justice Regulations – Equal Treatment for Faith-Based Organizations); and Whistleblower protections 41 U.S.C. §4712 and The National Defense Authorization Act (NDAA) for Fiscal Year 2013 (Pub. L. 112-239, enacted January 2, 2013) the Pilot Program for Enhancement of Contract Employee Whistleblower Protections, which protects employees against reprisal for certain whistle blowing activities in connection with federal grants and contracts.

The certificate set out below is a material representation of fact upon which reliance is placed when the agency awards the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or government wide suspension or debarment.

Exhibit G

Certification of Compliance with requirements pertaining to Federal Nondiscrimination, Equal Treatment of Faith-Based Organizations and Whistleblower protections

Contractor Initials

Date

[Handwritten Signature]
5/19/15

New Hampshire Department of Health and Human Services
Exhibit G



In the event a Federal or State court or Federal or State administrative agency makes a finding of discrimination after a due process hearing on the grounds of race, color, religion, national origin, or sex against a recipient of funds, the recipient will forward a copy of the finding to the Office for Civil Rights, to the applicable contracting agency or division within the Department of Health and Human Services, and to the Department of Health and Human Services Office of the Ombudsman.

The Contractor identified in Section 1.3 of the General Provisions agrees by signature of the Contractor's representative as identified in Sections 1.11 and 1.12 of the General Provisions, to execute the following certification:

1. By signing and submitting this proposal (contract) the Contractor agrees to comply with the provisions indicated above.

Contractor Name: University of Massachusetts

5/19/15
Date

[Signature]
Name: BOYCE W. MURPHY
Title: Executive Vice Chancellor, CWM

Exhibit G

Certification of Compliance with requirements pertaining to Federal Nondiscrimination, Equal Treatment of Faith-Based Organizations and Whistleblower protections

Contractor Initials

[Signature]
Date 5/19/15



CERTIFICATION REGARDING ENVIRONMENTAL TOBACCO SMOKE

Public Law 103-227, Part C - Environmental Tobacco Smoke, also known as the Pro-Children Act of 1994 (Act), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, education, or library services to children under the age of 18, if the services are funded by Federal programs either directly or through State or local governments, by Federal grant, contract, loan, or loan guarantee. The law does not apply to children's services provided in private residences, facilities funded solely by Medicare or Medicaid funds, and portions of facilities used for inpatient drug or alcohol treatment. Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to \$1000 per day and/or the imposition of an administrative compliance order on the responsible entity.

The Contractor identified in Section 1.3 of the General Provisions agrees, by signature of the Contractor's representative as identified in Section 1.11 and 1.12 of the General Provisions, to execute the following certification:

1. By signing and submitting this contract, the Contractor agrees to make reasonable efforts to comply with all applicable provisions of Public Law 103-227, Part C, known as the Pro-Children Act of 1994.

Contractor Name: University of Massachusetts

Date

5/19/15

Name:
Title:

Joyce H. Murphy
Executive Vice Chancellor, CWM

JM
5/19/15



Exhibit I

HEALTH INSURANCE PORTABILITY ACT
BUSINESS ASSOCIATE AGREEMENT

The Contractor identified in Section 1.3 of the General Provisions of the Agreement agrees to comply with the Health Insurance Portability and Accountability Act, Public Law 104-191 and with the Standards for Privacy and Security of Individually Identifiable Health Information, 45 CFR Parts 160 and 164 applicable to business associates. As defined herein, "Business Associate" shall mean the Contractor and subcontractors and agents of the Contractor that receive, use or have access to protected health information under this Agreement and "Covered Entity" shall mean the State of New Hampshire, Department of Health and Human Services.

(1) Definitions.

