



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF ECONOMIC & HOUSING STABILITY

Lori A. Shibbinette
 Commissioner

Christine L. Santanikello
 Director

129 PLEASANT STREET, CONCORD, NH 03301
 603-271-9474 1-800-852-3345 Ext. 9474
 Fax: 603-271-4230 TDD Access: 1-800-735-2964 www.dhhs.nh.gov

May 26, 2020

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 Economic and Housing Stability, to amend an existing **Sole Source** agreement with the University of Massachusetts Medical School (VC#177576), Shrewsbury, MA to continue providing Disability Determination services, by increasing the price limitation by \$686,031 from \$1,362,743 to \$2,048,774 and by extending the completion date from June 30, 2020 to June 30, 2021 effective upon Governor and Council approval. 75% Federal Funds. 25% General Funds.

The Governor and Executive Council approved the original contract on October 26, 2016 (Item #11), and approved subsequent amendments on June 7, 2017 (Item #9), March 13, 2019 (Item #14A) and October 2, 2019 (Item #17A).

Funds are available in the following account for State Fiscal Year 2021, with the authority to adjust budget line items within the price limitation and encumbrances between state fiscal years through the Budget Office, if needed and justified.

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS: COMMISSIONER, DCBCS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/ Account | Class Title | Activity Code | Current Budget | Increase/ (Decrease) | Modified Budget |
|--------------|-------------------|---------------------|---------------|--------------------|-------------------------|--------------------|
| 2017 | 046-500462 | Program Services | 45142100 | \$206,250 | \$0 | \$206,250 |
| 2018 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0 | \$286,000 |
| 2019 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0 | \$286,000 |
| 2020 | 046-500463 | Program Services | 45142100 | \$584,493 | \$0 | \$584,493 |
| 2021 | 046-500463 | Program Services | 45142100 | \$0 | \$686,031 | \$686,031 |
| Total | | | | \$1,362,743 | \$686,031 | \$2,048,774 |

EXPLANATION

This request is **Sole Source** because a previous amendment was approved as sole source and MOP 150 requires any subsequent amendments to also be labeled as sole source. Additionally, there are no known viable alternatives to the services provided by the vendor. Due to the current COVID-19 pandemic and the increased demands this put on the Bureau of Family Assistance impacted the ability to put a Request For Applications (RFA) into place prior to the current contract expiring. Other factors included, potential applicants may not have had the ability to respond to a RFA due to COVID-19 and the Department was concerned that transitioning the contract during this time would have the potential to negatively impact access to services. The Department is extending the current contract for one (1) year in order to prevent gaps in services for some of the most vulnerable population of New Hampshire.

The purpose of this request is to continue assessing, determining and reviewing individual eligibility for disability benefits through Aid to the Permanently and Totally Disabled (APTD); Aid to the Needy Blind (ANB); Medicaid for Employed Adults with Disabilities (MEAD) programs; and Home Care for Children with Severe Disabilities (HC-CSD). The Contractor will also continue providing expert vocational and witness testimony at Administrative Appeal Hearings on behalf of the Department.

The services provided in this contract determine medical eligibility for individuals applying for cash assistance and Medicaid through one of the Department's disability programs outlined above. The medical, psychological, and/or psychiatric assessment is required by the Federal Centers for Medicare and Medicaid Services in order to evaluate individual claims of disability for Medicaid eligibility purposes. The Department anticipates approximately 3,000 individuals will be served through State Fiscal Year 2021.

Should the Governor and Executive Council not approve this request, the Department may not be able to determine eligibility for disability benefits and other programs, which could limit access to medical services and benefits for the vulnerable New Hampshire citizens.

Area served: Statewide

Source of Funds: CFDA #93.778, FAIN #NH20164

The Department will request General Funds in the event that Federal Funds are no longer available and services are still needed.

Respectfully submitted,



Lori A. Shibinette
Commissioner



STATE OF NEW HAMPSHIRE
DEPARTMENT OF INFORMATION TECHNOLOGY
27 Hazen Dr., Concord, NH 03301
Fax: 603-271-1516 TDD Access: 1-800-735-2964
www.nh.gov/doit

Denis Goulet
Commissioner

June 12, 2020

Lori A. Shibinette, Commissioner
Department of Health and Human Services
State of New Hampshire
129 Pleasant Street
Concord, NH 03301

Dear Commissioner Shibinette:

This letter represents formal notification that the Department of Information Technology (DoIT) has approved your agency's request to enter into a Sole Source contract amendment with University of Massachusetts Medical School, Shrewsbury, MA as described below and referenced as DoIT No. 2016-116b Amendment D.

This is a request for approval to enter into a contract amendment with University of Massachusetts Medical School to continue providing Disability Determination services. As part of these services, the vendor will continue assessing and reviewing individual eligibility for disability benefits through Aid to the Permanently and Totally Disabled (APTD); Aid to the Needy Blind (ANB); Medicaid for Employed Adults with Disabilities (MEAD) programs; and Home Care for Children with Severe Disabilities (HC-CSD).

This amendment will increase the price limitation by \$686,031 from \$1,362,743 to \$2,048,774, and extending the completion date from June 30, 2020 to June 30, 2021, effective upon the date of Governor and Executive Council approval through June 30, 2021.

A copy of this letter should accompany your Agency's submission to Governor and Executive Council for approval.

Sincerely,

 for
Denis Goulet

DG/kaf/ck
DoIT #2016-116b Amend D

cc: Michael Williams, DoIT - IT Manager

**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**



**State of New Hampshire
Department of Health and Human Services
Amendment #4 to the Name of Contract**

This 4th Amendment to the Disability Determination Services contract (hereinafter referred to as "Amendment #4") is by and between the State of New Hampshire, Department of Health and Human Services (hereinafter referred to as the "State" or "Department") and University of Massachusetts Medical School, (hereinafter referred to as "the Contractor"), with a place of business at 333 South Street, Shrewsbury, MA 01545.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on October 26, 2016 (Item #11), as amended on June 7, 2017, (Item #9), March 13, 2019 (Item #14A) and amended on October 2, 2019 (Item #17A), the Contractor agreed to perform certain services based upon the terms and conditions specified in the Contract as amended and in consideration of certain sums specified; and

WHEREAS, pursuant to Form P-37, General Provisions, Paragraph 18, the Contract may be amended upon written agreement of the parties and approval from the Governor and Executive Council; and

WHEREAS, the parties agree to extend the term of the agreement, increase the price limitation, or modify the scope of services to support continued delivery of these services; and

NOW 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:
\$2,048,774.
3. Modify Exhibit A, Scope of Services, by replacing in its entirety with Exhibit A, Amendment #4, Scope of Services, which is attached hereto and incorporated by reference herein.
4. Delete Exhibit B, Amendment #2, Methods and Conditions Precedent to Payment, Subsection 2.1.
5. Modify Exhibit B, Methods and Conditions Precedent to Payment, Section 2, to read:
The State shall pay the Contractor an amount not to exceed the Price Limitation on Form P37, Block 1.8, for the services provided by the Contractor pursuant to Exhibit A, Scope of Services.
6. Modify Exhibit B, Amendment #3, Methods and Conditions Precedent to Payment, Paragraph 3, to read:

| Type of Review | Rate Paid Per Case |
|--|---------------------------------|
| APTD, MEAD and ANB cases requiring all steps 1-5 of the evaluation process. | \$291 |
| APTD, MEAD and ANB cases requiring a Continuing Disability Review all steps 1-8 of the evaluation process. | \$333 30 cases per year max. |
| HC-CSD cases requiring steps 1-3 of the evaluation process and Level of Care. | \$291 |

**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**



| | |
|---|-------|
| HC-CSD cases requiring Continuing Disability Review requiring steps 1-3 of the evaluation process and Level of Care. | \$291 |
| APTD cases requiring RFC, Voc (steps 4-5), and final sign-off by a Doctor. Steps 1-3 are already completed. | \$243 |
| APTD cases requiring a RFC and sign off by a Doctor. Steps 1-3 and 4 and 5 are completed in-house. | \$210 |
| HC-CSD, APTD, MEAD, and ANB cases requiring final sign off by a Doctor including Continuing Disability Reviews. All other steps have been completed in-house. | \$72 |
| Vocational Expert. | \$175 |
| Medical Witness . | \$197 |

**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**

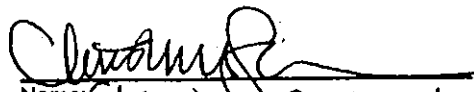


All terms and conditions of the Contract and prior amendments not inconsistent with this Amendment #4 remain in full force and effect. This amendment shall be effective upon the date of Governor and Executive Council approval.

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

5/29/20
Date


Name: Christopher Sambinello
Title: Director, DEHS

University of Massachusetts Medical School

5/26/20
Date

Designated by:
Patti Onorato
Name: Patti Onorato
Title: Deputy Executive Vice Chancellor for Operations,
Commonwealth Medicine

New Hampshire Department of Health and Human Services
Disability Determination Services Contract



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

OFFICE OF THE ATTORNEY GENERAL

6/1/20

Date

/s/ Christen Lavers

Name:

Title: Assistant 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:



Scope of Services

1. Provisions Applicable to All Services

- 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 ten (10) days of the contract effective date.
- 1.2. The Contractor agrees that, to the extent future legislative action by the New Hampshire General Court or federal or state court orders may have an impact on the Services described herein, the State Agency has the right to modify Service priorities and expenditure requirements under this Agreement so as to achieve compliance therewith.
- 1.3. For the purposes of this Agreement, the Department has identified the Contractor as a Contractor, in accordance with 2 CFR 200.330.
- 1.4. Disability determinations are conducted in order to determine the medical eligibility component for applicants seeking Medicaid disability benefits. Pursuant to 42 CFR 435.912(a)(1)-(2), Medicaid eligibility determinations must be completed within ninety (90) days of receiving applications for benefits. Continuing Disability Reviews are completed to determine if an individual is still eligible for State disability programs in accordance with 20 CFR 416.989, 416.989(a) and NH Administrative Rule He-W 508.09.
- 1.5. The Vocational Expert (VE) is a Certified Rehabilitation Counselor (CRC). The VE provides expert opinion evidence for Administrative Appeal hearings regarding a claimant's vocational abilities relating to steps 4 and 5 of the five-step sequential evaluation process for Aid to the Permanently and Totally Disabled (APTD) cases.
- 1.6. The Medical Witness (MW) is a Registered Nurse who provides testimony as needed at Administrative Appeal hearings to support eligibility decisions. The MW participates in conducting pre-hearing conferences, compiling evidence, and interpreting federal regulations and state policies.

2. Scope of Services

- 2.1.1. The Contractor shall collaborate with the Department and the Medicaid Care Management Organizations (MCOs).
- 2.1.2. Disability Determinations
 - 2.1.2.1. The Contractor shall provide determination services for individuals identified as:
 - 2.1.2.1.1. Qualifying for APTD, Medicaid for Employed Adults with Disabilities (MEAD), and Aid to the Needy Blind (ANB).



Exhibit A, Amendment #4

- 2.1.2.1.2. Residents of the State of New Hampshire.
- 2.1.2.1.3. Disabled individuals as defined in the federal Social Security Act, Titles II and XVI and regulations adopted under such act, except that the minimum required duration of the impairment is 48 months.
- 2.1.2.1.4. Qualifying for Home Care for Children with Severe Disabilities (HC-CSD).
- 2.1.2.1.5. Disabled children as described in NH RSA 167, Public Assistance to Blind, Aged, or Disabled Persons, and to Dependent Children and NH Administrative Rule He-W 508, Medical Assistance for Home Care of Certain Children with Severe Disabilities.

2.1.3. Vocational Expert

- 2.1.3.1. The Contractor shall provide a Vocational Expert who is a Certified Rehabilitation Counselor. The selected Applicant must ensure Vocational Experts provide expert opinion evidence for Administrative Appeals hearings regarding a claimant's vocational abilities that a Hearing Officer will consider when rendering a decision about an individual's disability claim.
- 2.1.3.2. The Contractor shall ensure the Vocational Experts provide testimony in person, over the phone, or via video conferencing.
- 2.1.3.3. The Contractor shall ensure the Vocational Experts provide both factual and expert opinion evidence based on knowledge of:
 - 2.1.3.3.1. The skill level and physical and mental demands of occupations.
 - 2.1.3.3.2. The characteristics of work settings.
 - 2.1.3.3.3. The existence and incidence of jobs within occupations.
 - 2.1.3.3.4. Transferable skills analysis and Social Security Administration regulatory requirements for transferability of work skills.

2.1.4. Medical Witness

- 2.1.4.1. The Contractor shall provide a registered nurse to serve as a Medical Witness at Administrative Appeals hearings.
- 2.1.4.2. The Contractor shall ensure Medical Witnesses collaborate with the Department's legal team, including but not limited to:
 - 2.1.4.2.1. Conducting pre-hearing conferences.



Exhibit A, Amendment #4

- 2.1.4.2.2. Compiling evidence.
- 2.1.4.2.3. Interpreting federal regulations and state policies to support eligibility decisions.
- 2.1.4.3. The Contractor shall ensure Medical Witnesses provide testimony in person, over the phone, or via video conferencing.
- 2.1.5. The Contractor shall establish a Medical Review Team (MRT) to complete New Hampshire Medical Eligibility Review Summaries (MERS)/ Sequential Evaluation Process for APTD, MEAD, ANB and, HC-CSD.
- 2.1.6. The Contractor shall receive case files transferred via the Medicaid Management Information System (MMIS) and the New Heights system for completion of the New Hampshire MERS Sequential Evaluation Process.
- 2.1.7. The Contractor shall complete the MERS and determine applicant eligibility within the federally mandated time period. The Applicant must ensure that:
 - 2.1.7.1. Documentation clearly and adequately supports the determination.
 - 2.1.7.2. All records and decisions include sign off by each member of the MRT.
 - 2.1.7.3. Approval or denial of the applicant is entered and the appropriate approval or denial letter is submitted utilizing the MMIS and/or New Heights system.
- 2.1.8. The Contractor shall provide evidence at appeals hearings before the Department's Administrative Appeals Unit by answering questions posed by the Hearing Officer, the Department's legal representative, and the claimant or the claimant's representative regarding steps 4 and 5 of the five step sequential evaluation process for APTD.
- 2.1.9. The Contractor shall respond to evidence-based and hypothetical questions regarding a claimant's age, education, work experience, and functional limitations.
- 2.1.10. The Contractor shall provide sworn testimony and provide complete answers to the questions they are asked.
- 2.1.11. The Contractor shall ensure they have no direct contact with the Hearings Officer before or after hearings.
- 2.1.12. The Contractor shall avoid face-to-face or telephone contact with the claimant or his or her representative, both before and after the hearing.



Exhibit A, Amendment #4

- 2.1.13. The Contractor shall review all pre-hearing information provided by the Department's legal team.
- 2.1.14. The Contractor shall ensure Medical Witnesses serve as medically trained professionals qualified to testify at Administrative Appeal Hearings by furnishing expert medical opinion testimony regarding the medical complexities of the case.
- 2.1.15. The Contractor shall ensure Medical Witnesses present testimony at Administrative Appeals before the Department's Administrative Appeals Unit.
- 2.1.16. The Contractor shall ensure Medical Witnesses assess whether the Department's medical eligibility decisions are:
 - 2.1.16.1. Supported by medical evidence,
 - 2.1.16.2. Clearly articulated, and
 - 2.1.16.3. Consistent with the APTD, MEAD, ANB and HC-CSD MERS analysis.
- 2.1.17. The Contractor shall ensure Medical Witnesses review medical records and collaborate with department staff to resolve cases prior to the actual hearing date.
- 2.1.18. The Contractor shall ensure all applicable files, relevant materials and supporting documentation are returned to the Department via the MMIS system and/or New Heights system within five (5) business days after the determination.
- 2.1.19. The Contractor shall ensure all correspondence and transferring of files and data is handled in a secure and confidential manner.
- 2.1.20. The Contractor shall be available to communicate with the Department during regular business hours, which may include travel to meet with Department.
- 2.1.21. The Contractor shall maintain a security and logistics structure for handling of case files that complies with the Health Insurance Portability and Accountability Act.
- 2.1.22. The Contractor shall maintain the confidentiality of all participant information that is acquired, by any means including computer access, in accordance with all state and federal confidentiality requirements.
- 2.1.23. The Contractor shall ensure that access to participant information is limited to only those staff that have a need to know in order to perform their job duties.
- 2.1.24. The Contractor shall ensure all staff are trained on the confidentiality requirements and that all contract staff sign a confidentiality statement



Exhibit A, Amendment #4

attesting to the fact that all state and federal confidentiality requirements are understood and will be complied with.

2.1.25. The Contractor shall demonstrate the capacity and performance experience to meet the Scope of Services outlined in this RFA.

2.2. The Contractor shall complete all disability determinations and return completed files within thirty (30) days from receiving applicant information from the Department.

3. Reporting

3.1. The Contractor shall provide monthly disability determination reports to the Department that include:

3.1.1. The number of disability determinations completed to include the names of the individuals.

3.1.2. The number of disability determinations denied to include the names of the individuals.



Commonwealth of Massachusetts
Department of Revenue
Christopher C. Harding, Commissioner

mass.gov/dor

Letter ID: L0401639488
Notice Date: December 23, 2019
Case ID: 0-000-354-830



CERTIFICATE OF GOOD STANDING AND/OR TAX COMPLIANCE



UNIVERSITY OF MASSACHUSETTS
333 SOUTH ST STE 450
SHREWSBURY MA 01545-4176

Why did I receive this notice?

The Commissioner of Revenue certifies that, as of the date of this certificate, UNIVERSITY OF MASSACHUSETTS is in compliance with its tax obligations under Chapter 62C of the Massachusetts General Laws.

This certificate doesn't certify that the taxpayer is compliant in taxes such as unemployment insurance administered by agencies other than the Department of Revenue, or taxes under any other provisions of law.

This is not a waiver of lien issued under Chapter 62C, section 52 of the Massachusetts General Laws.

What if I have questions?

If you have questions, call us at (617) 887-6400 or toll-free in Massachusetts at (800) 392-6089, Monday through Friday, 8:30 a.m. to 4:30 p.m..

Visit us online!

Visit mass.gov/dor to learn more about Massachusetts tax laws and DOR policies and procedures, including your Taxpayer Bill of Rights, and MassTaxConnect for easy access to your account:

- Review or update your account
- Contact us using e-message
- Sign up for e-billing to save paper
- Make payments or set up autopay

Edward W. Coyle, Jr., Chief
Collections Bureau

**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 April 8, 2020, 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

Katherine S. Newman, 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,

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,

Alex Fowler, Associate Provost for Research & Economic Development, Dartmouth Campus, Dartmouth, Massachusetts,

Megan Hennessey-Greene, Director, Office of Research Administration, Dartmouth Campus, Dartmouth Massachusetts,

Lowell Campus

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

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

Steven O'Riordan, Vice Chancellor for Finance and Operations, 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

Eric Heller, Executive Director of the University of Massachusetts Donahue Institute

Worcester

Michael F. Collins, M.D., Chancellor, 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,

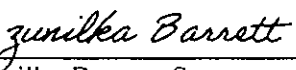
Patti Onorato, Managing Director, Clinical Delivery Solutions, Commonwealth Medicine, University of Massachusetts Medical School, Worcester, Massachusetts,

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, Assistant Vice Chancellor, Grants and Contracts Administration, University of Massachusetts Medical School, Worcester, Massachusetts,
Danielle Howard, Director Clinical Research Operations, University of Massachusetts Medical School, Worcester Massachusetts,
Melissa Spragens, Director of Sponsored Programs, University of Massachusetts Medical School, Worcester Massachusetts,
Lisa M. Colombo, Executive Vice Chancellor for Commonwealth Medicine, 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, Katherine S. Newman, Kathleen Kirleis, Emily McDermott, Bala Sundaram, Matthew L. Meyer, Shala A. Bonyun, Robert E. Johnson, Mohammad A. Karim, Megan Hennessey-Greene, Alex Fowler, Michelle M. Plaud, Deborah Dolan, Jacqueline F. Moloney, Steven O'Riordan, Julie Chen, Michael Vayda, Anne Maglia, Susan Puryear, Eric Heller, Michael F. Collins, MD, James Glasheen, John C. Lindstedt, Katherine Luzuriaga, MD, Janice Lagace, Patti Onorato, Terence R. Flotte, MD, James McNamara, Marcy Culverwell, Amy Miarecki, Danielle Howard, Melissa Spragens, and Lisa M Colombo 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: 05/26/2020


Zunilka Barrett, Secretary to the
Board of Trustees



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/27/2020

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 Arthur J. Gallagher Risk Management Services, Inc. 470 Atlantic Avenue Boston MA 02210 | CONTACT NAME: Marnie Inzero PHONE (A/C, No., Ext.): 617-261-6700 FAX (A/C, No.): 617-646-0400 E-MAIL ADDRESS: marnie_inzero@ajg.com |
| INSURED University of Massachusetts 333 South Street Suite 400 Shrewsbury MA 01545 | UNIVOFM-21 INSURER(S) AFFORDING COVERAGE INSURER A: United Educators Ins, a Reciprocal Risk Retention INSURER B: INSURER C: INSURER D: INSURER E: INSURER F: |
| | NAIC # 10020 |

COVERAGES

CERTIFICATE NUMBER: 1820896319

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.

| INSR LTR | TYPE OF INSURANCE | ADDL SUBR INSD WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
|----------|--|--------------------|---------------|-------------------------|-------------------------|--|
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Liquor Liability GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC OTHER: | | U40-75A | 5/1/2020 | 5/1/2021 | EACH OCCURRENCE \$ 750,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 750,000 MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ Included GENERAL AGGREGATE \$ 3,000,000 PRODUCTS - COMPROP AGG \$ Included Self Insured Retent \$ 250,000 |
| | AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY | | | | | COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ |
| A | <input type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 1,000,000 | | U40-75A | 5/1/2020 | 5/1/2021 | 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 Y/N <input type="checkbox"/> N/A | | | | | PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$ |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

RE: Contract awarded for Vocational Training (RFA-2019-DCS-04-VOCAT-01) with UMMS Disability Evaluation Services (DES), July 16, 2018. State of New Hampshire, Department of Health and Human Services are included as Additional Insured in accordance with the policy provisions of the General Liability policy.

CERTIFICATE HOLDER**CANCELLATION**

State of New Hampshire Dept. of Health & Human Services
129 Pleasant Street
Concord NH 03301

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

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Our Mission, Values and Vision

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.

Values and Vision

As a combined enterprise with our clinical partner, UMass Memorial Health Care, we value:

- improving health and enhancing access to care for people within our community, the commonwealth, and the world;
- excellence in achieving the highest quality standards in patient care and satisfaction, education and research;
- common good as an institutional focus, exercised both internally and externally;
- collegiality as we work through a shared vision for the common good;
- integrity in decision-making and actions held to the highest ethical standards;
- diversity promoted within our institution to foster an atmosphere of compassion, courtesy, and mutual respect, stimulating inventiveness and broadening our talents and perspectives;
- academic opportunity and scholarship through high-quality, affordable educational programs for the training of physicians, nurses, advanced practitioners, researchers, and educators; and
- scientific advancement made possible by embracing creative thinking and innovation to yield an understanding of the causes, prevention, and treatment of human disease for the pursuit of knowledge and the benefit of people everywhere.

To become one of the nation's most distinguished academic health sciences centers, we seek to:

- achieve excellence in the practice of safe, high-quality care;
- design and implement innovative educational methods to train educators, clinicians, and scientists to meet the future health care workforce needs in Massachusetts and the United States;
- develop educators, clinicians and scientists who are equipped to become the next generation of outstanding leaders in health care;
- develop and capitalize on the strengths of all staff who provide the operational support for an academic health sciences center;
- nurture ongoing progress in the basic sciences to fuel breakthrough discoveries that will transform the practice of medicine;
- translate scientific discoveries to improve patient outcomes and address the root causes of poor health; and
- partner to create and optimize health care initiatives that improve the health of the communities we serve.

Financial Statements and Uniform Guidance
Supplementary Information Together with
Reports of Independent Certified Public Accountants

UNIVERSITY OF MASSACHUSETTS

June 30, 2018 and 2017

UNIVERSITY OF MASSACHUSETTS

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PART I
FINANCIAL STATEMENTS



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REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Board of Trustees of
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, 2018 and 2017, 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, 2018 and 2017, 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 6 through 15 and the Schedule of the University's Proportionate Share of the Net Pension Liability and the Schedule of the University's Contribution of the Massachusetts State Employees' Retirement System on page 47 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.

Supplementary information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the University's basic financial statements. The schedule of expenditures of federal awards for the year ended June 30, 2018, as required by *Title 2 U.S. Code of Federal Regulations (CFR) Part 200*, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 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 information has been subjected to the auditing procedures applied in the audit 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.

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, 2018 and 2017, the changes in its financial position, or where applicable, its cash flows for the years 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.

As discussed in Note 1 of the financial statements, the University adopted new accounting guidance effective July 1, 2017 related to postemployment benefits other than pensions. 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 January 8, 2019, 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.

Dent Thornton LLP

Boston, Massachusetts
January 8, 2019

Management's Discussion and Analysis (unaudited)

June 30, 2018

Introduction

This Management's Discussion and Analysis provides an overview of the financial position and activities of the University of Massachusetts (the University or UMass) for the fiscal years ended June 30, 2018 and 2017, and should be read in conjunction with the accompanying financial statements and notes. The financial statements, notes and this discussion are the responsibility of management.

The University of Massachusetts was established in 1863 as the Massachusetts Agricultural College, located at Amherst. Since then it has grown into a five-campus system that is nationally and internationally known for the quality of its academic programs and the scope and excellence of its faculty research. From Nobel Prize-winning gene-silencing research to research in such areas as renewable energy, nanotechnology, cybersecurity, life sciences and marine science, the University of Massachusetts is expanding the boundaries of knowledge and opening doors of discovery that benefit the Commonwealth of Massachusetts (Commonwealth), the nation and the world. UMass consistently ranks as one of the best universities in the world and as one of the most innovative.

UMass Amherst, founded in 1863, is the flagship of the five-campus UMass system. True to its land-grant roots, UMass Amherst is engaged in research and creative work in all fields and is classified by the Carnegie Foundation for the Advancement of Teaching as a doctoral university with the "highest research activity". Major areas of emphasis include climate science, food science, alternative energy, nano manufacturing, polymer science, computer science and linguistics. Consistently rated as a "Top Producer of Fulbright Students," UMass Amherst is ranked 26th among the nation's top public universities by *U.S. News & World Report* in 2018.

UMass Boston is nationally recognized as a model of excellence for urban public research universities. Located on Boston Harbor, it is the metropolitan area's only public research university. UMass Boston's distinguished intellectual

contributions span the social sciences, education, health and wellness, and has a student population that represents 150 countries. UMass Boston is committed to educating people from modest-income backgrounds, first-generation college students and those from urban areas here and abroad.