- a. "Breach" shall have the same meaning as the term "Breach" in section 164.402 of Title 45, Code of Federal Regulations.
- b. "Business Associate" has the meaning given such term in section 160.103 of Title 45, Code of Federal Regulations.
- c. "Covered Entity" has the meaning given such term in section 160.103 of Title 45, Code of Federal Regulations.
- d. "Designated Record Set" shall have the same meaning as the term "designated record set" in 45 CFR Section 164.501.
- e. "Data Aggregation" shall have the same meaning as the term "data aggregation" in 45 CFR Section 164.501.
- f. "Health Care Operations" shall have the same meaning as the term "health care operations" in 45 CFR Section 164.501.
- g. "HITECH Act" means the Health Information Technology for Economic and Clinical Health Act, Title XIII, Subtitle D, Part 1 & 2 of the American Recovery and Reinvestment Act of 2009.
- h. "HIPAA" means the Health Insurance Portability and Accountability Act of 1996, Public Law 104-191 and the Standards for Privacy and Security of Individually Identifiable Health Information, 45 CFR Parts 160, 162 and 164 and amendments thereto.
- i. "Individual" shall have the same meaning as the term "individual" in 45 CFR Section 160.103 and shall include a person who qualifies as a personal representative in accordance with 45 CFR Section 164.501(g).
- j. "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 CFR Parts 160 and 164, promulgated under HIPAA by the United States Department of Health and Human Services.
- k. "Protected Health Information" shall have the same meaning as the term "protected health information" in 45 CFR Section 160.103, limited to the information created or received by Business Associate from or on behalf of Covered Entity.

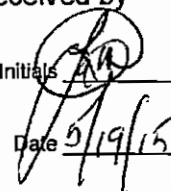

Date 5/19/15



Exhibit I

- I. "Required by Law" shall have the same meaning as the term "required by law" in 45 CFR Section 164.103.
- m. "Secretary" shall mean the Secretary of the Department of Health and Human Services or his/her designee.
- n. "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 CFR Part 164, Subpart C, and amendments thereto.
- o. "Unsecured Protected Health Information" means protected health information that is not secured by a technology standard that renders protected health information unusable, unreadable, or indecipherable to unauthorized individuals and is developed or endorsed by a standards developing organization that is accredited by the American National Standards Institute.
- p. Other Definitions - All terms not otherwise defined herein shall have the meaning established under 45 C.F.R. Parts 160, 162 and 164, as amended from time to time, and the HITECH Act.

(2) **Business Associate Use and Disclosure of Protected Health Information.**

- a. Business Associate shall not use, disclose, maintain or transmit Protected Health Information (PHI) except as reasonably necessary to provide the services outlined under Exhibit A of the Agreement. Further, Business Associate, including but not limited to all its directors, officers, employees and agents, shall not use, disclose, maintain or transmit PHI in any manner that would constitute a violation of the Privacy and Security Rule.
- b. Business Associate may use or disclose PHI:
 - I. For the proper management and administration of the Business Associate;
 - II. As required by law, pursuant to the terms set forth in paragraph d. below; or
 - III. For data aggregation purposes for the health care operations of Covered Entity.
- c. To the extent Business Associate is permitted under the Agreement to disclose PHI to a third party, Business Associate must obtain, prior to making any such disclosure, (i) reasonable assurances from the third party that such PHI will be held confidentially and used or further disclosed only as required by law or for the purpose for which it was disclosed to the third party; and (ii) an agreement from such third party to notify Business Associate, in accordance with the HIPAA Privacy, Security, and Breach Notification Rules of any breaches of the confidentiality of the PHI, to the extent it has obtained knowledge of such breach.
- d. The Business Associate shall not, unless such disclosure is reasonably necessary to provide services under Exhibit A of the Agreement, disclose any PHI in response to a request for disclosure on the basis that it is required by law, without first notifying Covered Entity so that Covered Entity has an opportunity to object to the disclosure and to seek appropriate relief. If Covered Entity objects to such disclosure, the Business



Exhibit I

Associate shall refrain from disclosing the PHI until Covered Entity has exhausted all remedies.