UMass Dartmouth distinguishes itself as a vibrant university dedicated to engaged learning and innovative research resulting in personal and lifelong student success. Located on 710 acres on the South Coast of Massachusetts, UMass Dartmouth ranks in the top 1 percent nationwide on the President's National Community Service Honor Roll and among Washington Monthly's national Top 25 in contribution to the public good. UMass Dartmouth offers students high-quality academic programs through majors and professional and doctoral programs, including the state's only public law school.

UMass Lowell, a nationally recognized doctoral university, is the 10th fastest growing university in the country, according to the Chronicle of Higher Education. National recognition of the campus is on the rise. *U.S. News & World Report* ranks UMass Lowell No. 157 in the National Universities Rankings, with programs support workforce and economic development through innovation, entrepreneurship and public-private partnerships. The university prepares students emphasizing experiential learning through cooperative education, service and research.

UMass Medical School (UMMS), founded in 1962 and situated in Worcester, is the Commonwealth's only public medical school and serves as the University's Nobel-prize winning health sciences campus. Consistently ranked in the top 10 percent for primary care training, UMMS has remained true to its founding mission while also becoming globally recognized in biomedical research. UMMS has three graduate schools—School of Medicine, Graduate School of Biomedical Sciences and Graduate School of Nursing. Unique among all medical schools, UMMS is also home to Commonwealth Medicine, a health care consulting division that partners with

states in delivering health services to vulnerable populations, and MassBiologics, the only non-profit, FDA-licensed vaccine manufacturer in the nation.

UMassOnline, the University of Massachusetts' nationally acclaimed online education consortium, features more than 1,500 online courses and 150 online certificate and degree programs from the five UMass campuses. Since its founding in 2001, UMassOnline continues to grow, with 67,000 course enrollments across the five campuses. UMassOnline students can pursue an associate's, bachelor's, master's or doctoral degree in a variety of in-demand subject areas, including liberal arts, education, management, nursing, public health and information technology. Online students learn from the same world-class instructors as students who study on campus, and they receive an identical degree. UMassOnline programs consistently earn high rankings in *U.S. News & World Report* and *GetEducated.com*.

Financial Highlights

The University's income before other revenues, expenses, gains, and losses was \$2.8 million for fiscal year 2018.

Excluding the impact on operating expenses for both Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75) and GASB 68, *Accounting and Reporting for Pensions* (GASB 68), the, the University's income before other revenues, expenses, gains, and losses was \$78.7 million.

From fiscal year 2017 to fiscal year 2018, the University's operating revenues increased by \$28.2 million driven by an increase in tuition & fees and auxiliary revenue from both a rate increase and enrollment increases. Grant revenues increased due to new government and private grant activity. Operating expenses increased by \$141.0 million primarily driven by the impact of recording postemployment benefit expenses in connection with the adoption of GASB 75, a collective bargaining rate increase, a state fringe rate increase and depreciation associated with the University's capital plan. Non-operating revenues increased \$25.7 million primarily attributed to an increase in state appropriations and strong investment performance.

The University's combined net position decreased \$665.4 million from \$3.1 billion in fiscal year 2017 to \$2.4 billion in fiscal year 2018. This decrease is primarily a result of the University's implementation of GASB 75. In addition to the expenses recorded in 2018 related to OPEB, the implementation of this standard resulted in a reduction of \$743.0 million to the beginning net position in the 2018 Statement of Revenues, Expenses, and Changes in Net Position as of July 1, 2017. The application of GASB 75 was recorded at the beginning of fiscal year 2018 because this was the earliest date for which recognition was practical, based on available information.

Using the Annual Financial Report

The University's financial statements are prepared in accordance with U.S. generally accepted accounting principles as prescribed by GASB, which establishes financial reporting standards for public colleges and universities. The University's significant accounting policies are summarized in Note 1 of the accompanying financial statements, including further information on the financial reporting entity.

This report includes the University's Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position and the Statements of Cash Flows for the fiscal years ended June 30, 2018 and 2017. 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 are indicators of the improvement or erosion of an institution's financial health when considered together with non-financial factors such as enrollment levels and the condition of the facilities.



The Statements of Net Position include all assets and liabilities, as well as deferred inflows and outflows of resources of the University. Net position is further broken down into three categories: net investment in capital assets, restricted and unrestricted. Amounts reported in net investment in capital assets 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. Note 15 to the accompanying financial statements depicts the designations of unrestricted net position at June 30, 2018.

The Statements of Revenues, Expenses and Changes in Net Position present the revenues earned and expenses incurred during the year. Activities are reported as either operating or non-operating, as prescribed by GASB. According to the GASB definitions, 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 (such as 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. This is because the financial reporting model prescribed by GASB classifies state and federal appropriations, Pell grants, and gifts as non-operating revenues. Due to the materiality of the state appropriations upon which the University relies, these appropriation amounts are included in certain analysis throughout this MD&A as operating revenue. 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 Statements of Cash Flows present information related to cash inflows and outflows summarized by operating, capital and non-capital, financing and investing activities.

Reporting Entity

The financial statements of the University include financial activities of the following blended component units: the University of Massachusetts Building Authority (Building Authority), Worcester City Campus Corporation (WCCC) and Subsidiary, and the University of Massachusetts Amherst Foundation. Separate Statements of Financial Position and Statements of Activities are presented in this report for the University's discretely presented component units, the University of Massachusetts Foundation, Inc., and the University of Massachusetts Dartmouth Foundation, Inc. The statements for these entities are presented in accordance with Financial Accounting Standards Board (FASB) standards, which differ from GASB standards in certain areas such as reporting of pledges to endowment and net position.

Net Position

Condensed statements of net position at June 30, 2018, 2017, and 2016, respectively, are presented on page 9.

As of June 30, 2018, total net position was \$2.4 billion. The University's largest asset continues to be its capital assets, net of accumulated depreciation, of \$5.1 billion at June 30, 2018, \$4.9 billion at June 30, 2017 and \$4.6 billion at June 30, 2016.

Liabilities totaled \$5.1 billion at June 30, 2018, an increase of \$1.0 billion over fiscal year 2017. Long-term liabilities represent 82% of total liabilities at June 30, 2018, primarily consisting of \$2.6 billion of long-term debt and \$1.2 billion of pension and other postemployment benefit (OPEB) liabilities. With the adoption of GASB 75, the University was required to recognize \$817.4 million related to OPEB obligations.

The University's current assets as of June 30, 2018 of \$918.7 million were less than current liabilities of \$934.5 million, and as a result the current ratio was \$0.98 in assets to every one dollar in liabilities. This is due to an increase of the current portion of long-term liabilities. As of June 30, 2017, current assets of \$742.5 million were greater than current liabilities of \$622.1 million, resulting in a current ratio of \$1.19. As of June 30, 2016, current assets of \$677.9 million were less than current liabilities of \$774.8 million, resulting in a current ratio of \$0.86.

Revenues, Expenses, and Changes in Net Position

Condensed statements of revenues, expenses, and changes in net position for the three years ended June 30, 2018 are presented on page 9.

CONDENSED STATEMENTS OF NET POSITION

As of June 30, 2018, 2017, and 2016 (\$ in thousands)

| | 2018 | 2017 | 2016 |
|---------------------------------------|--------------------|--------------------|--------------------|
| Assets | | | |
| Current assets | \$ 918,685 | \$ 742,482 | \$ 677,927 |
| Noncurrent assets | | | |
| Capital assets, net | 5,075,476 | 4,854,110 | 4,615,776 |
| All other noncurrent assets | 1,291,309 | 1,404,203 | 1,294,028 |
| Total assets | 7,285,470 | 7,000,795 | 6,587,731 |
| Deferred Outflows of Resources | 341,335 | 275,725 | 293,432 |
| Liabilities | | | |
| Current liabilities | 934,525 | 622,084 | 774,837 |
| Noncurrent liabilities | 4,161,911 | 3,562,485 | 3,294,183 |
| Total liabilities | 5,096,436 | 4,184,569 | 4,069,020 |
| Deferred Inflows of Resources | 141,485 | 37,671 | 12,050 |
| Net Position | | | |
| Net investment in capital assets | 2,288,599 | 2,208,370 | 2,013,966 |
| Restricted: | | | |
| Nonexpendable | 28,022 | 27,443 | 18,384 |
| Expendable | 222,343 | 201,710 | 218,272 |
| Unrestricted | (150,080) | 616,757 | 549,471 |
| Total Net Position | \$2,388,884 | \$3,054,280 | \$2,800,093 |

CONDENSED STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

As of June 30, 2018, 2017, 2016 (\$ in thousands)

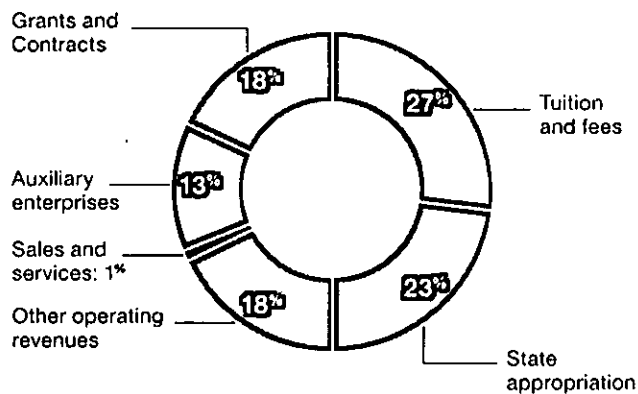
| | 2018 | 2017 | 2016 |
|---|--------------------|--------------------|--------------------|
| Operating Revenues | | | |
| Tuition and fees, net of scholarships | \$ 874,826 | \$ 847,832 | \$ 826,815 |
| Grants and contracts | 560,990 | 560,081 | 528,352 |
| Auxiliary enterprises | 416,733 | 400,822 | 383,281 |
| Other operating revenues | 616,265 | 631,854 | 665,048 |
| Total operating revenues | 2,468,814 | 2,440,589 | 2,403,496 |
| Operating Expenses | 3,300,392 | 3,158,953 | 3,140,753 |
| Operating Loss | (831,578) | (718,364) | (737,257) |
| Nonoperating Revenues (Expenses) | | | |
| Federal appropriations | 6,688 | 6,602 | 6,827 |
| State appropriations | 751,894 | 720,817 | 669,748 |
| Interest on indebtedness | (115,851) | (110,069) | (105,276) |
| Nonoperating federal grants | 81,590 | 74,050 | 75,743 |
| Other nonoperating income | 110,062 | 117,248 | 90,443 |
| Total nonoperating revenues (expenses) | 834,383 | 808,648 | 737,485 |
| Income Before Other Revenues, Expenses, Gains and Losses | 2,805 | 90,284 | 228 |
| Other Revenues, Expenses, Gains And Losses | | | |
| Capital appropriations, grants and other sources | 76,169 | 150,460 | 172,557 |
| Disposal of plant facilities | (6,695) | (4,274) | (10,462) |
| Other additions (deductions) | 5,307 | 17,717 | (29,578) |
| Total other revenues, expenses, gains, and losses | 74,781 | 163,903 | 132,517 |
| Total Increase In Net Position | 77,586 | 254,187 | 132,745 |
| Net Position | | | |
| Net position at the beginning of the year | 3,054,280 | 2,800,093 | 2,667,348 |
| Cumulative effect of adopting GASB 75* | (742,982) | - | - |
| Net position at the beginning of the year, restated | 2,311,298 | 2,800,093 | 2,667,348 |
| Net position at the end of the year | \$2,388,884 | \$3,054,280 | \$2,800,093 |

* Refer to Note 13 of the accompanying financial statements for further discussion related to the adoption of GASB 75

Operating revenues and expenses

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, and as such is considered as operating revenue for management's planning and analysis purposes. Total operating revenues for fiscal year 2018, including state appropriations, increased \$59.3 million (1.9%) from \$3.2 billion in fiscal year 2017. Total operating revenues in fiscal year 2017, including state appropriations, increased \$88.2 million (2.9%) from \$3.1 billion in fiscal year 2016.

FISCAL YEAR 2018 OPERATING REVENUES (including State Appropriations)

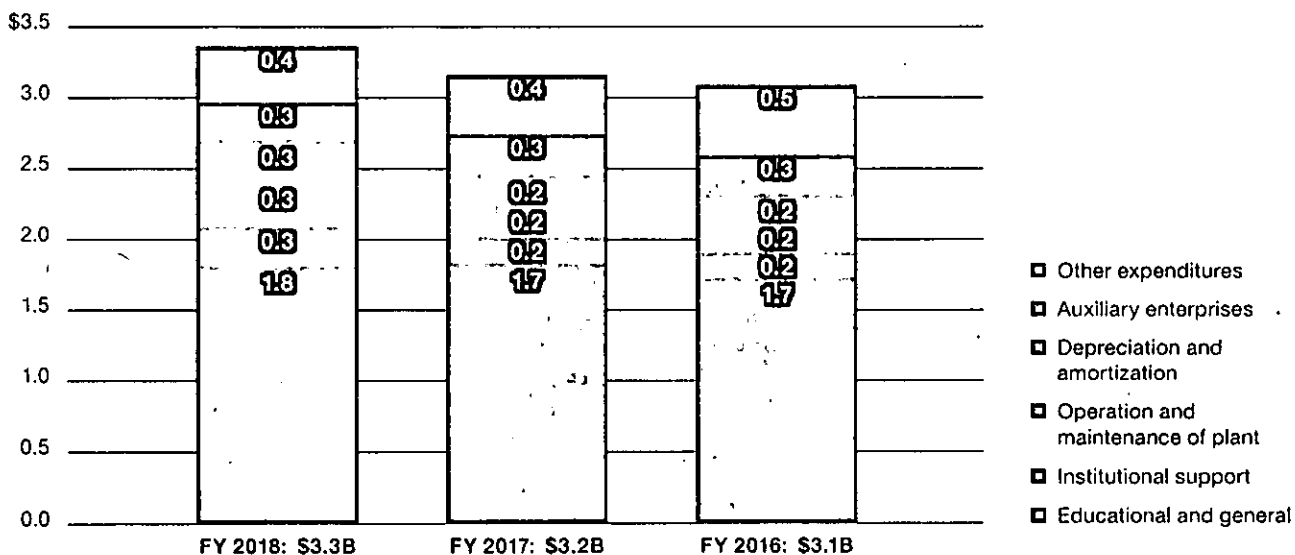


As noted in the fiscal year 2018 operating revenues chart below, the most significant sources of operating revenue for the University in fiscal year 2018 were tuition and fees, grants and contracts, and State appropriations.

Other operating revenues include revenues related to public service activities and consist largely of sales and services provided to third parties by UMMS through its Commonwealth Medicine (CWM) programs. These programs 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 include revenue received by UMMS 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. Public service activities expenditures also include payments made to the Commonwealth pursuant to requirements of legislation enacted by the State Legislature of Massachusetts.

In fiscal year 2018, operating expenses, including depreciation and amortization, totaled \$3.3 billion, as compared to \$3.2 billion in 2017 and \$3.1 billion in 2016. Of this total, \$1.8 billion or 55% was used to support the academic core activities of the University, including \$471.4 million in research. The education and general portion in the three year operating expenses chart below represents expenses in the following functional categories: instruction, research, public service, academic support, student services and scholarships and fellowships.

THREE YEAR OPERATING EXPENSES (\$ in billions)



State Appropriations

In fiscal year 2018, State appropriations represented approximately 23% 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. In addition to the direct state appropriation there are several smaller appropriations that add to the total state support for the University such as the Star Store lease at the Dartmouth campus and the Springfield Satellite Center, among others. While these smaller line items are in support of campus specific programs and do not support general University operations, they are included in the State appropriations line in the accompanying financial statements, and in the State appropriations line in the table below.

The Commonwealth pays the fringe benefits for University employees paid from state appropriations. Therefore, such fringe benefit support is added to the State appropriations financial statement line item in the accompanying Statements of Revenues, Expenses and Change in Net Position. 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 Note 11 to the accompanying financial statements). These amounts are not included in the State appropriations.

The University's State appropriation including fringe benefits increased in fiscal year 2018 by \$31.1 million from fiscal year 2017, due to a slightly higher level of state appropriation support and an increase in related fringe benefit support. The difference between 2017 and 2016 is mainly based on a change in the accounting treatment of mandatory waivers and tuition remitted as a result of full tuition retention implemented in fiscal year 2017. The passage of this legislation allowed for



100% of tuition to be retained by the University. Beginning in fiscal year 2017, the State appropriation decreased to reflect the reduction in appropriation to offset the tuition that previously was remitted to the State. These changes served to have a net zero impact on both the State funding and the University's operating budget.

The table below details the State appropriations for the fiscal years ended June 30, 2018, 2017, and 2016 and highlights the change as a result of full tuition retention in 2017. The State appropriations are primarily utilized by the University to fund payroll.

STATE APPROPRIATIONS— Change as a Result of Full Tuition Retention

| (\$ in thousands) | FY,2018 | FY,2017 | FY,2016 |
|----------------------------------|------------------|------------------|------------------|
| State appropriations | \$ 528,868 | \$ 512,900 | \$ 546,952 |
| Plus: fringe benefits | 223,026 | 207,917 | 178,032 |
| | 751,894 | 720,817 | 724,984 |
| Less: mandatory waivers | - | - | (24,653) |
| Less: tuition remitted | - | - | (30,583) |
| Commonwealth support, net | \$751,894 | \$720,817 | \$669,748 |

Capital Appropriations

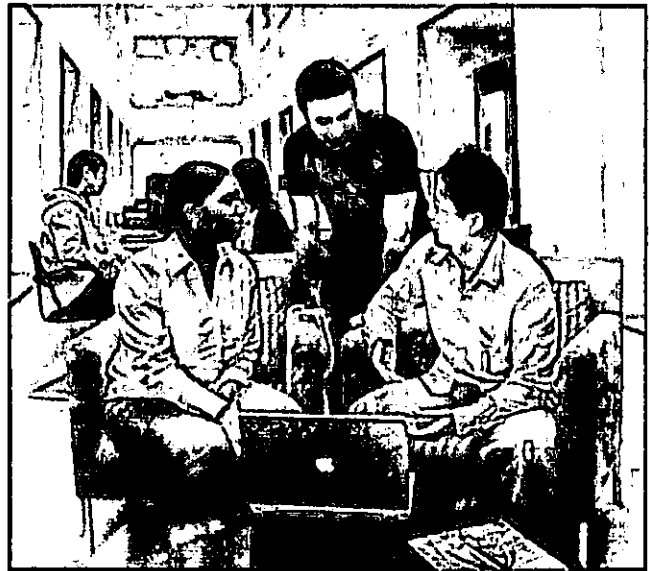
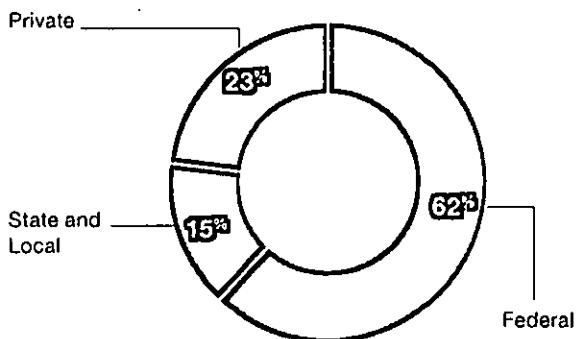
The University faces a financial challenge to maintain and upgrade its capital assets including its infrastructure, buildings and grounds. In order to have a successful capital program, the University must rely on a combination of revenue sources to fund its capital investment. In fiscal year 2018, 2017 and 2016, the capital support provided to the University through appropriations and grants from the Commonwealth was \$67.4 million, \$121.4 million and \$121.3 million, respectively. Beginning in fiscal year 2008, this funding was attributed to the Commonwealth's Division of Capital Asset Management ("DCAM") which funded several large capital projects through the State's Higher Education Bond Bill and Life Sciences Bond Bill, and funds projects on each of the campuses. More recently, state funding has significantly decreased as a result of the implementation of a new capital planning process coordinated by the Executive Office of Education. Funding for this new process is focused on deferred maintenance and as a result the University has changed its funding model for capital investments in new projects, including debt financing and exploring public private partnerships.

Grant and Contract Revenue

Among Massachusetts colleges and universities, the University ranks third in research and development expenditures, behind only MIT and Harvard. 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.

Collectively, UMass Amherst and UMass Medical School account for approximately 75% of the total research enterprise. The chart below details the University's grant and contract revenues by source for the year ended June 30, 2018.

GRANT AND CONTRACT REVENUE



Discretely Presented Component Units

The University's financial statements include the financial information of the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF) and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). Further information about these foundations can be found in Note 1 to the accompanying financial statements. Additionally, the individual financial statements of each foundation can be obtained by contacting the foundations directly: jmurphy@umassp.edu for UMF and giving@umassd.edu for UMDF.

University of Massachusetts Foundation, Inc.

UMF was established in 1950 to foster and promote the growth, progress and general welfare of the University, and to solicit, receive and administer gifts and donations for such purposes. UMF maintains a portion of the University's investment portfolio, predominantly the endowment and the quasi-endowment investments. The total portfolio held at UMF as of June 30, 2018, 2017 and 2016 was \$871.9 million, \$819.7 million and \$734.2 million, respectively.

University of Massachusetts Dartmouth Foundation, Inc.

UMDF was established in 1973 to raise funds for the development and improvement of the academic and educational environment for students at the Dartmouth campus and the continued engagement of its alumni. In addition to holding investments for the University, UMDF holds a significant portion of the UMDF investments. The total portfolio held by UMDF at June 30, 2018, 2017 and 2016 was \$54.8 million, \$53.1 million and \$52.7 million, of which the majority is invested with UMF.

Tuition and Fees

For academic year 2017–2018, tuition was raised an average of 3.1% for in-state undergraduate students. For academic year 2016–2017, tuition was raised on average 5.6%. Affordability continues to be a priority of the University and increases in fees are considered in conjunction with State support on an annual basis.

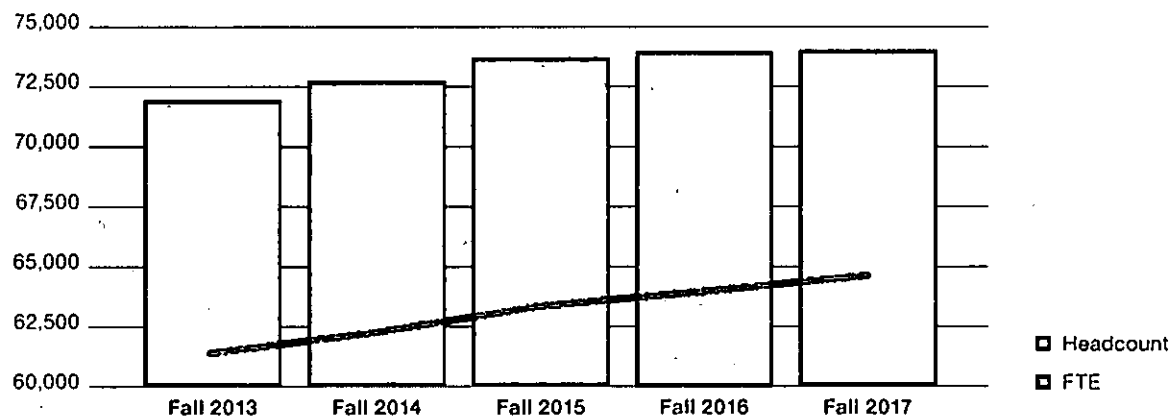
Enrollment

As shown in the table on page 14, total enrollment in the fall of 2017 was 64,530 FTE (74,572 headcount students), an increase of 0.9% over the previous year's enrollment of 63,977 FTE (74,496 headcount students). Enrollment in the fall of 2015 was 63,333 FTE (73,744 headcount students). The five year enrollment growth of 5.2% is meaningful as other institutions of higher education have seen declining enrollments over this period. This 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.

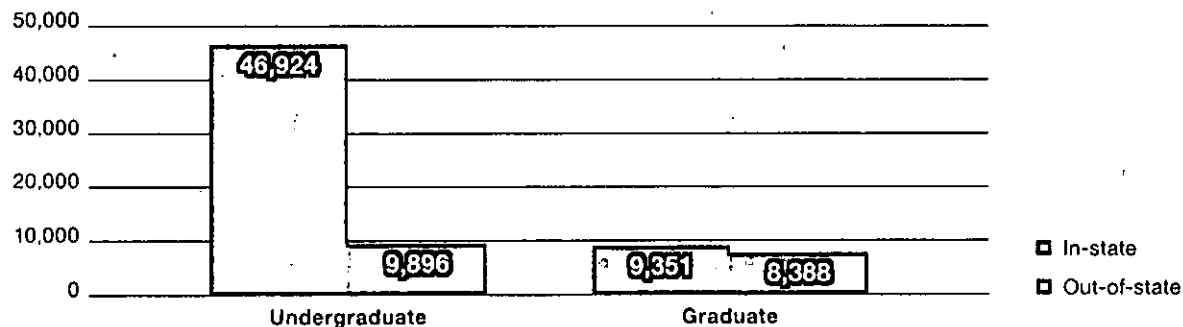
Admission to the University is open to residents of the Commonwealth and non-residents on a competitive basis. For the fall 2017 semester, Massachusetts residents accounted for 82.6% of the University's total undergraduate enrollment. Refer to the table below for detail on the fall 2017 enrollment.

The online learning consortium of the University, UMassOnline, has shown significant growth in enrollments, course offerings and revenue generation benefiting the campuses and raising the profile of the University. UMassOnline provides marketing and technology support for UMass' online offerings that enable students, professionals, and lifelong learners to take courses anywhere, anytime. For fiscal year 2018, UMassOnline and the Continuing Education units at the five campuses collaboratively generated tuition revenue of \$113.2 million and supported 78,404 course enrollments, an increase of 7.9% for revenue and an increase of 3.8% for course enrollments as compared to fiscal year 2017. For fiscal year 2017, UMassOnline generated tuition revenue of \$104.9 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.

TOTAL ENROLLMENT



FALL 2017 ENROLLMENT BY TYPE



Long-Term Debt

The University had outstanding long-term debt of \$3.1 billion at June 30, 2018, 2017 and 2016. The principal issuer of the University's debt is the Building Authority. Additional issuers utilized by the University include Massachusetts Health and Educational Facilities Authority (MHEFA) and WCCC. Long-term debt is the University's largest liability as of June 30, 2018. For further details on outstanding balances with each issuer, refer to Note 9 of the accompanying financial statements.

The debt financed through the Building Authority is being used for construction and renovation of residence halls and general education buildings, replacement of core infrastructure, and construction of academic, laboratory, and research facilities. The proceeds from the UMass MHEFA bonds were used to create an internal revolving loan program and to fund the construction of two new campus centers at the Boston and Lowell campuses (funded jointly with the Commonwealth).

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

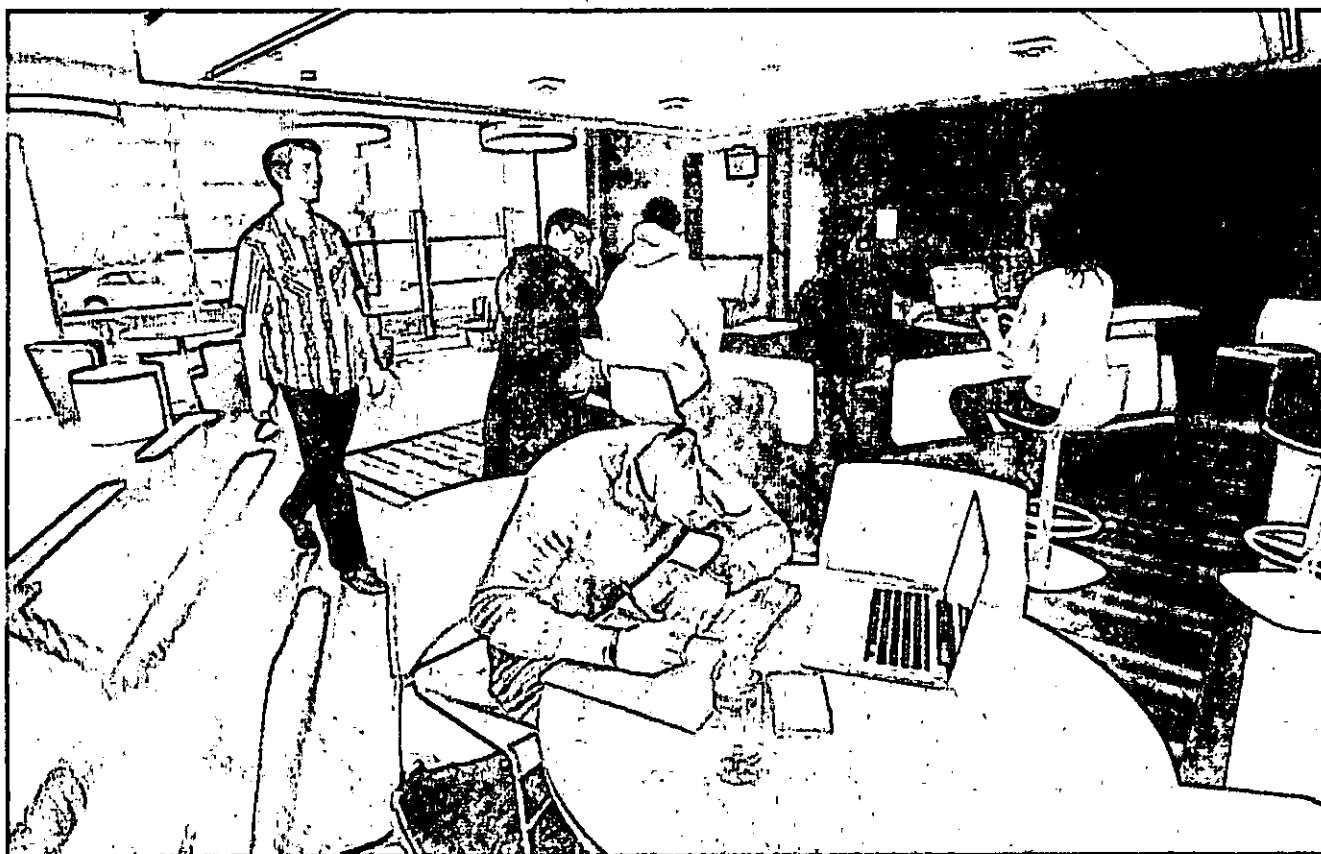
AA- as rated by Fitch, Moody's and Standard & Poor's rating agencies, respectively.

During fiscal year 2018, Moody's revised the University's outlook from negative to stable citing the University's strong management team, steady enrollment, positive operating performance, growth in financial resources and manageable plans for future borrowing. The Moody's rating exceeds some of the University's peer public research universities in New England. The stable outlook for the University is also notable because Moody's revised its rating for the higher education industry to negative in December 2017, noting that negative rating actions are more likely on average in the higher education sector.

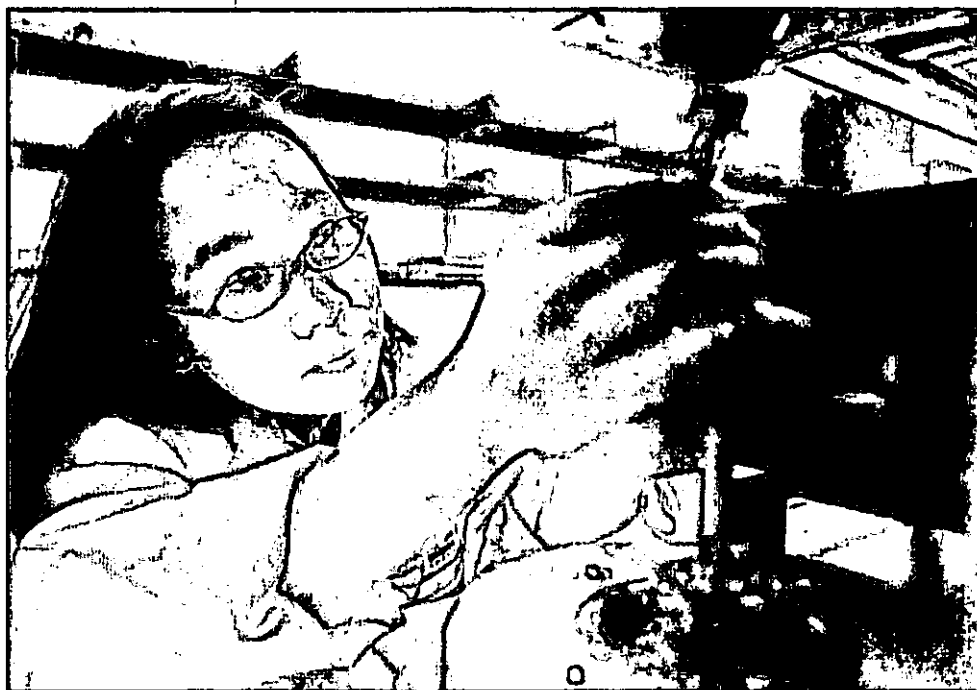
Limitations on Additional Indebtedness

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. As noted in the Board of Trustee policy, each campus' outstanding debt cannot exceed 8% of total operating expenditures.

The Building Authority is authorized by its enabling act to issue bonds with the unconditional guarantee of the Commonwealth



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 \$200.0 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, 2018, 2017 and 2016 was \$113.5 million, \$115.3 million and \$117.4 million, respectively.



Capital Plan

A majority of the capital spending during fiscal year 2018 related to continued investments in new buildings and renovation projects. In September 2018, the University's Trustees approved a five-year update to its capital plan for fiscal years 2019–2023, with \$2.1 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 Building Authority and MHEFA, Commonwealth appropriations, and private fundraising.

The University's five-year capital plan for fiscal years 2019–2023 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.

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 of Trustees and University leadership that impact the financial and budget planning each year. Student enrollment, 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, please contact the University Controller, Barbara Cevallos, at (617) 287-6017 or by email at bcevallos@umassp.edu.

STATEMENTS OF NET POSITION

| As of June 30, 2018 and 2017 (\$ in thousands) | 2018 | 2017 |
|--|---------------------|---------------------|
| Assets | | |
| Current assets | | |
| Cash and cash equivalents | \$ 88,463 | \$ 92,344 |
| Cash held by state treasurer | 14,689 | 15,114 |
| Accounts receivable, net | 310,371 | 316,075 |
| Short-term investments | 470,139 | 286,171 |
| Other current assets | 35,023 | 32,778 |
| Total current assets | 918,685 | 742,482 |
| Noncurrent assets | | |
| Cash held by state treasurer | 8,009 | 7,599 |
| Deposits with bond trustees | 319,228 | 438,585 |
| Accounts receivable, net | 64,251 | 62,121 |
| Long-term investments | 775,294 | 766,392 |
| Other assets | 124,527 | 129,506 |
| Capital assets, net | 5,075,476 | 4,854,110 |
| Total noncurrent assets | 6,366,785 | 6,258,313 |
| Total assets | 7,285,470 | 7,000,795 |
| Deferred Outflows of Resources | 341,335 | 275,725 |
| Liabilities | | |
| Current liabilities | | |
| Accounts payable and accrued expenses | 336,077 | 306,463 |
| Unearned revenues and advances | 59,323 | 52,503 |
| Long-term debt, current portion | 445,035 | 207,424 |
| Other current liabilities | 94,090 | 55,694 |
| Total current liabilities | 934,525 | 622,084 |
| Noncurrent liabilities | | |
| Unearned revenues and advances | 120,990 | 60,702 |
| Long-term debt | 2,644,033 | 2,886,927 |
| Derivative instruments, interest rate swaps | 41,602 | 61,839 |
| Net pension liability | 420,234 | 429,871 |
| Net other postemployment benefits liability | 817,357 | - |
| Other long-term liabilities | 117,695 | 123,146 |
| Total noncurrent liabilities | 4,161,911 | 3,562,485 |
| Total liabilities | 5,096,436 | 4,184,569 |
| Deferred Inflows of Resources | 141,485 | 37,671 |
| Net Position | | |
| Net investment in capital assets | 2,288,599 | 2,208,370 |
| Restricted: | | |
| Nonexpendable | 28,022 | 27,443 |
| Expendable | 222,343 | 201,710 |
| Unrestricted | (150,080) | 616,757 |
| Total net position | \$ 2,388,884 | \$ 3,054,280 |

See accompanying notes to the financial statements.

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

| For The Years Ended June 30, 2018 and 2017 (\$ in thousands) | 2018 | 2017 |
|---|---------------------|---------------------|
| Revenues | | |
| Operating Revenues | | |
| Tuition and fees (net of scholarship allowances of \$310,106 at June 30, 2018 and \$288,708 at June 30, 2017) | \$ 874,826 | \$ 847,832 |
| Grants and contracts | 560,990 | 560,081 |
| Sales and services, educational activities | 30,591 | 28,910 |
| Auxiliary enterprises | 416,733 | 400,822 |
| Other operating revenues: | | |
| Sales and services, independent operations | 68,497 | 79,261 |
| Sales and services, public service activities | 381,018 | 418,726 |
| Other | 136,159 | 104,957 |
| Total operating revenues | 2,468,814 | 2,440,589 |
| Expenses | | |
| Operating expenses | | |
| Educational and general | | |
| Instruction | 876,235 | 824,042 |
| Research | 471,135 | 447,370 |
| Public service | 78,238 | 68,083 |
| Academic support | 187,495 | 177,173 |
| Student services | 156,934 | 151,033 |
| Institutional support | 271,535 | 247,740 |
| Operation and maintenance of capital assets | 255,825 | 240,501 |
| Depreciation and amortization | 261,417 | 245,300 |
| Scholarships and fellowships | 50,410 | 47,710 |
| Auxiliary enterprises | 313,741 | 306,850 |
| Other expenditures | | |
| Independent operations | 52,211 | 57,276 |
| Public service activities | 325,216 | 345,875 |
| Total operating expenses | 3,300,392 | 3,158,953 |
| Operating loss | (831,578) | (718,364) |
| Nonoperating Revenues (Expenses) | | |
| Federal appropriations | 6,688 | 6,602 |
| State appropriations | 751,894 | 720,817 |
| Gifts | 39,022 | 26,253 |
| Investment income | 37,622 | 31,567 |
| Unrealized gain on investments | 5,558 | 15,466 |
| Endowment income distributed for operations | 26,742 | 26,877 |
| Interest on indebtedness | (115,851) | (110,069) |
| Nonoperating federal grants | 81,590 | 74,050 |
| Other nonoperating income | 1,118 | 17,085 |
| Net nonoperating revenues | 834,383 | 808,648 |
| Income before other revenues, expenses, gains, and losses | 2,805 | 90,284 |
| Other Revenues, Expenses, Gains and Losses | | |
| Capital appropriations | 67,437 | 121,380 |
| Capital grants, contracts and gifts | 8,732 | 29,080 |
| Endowment return, net of amount used for operations | 8,166 | 21,278 |
| Disposal of plant facilities | (6,695) | (4,274) |
| Other deductions | (2,859) | (3,561) |
| Total other revenues, expenses, gains, and losses | 74,781 | 163,903 |
| Total increase in net position | 77,586 | 254,187 |
| Net Position | | |
| Net position at beginning of year | 3,054,280 | 2,800,093 |
| Cummulative effect of adopting GASB 75 | (742,982) | - |
| Net position at beginning of year, adjusted | 2,311,298 | 2,800,093 |
| Net position at end of year | \$ 2,388,884 | \$ 3,054,280 |

See accompanying notes to the financial statements.

STATEMENTS OF CASH FLOWS

| For The Years Ended June 30, 2018 and 2017 (\$ in thousands) | 2018 | 2017 |
|--|------------------|------------------|
| Cash Flows from Operating Activities | | |
| Tuition and fees | \$ 974,631 | \$ 852,889 |
| Grants and contracts | 569,408 | 814,018 |
| Payments to suppliers | (848,595) | (1,131,219) |
| Payments to employees | (1,690,799) | (1,461,100) |
| Payments for benefits | (402,823) | (401,143) |
| Payments for scholarships and fellowships | (50,402) | (47,675) |
| Loans issued to students and employees | (8,068) | (8,105) |
| Collections of loans to students and employees | 8,751 | 6,989 |
| Auxiliary enterprises | 416,628 | 357,968 |
| Sales and services, educational | 30,573 | 25,118 |
| Sales and services, independent operations | 68,497 | 76,221 |
| Sales and services, public service activities | 394,927 | 428,012 |
| Other receipts, net | 194,419 | - |
| Net cash used for operating activities | (342,853) | (488,027) |
| Cash Flows from Noncapital Financing Activities | | |
| State appropriations | 751,894 | 720,817 |
| Federal appropriations | 6,688 | 6,602 |
| Grants, contracts and gifts for other than capital purposes | 38,809 | 32,856 |
| Nonoperating federal grants | 81,590 | 74,050 |
| Student organization agency transactions | 1,549 | 155 |
| Net cash provided by noncapital financing activities | 880,530 | 834,480 |
| Cash Flows from Capital and Other Financing Activities | | |
| Proceeds from capital debt | 105,380 | 236,666 |
| Bond issuance costs paid | - | (620) |
| Capital appropriations | 67,437 | 121,333 |
| Capital grants, contracts and gifts | 8,945 | 9,332 |
| Purchases of capital assets and construction | (487,912) | (475,488) |
| Principal paid on capital debt and leases | (96,325) | (120,353) |
| Interest paid on capital debt and leases | (125,825) | (115,201) |
| Net cash used for capital financing activities | (528,300) | (344,331) |
| Cash Flows from Investing Activities | | |
| Proceeds from sales and maturities of investments | 1,244,020 | 1,124,176 |
| Interest on investments | 19,774 | 10,605 |
| Purchases of investments | (1,396,424) | (1,187,713) |
| Net cash used for investing activities | (132,630) | (52,932) |
| Net Decrease in Cash and Cash Equivalents | (123,253) | (50,810) |
| Cash and cash equivalents: beginning of the year | 553,642 | 604,452 |
| Cash and cash equivalents: end of the year | 430,389 | 553,642 |
| Reconciliation of Operating Loss to Net Cash Used by Operating Activities | | |
| Operating loss | (831,578) | (718,364) |
| Adjustments to reconcile loss to net cash used by operating activities: | | |
| Depreciation and amortization expense | 261,417 | 245,300 |
| Changes in assets and liabilities: | | |
| Accounts receivable, net | 3,574 | (33,994) |
| Other assets | 2,734 | 44,153 |
| Accounts payable and accrued expenses | 41,749 | (26,041) |
| Unearned revenues and advances | 67,108 | 11,846 |
| Other liabilities | 33,411 | (46,969) |
| Pension liability | (9,637) | 21,453 |
| Other postemployment benefits liability | 74,375 | - |
| Changes in deferred outflows related to employee benefits | (89,820) | (11,032) |
| Changes in deferred inflows | 103,814 | 25,621 |
| Net cash used for operating activities | (342,853) | (488,027) |
| Supplemental Disclosure of Noncash Activities | | |
| Bonds issued to refund existing debt | - | 130,325 |
| Assets acquired and included in accounts payable and other liabilities | 49,110 | 60,853 |
| Donated assets | 1,727 | 85,632 |
| Accrued interest and bond issuance costs | 22,305 | 22,696 |

See accompanying notes to the financial statements.

COMPONENT UNITS STATEMENTS OF FINANCIAL POSITION

| As of June 30, 2018 and 2017 (\$ in thousands) | 2018 | 2017 |
|--|--------------------|--------------------|
| Assets | | |
| Cash | \$ 1,153 | \$ 1,424 |
| Bequests receivable | 399 | 963 |
| Pledges receivable, net | 25,180 | 24,960 |
| Investments of the Foundation and held on behalf of the University | 1,223,596 | 1,165,270 |
| Prepaid expenses and other assets | 2,592 | 2,576 |
| Land, property, plant and equipment, net | 16,906 | 17,332 |
| Total assets | 1,269,826 | 1,212,525 |
| Liabilities and Net Assets | | |
| Liabilities | | |
| Accounts payable and accrued expenses | 448 | 74 |
| Deferred revenue | 1,049 | 1,162 |
| Obligations to beneficiaries of split-interest agreements | 2,384 | 2,764 |
| Assets held on behalf of others | 678,890 | 660,074 |
| Total liabilities | 682,771 | 664,074 |
| Net assets | | |
| Unrestricted | 33,993 | 40,589 |
| Temporarily restricted | 119,694 | 99,883 |
| Permanently restricted | 433,368 | 407,979 |
| Total net assets | 587,055 | 548,451 |
| Total liabilities and net assets | \$1,269,826 | \$1,212,525 |

COMPONENT UNITS STATEMENTS OF ACTIVITIES

For The Years Ended June 30, 2018 (with summarized financial information for the year ended June 30, 2017)
(\$ in thousands)

| | Unrestricted | Temporarily Restricted | Permanently Restricted | Total 2018 | Total 2017 |
|---|-----------------|------------------------|------------------------|------------------|------------------|
| Support and Revenue | | | | | |
| Gifts, bequests and grants | \$ 552 | \$ 6,056 | \$ 24,995 | \$ 31,603 | \$ 43,573 |
| Other contributions | 946 | 515 | 509 | 1,970 | 3,199 |
| Total investment income, including net gains (losses) - net of fees | 36,000 | 28,998 | (283) | 64,715 | 109,274 |
| Investment management fee | 11,022 | - | - | 11,022 | 10,010 |
| Other income | 51 | 236 | 36 | 323 | 301 |
| Net assets released from restrictions | 15,783 | (15,783) | - | - | - |
| Total support and revenue | 64,354 | 20,022 | 25,257 | 109,633 | 166,357 |
| Expenses | | | | | |
| Distributions to the University | 30,846 | - | - | 30,846 | 31,161 |
| University program support | 10,084 | - | - | 10,084 | 11,037 |
| Fundraising support | 6,210 | - | - | 6,210 | 5,684 |
| Administrative and general | 3,122 | - | - | 3,122 | 2,611 |
| Total expenses | 50,262 | - | - | 50,262 | 50,493 |
| Excess of support and revenue over expenses | 14,092 | 20,022 | 25,257 | 59,371 | 115,864 |
| Less: amounts held on behalf of the University | (18,697) | - | - | (18,697) | (38,633) |
| Less: amounts held on behalf of EMKI | (1,683) | - | - | (1,683) | (489) |
| Transfers to (from) other funds | (89) | (43) | 132 | - | - |
| Change in value of split interest agreements | (387) | - | - | (387) | (737) |
| Adjustment for underwater endowments | 168 | (168) | - | - | - |
| Change in net assets | (6,596) | 19,811 | 25,389 | 38,604 | 76,005 |
| Net assets, beginning of year | 40,589 | 99,883 | 407,979 | 548,451 | 472,446 |
| Net assets, end of year | \$33,993 | \$119,694 | \$433,368 | \$587,055 | \$548,451 |

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Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Reporting entity

The 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 campuses of Amherst, Boston, Dartmouth, Lowell, Medical School, and the President's 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 (Building Authority).

The Building Authority is a public instrumentality of the Commonwealth of Massachusetts (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 to support private fundraising on behalf of the faculty and students of the Amherst campus. 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 also includes the financial information of the University's discretely presented component units, the University of Massachusetts Foundation, Inc. (UMF) and the University of Massachusetts Dartmouth Foundation, Inc. (UMDF). These foundations are related tax-exempt organizations founded to foster and promote the growth, progress and general welfare of the University. These foundations are Massachusetts not-for-profit organizations legally separate from the University but included in the financial statements due to the nature and significance of their financial relationship with the University. These foundations are separately presented as an aggregate component unit on page 19 of these financial statements in accordance with accounting and reporting requirements prescribed by the Financial Accounting Standards Board (FASB). All of the financial data for these organizations was derived from each entity's individual audited financial statements, each having a fiscal year end of June 30. In these financial statements, UMF and UMDF are collectively known as The Foundation. Refer to Note 4 which includes the Foundation agency funds held on behalf of the University.

The separately audited financial statements of the component units noted above may be obtained from the various entities, or by contacting the University Controller, bcevallos@umassp.edu, for component unit contact information.

The University is a business-type activity of the 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 U.S. generally accepted accounting principles (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 combined basis, and all intra-University transactions are eliminated.

Pursuant to GASB Statement No. 35, *Basic Financial Statements and Management's Discussion and Analysis for Public Colleges and Universities* (GASB 35), the University's activities are considered to be a single business-type activity and accordingly, are

reported in a single column in the financial statements. Business-type activities are those that are financed in whole or part by funds received by external parties for goods or services.

On the Statement of Revenues, Expenses and Changes in Net Position, the University's operating activities consist of tuition and fees, grants and contracts, sales and services and auxiliary enterprise revenues. Operating expenses include, among other items, payroll, fringe benefits, utilities, supplies and services, depreciation, and amortization. Nonoperating revenues or expenses are those in which the University receives or gives value without directly giving or receiving equal value, such as State and Federal appropriations, Federal Pell grants, private gifts, and investment income. 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. 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.

Net position

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, quasi-endowments, or commitments to capital construction projects. Note 15 describes these designations in more detail.

Cash and cash equivalents

Cash and cash equivalents consist primarily of demand deposit accounts, savings accounts, and money market accounts with an original maturity of three months or less.

Accounts receivable, net

Accounts receivable consists of receivables for tuition and fees, grants and contracts, student loans, Commonwealth Medicine, and pledges. The University establishes an allowance for receivables based on management's expectation regarding the collection of the receivable and the University's historical experience for collections.

The University receives unconditional promises to give through private donations or pledges from corporations, foundations, alumni and other supporters of the University. Revenue is recognized when a pledge is received and all eligibility requirements, including time and purpose requirements, are met. These pledges have been recorded as pledges receivable on the Statement of Net Position and as non-endowment gift revenues or capital gift revenue on the Statement of Revenues, Expenses, and Changes in Net Position, at the present value of the estimated future cash flows. Since the University cannot fulfill the time requirement for pledges to endowments until the gift is received, pledges to endowments are not reported. Because of uncertainties with regard to their realizability and valuation, bequests and other conditional promises are not recorded.

Investments

Investments are measured and recorded at fair value. 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. 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.

Endowment

The University of Massachusetts Foundation, Inc. (Foundation) maintains and administers the University's endowment assets and Intermediate Term Investment Fund (ITIF). The Foundation utilizes the pooled investment concept whereby all invested funds are included in one investment pool, unless otherwise required by the donor.

Pooled investment funds will receive an annual distribution, based on the endowment fund's average market value for the preceding twelve quarters on a one year lag. Only quarters with funds on deposit are included in the average. In addition, a prudence rule is utilized, limiting spending from a particular endowment fund to be no lower than 93% of its carrying value. The actual spending rate approved for the years ended June 30, 2018 and 2017 was 4%.

Inventories

The University 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. Inventory balances are included within other current assets on the Statements of Net Position.

Capital assets

Capital assets are stated at cost on the date of acquisition or, in the case of gifts, fair value upon date of donation. 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 capital assets. The University does not capitalize works of art, historical treasures or library books.

The University capitalizes assets with useful lives greater than one year and acquisition costs greater than or equal to \$5,000. The University computes depreciation using the straight-line method over the asset's useful life and applies a half year convention in the year the asset is acquired or placed in service. Land is not depreciated.

In the table to the right is the range of useful lives for the University's depreciable assets:

| Depreciable Asset | Useful Life |
|--|-------------|
| Land improvements | 20 years |
| Buildings | 20-50 years |
| Building improvements | 3-20 years |
| Equipment, furniture and IT infrastructure | 3-15 years |
| Software | 5 years |

The University leases various facilities and equipment through capital leases. Facilities and equipment under capital leases are recorded at the present value of future minimum lease payments.

Deferred outflows of resources

Deferred outflows of resources are the consumption of assets or increase in liabilities that are applicable to future reporting periods and are reported in a separate section of the Statements of Net Position.

The University's deferred outflows consist of:

- The difference between the reacquisition price and the carrying value of refunded revenue bonds. These amounts are to be recognized as a component of interest expense over the shorter of the remaining life of the refunded bonds or the life of the new bonds.
- The accumulated change in the fair value of hedging derivatives. This change is recorded to offset the value of the University's interest-rate swap liabilities which qualify for treatment as an effective hedge based on historic interest flows.
- The deferral of the impact of assumption changes and investment losses that increase the pension and other postemployment benefits liabilities. These amounts are recognized as a component of operating expenses in future reporting periods.

Compensated absences

Employees earn the right to be compensated during absences for annual vacation leave and sick leave. Within the Statements of Net Position, a liability is recorded for vacation and sick leave benefits earned as of the fiscal year-end. The recorded liability is classified as current and noncurrent based on the amount estimated to be paid to eligible employees in one year and beyond one year, respectively, on the Statements of Net Position.

Unearned revenue and advances

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

In addition, certain loans to students are administered by the University with funding primarily supported by the federal government. The University's Statements of Net Position include both the notes receivable and the related federal refundable loan liability, representing federal capital contributions owed upon termination of the program.

Deferred inflows of resources

Deferred inflows of resources are the acquisition of assets or reduction of liabilities that are applicable to future reporting periods and are reported in a separate section of the Statements of Net Position.

The University's deferred inflows consist of:

- Experience gains that reduce the pension and other postemployment benefits liabilities to be recognized as a component of operating expenses in future reporting periods.

Tuition and fees, net of scholarship allowances

Student tuition and fees, housing, dining, and other similar auxiliary revenues are reported net of any related scholarships and fellowships applied to student accounts. However, scholarships and fellowships paid directly to students are separately reported as scholarships and fellowships expenses.

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 a receivable and corresponding revenue for grants and contracts and capital appropriations at the point all eligibility requirements (e.g. allowable costs are incurred) are met.

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, 2018 and 2017 was \$131.4 million and \$131.6 million, respectively, and is a component of grants and contracts revenue on the Statements of Revenues, Expenses, and Changes in Net Position.

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.