- e. If the Covered Entity notifies the Business Associate that Covered Entity has agreed to be bound by additional restrictions over and above those uses or disclosures or security safeguards of PHI pursuant to the Privacy and Security Rule, the Business Associate shall be bound by such additional restrictions and shall not disclose PHI in violation of such additional restrictions and shall abide by any additional security safeguards.

(3) Obligations and Activities of Business Associate.

- a. The Business Associate shall notify the Covered Entity's Privacy Officer immediately after the Business Associate becomes aware of any use or disclosure of protected health information not provided for by the Agreement including breaches of unsecured protected health information and/or any security incident that may have an impact on the protected health information of the Covered Entity.
- b. The Business Associate shall immediately perform a risk assessment when it becomes aware of any of the above situations. The risk assessment shall include, but not be limited to:
 - o The nature and extent of the protected health information involved, including the types of identifiers and the likelihood of re-identification;
 - o The unauthorized person used the protected health information or to whom the disclosure was made;
 - o Whether the protected health information was actually acquired or viewed
 - o The extent to which the risk to the protected health information has been mitigated.

The Business Associate shall complete the risk assessment within 48 hours of the breach and immediately report the findings of the risk assessment in writing to the Covered Entity.

- c. The Business Associate shall comply with all sections of the Privacy, Security, and Breach Notification Rule.
- d. Business Associate shall make available all of its internal policies and procedures, books and records relating to the use and disclosure of PHI received from, or created or received by the Business Associate on behalf of Covered Entity to the Secretary for purposes of determining Covered Entity's compliance with HIPAA and the Privacy and Security Rule.
- e. Business Associate shall require all of its business associates that receive, use or have access to PHI under the Agreement, to agree in writing to adhere to the same restrictions and conditions on the use and disclosure of PHI contained herein, including the duty to return or destroy the PHI as provided under Section 3 (I). The Covered Entity shall be considered a direct third party beneficiary of the Contractor's business associate agreements with Contractor's intended business associates, who will be receiving PHI

[Handwritten Signature]
Date 5/19/15



Exhibit I

pursuant to this Agreement, with rights of enforcement and indemnification from such business associates who shall be governed by standard Paragraph #13 of the standard contract provisions (P-37) of this Agreement for the purpose of use and disclosure of protected health information.

- f. Within five (5) business days of receipt of a written request from Covered Entity, Business Associate shall make available during normal business hours at its offices all records, books, agreements, policies and procedures relating to the use and disclosure of PHI to the Covered Entity, for purposes of enabling Covered Entity to determine Business Associate's compliance with the terms of the Agreement.
- g. Within ten (10) business days of receiving a written request from Covered Entity, Business Associate shall provide access to PHI in a Designated Record Set to the Covered Entity, or as directed by Covered Entity, to an individual in order to meet the requirements under 45 CFR Section 164.524.
- h. Within ten (10) business days of receiving a written request from Covered Entity for an amendment of PHI or a record about an individual contained in a Designated Record Set, the Business Associate shall make such PHI available to Covered Entity for amendment and incorporate any such amendment to enable Covered Entity to fulfill its obligations under 45 CFR Section 164.526.
- i. Business Associate shall document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an individual for an accounting of disclosures of PHI in accordance with 45 CFR Section 164.528.
- j. Within ten (10) business days of receiving a written request from Covered Entity for a request for an accounting of disclosures of PHI, Business Associate shall make available to Covered Entity such information as Covered Entity may require to fulfill its obligations to provide an accounting of disclosures with respect to PHI in accordance with 45 CFR Section 164.528.
- k. In the event any individual requests access to, amendment of, or accounting of PHI directly from the Business Associate, the Business Associate shall within two (2) business days forward such request to Covered Entity. Covered Entity shall have the responsibility of responding to forwarded requests. However, if forwarding the individual's request to Covered Entity would cause Covered Entity or the Business Associate to violate HIPAA and the Privacy and Security Rule, the Business Associate shall instead respond to the individual's request as required by such law and notify Covered Entity of such response as soon as practicable.
- l. Within ten (10) business days of termination of the Agreement, for any reason, the Business Associate shall return or destroy, as specified by Covered Entity, all PHI received from, or created or received by the Business Associate in connection with the Agreement, and shall not retain any copies or back-up tapes of such PHI. If return or destruction is not feasible, or the disposition of the PHI has been otherwise agreed to in the Agreement, Business Associate shall continue to extend the protections of the Agreement, to such PHI and limit further uses and disclosures of such PHI to those purposes that make the return or destruction infeasible, for so long as Business