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 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 CWM revenues of \$226.2 million and \$296.0 million for the years ended June 30, 2018 and 2017, respectively. Included in expenditures are CWM expenditures of \$173.6 million and \$253.0 million for the years ended June 30, 2018 and 2017, respectively.

Public Service Activities also include payments received by the Medical School for educational services it provides to its clinical affiliate, UMass Memorial Hospital, as required by the enabling legislation enacted by the Commonwealth in 1997. Educational services revenues included in public service revenues were \$171.7 million and \$140.0 million for the years ended June 30, 2018 and 2017, respectively. Finally, Public Service Activity expenditures include payments made to the Commonwealth of \$154.7 million and \$96.5 million for the years ended June 30, 2018 and 2017, pursuant to requirements of legislation enacted by the Commonwealth.

Fringe benefits for current employees and postemployment obligations: pension and non-pension

The University participates in the Commonwealth's fringe benefit programs, including active employee and postemployment 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.

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's 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.

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from these estimates. The most significant areas that require management estimates relate to valuation of certain investments and derivative instruments, useful lives and related depreciation of capital assets, and accruals for pension and other postemployment related benefits.

Income tax status

The University and the Building Authority are component units of the Commonwealth 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.

WCCC, UMF and UMDf 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, UMF and UMDf are required to assess uncertain tax positions and have determined that there were no such positions that are material to the financial statements as of June 30, 2018 and 2017, respectively.

Newly implemented accounting standards

Effective for fiscal year 2018, the University adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The Statement supersedes GASB Statement No. 45 and establishes new requirements for calculating and reporting the University's postemployment benefits. The implementation of GASB 75 resulted in a cumulative effect adjustment of \$743.0 million to the beginning net position of the 2018 Statement of Revenues, Expenses, and Changes in Net Position as of July 1, 2017 for the recording of the obligation associated with postemployment benefits other than pensions. The application of GASB 75 was recorded effective in the beginning of fiscal year 2018 because this was the earliest date for which was practical based on available information.

Effective for fiscal year 2018, GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*, to improve consistency in accounting and financial reporting for in-substance defeasance of debt. This Statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. Adoption of this standard is reflected in the required disclosures surrounding debt in fiscal year 2018, with no material impact to those disclosures.

Effective for fiscal year 2018, GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*, which intends to improve accounting and financial reporting for irrevocable split-interest agreements by providing recognition and measurement guidance for beneficiaries of these type of agreements. Adoption of this standard had no effect on the University's financial statements.

Reclassifications

Certain reclassifications were made in prior year to conform to current year presentation.

2. Cash Held by State Treasurer

Accounts payable, accrued salaries and outlays for future capital projects to be funded from state-appropriated funds totaled \$22.7 million at June 30, 2018 and June 30, 2017. 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.

3. Deposits with Bond Trustees

Deposits with bond trustees primarily consist 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, 2018 and 2017, there was \$319.2 million and \$438.6 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 shall be continuously maintained for the benefit of the Building Authority and Registered owners of the Bonds.

All investments shall be held with a bank or trust company approved by the Trustees and the Building Authority, as custodians, or in such other manner as may be required or permitted by applicable state and Federal laws and regulations. Investments shall consist of 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 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.

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 and cash equivalents that were in the possession of an outside party. 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.

For the years ending June 30, 2018 and 2017, the Building Authority's cash and cash equivalents consisted of the following (\$ in thousands):

| | 2018 | 2017 |
|--|-------------------|-------------------|
| Cash | \$ 4,093 | \$ 5,553 |
| Permitted Money Market Accounts | 303,431 | 426,797 |
| Total Cash and Cash Equivalents | \$ 307,524 | \$ 432,350 |

Deposits are exposed to custodial risk if they are uninsured and uncollateralized. The University does not have a deposit policy for custodial credit risk. As of June 30, 2018 and June 30, 2017, the bank balances of uninsured deposits totaled \$4.4 million and \$5.1 million, respectively.

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 Massachusetts Municipal Depository Trust (MMDT), a money market account sponsored by the Treasurer of the Commonwealth and managed by Federated Investors, Inc. 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.

Concentration of Credit Risk – Concentration of credit risk is assumed to arise when the amount of deposits or investments that the University has with one issuer exceeds 5% or more of the total value of the University's investments or deposits. The Building Authority places no limit on the amount it may invest in any one issuer. As of June 30, 2018 and 2017, the Building Authority had 98.3% and 98.8% of its investments in MMDT, respectively.

Credit Risk – Debt securities are subject to credit risk, which is the chance that an issuer will fail to pay interest or principal in a timely manner, or that negative perceptions of the issuer's ability to make these payments will cause security prices to decline. These circumstances may arise due to a variety of factors such as financial weakness, bankruptcy, litigation and/or adverse political developments. Certain debt securities, primarily obligations of the U.S. government or those explicitly guaranteed by the U.S. government, are not considered to have 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.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates over time will adversely affect the fair value of an investment. 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.

4. Investments

The investment portfolio of the University reflected on the Statements of Net Position for the year ended June 30, 2018 and 2017, respectively, includes the following:

| | 2018 | 2017 |
|------------------------|--------------------|--------------------|
| Short-term investments | \$ 470,139 | \$ 286,171 |
| Long-term investments | 775,294 | 766,392 |
| Total | \$1,245,433 | \$1,052,563 |

Investment policies are established by the Board of Trustees of the University (the Board). The goals of these policies are to preserve capital, provide liquidity, and generate investment income. The University has statutory authority under Massachusetts General Laws Chapter 75 to collect, manage, and disburse trust funds of the University. The Foundation holds investments on behalf of the University. In the table below, these investments are identified as Foundation Agency Funds.

The endowment and similar investment holdings of the University, Foundation Agency Funds, and the Foundation, as of June 30, 2018 and 2017, respectively are summarized below (\$ in thousands):

| | University | | Foundation | |
|---|--------------------|--------------------|--------------------|--------------------|
| | 2018 | 2017 | 2018 | 2017 |
| Cash and cash equivalents | \$ 118,491 | \$ 65,303 | \$ 30,545 | \$ 29,477 |
| Money market and other investments | 321,900 | 199,000 | 4,430 | 6,265 |
| Fixed income investments | 135,852 | 139,294 | 4,662 | 4,643 |
| Pooled investments - Fund I | - | - | 528,921 | 488,163 |
| Commercial ventures and intellectual property | 1,994 | 1,674 | - | - |
| Annuity life income funds | 15,833 | 14,657 | 3,675 | 4,087 |
| | \$ 594,070 | \$ 419,928 | \$ 572,233 | \$ 532,635 |
| Foundation agency funds: | | | | |
| Pooled investments - Fund I | 341,464 | 331,524 | 341,464 | 331,524 |
| Pooled investments - Fund II | 309,899 | 301,111 | 309,899 | 301,111 |
| Total | \$1,245,433 | \$1,052,563 | \$1,223,596 | \$1,165,270 |

Investments held at the Foundation within Fund I represent the University's endowment funds. These funds include both donor-restricted endowments and quasi-endowments. Investments held at the Foundation within Fund II represent a portion of the operating cash balance of the University that has been transferred to the Foundation for investment purposes.

Custodial Credit Risk – 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.

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.

Within the University endowment and similar investment holdings table above, the carrying amounts of bank balances with uninsured or uncollateralized deposits were \$450.1 million and \$293.9 million, at June 30, 2018 and 2017, respectively.

The University held non-money market investments with a carrying and fair market value of \$811.1 million and \$778.0 million at June 30, 2018 and 2017, respectively. In the event of negligence due to the University's custodian and/or investment manager(s), it is expected that the investment balances would be fully recovered. However, these amounts are subject to both interest rate risk and credit risk.

Concentration of Credit Risk – As of June 30, 2018 and 2017, there is no concentration of investments from one issuer equal or greater than 5% of the portfolio. Investments issued or guaranteed by the U.S. government, as well as investments in mutual funds and other pooled investments are excluded from consideration when evaluating concentration risk.

Credit Risk – 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. Nationally recognized statistical rating organizations, such as Standards & Poor's (S&P) assign credit ratings to security issues and issuers that indicate a measure of potential credit risk to investors.

The table below presents the rated debt investments at fair value by credit quality of the University's investment portfolio as of June 30, 2018 (\$ in thousands):

| | S&P quality ratings | | | | | | | Unrated | Total |
|---|---------------------|-----------------|-----------------|-----------------|----------------|----------------|--------------|-----------------|------------------|
| | AAA | AA | A | BBB | BB | B | <B | | |
| Debt securities | | | | | | | | | |
| US treasury securities | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 44,611 | \$ 44,611 |
| Government agency bonds | - | - | - | - | - | - | - | 351 | 351 |
| Asset backed securities | 11,763 | - | 167 | 389 | - | - | - | 5,333 | 17,652 |
| Commercial mortgage-backed securities | 298 | - | - | - | - | - | - | 6,966 | 7,264 |
| Government issued commercial mortgage-backed securities | - | - | - | - | - | - | - | 122 | 122 |
| Government mortgage-backed securities | - | - | - | - | - | - | - | 3,772 | 3,772 |
| Non-government backed CMO's | 640 | - | - | - | - | - | - | 799 | 1,439 |
| Corporate bonds | 561 | 4,119 | 28,168 | 29,328 | 314 | - | - | 763 | 63,253 |
| Municipal and provincial bonds | 412 | 731 | 405 | 647 | - | - | - | - | 2,195 |
| Other fixed income | 69,199 | 18,373 | 16,452 | 22,319 | 7,658 | 2,451 | 276 | 8,049 | 144,777 |
| Total debt securities | \$82,873 | \$23,223 | \$45,192 | \$52,683 | \$7,972 | \$2,451 | \$276 | \$70,766 | \$285,436 |

The table below presents the rated debt investments at fair value by credit quality of the University's investment portfolio as of June 30, 2017 (\$ in thousands):

| | S&P quality ratings | | | | | | | Unrated | Total |
|---|---------------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|-----------------|------------------|
| | AAA | AA | A | BBB | BB | B | <B | | |
| Debt securities | | | | | | | | | |
| US treasury securities | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 48,919 | \$ 48,919 |
| Government agency bonds | - | - | - | - | - | - | - | 432 | 432 |
| Asset backed securities | 14,381 | - | 179 | - | - | - | - | 6,011 | 20,571 |
| Commercial mortgage-backed securities | 1,119 | - | - | - | - | - | - | 4,652 | 5,771 |
| Government issued commercial mortgage-backed securities | - | - | - | - | - | - | - | 253 | 253 |
| Government mortgage-backed securities | - | - | - | - | - | - | - | 3,047 | 3,047 |
| Non-government backed CMO's | - | - | - | - | - | - | - | 885 | 885 |
| Corporate bonds | 743 | 3,178 | 23,812 | 34,950 | 196 | - | - | 1,250 | 64,129 |
| Municipal and provincial bonds | 425 | 1,773 | 460 | 1,491 | - | - | - | - | 4,149 |
| Other fixed income | 61,128 | 25,099 | 18,617 | 27,621 | 13,038 | 5,683 | 1,225 | 8,944 | 161,355 |
| Total debt securities | \$77,796 | \$30,050 | \$43,068 | \$64,062 | \$13,234 | \$5,683 | \$1,225 | \$74,393 | \$309,511 |

Interest Rate Risk – 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 following table presents the fair value by investment maturity of the rated debt investments component of the University's investment portfolio as of June 30, 2018 (\$ in thousands):

| | Investment maturity (in years) | | | | |
|---|--------------------------------|------------------|-----------------|----------------|------------------|
| | Less than 1 | 1 to 5 | 6 to 10 | More than 10 | Total |
| Debt securities | | | | | |
| US treasury securities | \$ - | \$ 39,226 | \$ 5,385 | \$ - | \$ 44,611 |
| Government agency bonds | - | 351 | - | - | 351 |
| Asset backed securities | 4,960 | 12,525 | 167 | - | 17,652 |
| Commercial mortgage-backed securities | 529 | 5,797 | 938 | - | 7,264 |
| Government issued commercial mortgage-backed securities | 122 | - | - | - | 122 |
| Government mortgage-backed securities | 446 | 3,326 | - | - | 3,772 |
| Non-government backed CMO's | 640 | 799 | - | - | 1,439 |
| Corporate bonds | 15,131 | 45,172 | 2,527 | 423 | 63,253 |
| Municipal and provincial bonds | 2,051 | 144 | - | - | 2,195 |
| Other fixed income | 27,843 | 90,162 | 19,541 | 7,231 | 144,777 |
| Total debt securities | \$51,722 | \$197,502 | \$28,558 | \$7,654 | \$285,436 |

The following table presents the fair value by investment maturity of the rated debt investments component of the University's investment portfolio as of June 30, 2017 (\$ in thousands):

| | Investment maturity (in years) | | | | |
|---|--------------------------------|------------------|-----------------|-----------------|------------------|
| | Less than 1 | 1 to 5 | 6 to 10 | More than 10 | Total |
| Debt securities | | | | | |
| US treasury securities | \$ - | \$ 44,383 | \$ 4,536 | \$ - | \$ 48,919 |
| Government agency bonds | 296 | 136 | - | - | 432 |
| Asset backed securities | 10,194 | 10,198 | 179 | - | 20,571 |
| Commercial mortgage-backed securities | 1,671 | 4,100 | - | - | 5,771 |
| Government issued commercial mortgage-backed securities | 23 | 230 | - | - | 253 |
| Government mortgage-backed securities | 425 | 2,622 | - | - | 3,047 |
| Non-government backed CMO's | - | 885 | - | - | 885 |
| Corporate bonds | 18,784 | 40,626 | 4,307 | 412 | 64,129 |
| Municipal and provincial bonds | 4,003 | 146 | - | - | 4,149 |
| Other fixed income | 24,751 | 81,212 | 44,488 | 10,904 | 161,355 |
| Total debt securities | \$60,147 | \$184,538 | \$53,510 | \$11,316 | \$309,511 |

Fair Value Measurement – GASB Statement No. 72, *Fair Value Measurement and Application*, establishes general principles for measuring fair value and requires enhanced disclosures about fair value measurements of certain assets and liabilities, such as investments and interest-rate swaps. Fair value represents the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. GASB 72 requires that the University categorize these assets and liabilities measured at fair value using a three-tiered hierarchy based on the valuation methodologies employed.

The hierarchy is defined as follows:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that are available at the measurement date.

Level 2 – Inputs to the valuation methodology 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 – Inputs to the valuation methodology are unobservable and significant to the fair value measurement. Unobservable inputs reflect the University's own assumptions about the inputs market participants would use in pricing the asset or liability (including assumption about risk). Unobservable inputs are developed based on the best information available in the circumstances and may include the University's own data.

When available, quoted prices are used to determine fair value. When quoted prices in active markets are available, investments are classified within Level 1 of the fair value hierarchy. The University's Level 1 investments primarily consist of investments in U.S. Treasury obligations, equity securities, and mutual funds. When quoted prices in active markets are not available, fair values are based on evaluated prices received from the University's custodian of investments in conjunction with a third party service provider and are reported within Level 2 of the fair value hierarchy. The inputs for Level 2 include, but are not limited to, pricing models such as benchmarking yields, reported trades, broker-dealer quotes, issuer spreads and benchmarking securities, among others. The University's Level 2 investments primarily consist of investments in U.S. government and agency obligations, asset-backed securities, and corporate debt securities that did not trade on the University's fiscal year end date.

As a practical expedient to estimate the fair value of the University's interests, certain investments in commingled funds and limited partnerships are reported at the net asset value (NAV) determined by the fund managers. Because these investments are not readily marketable, their estimated fair values may differ from the values that would have been assigned had a ready market for such investments existed, and such differences could be material. As of June 30, 2018 and 2017, the University had no plans or intentions to sell such investments at amounts different from NAV.

The following table summarizes the fair value of the University's investments by type as of June 30, 2018 (\$ in thousands):

| | Investments measured at NAV | Investments classified in the fair value hierarchy | | | |
|---|-----------------------------|--|------------------|----------------|--------------------|
| | | Level 1 | Level 2 | Level 3 | Total |
| Cash equivalents | | | | | |
| Money market funds | \$ - | \$ 503,288 | \$ - | \$ - | \$ 503,288 |
| Certificates of deposit | - | 48 | - | - | 48 |
| Debt securities | | | | | |
| US treasury securities | - | 44,611 | - | - | 44,611 |
| Government agency bonds | - | - | 351 | - | 351 |
| Asset backed securities | - | - | 17,652 | - | 17,652 |
| Commercial mortgage-backed securities | - | - | 7,264 | - | 7,264 |
| Government issued commercial mortgage-backed securities | - | - | 122 | - | 122 |
| Government mortgage-backed securities | - | - | 3,772 | - | 3,772 |
| Non-government backed CMO's | - | - | 1,439 | - | 1,439 |
| Corporate bonds | - | - | 63,209 | 44 | 63,253 |
| Municipal and provincial bonds | - | - | 2,195 | - | 2,195 |
| Other fixed income | - | 110,652 | 34,125 | - | 144,777 |
| Total debt securities | - | 155,263 | 130,129 | 44 | 285,436 |
| Equity securities | | | | | |
| Domestic equities | - | 120,875 | - | 1,384 | 122,259 |
| International equities | - | 106,955 | - | - | 106,955 |
| Total equity securities | - | 227,830 | - | 1,384 | 229,214 |
| Alternative investments | | | | | |
| Multi-strategy hedge funds | | | | | |
| Equity | 69,885 | - | - | - | 69,885 |
| Long/short | 19,971 | - | - | - | 19,971 |
| Fixed income | 34,798 | - | - | - | 34,798 |
| Absolute return | 40,213 | - | - | - | 40,213 |
| Real assets | 11,689 | - | - | - | 11,689 |
| Private equity | 8,652 | - | - | - | 8,652 |
| Private debt | 19,462 | - | - | - | 19,462 |
| Private real estate | 4,762 | - | - | - | 4,762 |
| Total alternative investments | 209,432 | - | - | - | 209,432 |
| Other securities | - | 18,015 | - | - | 18,015 |
| Total investments | \$209,432 | \$904,444 | \$130,129 | \$1,428 | \$1,245,433 |

The following table presents unfunded commitments, redemption frequency and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2018 (\$ in thousands):

| | NAV | Unfunded commitments | Redemption frequency | Notice period |
|--------------------------------|-------------------|----------------------|---------------------------|---------------|
| Alternative investments | | | | |
| Multi-strategy hedge funds | | | | |
| Equity | \$ 69,885 | \$ - | daily to quarterly | 01-60 days |
| Long/short | 19,971 | - | quarterly to not eligible | 30-95 days |
| Fixed income | 34,798 | - | annual to not eligible | 60-days |
| Absolute return | 40,213 | - | daily to annual | 01-65 days |
| Real assets | 11,689 | - | annual | 90 days |
| Private equity | 8,652 | 18,573 | temporarily illiquid | (1) |
| Private debt | 19,462 | 12,408 | temporarily illiquid | (1) |
| Private real estate | 4,762 | 4,170 | temporarily illiquid | (1) |
| Total | \$ 209,432 | \$ 35,151 | | |

(1) As noted above, the University has made commitments to various private equity, private debt and private real estate partnerships. The University expects these funds to be called over the next 1-5 years. Liquidity is expected to be received in the next 1-9 years.

The following table summarizes the fair value of the University's investments by type as of June 30, 2017 (\$ in thousands):

| | Investments measured at NAV | Investments classified in the fair value hierarchy | | | |
|---|-----------------------------|--|------------------|----------------|--------------------|
| | | Level 1 | Level 2 | Level 3 | Total |
| Cash equivalents | | | | | |
| Money market funds | \$ - | \$ 285,380 | \$ - | \$ - | \$ 285,380 |
| Certificates of deposit | - | 10,500 | - | - | 10,500 |
| Debt securities | | | | | |
| US treasury securities | - | 48,919 | - | - | 48,919 |
| 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 | - | - | 885 | - | 885 |
| Corporate bonds | - | - | 63,892 | 237 | 64,129 |
| Municipal and provincial bonds | - | - | 4,149 | - | 4,149 |
| Other fixed income | - | 147,948 | 13,407 | - | 161,355 |
| Total debt securities | - | 196,867 | 112,407 | 237 | 309,511 |
| Equity securities | | | | | |
| Domestic equities | - | 94,729 | - | 1,250 | 95,979 |
| International equities | - | 128,458 | - | - | 128,458 |
| Total equity securities | - | 223,187 | - | 1,250 | 224,437 |
| Alternative investments | | | | | |
| Multi-strategy hedge funds | | | | | |
| Equity | 46,681 | - | - | - | 46,681 |
| Long/short | 12,640 | - | - | - | 12,640 |
| Fixed income | 48,196 | - | - | - | 48,196 |
| Absolute return | 50,623 | - | - | - | 50,623 |
| Real assets | 11,784 | - | - | - | 11,784 |
| Private equity | 3,402 | - | - | - | 3,402 |
| Private debt | 19,221 | - | - | - | 19,221 |
| Private real estate | 3,829 | - | - | - | 3,829 |
| Total alternative investments | 196,376 | - | - | - | 196,376 |
| Other securities | - | 26,359 | - | - | 26,359 |
| Total Investments | \$196,376 | \$742,293 | \$112,407 | \$1,487 | \$1,052,563 |

The following table presents unfunded commitments, redemption frequency and notice period for investments that have been valued using NAV as a practical expedient as of June 30, 2017 (\$ in thousands):

| | Fair value | Unfunded commitments | Redemption frequency | Notice period |
|--------------------------------|------------------|----------------------|---------------------------|---------------|
| Alternative investments | | | | |
| Multi-strategy hedge funds | | | | |
| Equity | \$ 46,681 | \$ - | quarterly to not eligible | 45–60 days |
| Long/short | 12,640 | - | quarterly to annual | 30–95 days |
| Fixed income | 48,196 | - | quarterly to not eligible | 30–60 days |
| Absolute return | 50,623 | - | quarterly to not eligible | 01–65 days |
| Real assets | 11,784 | - | annual | 150 days |
| Private equity | 3,402 | 18,089 | temporarily illiquid | (1) |
| Private debt | 19,221 | 15,847 | temporarily illiquid | (1) |
| Private real estate | 3,829 | 5,060 | temporarily illiquid | (1) |
| Total | \$196,376 | \$ 38,996 | | |

(1) As noted above, the University has made commitments to various private equity, private debt and private real estate partnerships. The University expects these funds to be called over the next 1–5 years. Liquidity is expected to be received in the next 1–9 years.

5. Accounts Receivable, Net

Accounts receivable as of June 30, 2018 and 2017 are as follows (\$ in thousands):

| | 2018 | 2017 |
|---|-------------------|-------------------|
| Student tuition and fees | \$ 60,454 | \$ 58,065 |
| Student loans | 62,462 | 63,660 |
| Pledges receivable | 25,199 | 20,437 |
| Grants and contracts | 94,235 | 94,583 |
| Commonwealth Medicine | 64,690 | 76,093 |
| UMass Memorial | 42,157 | 33,818 |
| Other receivables | 55,983 | 60,304 |
| | 405,180 | 406,960 |
| Less: allowance for doubtful accounts and discount to present value for pledges | (30,558) | (28,764) |
| Accounts receivable, net | \$ 374,622 | \$ 378,196 |

The receivable from UMass Memorial, which is uncollateralized, represents a potential concentration of credit risk for the University. The receivable from UMass Memorial represents 11.3% and 8.9% of total accounts receivable for the University at June 30, 2018 and 2017, respectively.

6. UMass Memorial Medical Center

The University has granted UMass Memorial Medical Center (UMass Memorial) the right to occupy portions of the University's Medical School campus facilities for a period of 99 years. As part of the ongoing agreement, UMass Memorial has agreed to share responsibility for various capital and operating expenses relating to the occupied premises. UMass Memorial also contributes to capital improvements to shared facilities.

In addition, UMass Memorial has agreed to make certain payments to the University, including an annual fee of \$12.0 million, adjusted for inflation as necessary, for 99 years as long as the University continues to operate a medical school, and a participation payment based on a percentage of the net operating income of UMass Memorial. The University recognizes revenue when the participation payments 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, 2018 and 2017, the reimbursements for services provided to

UMass Memorial were \$140.5 million and \$147.7 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 \$85.5 million and \$89.2 million for the years ended June 30, 2018 and 2017, respectively. As of June 30, 2018 and 2017, the University has recorded a receivable in the amount of \$42.2 million and \$33.8 million, respectively from UMass Memorial which includes \$29.6 million and \$22.0 million, respectively, in payroll and related fringe charges. The University has recorded a payable of \$4.5 million and \$4.4 million at June 30, 2018 and 2017, respectively, primarily for cross-funded payroll.

7. Capital Assets

The following table represents the University's capital assets activity for the years ended June 30, 2018 and 2017 (\$ in thousands):

| | 2016 | Additions | Retirements/ Adjustments | 2017 | Additions | Retirements/ Adjustments | 2018 |
|-----------------------------|--------------------|------------------|-----------------------------|--------------------|------------------|-----------------------------|--------------------|
| Land | \$ 84,161 | \$ 14,394 | \$ (895) | \$ 97,660 | \$ 68,771 | \$ (1,063) | \$ 165,368 |
| Buildings and improvements | 5,611,906 | 456,132 | (12,432) | 6,055,606 | 444,250 | (991) | 6,498,865 |
| Software | 136,503 | 4,272 | (29,737) | 111,038 | 10,224 | (8,078) | 113,184 |
| Equipment and furniture | 651,947 | 79,975 | (46,856) | 685,066 | 52,453 | (37,626) | 699,893 |
| Library books | 65,978 | - | (5,834) | 60,144 | - | (6,570) | 53,574 |
| | 6,550,495 | 554,773 | (95,754) | 7,009,514 | 575,698 | (54,328) | 7,530,884 |
| Accumulated depreciation | (2,690,595) | (245,300) | 82,907 | (2,852,988) | (261,417) | 37,509 | (3,076,896) |
| | 3,859,900 | 309,473 | (12,847) | 4,156,526 | 314,281 | (16,819) | 4,453,988 |
| Construction in progress | 674,705 | 478,566 | (455,687) | 697,584 | 407,191 | (483,287) | 621,488 |
| Total capital assets | \$4,534,605 | \$788,039 | \$ (468,534) | \$4,854,110 | \$721,472 | \$ (500,106) | \$5,075,476 |

The University purchased the capital assets of Mount Ida College in May 2018 for \$75.0 million. The assets have been allocated between land and construction in progress at June 30, 2018.

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, 2018 and 2017, the University capitalized net interest costs of \$11.6 million and \$20.5 million, respectively.

8. 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 \$20.6 million and \$24.6 million for the years ended June 30, 2018 and 2017, respectively. The leases primarily relate to telecommunications, software, and co-generation systems. The University also leases space to third party tenants. During the years ended June 30, 2018 and 2017, the amount reported as rental income was \$20.5 million and \$18.9 million, respectively.

The following presents a schedule of future minimum payments under non-cancelable leases for the next five years and in subsequent five-year periods for the University as of June 30, 2018 (\$ in thousands):

| Fiscal year end | Operating lease payments |
|-----------------------|--------------------------|
| 2019 | \$ 25,471 |
| 2020 | 23,879 |
| 2021 | 21,805 |
| 2022 | 18,931 |
| 2023 | 15,059 |
| 2024 and thereafter | 131,687 |
| Total payments | \$236,832 |

9. Long-Term Debt

The following table represents the outstanding long-term debt as of June 30, 2018, and the related activity during the fiscal year (\$ in thousands):

| | Original borrowing | Maturity date | Interest rate | As of July 1, 2017 | Additions | Reductions | As of June 30, 2018 |
|-----------------------------------|-----------------------|------------------|------------------|-----------------------|------------------|---------------------|------------------------|
| Building Authority | | | | | | | |
| Series 2008-A | \$ 26,580 | 2038 | variable | \$ 19,145 | \$ - | \$ (995) | \$ 18,150 |
| Series 2008-1 | 232,545 | 2038 | variable | 171,430 | - | (8,315) | 163,115 |
| Series 2008-2 | 120,560 | 2038 | 4.0-5.0% | 3,065 | - | (3,065) | - |
| Series 2009-1 | 247,810 | 2039 | 3.0-5.0% | 28,400 | - | (13,115) | 15,285 |
| Series 2009-2 | 271,855 | 2039 | 6.4-6.6% | 271,855 | - | - | 271,855 |
| Series 2009-3 | 28,570 | 2039 | 5.8-6.2% | 25,685 | - | (585) | 25,100 |
| Series 2010-1 | 118,985 | 2020 | 5.0% | 59,230 | - | (13,745) | 45,485 |
| Series 2010-2 | 430,320 | 2040 | 3.8-5.5% | 430,320 | - | - | 430,320 |
| Series 2010-3 | 3,005 | 2040 | 5.8% | 2,730 | - | (55) | 2,675 |
| Series 2011-1 | 135,040 | 2034 | variable | 126,540 | - | (1,550) | 124,990 |
| Series 2011-2 | 101,700 | 2034 | variable | 96,115 | - | (1,060) | 95,055 |
| Series 2013-1 | 212,585 | 2043 | 2.0-5.0% | 198,655 | - | (4,910) | 193,745 |
| Series 2013-2 | 71,970 | 2043 | 0.4-2.7% | 65,090 | - | (2,265) | 62,825 |
| Series 2013-3 | 24,640 | 2043 | 4.0-5.0% | 24,640 | - | - | 24,640 |
| Series 2014-1 | 293,890 | 2044 | 3.0-5.0% | 293,015 | - | (525) | 292,490 |
| Series 2014-2 | 14,085 | 2019 | 0.4-2.1% | 8,555 | - | (2,805) | 5,750 |
| Series 2014-4 | 157,855 | 2025 | 0.2-3.4% | 122,125 | - | (30,030) | 92,095 |
| Series 2014-3 | 67,635 | 2029 | 2.0-5.0% | 61,640 | - | (3,480) | 58,160 |
| Series 2015-1 | 298,795 | 2036 | 4.0-5.0% | 298,795 | - | - | 298,795 |
| Series 2015-2 | 191,825 | 2036 | 3.0-5.0% | 191,825 | - | (2,825) | 189,000 |
| Series 2017-1 | 165,130 | 2047 | 3.3-3.8% | 165,130 | - | - | 165,130 |
| Series 2017-2 | 19,510 | 2027 | 1.6-3.4% | 19,510 | - | - | 19,510 |
| Series 2017-3 | 35,945 | 2038 | 3.0-5.0% | 187,680 | - | (2,920) | 184,760 |
| Series 2018-1 | 75,000 | 2043 | 2.0-2.9% | - | 37,650 | - | 37,650 |
| Unamortized bond premium | | | | 164,887 | - | (14,188) | 150,699 |
| | | | | 3,036,062 | 37,650 | (106,433) | 2,967,279 |
| HEFA/MDFA | | | | | | | |
| Series A | 20,000 | 2030 | variable | 20,000 | - | - | 20,000 |
| Series 2011 | 29,970 | 2034 | 2.5-4.0% | 25,925 | - | (1,045) | 24,880 |
| Unamortized bond premium | | | | 870 | - | (53) | 817 |
| | | | | 46,795 | - | (1,098) | 45,697 |
| WCCC HEFA/MDFA | | | | | | | |
| Series 2005-D | 99,325 | 2029 | 5.0-5.3% | 715 | - | (100) | 615 |
| Series 2011 | 10,495 | 2023 | 2.0-5.0% | 6,690 | - | (830) | 5,860 |
| Unamortized bond premium | | | | 624 | - | (98) | 526 |
| | | | | 8,029 | - | (1,028) | 7,001 |
| MDFA | | | | | | | |
| Clean renewable Energy bonds | 1,625 | 2027 | 3.50% | 956 | - | (96) | 860 |
| Total bonds payable | | | | 3,091,842 | 37,650 | (108,655) | 3,020,837 |
| Notes and commercial paper | | | | 1,917 | 64,535 | (483) | 65,969 |
| Capital lease obligations | | | | 592 | 3,195 | (1,525) | 2,262 |
| Total long-term debt | | | | \$3,094,351 | \$105,380 | \$/(110,663) | \$3,089,068 |

The following table represents the outstanding long-term debt as of June 30, 2017, and the related activity during the fiscal year (\$ in thousands):

| | As of July 1, 2016 | Additions | Reductions | As of June 30, 2017 |
|-----------------------------------|-----------------------|------------------|---------------------|------------------------|
| 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 |
| Unamortized bond premium | 122,146 | 55,987 | (13,246) | 164,887 |
| | 2,828,851 | 428,307 | (221,096) | 3,036,062 |
| HEFA/MDFA | | | | |
| 2000 Series A | 20,000 | - | - | 20,000 |
| 2007 Series D | 8,645 | - | (8,645) | - |
| Series 2011 | 26,940 | - | (1,015) | 25,925 |
| Unamortized bond premium | 949 | - | (79) | 870 |
| | 56,534 | - | (9,739) | 46,795 |
| WCCC HEFA/MDFA | | | | |
| Series 2005-D | 1,335 | - | (620) | 715 |
| Series 2007-E | 31,250 | - | (31,250) | - |
| Series 2007-F | 51,890 | - | (51,890) | - |
| Series 2011 | 7,495 | - | (805) | 6,690 |
| Unamortized bond premium | 1,215 | - | (591) | 624 |
| | 93,185 | - | (85,156) | 8,029 |
| MDFA | | | | |
| Clean renewable energy bonds | 1,052 | - | (96) | 956 |
| Total bonds payable | 2,979,622 | 428,307 | (316,087) | 3,091,842 |
| Notes and commercial paper | 2,433 | - | (516) | 1,917 |
| Capital lease obligations | 598 | 161 | (167) | 592 |
| Total long-term debt | \$2,982,653 | \$428,468 | \$ (316,770) | \$3,094,351 |

Principal and interest, which is estimated using rates in effect at June 30, 2018, on long-term debt for the next five fiscal years and in subsequent five-year periods are as follows (\$ in thousands):

| Fiscal Year | Principal | Interest |
|--------------|--------------------|--------------------|
| 2019 | \$ 100,270 | \$ 118,528 |
| 2020 | 103,930 | 115,106 |
| 2021 | 107,866 | 111,092 |
| 2022 | 100,356 | 107,078 |
| 2023 | 104,641 | 103,170 |
| 2024–2028 | 530,997 | 456,206 |
| 2029–2033 | 503,675 | 350,345 |
| 2034–2038 | 531,100 | 245,546 |
| 2039–2043 | 541,515 | 113,966 |
| 2044–2048 | 244,445 | 19,763 |
| Total | \$2,868,795 | \$1,740,800 |

In accordance with GASB 1, the University classifies variable rate bonds subject to remarketing as current, unless supported by liquidity arrangements such as lines of credit or standby bond purchase agreements, which could refinance the debt on a long-term basis. In the event that variable rate bonds are put back to the University by the debt holder, management believes that the University's strong credit rating will ensure that the bonds will be remarketed within a reasonable period of time. As a result, the University's variable rate bonds are listed in the table above at their original maturities.

Bond Premium and Issuance Expenses – During the year ended June 30, 2017, premiums received totaled \$56.0 million. The University amortizes premiums received as a reduction of interest expense over the life of the respective bond issue. There were no new premiums received during the year ended June 30, 2018.

The University incurs certain costs associated with bond issuances. For the years ended June 30, 2018 and 2017, bond issuance costs amounted to \$0.2 million and \$2.3 million, respectively, and were expensed in accordance with the provisions of GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*.

Commercial Paper – The maximum aggregate principal amount of commercial paper the Building Authority may have outstanding at one time is \$200.0 million. The Building Authority currently has standby liquidity facility agreements with State Street Bank and Trust Company for \$125.0 million and with U.S. Bank National Association for \$75.0 million. Each agreement expires on August 12, 2019. During the fiscal year 2018, the Building Authority issued \$64.5 million of commercial paper and has an outstanding balance of \$64.5 million as of June 30, 2018. The Building Authority incurred total fees of \$0.7 million and \$0.8 million for the years ending June 30, 2018 and 2017, respectively, associated with the use of commercial paper.

Bond Refundings – During the year ended June 30, 2017, the Building Authority issued \$187.7 million of Refunding Revenue Senior Series 2017-3 Bonds which advance refunded \$77.3 million of the WCCC bonds series, \$57.0 million of the Building Authority's 2008-2 bonds and \$65.0 million of the Building Authority's 2009-1 bonds. The Building 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 and the assets held to repay the debt are not recorded in the Building Authority's financial statements.

In connection with the Building Authority's refundings, the Building 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 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 Building Authority's debt service payments in future years by \$30.2 million and resulted in present value savings of \$21.4 million as an economic gain.

During fiscal year ended June 30, 2017, the University refunded \$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 defeased, and accordingly, the liability for the bonds and the assets held to repay the debt have not been included in the University's financial statements.

There was no refunding of bonds in the year ended June 30, 2018.

Interest Rate Swaps – The Building 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.

All interest rate swaps held by the Building Authority are cash flow hedges and considered to be synthetic fixed. The Building Authority's interest rate swaps at June 30, 2018 and 2017 are as follows (\$ in thousands):

| | Notional Value | As of July 1, 2017 | Net Change | As of June 30, 2018 | Effective Date | Term Date | Authority Pays | Authority Receives |
|---------------|----------------|--------------------|--------------------|---------------------|----------------|-----------|----------------|-----------------------------|
| Series 2008-1 | \$232,545 | \$25,267 | \$ (8,690) | \$ 16,577 | 05/01/08 | 05/01/38 | 3.4% | 70% of 1-Month LIBOR |
| Series 2008-A | 26,580 | 2,884 | (953) | 1,931 | 11/13/08 | 05/01/38 | 3.4% | 70% of 1-Month LIBOR |
| Series 2006-1 | 243,830 | 33,688 | (10,594) | 23,094 | 04/20/06 | 11/01/34 | 3.5% | 60% of 3-Month LIBOR + .18% |
| Total | | \$61,839 | \$ (20,237) | \$41,602 | | | | |

Swap payments and associated debt – Using rates as of June 30, 2018, 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 | Principal | Interest | Interest rate swaps, net | Total |
|----------------------------|------------------|-----------------|--------------------------|------------------|
| 2019 | \$ 12,215 | \$ 6,073 | \$ 7,645 | \$ 25,933 |
| 2020 | 12,720 | 5,885 | 7,409 | 26,014 |
| 2021 | 28,390 | 5,576 | 7,020 | 40,986 |
| 2022 | 29,545 | 5,140 | 6,471 | 41,156 |
| 2023 | 33,915 | 4,663 | 5,869 | 44,447 |
| 2024–2028 | 155,640 | 16,102 | 20,259 | 192,001 |
| 2029–2033 | 112,390 | 5,579 | 7,011 | 124,980 |
| 2034–2038 | 16,495 | 373 | 469 | 17,337 |
| Total | \$401,310 | \$49,391 | \$62,153 | \$512,854 |

| | 2018 | 2017 |
|--|-----------|-----------|
| Change in fair value of interest rate swap | \$ 18,887 | \$ 37,768 |
| Loss on debt refundings | 74,443 | 79,771 |

For the years ended June 30, 2018 and 2017, the amortization of the loss on debt refundings totaled \$5.3 million and \$6.8, respectively, which increases interest expenses.

10. Other Liabilities

During the years ended June 30, 2018 and 2017, the following changes occurred in other liabilities as recorded in the statements of net position (\$ in thousands):

| | 2016 | Additions | Reductions | 2017 | Additions | Reductions | 2018 |
|-----------------------|-----------|-----------|------------|----------|-----------|------------|-----------|
| Compensated absences | \$ 35,671 | \$ - | \$ (5,276) | \$30,395 | \$ 3,410 | \$ (2,249) | \$ 31,556 |
| Workers' compensation | 12,160 | - | (214) | 11,946 | 233 | (635) | 11,544 |
| Unearned revenues | 23,936 | 24,257 | (15,596) | 32,597 | 73,697 | (13,154) | 93,140 |
| Advances and deposits | 27,705 | 799 | (399) | 28,105 | 490 | (745) | 27,850 |
| Other liabilities | 105,354 | 800 | (25,349) | 80,805 | - | (6,210) | 74,595 |

During the fiscal year 2018, the University received approximately \$87.0 million from the sale of its royalty revenue stream related to a licensed product. This transaction resulted in an increase to current and non-current liabilities.

11. Fringe Benefits

During the years ended June 30, 2018 and 2017, the Commonwealth paid \$358.1 million and \$329.3 million, respectively, for the University's portion of fringe benefit costs which includes pension expense, health insurance for active employees and retirees, and terminal leave. Of this amount, the University reimbursed the Commonwealth \$134.1 million and \$123.8 million during the years ended June 30, 2018 and 2017, respectively. The remaining portion 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 GASB Statement No. 67, *Financial Reporting for Pension Plans*, covering substantially all employees of the Commonwealth including University employees.

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.

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:

| Hire Date | % of Compensation |
|--------------------|---|
| Prior to 1975 | 5% of regular compensation |
| 1975 – 1983 | 7% of regular compensation |
| 1984 – 6/30/1996 | 8% of regular compensation |
| 7/1/1996 – present | 9% of regular compensation except for State Police which is 12% of regular compensation |
| 1979 – present | An additional 2% of regular compensation in excess of \$30,000 |

In addition, members within this group who join the system on or after April 2, 2012 will have their withholding rate reduced to 6% after achieving 30 years of creditable service.

The University makes contributions on behalf of the employees through a fringe benefit charge assessed by the Commonwealth. The fringe benefit charge amounted to \$107.4 million and \$89.9 million for the years ended June 30, 2018 and 2017, respectively. Annual covered payroll was 75.9% and 75.8% of annual total payroll for the University for the years ended June 30, 2018 and 2017, respectively. Pension expense of \$33.3 million and \$26.3 million was included in the fringe charge for the years ended June 30, 2018 and 2017, respectively.

As allowable under the terms of GASB 68, the University has elected to measure the net pension liability one year prior to the fiscal year end reporting date. The net pension liability as of June 30, 2018 was determined based on a measurement date of June 30, 2017 from an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017. The net pension liability measured as of June 30, 2017 was determined based on a measurement date of June 30, 2016 from an actuarial valuation as of January 1, 2016 rolled forward to June 30, 2016. There are no significant changes known which would impact the total pension liability between the measurement date and the reporting date, other than typical plan experience.

Actuarial Assumptions – Significant actuarial assumptions used at each respective measurement date are as follows:

| | June 30, 2017 | June 30, 2016 |
|---|--|--|
| Investment rate of return | 7.50% | 7.50% |
| Interest rate credited to the annuity savings fund | 3.50% | 3.50% |
| Cost of living increases on the first \$13,000 per year | 3.00% | 3.00% |
| Salary increases* | 4.0% to 9.0% | 4.0% to 9.0% |
| Mortality rates | | |
| Pre-retirement | RP-2014 Blue Collar Employees Scale MP-2016 | RP-2000 Employees Scale BB base year 2015 |
| Post-retirement | RP-2014 Blue Collar Healthy Annuitant Scale MP-2016 | RP-2000 Healthy Annuitant Scale BB base year 2015 |
| Disability | RP-2000 Healthy Annuitant Scale BB base year 2015 | RP-2000 Healthy Annuitant Scale BB base year 2015 |
| *Salary increases were based on analysis of past experiences depending on group and length of service | | |

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.

For these actuarial valuations, experience studies were performed on February 27, 2014 and encompass the period January 1, 2006 to December 31, 2011.

Investment Allocation – 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, 2017 and 2016 are summarized in the following table:

| Asset Class | June 30, 2017 | | June 30, 2016 | |
|---------------------------------|-------------------|--|-------------------|--|
| | Target Allocation | Long-term Expected Real Rate of Return | Target Allocation | Long-term Expected Real Rate of Return |
| Core Fixed Income | 12.00% | 1.10% | 13.00% | 1.60% |
| Global Equity | 40.00% | 5.00% | 40.00% | 6.90% |
| Hedge Funds | 0.00% | 3.60% | 9.00% | 4.00% |
| Portfolio Completion Strategies | 13.00% | 3.60% | 4.00% | 3.60% |
| Private Equity | 11.00% | 6.60% | 10.00% | 8.70% |
| Real Estate | 10.00% | 3.60% | 10.00% | 4.60% |
| Timber / Natural Resources | 4.00% | 3.20% | 4.00% | 5.40% |
| Value Added Fixed Income | 10.00% | 3.80% | 10.00% | 4.80% |
| Total | 100.00% | | 100.00% | |

Discount Rate – The discount rate used to measure the total pension liability was 7.50% at June 30, 2017 and 2016. The projection of cash flows used to determine the discount rate assumed that plan member 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 impact a 1% change in the discount rate for the net pension liability at June 30, 2018 (\$ in thousands):

| Fiscal Year Ended | 1% Decrease | Current Discount Rate 7.5% | 1% Increase |
|-------------------|-------------|----------------------------|-------------|
| June 30, 2018 | \$621,615 | \$420,234 | \$323,338 |

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources

Related to Pensions – At June 30, 2018 and 2017, the University reported a liability of \$420.2 million and \$429.9 million, respectively, for its proportionate share of MSERS's net pension liability, respectively. 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.

The following table shows the components of pension expense for the years ended June 30, 2018 and 2017 (\$ in thousands):

| | 2018 | 2017 |
|--|-----------------|-----------------|
| Proportionate share of plan pension expense | \$ 52,383 | \$ 58,723 |
| Net amortization of deferred amounts from change in proportion | 6,085 | 2,935 |
| Employer contributions after measurement date | (28,292) | (25,618) |
| Pension expense | \$30,176 | \$36,040 |

The University reported its proportionate share of MSERS's deferred outflows of resources and deferred inflows of resources related to pensions from the following sources as of June 30, 2018 and 2017 (\$ in thousands):

| | 2018 | | 2017 | |
|---|-------------------------------|--------------------------------|-------------------------------|--------------------------------|
| | Deferred Inflows of Resources | Deferred Outflows of Resources | Deferred Inflows of Resources | Deferred Outflows of Resources |
| Changes of assumptions | \$ - | \$ 43,732 | \$ - | \$ 47,670 |
| Changes in proportion due to internal allocation | 28,949 | 36,532 | 37,464 | 34,668 |
| Employer contributions after measurement date | - | 28,292 | - | 25,618 |
| Differences between expected and actual experience | 11,434 | 16,248 | - | 20,418 |
| Net difference between projected and actual investment earnings on pension plan investments | 5,007 | - | - | 28,853 |
| Changes in proportion from Commonwealth | 150 | 1,440 | 207 | 958 |
| Total | \$45,540 | \$126,244 | \$37,671 | \$158,185 |

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

| Year Ended June 30 | |
|--------------------|------------------|
| 2019 | \$ 16,098 |
| 2020 | 29,325 |
| 2021 | 13,310 |
| 2022 | (7,018) |
| 2023 | 697 |
| Thereafter | - |
| Total | \$ 52,412 |

Non-vested faculty and certain other employees of the University can opt out of MSERS and participate in a defined contribution plan, the ORP, administered by the Commonwealth's Department of Higher Education. As of June 30, 2018 and 2017, there were 1,687 and 1,674 University employees, respectively, participating in ORP. Employees contribute at the same rate as members in SERS and the Commonwealth matches 5% of employee contributions. The Commonwealth contributed \$8.4 million and \$7.2 million in 2018 and 2017, respectively. University employees contributed \$17.4 million and \$15.8 million in 2018 and 2017, 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 (Gap Plan). Employees with MSERS or ORP membership dates after January 1, 2011 are eligible to participate in 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%. As of June 30, 2018 and 2017, the plan assets were \$3.4 million and \$2.5 million, respectively.

13. Other Postemployment Benefits

The Commonwealth administers a single employer defined Postemployment Benefits Other Than Pensions (OPEB) Plan (the Plan). Benefits are managed by the Group Insurance Commission (GIC) and investments are managed by the Pension Reserves Investment Management Board (PRIM).

Benefits provided – Under Chapter 32A of the Massachusetts General Laws (MGL) the Commonwealth is required to provide certain health care and life insurance benefits for retired employees of the Commonwealth. 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 are comparable to contributions required from employees.

Employer and employee contribution rates are set in MGL. The Commonwealth recognizes its share of the costs on an actuarial basis. As of June 30, 2017, retirees contribute between 0% - 20% of premium costs, depending on the date of hire.

As allowable under the terms of GASB 75, the University has elected to measure the total postemployment liability one year prior to the fiscal year end reporting date. The total OPEB liability as of June 30, 2018 was determined based on a measurement date of June 30, 2017 from an actuarial valuation as of January 1, 2017 rolled forward to June 30, 2017. There are no significant changes known which would impact the total postemployment liability between the measurement date and the reporting date, other than typical plan experience.

Actuarial Assumptions – Significant actuarial assumptions used at the 2017 measurement date are as follows:

| Annual healthcare cost trend rates | | |
|------------------------------------|--|---------|
| Medical | 8.5% decreasing by 0.5% each year to an ultimate rate of 5.0% in 2024 | |
| Employer group waiver program | 5.0% | |
| Administrative costs | 5.0% | |
| Mortality rates | RP-2014 Blue Collar Employees projected with Scale MP-2016 | |
| Participation rates | 100% of all retirees who currently have health care coverage will continue the same coverage, except the following: <ul style="list-style-type: none"> • retirees under the age of 65 with POS/PPO coverage switch to Indemnity at age 65 • retirees over the age of 65 with POS/PPO coverage switched to HMO Current retirees and spouses - Medicare coverage upon attainment of age 65 Future retirees - Medicare coverage upon attainment of age 65 80% of current and future contingent eligible participants will elect health care benefits at 65 or later Actives, upon retirement, take coverage, and are assumed to have the following coverage: | |
| | Retirement Age | |
| | Under 65 | Over 65 |
| Indemnity | 40.0% | 85.0% |
| POS/PPO | 50.0% | 0.0% |
| HMO | 10.0% | 15.0% |

Investment Allocation – Investment assets of the Plan are with the Pension Reserves Investment Trust (PRIT) Fund. The long-term expected rate of return on OPEB 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, 2017 and 2016 are summarized in the following table:

| Asset Class | Long-term Expected Real Rate of Return | | |
|---------------------------------|--|------|------|
| | Target Allocation | 2017 | 2016 |
| Global equity | 40.00% | 5.0% | 6.9% |
| Portfolio completion strategies | 13.00% | 3.6% | 3.6% |
| Core fixed income | 12.00% | 1.1% | 1.6% |
| Private equity | 11.00% | 6.6% | 8.7% |
| Value added fixed income | 10.00% | 3.8% | 4.8% |
| Real estate | 10.00% | 3.6% | 4.6% |
| Timber/natural resources | 4.00% | 3.2% | 5.4% |
| Hedge funds | 0.00% | 3.6% | 4.0% |
| Total | 100.00% | | |

Discount Rate – The discount rates used to measure the OPEB liability as of June 30, 2017 and 2016 were 3.63% and 2.88%, respectively. These rates were based on a blend of the Bond Buyer Index rates of 3.58% and 2.85%, respectively, as of the measurement dates June 30, 2017 and 2016 and the expected rates of return. The plan's fiduciary net position was not projected to be available to make all projected future benefit payments for current plan members. The projected "depletion date" when projected benefits are not covered by projected assets is 2023. Therefore, the long-term expected rate of return on plan investments of 7.50% per annum was not applied to all periods of projected benefit payments to determine the total OPEB liability as of June 30, 2017 and 2016.

Sensitivity Analysis of Discount – The following presents the net OPEB liability of the Commonwealth calculated using the discount rate, as well as what the net OPEB liability would be if it were calculated using a discount rate that is 1- percentage-point lower or 1-percentage-point higher than the current rate (\$ in thousands):

| Fiscal Year Ended | 1% Decrease | Current Discount | 1% Increase |
|-------------------|-------------|------------------|-------------|
| June 30, 2017 | \$970,268 | \$817,357 | \$695,780 |

Sensitivity Analysis of Healthcare Cost Trend Rate – The following presents the net OPEB liability of the Commonwealth, as well as what the net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rate (\$ in thousands):

| Fiscal Year Ended | 1% Decrease | Current Rate | 1% Increase |
|-------------------|-------------|--------------|-------------|
| June 30, 2017 | \$676,259 | \$817,357 | \$1,003,033 |

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB – In connection with the adoption of GASB 75, the University recorded \$817.4 million as the proportionate share of the OPEB liability as of June 30, 2018 and the cumulative effect of the prior year's beginning balances of \$743.0 million. The University's proportion of the net OPEB liability was based on a projection of the University's long-term share of contributions to the OPEB relative to the total projected contributions of all participating entities, actuarially determined.