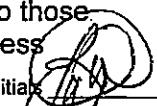

Date 5/19/15



Exhibit I

Associate maintains such PHI. If Covered Entity, in its sole discretion, requires that the Business Associate destroy any or all PHI, the Business Associate shall certify to Covered Entity that the PHI has been destroyed.

(4) **Obligations of Covered Entity**

- a. Covered Entity shall notify Business Associate of any changes or limitation(s) in its Notice of Privacy Practices provided to individuals in accordance with 45 CFR Section 164.520, to the extent that such change or limitation may affect Business Associate's use or disclosure of PHI.
- b. Covered Entity shall promptly notify Business Associate of any changes in, or revocation of permission provided to Covered Entity by individuals whose PHI may be used or disclosed by Business Associate under this Agreement, pursuant to 45 CFR Section 164.506 or 45 CFR Section 164.508.
- c. Covered entity shall promptly notify Business Associate of any restrictions on the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 CFR 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.

(5) **Termination for Cause**

In addition to Paragraph 10 of the standard terms and conditions (P-37) of this Agreement the Covered Entity may immediately terminate the Agreement upon Covered Entity's knowledge of a breach by Business Associate of the Business Associate Agreement set forth herein as Exhibit I. The Covered Entity may either immediately terminate the Agreement or provide an opportunity for Business Associate to cure the alleged breach within a timeframe specified by Covered Entity. If Covered Entity determines that neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.

(6) **Miscellaneous**

- a. **Definitions and Regulatory References.** All terms used, but not otherwise defined herein, shall have the same meaning as those terms in the Privacy and Security Rule, amended from time to time. A reference in the Agreement, as amended to include this Exhibit I, to a Section in the Privacy and Security Rule means the Section as in effect or as amended.
- b. **Amendment.** Covered Entity and Business Associate agree to take such action as is necessary to amend the Agreement, from time to time as is necessary for Covered Entity to comply with the changes in the requirements of HIPAA, the Privacy and Security Rule, and applicable federal and state law.
- c. **Data Ownership.** The Business Associate acknowledges that it has no ownership rights with respect to the PHI provided by or created on behalf of Covered Entity.
- d. **Interpretation.** The parties agree that any ambiguity in the Agreement shall be resolved to permit Covered Entity to comply with HIPAA, the Privacy and Security Rule.

[Handwritten Signature]
Date 5/19/15



Exhibit I

- e. Segregation. If any term or condition of this Exhibit I or the application thereof to any person(s) or circumstance is held invalid, such invalidity shall not affect other terms or conditions which can be given effect without the invalid term or condition; to this end the terms and conditions of this Exhibit I are declared severable.
- f. Survival. Provisions in this Exhibit I regarding the use and disclosure of PHI, return or destruction of PHI, extensions of the protections of the Agreement in section (3) l, the defense and indemnification provisions of section (3) e and Paragraph 13 of the standard terms and conditions (P-37), shall survive the termination of the Agreement.

IN WITNESS WHEREOF, the parties hereto have duly executed this Exhibit I.

Department of Health and Human Services
The State

Brook Dupee
Signature of Authorized Representative

Brook Dupee
Name of Authorized Representative

Bureau Chief
Title of Authorized Representative

5/22/15
Date

University of Massachusetts
Name of the Contractor

Joyce A. Murphy
Signature of Authorized Representative

Joyce A. Murphy
Name of Authorized Representative

Executive Vice Chancellor, CWM
Title of Authorized Representative

5/19/15
Date

Contractor Initials JA
Date 5/19/15