The following table shows the components of OPEB expense for the year ended June 30, 2018 (\$ in thousands):

| | 2018 |
|--|-----------------|
| Proportionate share of plan OPEB expense | \$ 47,783 |
| Net amortization of deferred amounts from change in proportion | 357 |
| Net amortization of deferred amounts from internal allocation change in proportion | 20,591 |
| Employer specific OPEB expenses | 1,249 |
| Employer contributions after measurement date | (21,421) |
| OPEB expense | \$48,559 |

The University reported its proportionate share of deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources as of June 30, 2018 (\$ in thousands):

| | Deferred Inflows of Resources | Deferred Outflows of Resources |
|--|-------------------------------|--------------------------------|
| Changes of assumptions | \$ 92,574 | \$ - |
| Changes in proportion due to internal allocation | - | 98,629 |
| Employer contributions after measurement date | - | 21,421 |
| Differences between expected and actual experience | 1,880 | - |
| Net difference between projected and actual investment earnings on OPEB plan investments | 1,491 | - |
| Changes in proportion from Commonwealth | - | 1,711 |
| Total | \$ 95,945 | \$121,761 |

The difference between the University's balances of deferred outflows and inflows of resources related to OPEB will be recognized in OPEB expense as follows:

| Year Ended June 30 | |
|--------------------|----------------|
| 2019 | \$ (24) |
| 2020 | (24) |
| 2021 | (24) |
| 2022 | (24) |
| 2023 | 4,491 |
| Total | \$4,395 |

14. Operating Expenses

The following table summarizes the University's operating expenses by natural and functional classification for the year ended June 30, 2018 (\$ in thousands):

| | Compensation and benefits | Supplies and services | Scholarships and fellowships | Depreciation and amortization | Interest | Total |
|--|------------------------------|--------------------------|------------------------------------|-------------------------------------|------------------|--------------------|
| Educational and general | | | | | | |
| Instruction | \$ 761,546 | \$ 114,689 | \$ - | \$ - | \$ - | \$ 876,235 |
| Research | 282,123 | 189,012 | - | - | - | 471,135 |
| Public service | 63,995 | 14,243 | - | - | - | 78,238 |
| Academic support | 134,392 | 53,103 | - | - | - | 187,495 |
| Student services | 119,601 | 37,333 | - | - | - | 156,934 |
| Institutional support | 241,374 | 30,161 | - | - | - | 271,535 |
| Operation and maintenance of plant | 126,923 | 128,902 | - | - | - | 255,825 |
| Depreciation and amortization | - | - | - | 261,417 | - | 261,417 |
| Scholarships and fellowships | - | - | 50,410 | - | - | 50,410 |
| Auxiliary enterprises | 146,623 | 167,118 | - | - | - | 313,741 |
| Other expenditures | | | | | | |
| Independent operations | 24,854 | 27,357 | - | - | - | 52,211 |
| Public service activities | 83,260 | 241,956 | - | - | - | 325,216 |
| Total operating expenses | 1,984,691 | 1,003,874 | 50,410 | 261,417 | - | 3,300,392 |
| Interest on indebtedness | - | - | - | - | 115,851 | 115,851 |
| Total operating expenses and interest | \$1,984,691 | \$1,003,874 | \$50,410 | \$261,417 | \$115,851 | \$3,416,243 |

The following table summarizes the University's operating expenses by natural and functional classification for the year ended June 30, 2017 (\$ in thousands):

| | Compensation and benefits | Supplies and services | Scholarships and fellowships | Depreciation and amortization | Interest | Total |
|--|------------------------------|--------------------------|------------------------------------|-------------------------------------|------------------|--------------------|
| Educational and general | | | | | | |
| Instruction | \$ 716,135 | \$ 107,907 | \$ - | \$ - | \$ - | \$ 824,042 |
| Research | 273,638 | 173,732 | - | - | - | 447,370 |
| Public service | 58,381 | 9,702 | - | - | - | 68,083 |
| Academic support | 124,239 | 52,934 | - | - | - | 177,173 |
| Student services | 112,183 | 38,850 | - | - | - | 151,033 |
| Institutional support | 231,935 | 15,805 | - | - | - | 247,740 |
| Operation and maintenance of plant | 118,304 | 122,197 | - | - | - | 240,501 |
| Depreciation and amortization | - | - | - | 245,300 | - | 245,300 |
| Scholarships and fellowships | - | - | 47,710 | - | - | 47,710 |
| Auxiliary enterprises | 142,438 | 164,412 | - | - | - | 306,850 |
| Other expenditures | | | | | | |
| Independent operations | 23,854 | 33,422 | - | - | - | 57,276 |
| Public service activities | 88,452 | 257,423 | - | - | - | 345,875 |
| Total operating expenses | 1,889,559 | 976,384 | 47,710 | 245,300 | - | 3,158,953 |
| Interest on indebtedness | - | - | - | - | 110,069 | 110,069 |
| Total operating expenses and interest | \$1,889,559 | \$976,384 | \$47,710 | \$245,300 | \$110,069 | \$3,269,022 |

15. Unrestricted Net Position

The University adopted a reserve policy and standards in 2018. According to the policy, unrestricted net position is designated for certain purposes. Below are the designations used by the University, as described in the University's policy:

- **Unexpended plant and facilities** – funds designated for capital projects, equipment and the major renovations of all existing buildings including research, education and general, and auxiliary.
- **Auxiliary enterprises** – funds related to self-supporting activities which provide non-instructional support in the form of goods and services to students, faculty, and staff upon payment of a specific user charge or fee.
- **Education and general** – funds designated for operational requirements, academic initiatives, research, faculty recruitment, and University initiatives.
- **Quasi-endowment** – funds related to unrestricted resources invested in the Foundation's pooled endowment fund, intended to be invested for the long-term unless otherwise approved by the Board of Trustees or a designated authority.
- **Stabilization** – funds designated to provide budgetary stabilization for operations due to unforeseen and/or uncontrollable circumstances to ensure responsible long-term financial stability.
- **Other unrestricted** – funds undesignated for a specific use or purpose.

The following table summarizes the University's unrestricted net position as of June 30, 2018 (\$ in thousands):

| | 2018 |
|---|---------------------|
| Unrestricted resources | |
| Unexpended plant and facilities | \$ 267,319 |
| Auxiliary enterprises | 91,539 |
| Education and general | 244,472 |
| Quasi-endowment | 280,517 |
| Stabilization | 109,168 |
| Other unrestricted | (12,024) |
| Subtotal | 980,991 |
| Unfunded portion of pension liabilities | (339,530) |
| Unfunded portion of postretirement benefits other than pension liabilities | (791,541) |
| Total unrestricted net position | \$ (150,080) |

16. Commitments and Contingencies

The Building Authority, University, and WCCC have outstanding purchase commitments under construction contracts and real estate agreements of \$120.7 million and \$283.6 million at June 30, 2018 and 2017, respectively. In connection with investments in certain limited partnership agreements, the University has \$35.2 million and \$39.0 million in committed calls as of June 30, 2018 and 2017, 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 \$18.0 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, 2018 and 2017 of \$26.1 million and \$27.1 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 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. 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 \$14.7 million and \$14.6 million as of June 30, 2018 and 2017, respectively. 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.

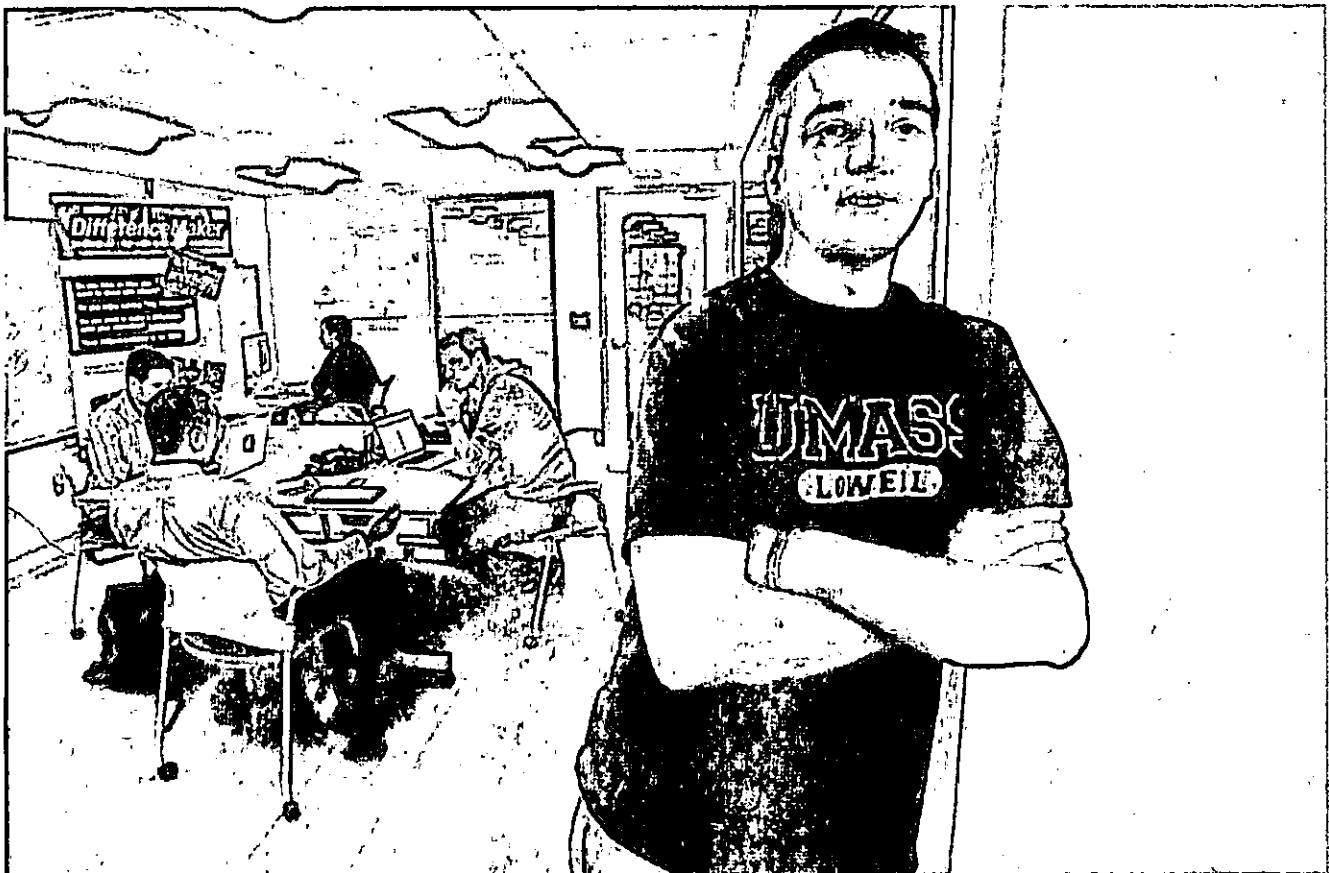
17. Subsequent Events

Subsequent to year-end, the University issued \$38.4 million of Series 2013-A commercial paper to be used for funding of approved capital projects at the Lowell, Amherst and Dartmouth campuses. The commercial paper is expected to be repaid with proceeds from the University's next long-term bond financing.

On November 14, 2018, the University entered into an agreement whereby the University sub-leased property on the University of Massachusetts Dartmouth campus to Provident Commonwealth Educational Resources II Inc., a Massachusetts not-for-profit corporation. The land is leased to the University by the Commonwealth. Provident Commonwealth Educational Resources II Inc. will engage a contractor to construct a 1,210-bed student housing facility on the site. The University will sub-lease the property to Provident Commonwealth Educational Resources II Inc. for a term of approximately 45 years. Commencing with the first lease year of the lease following the completion of the project (estimated completion is August 2020), the annual rental amount payable to the University under the ground lease will be \$0.6 million.

Pursuant to the Dining Facility Sublease dated November 14, 2018 between Provident Commonwealth Educational Resources II Inc., as sub-lessor and the University, as sub-lessee, the Provident Commonwealth Educational Resources II Inc. shall lease the dining facility, located within the residential hall, to the Campus and shall operate the Dining Facility or cause it to be operated.

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent to June 30, 2018 and through January 8, 2019, the date on which the financial statements were available to be issued and, determined that there were no matters requiring recognition or disclosure to the accompanying financial statements.



Required Supplementary Information (unaudited)

For the last ten years¹ (\$ in thousands)

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

| | 6/30/2018 | 6/30/2017 | 6/30/2016 | 6/30/2015 |
|---|--------------|--------------|--------------|--------------|
| University's proportion of the net pension liability | 3.56% | 3.39% | 3.92% | 3.49% |
| University's proportionate share of the net pension liability | \$ 420,234 | \$ 429,871 | \$ 408,418 | \$ 237,134 |
| University's covered-employee payroll | \$ 1,168,661 | \$ 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 | 35.96% | 37.18% | 35.83% | 22.35% |
| Plan fiduciary net position as a percentage of total pension liability | 67.21% | 63.48% | 67.87% | 76.32% |

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

| | 6/30/2018 | 6/30/2017 | 6/30/2016 | 6/30/2015 |
|--|--------------|--------------|--------------|--------------|
| Contractually required contribution | \$28,292 | \$25,618 | \$22,386 | \$22,870 |
| Contributions in relation to the contractually required contribution | (28,292) | (25,618) | (22,386) | (22,870) |
| Contribution deficiency (excess) | \$ - | \$ - | \$ - | \$ - |
| University's covered-employee payroll | \$ 1,168,661 | \$ 1,156,082 | \$ 1,139,719 | \$ 1,061,132 |
| Contributions as a percentage of covered-employee payroll | 2.42% | 2.22% | 1.96% | 2.16% |

SCHEDULE OF THE UNIVERSITY'S PROPORTIONATE SHARE OF THE NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) LIABILITY STATE RETIREES' BENEFIT TRUST

| | 6/30/2018 |
|--|--------------|
| University's proportion of the net OPEB | 4.13% |
| University's proportionate share of the net OPEB | \$ 817,357 |
| University's covered-employee payroll | \$ 1,168,661 |
| University's proportionate share of the net OPEB as a percentage of its covered-employee payroll | 69.94% |
| Plan fiduciary net position as a percentage of total OPEB liability | 4.80% |

SCHEDULE OF THE UNIVERSITY'S CONTRIBUTIONS STATE RETIREES' BENEFIT TRUST

| | 6/30/2018 |
|--|--------------|
| Contractually required contribution | \$21,421 |
| Contributions in relation to the contractually required contribution | (21,421) |
| Contribution deficiency (excess) | \$ - |
| University's covered-employee payroll | \$ 1,168,661 |
| Contributions as a percentage of covered-employee payroll | 1.83% |

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

SUPPLEMENTAL INFORMATION

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|---|----------|---|--------|---|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Research and Development Cluster: | | | | | | | |
| Agency For International Development | | | | | | | |
| Horn of Africa Regional Environment | 98.001 | AID-OAA-A-16-00009 | | USAID Foreign Assistance for Programs Overseas | \$ - | \$ | 9,124 |
| Interfaith Mediation Centre | 98.001 | AID-620-A-12-00003 | | USAID Foreign Assistance for Programs Overseas | - | | 81,656 |
| Interfaith Mediation Centre | 98.001 | AID-620-A-12-0003 | | USAID Foreign Assistance for Programs Overseas | - | | (19,662) |
| University of California Berkeley | 98.001 | UCBerkeley/00009687 | | USAID Foreign Assistance for Programs Overseas | - | | 41,848 |
| Total USAID Foreign Assistance for Programs Overseas | | | | | - | | 112,966 |
| National Academy of Sciences | 98.012 | NAS PGA -2000003662 Mod 02 | | USAID Development Partnerships for University Cooperation and Development | - | | 13,085 |
| Education Development Center, Inc. | 98.U01 | GS-10F-0406P | | United State Agency for International Development Contracts | - | | 339,307 |
| FHI 360 | 98.U02 | #4576-01-UMASS Amend #1 | | United State Agency for International Development Contracts | 239,435 | | 5,139,773 |
| Tetra Tech, Inc. | 98.U03 | 1072-1601 | | United State Agency for International Development Contracts | - | | 22,766 |
| Tetra Tech, Inc. | 98.U04 | SAR Task Force-India | | United State Agency for International Development Contracts | - | | (607) |
| Agency For International Development Total | | | | | 239,435 | | 5,627,290 |
| Department of Agriculture | | | | | | | |
| U.S. Department of Agriculture | 10.001 | Direct | | Agricultural Research-Basic and Applied Research | - | | 189,425 |
| U.S. Department of Agriculture | 10.025 | Direct | | Plant and Animal Disease, Pest Control, and Animal Care | - | | 254,976 |
| MA Department of Agricultural Resources | 10.170 | AM17OIOXXXXG054 | | Specialty Crop Block Grant Program - Farm Bill | - | | 2,969 |
| MA Department of Agricultural Resources | 10.170 | F15SCBGPMA | | Specialty Crop Block Grant Program - Farm Bill | - | | 10,314 |
| MA Department of Agricultural Resources | 10.170 | 115-1923 | | Specialty Crop Block Grant Program - Farm Bill | - | | 8,977 |
| Total Specialty Crop Block Grant Program - Farm Bill | | | | | - | | 22,260 |
| Rutgers University | 10.200 | 6173-NER17F-SandLER | | Grants for Agricultural Research, Special Research Grants | - | | 5,999 |
| Rutgers University | 10.200 | 6184-NER170OH-MADEIRAS | | Grants for Agricultural Research, Special Research Grants | - | | 3,974 |
| Rutgers University | 10.200 | 6185-NER170OH-BRAZEE | | Grants for Agricultural Research, Special Research Grants | - | | 3,506 |
| Total Grants for Agricultural Research, Special Research Grants | | | | | - | | 13,479 |
| U.S. Department of Agriculture | 10.202 | Direct | | Cooperative Forestry Research | - | | 355,419 |
| U.S. Department of Agriculture | 10.203 | Direct | | Payments to Agricultural Experiment Stations Under the Hatch Act | - | | 2,854,230 |
| U.S. Department of Agriculture | 10.207 | Direct | | Animal Health and Disease Research | - | | 10,914 |
| Applied Geosolutions | 10.212 | 2163361025687 | | Small Business Innovation Research | - | | 4,539 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|---|---|---|-------------------------------|
| Department of Agriculture, continued | | | | | |
| University of Vermont | 10.215 | ENE15-140-29994 | Sustainable Agriculture Research and Education | \$ 823 | \$ 37,485 |
| University of Vermont | 10.215 | GNE15-102-29001 | Sustainable Agriculture Research and Education | - | 11,072 |
| University of Vermont | 10.215 | GNE17-161-31064 | Sustainable Agriculture Research and Education | - | 14,567 |
| University of Vermont | 10.215 | LNE15-340-29994 | Sustainable Agriculture Research and Education | 7,923 | 24,676 |
| University of Vermont | 10.215 | LNE18-365-32231 | Sustainable Agriculture Research and Education | - | 522 |
| University of Vermont | 10.215 | ONE 16-281C-29994 | Sustainable Agriculture Research and Education | - | 5,486 |
| University of Vermont | 10.215 | ONE17-300-3 1064 | Sustainable Agriculture Research and Education | - | 1,054 |
| University of Vermont | 10.215 | SARE GNE16-114-29994 | Sustainable Agriculture Research and Education | - | 6,794 |
| University of Vermont | 10.215 | SARE LNE15-339-29994/DARBY | Sustainable Agriculture Research and Education | - | 12,681 |
| University of Vermont | 10.215 | SARE SNE17-04-31064 | Sustainable Agriculture Research and Education | - | 9,676 |
| University of Vermont | 10.215 | SNE-16-04-29994 | Sustainable Agriculture Research and Education | - | 7,183 |
| Total Sustainable Agriculture Research and Education | | | | 8,746 | 131,196 |
| Johns Hopkins University | 10.250 | 2003016257 | Agricultural and Rural Economic Research, Cooperative Agreements and Collaborations | - | 4,384 |
| U.S. Department of Agriculture | 10.303 | Direct | Integrated Programs | 22,400 | 91,172 |
| Cornell University | 10.304 | 80289-10778 | Homeland Security-Agricultural | - | 18,561 |
| U.S. Department of Agriculture | 10.310 | Direct | Agriculture and Food Research Initiative (AFRI) | 322,424 | 2,294,408 |
| Brigham Young University | 10.310 | 15-0422 | Agriculture and Food Research Initiative (AFRI) | - | (1,023) |
| Cornell University | 10.310 | 79850-10737 | Agriculture and Food Research Initiative (AFRI) | - | 38,103 |
| Cornell University | 10.310 | 79943-1 0841 | Agriculture and Food Research Initiative (AFRI) | - | 11,980 |
| Cornell University | 10.310 | 80019-10850 | Agriculture and Food Research Initiative (AFRI) | - | 82,212 |
| Louisiana State University | 10.310 | LSU PO 0000019947 | Agriculture and Food Research Initiative (AFRI) | - | 35,533 |
| North Carolina State University | 10.310 | 2015-68004-23179 | Agriculture and Food Research Initiative (AFRI) | - | 40,363 |
| Tennessee State University | 10.310 | 332-77-16-642 | Agriculture and Food Research Initiative (AFRI) | - | 4,057 |
| University of Illinois | 10.310 | 2015-07319-01 | Agriculture and Food Research Initiative (AFRI) | - | 63,962 |
| University of Wisconsin | 10.310 | 649K950 | Agriculture and Food Research Initiative (AFRI) | - | 3,876 |
| Total Agriculture and Food Research Initiative (AFRI) | | | | 322,424 | 2,573,471 |
| U.S. Department of Agriculture | 10.328 | Direct | National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Competitive Grants Program | 7,030 | 80,728 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|---|--|---|-------------------------------|
| Department of Agriculture, continued | | | | | |
| U.S. Department of Agriculture | 10.329 | Direct | Crop Protection and Pest Management Competitive Grants Program | \$ - | \$ 164,252 |
| Cornell University | 10.329 | 73984-11014 | Crop Protection and Pest Management Competitive Grants Program | - | 3,013 |
| Cornell University | 10.329 | 73984-10394 | Crop Protection and Pest Management Competitive Grants Program | - | 7,143 |
| CT Agricultural Experiment Station | 10.329 | CAES-2016-34947-1 | Crop Protection and Pest Management Competitive Grants Program | - | 2,960 |
| CT Agricultural Experiment Station | 10.329 | CAES-PP-2015-10 | Crop Protection and Pest Management Competitive Grants Program | - | 3,440 |
| University of Maryland | 10.329 | 30430-Z5750002 | Crop Protection and Pest Management Competitive Grants Program | - | 6,344 |
| Total Crop Protection and Pest Management Competitive Grants Program | | | | - | 187,152 |
| MA Department of Transitional Assistance | 10.331 | WEL 4400 3081 UMS 16A | Food Insecurity Nutrition Incentive Grants Program | - | 65,609 |
| U.S. Department of Agriculture | 10.458 | Direct | Crop Insurance Education in Targeted States | 52,900 | 224,279 |
| MA Department of Elementary & Secondary Ed | 10.560 | CT DOE 15CT75UMASSAMHRSTERI | State Administrative Expenses for Child Nutrition | - | (1,691) |
| MA Department of Elementary & Secondary Ed | 10.560 | CT-DOE-15CT7500UMASS MAKECOUN | State Administrative Expenses for Child Nutrition | - | -1,085 |
| Total State Administrative Expenses for Child Nutrition | | | | - | (606) |
| U.S. Forest Service | 10.652 | Direct | Forestry Research | - | 324,947 |
| U.S. Forest Service | 10.664 | Direct | Cooperative Forestry Assistance | - | 3,696 |
| MA Department of Conservation and Recreation | 10.664 | 118-0349 | Cooperative Forestry Assistance | - | 32,521 |
| MA Department of Conservation and Recreation | 10.664 | 118-0447 | Cooperative Forestry Assistance | - | 5,113 |
| MA Department of Conservation and Recreation | 10.664 | 4CTDCR3760CUMASSUNIV | Cooperative Forestry Assistance | 44,733 | 109,055 |
| Total Cooperative Forestry Assistance | | | | 44,733 | 150,385 |
| U.S. Forest Service | 10.680 | Direct | Forest Health Protection | - | 144,757 |
| U.S. Forest Service | 10.693 | Direct | Watershed Restoration and Enhancement Agreement Authority | 4,281 | 18,027 |
| U.S. Forest Service | 10.699 | Direct | Partnership Agreements | - | 26,945 |
| Natural Resources Conservation Services | 10.902 | Direct | Soil and Water Conservation | - | 50,880 |
| University of Rhode Island | 10.902 | 68-3A75-17-480 | Soil and Water Conservation | - | 1,403 |
| Total Soil and Water Conservation | | | | - | 52,283 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|---|--|---|-------------------------------|
| Department of Agriculture, continued | | | | | |
| U.S. Department of Agriculture | 10.912 | Direct | Environmental Quality Incentives Program | \$ - | \$ 564 |
| U.S. Department of Agriculture | 10.U01 | Direct - 14-JV-11242306-117 | Miscellaneous Department of Agriculture | - | 3,816 |
| U.S. Forest Service | 10.U02 | Direct - FS 15-JV-11242307-097 | Miscellaneous Department of Agriculture | - | 119,885 |
| U.S. Forest Service | 10.U03 | Direct - FS 16-JV-11330140-050 | Department of Agriculture Contracts | - | 8,167 |
| U.S. Forest Service | 10.U04 | Direct - FS 13-JV-11242307-075 | | | |
| | | Mod 8 | Department of Agriculture Contracts | - | 162,351 |
| World Farmers | 10.U05 | 2015-05075 | Department of Agriculture Contracts | - | 27,238 |
| Department of Agriculture Total | | | | 462,514 | 8,120,553 |
| Department of Commerce | | | | | |
| National Oceanic and Atmospheric Administration | 11.011 | Direct | Ocean Exploration | - | 32,570 |
| University of Washington | 11.011 | UWSC9353 | Ocean Exploration | - | 36,491 |
| Total Ocean Exploration | | | | - | 69,061 |
| Northeastern Regional Association of Coastal Ocean Observation Systems | | | | | |
| | 11.012 | A008-005 | Integrated Ocean Observing System (IOOS) | - | 37,950 |
| Rutgers University | 11.012 | 5931 | Integrated Ocean Observing System (IOOS) | - | 86,501 |
| Rutgers University | 11.012 | 6170 | Integrated Ocean Observing System (IOOS) | - | 63,903 |
| Total Integrated Ocean Observing System (IOOS) | | | | - | 188,354 |
| Massachusetts Institute of Technology | | | | | |
| Massachusetts Institute of Technology | 11.417 | 5710003902 | Sea Grant Support | - | 16,662 |
| Massachusetts Institute of Technology | 11.417 | 5710003903 | Sea Grant Support | - | 59,625 |
| Massachusetts Institute of Technology | 11.417 | 5710004070 | Sea Grant Support | 45,622 | 80,510 |
| Massachusetts Institute of Technology | 11.417 | 5710004158 | Sea Grant Support | - | 1,442 |
| Massachusetts Institute of Technology | 11.417 | 5710004254 | Sea Grant Support | - | 72,199 |
| Massachusetts Institute of Technology | 11.417 | 85496 | Sea Grant Support | - | 21,008 |
| Massachusetts Institute of Technology | 11.417 | S447 / PO 150170 | Sea Grant Support | - | 17,012 |
| Woods Hole Oceanographic Institution | 11.417 | 22007420, sub A101298 | Sea Grant Support | - | 41,739 |
| Woods Hole Oceanographic Institution | 11.417 | A101229 | Sea Grant Support | - | 14,234 |
| Woods Hole Oceanographic Institution | 11.417 | A101254 | Sea Grant Support | - | 4,672 |
| Woods Hole Oceanographic Institution | 11.417 | A101307 | Sea Grant Support | - | 15,671 |
| Woods Hole Oceanographic Institution | 11.417 | A101312 | Sea Grant Support | - | 59,857 |
| Woods Hole Oceanographic Institution | 11.417 | A101382 | Sea Grant Support | - | 7,900 |
| Total Sea Grant Support | | | | 45,622 | 412,531 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|---|---|---|-------------------------------|
| Department of Commerce, continued | | | | | |
| Woods Hole Oceanographic Institution | 11.419 | WHOI A101336 | Coastal Zone Management Administration Awards | \$ - | \$ 92,095 |
| MA Dept of Conservation and Recreation | 11.420 | 20045 | Coastal Zone Management Estuarine Research Reserves | - | (5,206) |
| National Oceanic and Atmospheric Administration | 11.427 | Direct | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 236,828 |
| Gulf of Maine Research Institute | 11.427 | 10-SKOBT-15 UMassD | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 3,624 |
| Gulf of Maine Research Institute | 11.427 | 10ATLCOD14-UMASSD | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 695 |
| MA Division of Marine Fisheries | 11.427 | 26181 | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 5,667 |
| Nature Conservancy | 11.427 | MA041117G | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 49,810 |
| New England Aquarium | 11.427 | 2684 | Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | - | 14 |
| Total Fisheries Development and Utilization Research and Development Grants and Cooperative Agreements Program | | | | - | 296,638 |
| National Oceanic and Atmospheric Administration | 11.431 | Direct | Climate and Atmospheric Research | 41,012 | 188,961 |
| Columbia University | 11.431 | 4GG012355 | Climate and Atmospheric Research | - | 61,539 |
| Gulf of Maine Research Institute | 11.431 | 10-COCAMS-17 UMassD | Climate and Atmospheric Research | - | 64,455 |
| Hazen and Sawyer, P.C. | 11.431 | 31235-000 | Climate and Atmospheric Research | - | 4,252 |
| Woods Hole Oceanographic Institution | 11.431 | A101376 | Climate and Atmospheric Research | - | 8,138 |
| Total Climate and Atmospheric Research | | | | 41,012 | 327,345 |
| National Marine Fisheries Service | 11.432 | Direct | National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes | - | 9,290 |
| Global Science and Technology, Inc. | 11.432 | SA16-UMB01 | National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes | - | 80,116 |
| Woods Hole Oceanographic Institution | 11.432 | A101176 | National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes | - | 72,065 |
| Woods Hole Oceanographic Institution | 11.432 | A101257 | National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes | - | 84,387 |
| Total National Oceanic and Atmospheric Administration (NOAA) Cooperative Institutes | | | | - | 245,858 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|---|--|---|-------------------------------|
| Department of Commerce, continued | | | | | |
| New England Fishery Management Council | 11.441 | 17-08 | Regional Fishery Management Councils | \$ - | \$ 12,568 |
| National Oceanic and Atmospheric Administration | 11.454 | Direct | Unaffiliated Management Projects | 12,589 | 121,691 |
| National Oceanic and Atmospheric Administration | 11.459 | Direct | Weather and Air Quality Research | - | 19,246 |
| National Oceanic and Atmospheric Administration | 11.463 | Direct | Habitat Conservation | - | 19,263 |
| National Oceanic and Atmospheric Administration | 11.472 | Direct | Unaffiliated Science Program | 33,669 | 73,924 |
| Gulf of Maine Research Institute | 11.472 | 10-ATLBFT-15-UMass-D | Unaffiliated Science Program | - | 7,877 |
| Gulf of Maine Research Institute | 11.472 | 10BFTMSE17SMAS | Unaffiliated Science Program | - | 746 |
| MA Division of Marine Fisheries | 11.472 | 26882 | Unaffiliated Science Program | - | 13,014 |
| Total Unaffiliated Science Program | | | | 33,669 | 95,561 |
| Ne Reg Assoc of Coastal Ocean Observ Sys | 11.473 | A007-005 | Office for Coastal Management | - | 62,370 |
| National Oceanic and Atmospheric Administration | 11.482 | Direct | Coral Reef Conservation Program | - | 23,147 |
| National Institute of Standards and Technology | 11.609 | Direct | Measurement and Engineering Research and Standards | (115) | 227,141 |
| University of Texas at San Antonio | 11.609 | 1000002047 | Measurement and Engineering Research and Standards | - | 36,990 |
| Total Measurement and Engineering Research and Standards | | | | (115) | 264,131 |
| National Institute of Standards | 11.619 | Direct | Arrangements for Interdisciplinary Research Infrastructure | 47,157 | 53,083 |
| Earth Networks, Inc. | 11.U01 | 1181135 | Department of Commerce Contracts | - | 49,985 |
| Earth Networks, Inc. | 11.U02 | EARTH NETWORKS PRIME NOAA | Department of Commerce Contracts | - | 99,809 |
| Global Science and Technology, Inc. | 11.U03 | SA13-UOM01-008-001 | Department of Commerce Contracts | - | 5,360 |
| National Oceanic and Atmospheric Administration | 11.U04 | Direct - WE-133F-15-SE-1480 | Department of Commerce Contracts | - | 3,737 |
| National Oceanic and Atmospheric Administration | 11.U05 | Direct - EE-133F-15-SE-1587 | Department of Commerce Contracts | - | 9,068 |
| Department of Commerce Total | | | | 179,934 | 2,465,695 |
| Department of Defense | | | | | |
| Defense Logistics Agency | 12.002 | Direct | Procurement Technical Assistance For Business Firms | - | 245,494 |
| Air Force Civil Engineer Center | 12.130 | Direct | Estuary Habitat Restoration Program | 500 | 55,317 |
| Air Force Research Laboratory | 12.300 | Direct | Basic and Applied Scientific Research | - | 467,631 |
| Office of Naval Research | 12.300 | Direct | Basic and Applied Scientific Research | 238,972 | 2,846,044 |
| U.S. Army Corps of Engineers | 12.300 | Direct | Basic and Applied Scientific Research | - | 10,195 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|---|---|---|-------------------------------|
| Department of Defense, continued | | | | | |
| Arizona State University | 12.300 | Subaward 16-971 | Basic and Applied Scientific Research | \$ - | \$ 38,285 |
| Boston University | 12.300 | 4500002614 | Basic and Applied Scientific Research | - | 31,266 |
| Carnegie Mellon University | 12.300 | 1150139-354945 | Basic and Applied Scientific Research | - | 78,202 |
| Total Basic and Applied Scientific Research | | | | 238,972 | 3,471,623 |
| Defense Threat Reduction Agency | 12.351 | Direct | Scientific Research - Combating Weapons of Mass Destruction | - | 138,625 |
| Lawrence Livermore National Lab University of California | 12.351 | No. B602042 | Scientific Research - Combating Weapons of Mass Destruction | - | 67,940 |
| Total Scientific Research - Combating Weapons of Mass Destruction | | | | - | 206,565 |
| U.S. Department of the Army | 12.420 | Direct | Military Medical Research and Development | 1,417,655 | 5,806,263 |
| Charles River Analytics | 12.420 | SC1705703 | Military Medical Research and Development | - | 2,787 |
| Harvard School of Public Health | 12.420 | NSPH/DOD W81XWH-17-0692 | Military Medical Research and Development | - | 214,450 |
| Henry M. Jackson Foundation | 12.420 | SB: 857395 PO: 3170 | Military Medical Research and Development | - | 602,041 |
| Massachusetts General Hospital | 12.420 | W81XWH-17-1-0212 | Military Medical Research and Development | - | 32,203 |
| Ocean State Research Institute, Inc. | 12.420 | SB: 292206 | Military Medical Research and Development | - | 354,578 |
| Triton Systems, Inc. | 12.420 | TSI-4029-08-78762 | Military Medical Research and Development | - | 3,577 |
| University of Connecticut | 12.420 | UCH6-74814610 | Military Medical Research and Development | - | 17,095 |
| University of Washington | 12.420 | 754368 | Military Medical Research and Development | - | 135 |
| Total Military Medical Research and Development | | | | 1,417,655 | 7,033,129 |
| U.S. Department of the Army | 12.431 | Direct | Basic Scientific Research | 614,091 | 4,218,206 |
| Brown University | 12.431 | 00000822 | Basic Scientific Research | - | 149,322 |
| Colorado School of Mines | 12.431 | 401300-5801 PO# 180471 | Basic Scientific Research | - | 45,705 |
| Cornell University | 12.431 | 66220-9902 | Basic Scientific Research | - | 152,811 |
| Duke University | 12.431 | 313-0589 | Basic Scientific Research | - | 195,476 |
| H F Webster Engineering Services, Inc. | 12.431 | W911NF-15-2-0034 | Basic Scientific Research | - | 16,068 |
| Montana State University | 12.431 | G 167-1 7-W623 3 | Basic Scientific Research | - | 124,518 |
| National Institute of Aerospace | 12.431 | 8503-UMASS | Basic Scientific Research | - | 127,099 |
| Northeastern University | 12.431 | 504081-78050A | Basic Scientific Research | - | 20,078 |
| Northeastern University | 12.431 | 504081-78050B | Basic Scientific Research | - | 317,671 |
| Northeastern University | 12.431 | 504108-78056 | Basic Scientific Research | - | 68,279 |
| Northeastern University | 12.431 | 504109-78055 | Basic Scientific Research | - | 205,347 |
| Raytheon BBN Technologies Corp | 12.431 | 13765021 | Basic Scientific Research | - | 199,132 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|--|--|---|----------------------------|
| Department of Defense, continued | | | | | |
| University of Liverpool | 12.431 | Collaboration Agreement dated 10/3/17 | Basic Scientific Research | \$ - | \$ 56,172 |
| University of Missouri | 12.431 | Sub# C00045065-1 | Basic Scientific Research | - | 144,984 |
| Worcester Polytechnic Institute | 12.431 | 16-TMP-00-215461 | Basic Scientific Research | - | 409,295 |
| Worcester Polytechnic Institute | 12.431 | 215464 | Basic Scientific Research | - | 169,100 |
| Yale University | 12.431 | CON80000152 C17J12516 (J00255) | Basic Scientific Research | - | 84,008 |
| Total Basic Scientific Research | | | | 614,091 | 6,703,271 |
| Office of the Secretary of Defense | 12.630 | Direct | Basic, Applied, and Advanced Research in Science and Engineering | - | 120,801 |
| Advanced Functional Fabrics of America | 12.630 | EXHIBIT 1-B TASK ORDER 001 | Basic, Applied, and Advanced Research in Science and Engineering | - | 4,282 |
| Advanced Functional Fabrics of America | 12.630 | W15QKN-16-3-0001 | Basic, Applied, and Advanced Research in Science and Engineering | - | 1,443 |
| IBM Corporation | 12.630 | PO 5004950716 | Basic, Applied, and Advanced Research in Science and Engineering | - | 187,772 |
| IBM Corporation | 12.630 | PO 5005129637 | Basic, Applied, and Advanced Research in Science and Engineering | - | 73,755 |
| University of Illinois | 12.630 | 088831-16647 | Basic, Applied, and Advanced Research in Science and Engineering | - | 385,282 |
| Total Basic, Applied, and Advanced Research in Science and Engineering | | | | - | 773,335 |
| Air Force Research | 12.800 | Direct | Air Force Defense Research Sciences Program | 61,407 | 1,383,682 |
| Massachusetts Institute of Technology | 12.800 | 5710003633 | Air Force Defense Research Sciences Program | - | 54,797 |
| Massachusetts Institute of Technology | 12.800 | 5710004252 | Air Force Defense Research Sciences Program | - | 1,013 |
| Truvent LLC | 12.800 | Air Force/Truventic | Air Force Defense Research Sciences Program | - | 44,653 |
| University of California Santa Barbara | 12.800 | KK1235 | Air Force Defense Research Sciences Program | - | 106 |
| University of Rhode Island | 12.800 | SB: 0005427/102316 | Air Force Defense Research Sciences Program | - | 155,365 |
| University of Wisconsin | 12.800 | 717K555 | Air Force Defense Research Sciences Program | - | (1,999) |
| Total Air Force Defense Research Sciences Program | | | | 61,407 | 1,637,617 |
| Solid State Scientific Corporation | 12.810 | SB: 1805-01 | Air Force Medical Research and Development | - | 23,724 |
| National Security Agency | 12.905 | Direct | CyberSecurity Core Curriculum | - | 20,945 |
| Defense Advanced Research Projects Agency | 12.910 | Direct | Research and Technology Development | 579,473 | 2,632,694 |
| California Institute of Technology | 12.910 | 7S-1097879 | Research and Technology Development | - | 186,807 |
| Massachusetts Institute of Technology | 12.910 | Sub# 26991 | Research and Technology Development | - | 130,542 |
| Raytheon BBN Technologies Corp | 12.910 | PO# 9500013240 | Research and Technology Development | - | 5,387 |
| Total Research and Technology Development | | | | 579,473 | 2,955,430 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|---|-------------------------------------|---|-------------------------------|
| Department of Defense, continued | | | | | |
| Army Research Institute | 12.U02 | Direct - W5J9CQ-11-C-0047 | Department of Defense Contracts | \$ 23,267 | \$ 23,267 |
| Azimuth Corporation | 12.U03 | 117-0365 | Department of Defense Contracts | - | 57,418 |
| BAE Systems | 12.U04 | PO#963054 | Department of Defense Contracts | - | 27,979 |
| BAE Systems | 12.U05 | 990090 | Department of Defense Contracts | - | 24,186 |
| BAE Systems | 12.U06 | PO# 961574 | Department of Defense Contracts | - | 251,328 |
| Boston Engineering | 12.U07 | 27791 | Department of Defense Contracts | - | 9,791 |
| Boston Engineering | 12.U08 | 27562 | Department of Defense Contracts | - | 4,963 |
| Boston Engineering | 12.U09 | 26656 | Department of Defense Contracts | - | 9,665 |
| CDM Smith | 12.U10 | 1402-991-003-AL | Department of Defense Contracts | - | (1,233) |
| Charles River Analytics | 12.U11 | SC1623301 | Department of Defense Contracts | - | 305,431 |
| DCS Corp | 12.U12 | PO 161511 | Department of Defense Contracts | - | 31,475 |
| Defense Advanced Research Projects Agency | 12.U13 | Direct - N65236-16-C-8002 | Department of Defense Contracts | - | 378,463 |
| Defense Advanced Research Projects Agency | 12.U14 | Direct - IPA #237 | Department of Defense Contracts | - | 286,919 |
| Dynetics, Inc. | 12.U15 | CM002014 | Miscellaneous Department of Defense | - | 3,537 |
| Energy Research Consultants | 12.U16 | FA865 0-1 6-C-2723 | Department of Defense Contracts | - | 116,163 |
| Engility Corporation | 12.U17 | 14463-PETTT | Department of Defense Contracts | - | 65,610 |
| FTL Labs Corporation | 12.U18 | W81XWH17C0104 | Department of Defense Contracts | - | 24,957 |
| FTL Labs Corporation | 12.U19 | FA8501-16-C-0001 | Department of Defense Contracts | - | 16,937 |
| FTL Labs Corporation | 12.U20 | D16PC00092 | Department of Defense Contracts | - | 13,848 |
| GE Global Research | 12.U21 | 401039445 | Department of Defense Contracts | - | 8 |
| Government of Israel | 12.U22 | PO 444/0672138 | Department of Defense Contracts | - | (1,804) |
| H F Webster Engineering Services, Inc. | 12.U23 | W9110X16C0024 | Department of Defense Contracts | - | 50,000 |
| Hypres, Inc. | 12.U24 | Hybrid Temp. Heterogenous Tech. Data | Department of Defense Contracts | - | 140,615 |
| Karagozian & Case | 12.U25 | Subcontract# UML2360.000 | Department of Defense Contracts | - | 101,057 |
| Leidos, Inc. | 12.U26 | P010184242 | Department of Defense Contracts | - | 89,599 |
| Lowell Digisonde International, LLC | 12.U27 | LDI20151027-1 | Department of Defense Contracts | - | 196,842 |
| Lowell Digisonde International, LLC | 12.U28 | LDI20170613-1 | Department of Defense Contracts | - | 47,762 |
| MA Development Finance Agency | 12.U29 | MOU Dated 10/16/2017 | Miscellaneous Department of Defense | - | 76,057 |
| Microbiotix | 12.U30 | 19865 | Department of Defense Contracts | - | (687) |
| MIT Lincoln Laboratory | 12.U31 | 7000344532 | Department of Defense Contracts | - | 38,001 |
| Nano-Bio Manufacturing Consortium | 12.U32 | PROJECT# 17-14 | Department of Defense Contracts | - | 126,759 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|----------|---|--------|---------------------------------|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Defense, continued | | | | | | | |
| Nano-Bio Manufacturing Consortium | 12.U33 | Project # 16-10 | | Department of Defense Contracts | \$ 35,067 | \$ | 39,898 |
| National Security Information Associates | 12.U34 | Subcontract Agreement N4000001 | | Department of Defense Contracts | - | | 601,145 |
| Naval Air Warfare Center | 12.U35 | Direct - N00421-16-P-0521 | | Department of Defense Contracts | - | | 1,576 |
| Nextflex | 12.U36 | Development Agreement dated 10/3/16 | | Department of Defense Contracts | - | | 249,020 |
| Nextflex | 12.U37 | Development Agreement dated 2/1/2017 | | Department of Defense Contracts | - | | 152,499 |
| Nextflex | 12.U38 | FA8650-15-2-5401 | | Department of Defense Contracts | 217,629 | | 418,362 |
| Photon Spot, Inc | 12.U39 | 702-1 | | Department of Defense Contracts | - | | 35,194 |
| Raytheon BBN Technologies Corp | 12.U40 | 14720 PO# 9500013529 | | Department of Defense Contracts | - | | 148,071 |
| Raytheon BBN Technologies Corp | 12.U41 | 13891 PO# 9500013440 | | Department of Defense Contracts | - | | 2,212 |
| Raytheon BBN Technologies Corp | 12.U42 | 14775 | | Department of Defense Contracts | - | | 217,183 |
| Raytheon Company | 12.U43 | PO 4201645039 | | Department of Defense Contracts | - | | 41,954 |
| Raytheon Company | 12.U44 | PO 4201472189 | | Department of Defense Contracts | - | | 119,106 |
| Raytheon Company | 12.U45 | PO# 4201267819 / Contract 20150270 | | Department of Defense Contracts | - | | (3,862) |
| SI2 Technologies, Inc. | 12.U46 | SI2-2017-2084-002 | | Department of Defense Contracts | - | | 31,138 |
| SI2 Technologies, Inc. | 12.U47 | SI2-2016-2081-001 | | Department of Defense Contracts | - | | 12,418 |
| SI2 Technologies, Inc. | 12.U48 | Subcontract # SI2-2016-2068-001 | | Department of Defense Contracts | - | | 52,950 |
| SI2 Technologies, Inc. | 12.U49 | Subcontract Number: SI2-2017-3041-001 | | Department of Defense Contracts | - | | 285,655 |
| SI2 Technologies, Inc. | 12.U50 | Subcontract # SI2-2016-2074-001 | | Department of Defense Contracts | - | | 100 |
| Spero Devices, Inc. | 12.U51 | D17PC00304 | | Department of Defense Contracts | - | | 125,783 |
| Stevens Institute of Technology | 12.U52 | 2102662-03 | | Department of Defense Contracts | - | | 89,328 |
| Systems & Technology Research | 12.U53 | 2014-1047 | | Department of Defense Contracts | - | | 420,825 |
| Technology Assessment and Transfer, Inc. | 12.U54 | 7001-01 | | Department of Defense Contracts | - | | 29,208 |
| Tegnovations LLC | 12.U55 | 702-1 | | Department of Defense Contracts | - | | 832 |
| Tegnovations LLC | 12.U56 | N58335-17-C-0058 | | Department of Defense Contracts | - | | 75,353 |
| Triton Systems, Inc. | 12.U57 | TSI-2440-14-103158 | | Department of Defense Contracts | - | | (3,901) |
| Triton Systems, Inc. | 12.U58 | TSI-2505-17-106772 | | Department of Defense Contracts | - | | 11,303 |
| Triton Systems, Inc. | 12.U59 | TSI-2511-17-106397 | | Department of Defense Contracts | - | | 5,890 |
| Triton Systems, Inc. | 12.U60 | TSI-2522-17-106658 | | Department of Defense Contracts | - | | 21,822 |
| Triton Systems, Inc. | 12.U61 | TSI-2527-17-106660 | | Department of Defense Contracts | - | | 15,616 |
| Triton Systems, Inc. | 12.U62 | TSI-2538-17-107125 | | Department of Defense Contracts | - | | 38,381 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| Department of Defense, continued | | | | | |
| Triton Systems, Inc. | 12.U63 | TSI-2544-18-107350 | Department of Defense Contracts | \$ - | \$ 13,691 |
| Triton Systems, Inc. | 12.U64 | TSI-4014-04-003 | Miscellaneous Department of Defense | - | 8,904 |
| U.S. Army Corps of Engineers | 12.U65 | Direct - W912HQ-15-C-0052 | Department of Defense Contracts | 261,434 | 507,001 |
| U.S. Army Corps of Engineers | 12.U66 | Direct - W912HQ-14-C-0035 P00006 | Department of Defense Contracts | 217,787 | 345,862 |
| U.S. Army Natick Soldier Research, Development & Engineering Cen | 12.U67 | Direct - W911QY-16-P-0235 | Department of Defense Contracts | - | 42,228 |
| U.S. Army Natick Soldier Research, Development & Engineering Cen | 12.U68 | Direct - W911QY-18-P-0029 | Department of Defense Contracts | - | 38,548 |
| U.S. Army Natick Soldier Research, Development & Engineering Cen | 12.U69 | Direct - W911QY-15-C-0068 | Department of Defense Contracts | - | 217 |
| U.S. Department of Defense | 12.U70 | Direct - W912HQ-13-C-0067 | Department of Defense Contracts | - | (4,377) |
| U.S. Department of The Army | 12.U72 | Direct - W911W5-16-C-0006 | Department of Defense Contracts | - | 3,638,645 |
| UES, Inc. | 12.U73 | S-926-013-010 | Department of Defense Contracts | - | 9,302 |
| UES, Inc. | 12.U74 | S-111-024-003 | Department of Defense Contracts | - | (1,385) |
| United Technologies Research Center | 12.U75 | N66001-16-C-4050 | Department of Defense Contracts | - | 49,499 |
| University of Memphis | 12.U76 | A17-090-S002 | Department of Defense Contracts | - | 415,089 |
| University of Southern California | 12.U77 | 89341790 | Department of Defense Contracts | - | 117,371 |
| University of Southern California | 12.U78 | 94671240 | Department of Defense Contracts | - | 152,578 |
| Vector Controls, Inc. | 12.U79 | N00014-11-C-0475 | Department of Defense Contracts | - | 1,682 |
| Department of Defense Total | | | | 3,667,282 | 34,211,277 |
| Department of Education | | | | | |
| U.S. Department of Education | 84.021 | Direct | Overseas Program- Group Projects Abroad | 31,547 | 106,648 |
| Association on Higher Education and Disability | 84.116 | P116D150005 | Fund for the Improvement of Postsecondary Education | - | 33,285 |
| MA Commission for The Blind | 84.126 | WCB41103021UMS15C, FH126A15VR | Rehabilitation Services-Vocational Rehabilitation Grants to States | 7,111 | 7,111 |
| U.S. Department of Education | 84.129 | Direct | Rehabilitation Long-Term Training | - | 205,558 |
| TransCen, Inc. | 84.133 | H133B140043 | National Institute on Disability and Rehabilitation Research | - | (612) |
| U.S. Department of Education | 84.200 | Direct | Graduate Assistance in Areas of National Need | - | 525,917 |
| City of Lowell, Public Schools | 84.215 | PO# 17002718-00 | Fund for the Improvement of Education | - | 5,408 |
| City of Lowell, Public Schools | 84.215 | PO# 18003767 | Fund for the Improvement of Education | - | 39,378 |
| City of Lowell, Public Schools | 84.215 | PO# 89370565-00 | Fund for the Improvement of Education | - | (99) |
| Total Fund for the Improvement of Education | | | | - | 44,687 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|----------|---|--------|--|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Education, continued | | | | | | | |
| U.S. Department of Education | 84.235 | Direct | | Rehabilitation Services Demonstration and Training Programs | \$ 2,288,905 | \$ | 2,837,443 |
| Nebraska Department of Education | 84.235 | 1745132 | | Rehabilitation Services Demonstration and Training Programs | - | | 73,287 |
| Total Rehabilitation Services Demonstration and Training Programs | | | | | 2,288,905 | | 2,910,730 |
| MA Charter Public School Association | 84.282 | 115-0299 | | Charter Schools | - | | 116,111 |
| U.S. Department of Education | 84.305 | Direct | | Education Research, Development and Dissemination | 15,379 | | 303,928 |
| U.S. Department of Education | 84.324 | Direct | | Research in Special Education | - | | 43,335 |
| Vanderbilt University | 84.324 | Sub# UNIV58652 | | Research in Special Education | - | | 5,439 |
| Total Research in Special Education | | | | | - | | 48,774 |
| U.S. Department of Education | 84.325 | Direct | | Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | - | | 843,434 |
| Jackson State University | 84.325 | Sub No. 2017-631554UMB | | Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | - | | 30,654 |
| Total Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | | | | | - | | 874,088 |
| Boston Plan For Excellence | 84.336 | U336S140088 | | Teacher Quality Partnership Grants | 15,000 | | 198,204 |
| Boston Plan For Excellence | 84.336 | U336S14088 | | Teacher Quality Partnership Grants | - | | (30,078) |
| Total Teacher Quality Partnership Grants | | | | | 15,000 | | 168,126 |
| U.S. Department of Education | 84.365 | Direct | | English Language Acquisition State Grants | - | | 133,460 |
| MA Department of Elementary & Secondary Ed | 84.366 | 150-009-7-1261-R | | Mathematics and Science Partnerships | 24,709 | | 113,594 |
| MA Department of Elementary & Secondary Ed | 84.366 | 150-015-6-1261-Q | | Mathematics and Science Partnerships | - | | 489 |
| MA Department of Elementary & Secondary Ed | 84.366 | 150-162119-2018-1261 | | Mathematics and Science Partnerships | 42,412 | | 73,033 |
| Total Mathematics and Science Partnerships | | | | | 67,121 | | 187,116 |
| National Writing Project | 84.367 | 92-MA01-SEED2017-ILJ | | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | - | | 11,553 |
| National Writing Project | 84.367 | 94-MA02-SEED2016-ILJ | | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | - | | 4,905 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of Education, continued | | | | | |
| National Writing Project | 84.367 | 94-MA02-SEED2017 PSC | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | \$ - | \$ 7,207 |
| National Writing Project | 84.367 | 94-MA02-SEED2018-C3WPPD | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | - | 1,845 |
| Total Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | | | | - | 25,510 |
| U.S. Department of Education | 84.407 | Direct | Transition Programs for Students with Intellectual Disabilities into Higher Education | 372,046 | 2,350,073 |
| U.S. Department of Education | 84.411 | Direct | Education Innovation and Research (formerly Investing in Innovation (i3) Fund) | 165,871 | 549,732 |
| Department of Education Total | | | | 2,962,980 | 8,590,242 |
| Department of Energy | | | | | |
| U.S. Department of Energy | 81.049 | Direct | Office of Science Financial Assistance Program | 379,350 | 3,671,074 |
| Argonne National Labs | 81.049 | DE-AC02-06CH11357 | Office of Science Financial Assistance Program | - | 5,048 |
| Innosense LLC | 81.049 | UMASS-3101-022017 | Office of Science Financial Assistance Program | - | 67,499 |
| Marine Biological Laboratory | 81.049 | MBL: 47812 | Office of Science Financial Assistance Program | - | 39,257 |
| Product Innovation and Engineering | 81.049 | 08012017 | Office of Science Financial Assistance Program | - | 17,106 |
| Stanford University | 81.049 | 61322281-123421 | Office of Science Financial Assistance Program | - | 62,916 |
| University of Delaware | 81.049 | 37776 | Office of Science Financial Assistance Program | - | 212,835 |
| University of Delaware | 81.049 | 48467 | Office of Science Financial Assistance Program | - | 17,074 |
| University of Nevada | 81.049 | 117GC000056 | Office of Science Financial Assistance Program | - | 47,531 |
| Total Office of Science Financial Assistance Program | | | | 379,350 | 4,140,340 |
| U.S. Department of Energy | 81.057 | Direct | University Coal Research | 7,958 | 54,189 |
| Michigan Technological University | 81.086 | 1502062Z1 | Conservation Research and Development | - | 135,195 |
| U.S. Department of Energy | 81.087 | Direct | Renewable Energy Research and Development | 793 | 146,997 |
| Littoral Power Systems, LLC | 81.087 | LPS-001 | Renewable Energy Research and Development | - | 67,650 |
| Total Renewable Energy Research and Development | | | | 793 | 214,647 |
| U.S. Department of Energy | 81.104 | Direct | Environmental Remediation and Waste Processing and Disposal | 100,000 | 306,288 |
| U.S. Department of Energy | 81.112 | Direct | Stewardship Science Grant Program | - | 169,692 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|---|--------|---|---|-------------------------------|
| | | | Number | | | |
| Department of Energy, continued | | | | | | |
| U.S. Department of Energy | 81.117 | Direct | | Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance | \$ - | \$ 238,945 |
| Pace University | 81.117 | DE-EE0006279 | | Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance | - | 116,042 |
| Total Energy Efficiency and Renewable Energy Information Dissemination, Outreach, Training and Technical Analysis/Assistance | | | | | - | 354,987 |
| U.S. Department of Energy | 81.121 | Direct | | Nuclear Energy Research, Development and Demonstration | 57,931 | 281,184 |
| Massachusetts Institute of Technology | 81.135 | 571000-4079 | | Advanced Research Projects Agency - Energy | - | 216,943 |
| UHV Technologies, Inc. | 81.135 | Subaward dated 8/30/2017 | | Advanced Research Projects Agency - Energy | - | 18,707 |
| Total Advanced Research Projects Agency - Energy | | | | | - | 235,650 |
| Alliance For Sustainability, LLC | 81.U01 | XEJ-8-70303-01 | | Department of Energy Contracts | - | 46,680 |
| Argonne National Labs | 81.U02 | 3F32741 | | Department of Energy Contracts | - | 3,476 |
| Argonne National Labs | 81.U03 | 7F-30047 | | Department of Energy Contracts | - | 29,621 |
| Argonne National Labs | 81.U04 | 8F-30061 | | Department of Energy Contracts | - | 41,127 |
| Brookhaven National Laboratory | 81.U05 | 233969 | | Department of Energy Contracts | - | 210,349 |
| Brookhaven National Laboratory | 81.U06 | Subcontract Number 330349 | | Department of Energy Contracts | - | 13,513 |
| Honeywell International Inc | 81.U07 | N000242948 | | Department of Energy Contracts | - | 15,724 |
| Honeywell International Inc | 81.U08 | N000266033 | | Department of Energy Contracts | - | 12,378 |
| Lawrence Berkeley National Lab U-California | 81.U09 | 7251704 | | Department of Energy Contracts | - | 19,412 |
| Lawrence Berkeley National Lab U-California | 81.U10 | 7345970 | | Department of Energy Contracts | - | 25,000 |
| Lawrence Livermore National Lab U-California | 81.U11 | B623647 | | Department of Energy Contracts | - | 24,657 |
| National Renewable Energy Lab | 81.U12 | Sub No.: XAT-6-62163-01 | | Department of Energy Contracts | - | 76,078 |
| National Renewable Energy Lab | 81.U13 | Subcontract No. AFC-5-52004-05 | | Department of Energy Contracts | - | 31 |
| Oak Ridge National Laboratory | 81.U14 | Direct - ORNL: 4000135366 | | Department of Energy Contracts | - | 131,628 |
| Oak Ridge National Laboratory | 81.U15 | Direct - ORNL: 4000136881 | | Department of Energy Contracts | - | 6,864 |
| Pacific Northwest National Laboratory | 81.U16 | 355442 | | Department of Energy Contracts | - | 33,032 |
| Pacific Northwest National Laboratory | 81.U17 | Contract 325324 | | Department of Energy Contracts | - | 96,398 |
| Sandia National Labs | 81.U18 | 1666643-REV 3 | | Department of Energy Contracts | - | 93,165 |
| Sandia National Labs | 81.U19 | Standard PO 1809035 | | Department of Energy Contracts | - | 44,637 |
| Sandia National Labs | 81.U20 | Standard PO 1770246 | | Department of Energy Contracts | - | 26,403 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|---|----------|---|--------|---|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Energy, continued | | | | | | | |
| Triton Systems, Inc. | 81.U21 | TSI-2486-17-106117 | | Department of Energy Contracts | \$ - | \$ | 2,656 |
| U.S. Atlas | 81.U22 | 336326 | | Department of Energy Contracts | - | | 6,953 |
| UT-Battelle LLC | 81.U23 | 4000158644 | | Department of Energy Contracts | - | | 88,581 |
| Department of Energy Total | | | | | 546,032 | | 6,940,535 |
| Department of Health and Human Services | | | | | | | |
| Highland Valley Elder Services, Inc. | 93.052 | 116-0125 | | National Family Caregiver Support, Title III, Part E | - | | 562 |
| Centers for Disease Control & Prevention | 93.068 | Direct | | Chronic Diseases: Research, Control, and Prevention | - | | 529,175 |
| American Thrombosis & Hemostasis Network | 93.080 | ATHN2015001-1-2 | | Blood Disorder Program: Prevention, Surveillance, and Research | 102,942 | | 72,071 |
| Harvard Pilgrim Health Care, Inc. | 93.084 | U54CK000484 | | Prevention of Disease, Disability, and Death by Infectious Diseases | - | | 31,808 |
| U.S. Food and Drug Administration | 93.103 | Direct | | Food and Drug Administration-Research | - | | 248,450 |
| University of Vermont | 93.103 | 30689SUB52094 | | Food and Drug Administration-Research | - | | 2,457 |
| Weill Cornell Medical College | 93.103 | 1 U01 FD005478-02 | | Food and Drug Administration-Research | - | | 1,045 |
| Total Food and Drug Administration-Research | | | | | - | | 251,952 |
| Health Resources & Service Administration | 93.107 | Direct | | Area Health Education Centers | 410,492 | | 595,669 |
| Health Resources & Service Administration | 93.110 | Direct | | Maternal and Child Health Federal Consolidated Programs | 330,343 | | 1,169,675 |
| Children's Hospital | 93.110 | 6 T73MC000202402 / PO# 0001204102 | | Maternal and Child Health Federal Consolidated Programs | - | | 115,095 |
| Icahn School of Medicine At Mount Sinai | 93.110 | SB: 0253-6546-4609 | | Maternal and Child Health Federal Consolidated Programs | - | | 34,683 |
| Langston University | 93.110 | Sub# LU 5-17047-1 / PO# P0078505 | | Maternal and Child Health Federal Consolidated Programs | - | | 5,322 |
| MA Department of Public Health | 93.110 | INTF3050HH2500224026 | | Maternal and Child Health Federal Consolidated Programs | - | | 9,260 |
| Mount Sinai Medical Center | 93.110 | SB: 0253-6544-4609 | | Maternal and Child Health Federal Consolidated Programs | - | | (2,548) |
| Total Maternal and Child Health Federal Consolidated Programs | | | | | 330,343 | | 1,331,487 |
| National Institutes of Health | 93.113 | Direct | | Environmental Health | 253,556 | | 3,074,488 |
| Harvard Pilgrim Health Care, Inc. | 93.113 | Sub No. PH000552B | | Environmental Health | - | | 5,165 |
| Harvard School of Public Health | 93.113 | SB: 112176-5095841 | | Environmental Health | - | | 45,901 |
| University of Vermont | 93.113 | 3 1292SUB52223 | | Environmental Health | - | | 13,066 |
| University of Wisconsin | 93.113 | SB: 783K042 | | Environmental Health | - | | 66,026 |
| Total Environmental Health | | | | | 253,556 | | 3,204,646 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| National Institutes of Health | 93.121 | Direct | Oral Diseases and Disorders Research | \$ 15,968 | \$ 653,451 |
| Brigham and Women's Hospital | 93.121 | 114810 | Oral Diseases and Disorders Research | - | 20,330 |
| University of California | 93.121 | SB: 8871sc | Oral Diseases and Disorders Research | - | 77,928 |
| University of California San Francisco | 93.121 | SB: 9502SC | Oral Diseases and Disorders Research | - | 27,726 |
| University of Rochester | 93.121 | 416663-G | Oral Diseases and Disorders Research | - | 12,993 |
| Total Oral Diseases and Disorders Research | | | | 15,968 | 792,428 |
| Centers for Disease Control & Prevention | 93.135 | Direct | Centers for Research and Demonstration for Health Promotion and Disease Prevention | - | 873,952 |
| Dartmouth College | 93.135 | SB: 1614 | Centers for Research and Demonstration for Health Promotion and Disease Prevention | - | 726 |
| Total Centers for Research and Demonstration for Health Promotion and Disease Prevention | | | | - | 874,678 |
| MA Department of Public Health | 93.136 | INTF3401M03700115043 | Injury Prevention and Control Research and State and Community Based Programs | - | 21,929 |
| MA Department of Public Health | 93.136 | INTF3401MO3 181228065 | Injury Prevention and Control Research and State and Community Based Programs | - | 105,759 |
| Total Injury Prevention and Control Research and State and Community Based Programs | | | | - | 127,688 |
| National Institutes of Health | 93.142 | Direct | NIHES Hazardous Waste Worker Health and Safety Training | 621,902 | 1,447,071 |
| Boston University | 93.143 | 4500002440 | NIHES Superfund Hazardous Substances-Basic Research and Education | - | 28,029 |
| Health Resources & Service Administration | 93.145 | Direct | HIV-Related Training and Technical Assistance | 1,641,027 | 2,123,421 |
| Rutgers University | 93.145 | SB: 821743 | HIV-Related Training and Technical Assistance | - | 6,642 |
| Total HIV-Related Training and Technical Assistance | | | | 1,641,027 | 2,130,063 |
| National Institutes of Health | 93.172 | Direct | Human Genome Research | 2,012,905 | 4,546,592 |
| Biospyder Technologies, Inc | 93.172 | 2 R44HG008917 | Human Genome Research | - | 40,647 |
| The Broad Institute | 93.172 | SB: 500530-550000908 | Human Genome Research | - | 25,831 |
| Total Human Genome Research | | | | 2,012,905 | 4,613,070 |
| National Institutes of Health | 93.173 | Direct | Research Related to Deafness and Communication Disorders | 45,654 | 1,461,748 |
| Emerson College | 93.173 | SB: 3452-UMMS | Research Related to Deafness and Communication Disorders | - | (58) |
| Total Research Related to Deafness and Communication Disorders | | | | 45,654 | 1,461,690 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Health Resources & Service Administration | 93.178 | Direct | Nursing Workforce Diversity | \$ - | \$ 293,569 |
| National Institutes of Health | 93.213 | Direct | Research and Training in Complementary and Integrative Health | 279,928 | 1,306,663 |
| Brown University | 93.213 | 1 UH2 AT008145-02 | Research and Training in Complementary and Integrative Health | - | 154,607 |
| Miriam Hospital | 93.213 | Subaward No.710-9138 | Research and Training in Complementary and Integrative Health | - | 9,395 |
| University of California San Francisco | 93.213 | SB: 9560sc | Research and Training in Complementary and Integrative Health | - | 167,657 |
| Yale University | 93.213 | 1 UG3 AT009758-01 | Research and Training in Complementary and Integrative Health | - | 14,637 |
| Yale University | 93.213 | 1 UG3 AT009767-01 | Research and Training in Complementary and Integrative Health | - | 27,199 |
| Total Research and Training in Complementary and Integrative Health | | | | 279,928 | 1,680,158 |
| Agency for Healthcare Research & Quality | 93.226 | Direct | Research on Healthcare Costs, Quality and Outcomes | 729,258 | 1,895,580 |
| Harvard Pilgrim Health Care, Inc. | 93.226 | R18HS021424 | Research on Healthcare Costs, Quality and Outcomes | - | 20,049 |
| Ohio State University | 93.226 | SUB: 60065338 | Research on Healthcare Costs, Quality and Outcomes | - | 16,236 |
| University of California Irvine | 93.226 | SB: 2015-3303 | Research on Healthcare Costs, Quality and Outcomes | - | 6,036 |
| University of Minnesota | 93.226 | P005171401 | Research on Healthcare Costs, Quality and Outcomes | - | 6,105 |
| Worcester Polytechnic Institute | 93.226 | SB: 15-21084-00 | Research on Healthcare Costs, Quality and Outcomes | - | 5,348 |
| Yale University | 93.226 | Sub# GR101546 (CON-80001090) | Research on Healthcare Costs, Quality and Outcomes | - | 154,869 |
| Total Research on Healthcare Costs, Quality and Outcomes | | | | 729,258 | 2,104,223 |
| National Institutes of Health | 93.233 | Direct | National Center on Sleep Disorders Research | - | 340,874 |
| National Institutes of Health | 93.242 | Direct | Mental Health Research Grants | 968,483 | 6,202,556 |
| Icahn School of Medicine At Mount Sinai | 93.242 | SB: 0255-0091-4809 | Mental Health Research Grants | - | 78,000 |
| Massachusetts General Hospital | 93.242 | SB: 228314 | Mental Health Research Grants | - | 143,604 |
| McLean Hospital | 93.242 | SB: 401122 | Mental Health Research Grants | - | 24,975 |
| Michigan State University | 93.242 | SB: RC108066UMASS | Mental Health Research Grants | - | 6,470 |
| Pennsylvania State University | 93.242 | 5 R01 MH098003-04 | Mental Health Research Grants | - | 14,901 |
| Praxis, Inc. | 93.242 | 1R41MH116534-01A1 | Mental Health Research Grants | - | 18,291 |
| Praxis, Inc. | 93.242 | PR: R41 MH113381-01 | Mental Health Research Grants | - | 50,926 |
| Rand Corporation | 93.242 | Sub# 9920170094 | Mental Health Research Grants | - | 24,489 |
| University of Alaska | 93.242 | UAF 18-0030 | Mental Health Research Grants | - | 109,605 |
| University of North Carolina | 93.242 | SB: 516171 | Mental Health Research Grants | - | 5,166 |
| University of Southern California | 93.242 | SB: 91991408 | Mental Health Research Grants | - | 56,968 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| University of Toronto | 93.242 | 1 R01 MH099167-01 | Mental Health Research Grants | \$ - | \$ (9,057) |
| Yale University | 93.242 | 5 R01 MH110926-03 | Mental Health Research Grants | - | 77,779 |
| Yale University | 93.242 | SB: GR100931CON-80000917 | Mental Health Research Grants | - | 58,701 |
| Total Mental Health Research Grants | | | | 968,483 | 6,663,374 |
| Substance Abuse and Mental Health Services | 93.243 | Direct | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | 181,973 | 980,871 |
| American Psychiatric Association | 93.243 | SM060562-05 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 228 |
| Baystate Medical Center, Inc. | 93.243 | U79 SM063204 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 57,516 |
| Boston University | 93.243 | 4500002244 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 19,088 |
| Colorado Seminary | 93.243 | H79TI026380/1H79SM060845 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 8,761 |
| MA Department of Public Health | 93.243 | INTF2330MM3W16007103 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 297,857 |
| MA Department of Public Health | 93.243 | INTF2400H78500224280 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 142,840 |
| MA Department of Public Health | 93.243 | INTF4107H78500224088 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 87,196 |
| MA Department of Public Health | 93.243 | SCDMH822018084030000 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 23,039 |
| University of California | 93.243 | 1647 G UA158 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 188,342 |
| Total Substance Abuse and Mental Health Services-Projects of Regional and National Significance | | | | 181,973 | 1,805,738 |
| Health Resources & Service Administration | 93.247 | Direct | Advanced Nursing Education Workforce Grant Program | 386,341 | 846,112 |
| Centers for Disease Control & Prevention | 93.262 | Direct | Occupational Safety and Health Program | 512,585 | 2,532,742 |
| Harvard School of Public Health | 93.262 | 2017-2018 ERC Pilot Project | Occupational Safety and Health Program | - | 12,281 |
| Johns Hopkins University | 93.262 | 2 U54 OH007542 | Occupational Safety and Health Program | - | 6,304 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Pennington Biomedical Research Center | 93.262 | R210H010785-O1A1S1 | Occupational Safety and Health Program | \$ - | \$ 3,123 |
| The Center for Construction Research & Training | 93.262 | No. 3001-607-01 | Occupational Safety and Health Program | - | 224,921 |
| The Mary Imogene Bassett Hospital | 93.262 | 2 U54 OH007542-16 | Occupational Safety and Health Program | - | 39,915 |
| The Mary Imogene Bassett Hospital | 93.262 | 2 U54 OH007542-17 | Occupational Safety and Health Program | - | 118,754 |
| The Mary Imogene Bassett Hospital | 93.262 | 5 U54 OH007542-15 | Occupational Safety and Health Program | - | (2,880) |
| Total Occupational Safety and Health Program | | | | 512,595 | 2,935,160 |
| Children's Hospital | 93.266 | GENFD0001358193 | Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief | - | 19,413 |
| Yale University | 93.266 | M13A11547 (A09063) | Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief | - | 55,163 |
| Yale University | 93.266 | M13A11547(A09064) | Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief | 6,929 | 59,457 |
| Total Health Systems Strengthening and HIV/AIDS Prevention, Care and Treatment under the President's Emergency Plan for AIDS Relief | | | | 6,929 | 134,033 |
| National Institutes of Health | 93.273 | Direct | Alcohol Research Programs | 111,124 | 4,033,895 |
| Brown University | 93.273 | SB: 00000831 | Alcohol Research Programs | - | 30,198 |
| Brown University | 93.273 | Sub# 00000856 | Alcohol Research Programs | - | 10,021 |
| Cleveland Clinic Foundation | 93.273 | U01 AA021893-05 | Alcohol Research Programs | - | 366,276 |
| Praxis, Inc. | 93.273 | SB: STTR: Mission U | Alcohol Research Programs | - | 2,166 |
| Rhode Island Hospital | 93.273 | SB: 7017137290-1 | Alcohol Research Programs | - | 1,719 |
| Signablok, Inc. | 93.273 | 1R34AA024355-01A1 | Alcohol Research Programs | - | 67,578 |
| Tridium, Inc. | 93.273 | 2 R42 AA022035-04 | Alcohol Research Programs | 10,349 | 194,564 |
| University of New Mexico | 93.273 | SB: 028326-871G | Alcohol Research Programs | - | 8,294 |
| Total Alcohol Research Programs | | | | 121,473 | 4,714,711 |
| National Institutes of Health | 93.279 | Direct | Drug Abuse and Addiction Research Programs | 246,699 | 4,635,382 |
| Brown University | 93.279 | Sub# 00001061 | Drug Abuse and Addiction Research Programs | - | 22,255 |
| Dartmouth College | 93.279 | 5 R01 DA032533-03 | Drug Abuse and Addiction Research Programs | - | (7,740) |
| Florida International University | 93.279 | SB: 800001069-02 | Drug Abuse and Addiction Research Programs | - | 1,447 |
| Kaiser Foundation Research Institute | 93.279 | 5 UG1 DA040314-02 | Drug Abuse and Addiction Research Programs | - | 10,711 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|----------|---|--------|--|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Health and Human Services, continued | | | | | | | |
| Natl Development and Research Institutes | 93.279 | Project #6420 | | Drug Abuse and Addiction Research Programs | \$ - | \$ | 15,366 |
| Natl Development and Research Institutes | 93.279 | Project #642D/PO No.000820 | | Drug Abuse and Addiction Research Programs | - | | (59) |
| Oregon Social Learning Center, Inc. | 93.279 | 1 R01 DA041425-01 | | Drug Abuse and Addiction Research Programs | - | | 247,856 |
| University of California | 93.279 | 5 U24 DA041123-02 | | Drug Abuse and Addiction Research Programs | - | | 37,173 |
| University of Colorado At Denver | 93.279 | Subaward: FY18.893.001 | | Drug Abuse and Addiction Research Programs | - | | 31,087 |
| University of Nebraska | 93.279 | 24-0524-0054-004 | | Drug Abuse and Addiction Research Programs | - | | 5,169 |
| University of Wisconsin Madison | 93.279 | 7R01DA041641-02 | | Drug Abuse and Addiction Research Programs | - | | 17,951 |
| Virginia Polytechnic Institute and State University | 93.279 | 5R01 DA036017-05 | | Drug Abuse and Addiction Research Programs | - | | 30,026 |
| Total Drug Abuse and Addiction Research Programs | | | | | 246,699 | | 5,046,624 |
| University of Rochester | 93.280 | 416935-G/UR FAO GR510519 | | National Institutes of Health Loan Repayment Program for Clinical Researchers | - | | 14,047 |
| University of South Carolina | 93.283 | SB: 17-3249 | | Centers for Disease Control and Prevention-Investigations and Technical Assistance | - | | 35,390 |
| National Institutes of Health | 93.286 | Direct | | Discovery and Applied Research for Technological Innovations to Improve Human Health | 1,405,146 | | 4,554,267 |
| Montana State University | 93.286 | G173-15-W5173 | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | 49,619 |
| Stanford University | 93.286 | Sub No. 60812904-108947 | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | (1,823) |
| Stanford University | 93.286 | Sub No. 60812904-108947 (Amnd 1) | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | (5,114) |
| Stanford University | 93.286 | Sub No. 60812904-108947 (Amnd 3) | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | 108,708 |
| University of Florida | 93.286 | 5 R01 EB014869-04 | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | 559 |
| University of Memphis | 93.286 | 5-40312 | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | 174,063 |
| Worcester Polytechnic Institute | 93.286 | SB: 18-211110-01 | | Discovery and Applied Research for Technological Innovations to Improve Human Health | - | | 18,367 |
| Total Discovery and Applied Research for Technological Innovations to Improve Human Health | | | | | 1,405,146 | | 4,898,646 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | Direct Award or Pass Through Entity Identifying | | | Program Title | Amounts Passed | Total Federal Expenditures |
|--|---|-------------------|---|---------------|----------------|----------------------------|
| | CFDA No. | Number | Through to Subrecipients | | | |
| Department of Health and Human Services, continued | | | | | | |
| National Institutes of Health | 93.307 | Direct | Minority Health and Health Disparities Research | \$ 229,032 | \$ 2,022,374 | |
| National Institutes of Health | 93.310 | Direct | Trans-NIH Research Support | 1,163,638 | 7,311,792 | |
| Boston College | 93.310 | Sub# 5101963-7 | Trans-NIH Research Support | 2,953 | 2,410 | |
| California Institute of Technology | 93.310 | DP5 OD12190-06 | Trans-NIH Research Support | - | (9,108) | |
| Harvard Pilgrim Health Care, Inc. | 93.310 | PH000615E | Trans-NIH Research Support | - | 66,377 | |
| Henry Ford Health System | 93.310 | SB: B11170UMMS | Trans-NIH Research Support | - | 24,453 | |
| Henry Ford Health System | 93.310 | SB: B11149UMASS | Trans-NIH Research Support | - | 84,989 | |
| University of California Irvine | 93.310 | SB: 2015-3290 | Trans-NIH Research Support | - | 150,526 | |
| University of Delaware | 93.310 | 47942 | Trans-NIH Research Support | - | 19,999 | |
| University of North Carolina | 93.310 | SB: 5106194 | Trans-NIH Research Support | - | 316,554 | |
| Total Trans-NIH Research Support | | | | 1,166,591 | 7,967,992 | |
| Boston Public Health Commission | 93.311 | PO 201601767 | Mobilization For Health: National Prevention Partnership Awards | - | 6,997 | |
| Centers for Disease Control & Prevention | 93.318 | Direct | Protecting and Improving Health Globally: Building and Strengthening Public Health Impact, Systems, Capacity and Security | 2,004,476 | 4,404,040 | |
| National Institutes of Health | 93.350 | Direct | National Center for Advancing Translational Sciences | 400,257 | 5,305,707 | |
| Boston Medical Center | 93.350 | 535401 | National Center for Advancing Translational Sciences | - | 41,912 | |
| University of Alabama | 93.350 | SB: 000508606-014 | National Center for Advancing Translational Sciences | - | 24,453 | |
| University of Alabama | 93.350 | SB: 000508606-021 | National Center for Advancing Translational Sciences | - | 119,663 | |
| Total National Center for Advancing Translational Sciences | | | | 400,257 | 5,491,735 | |
| National Institutes of Health | 93.351 | Direct | Research Infrastructure Programs | 238,221 | 2,166,378 | |
| Jackson Laboratory | 93.351 | U54 OD020351 | Research Infrastructure Programs | - | 23,819 | |
| The Broad Institute | 93.351 | 5400000054 | Research Infrastructure Programs | - | 18,618 | |
| Total Research Infrastructure Programs | | | | 238,221 | 2,208,815 | |
| Geisinger Medical Center | 93.353 | SB: 646018UOM01 | 21st Century Cures Act - Beau Biden Cancer Moonshot | - | 13,602 | |
| Health Resources & Service Administration | 93.358 | Direct | Advanced Education Nursing Traineeships | - | 58,232 | |
| University of Florida | 93.360 | SB: UFDSP00011615 | Biomedical Advanced Research and Development Authority (BARDA), Biodefense Medical Countermeasure Development | - | 128,676 | |
| National Institutes of Health | 93.361 | Direct | Nursing Research | - | 744,871 | |
| Rhode Island Hospital | 93.361 | 5 R01 NR014782-03 | Nursing Research | - | 17,873 | |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Rush University Medical Center | 93.361 | 5 R01 NR013910-05 | Nursing Research | \$ - | \$ 2,986 |
| Temple University | 93.361 | 259909-UMASS | Nursing Research | - | 8,715 |
| Total Nursing Research | | | | - | 774,445 |
| National Institutes of Health | 93.393 | Direct | Cancer Cause and Prevention Research | 666,195 | 3,133,565 |
| Boston University | 93.393 | 4500001969 | Cancer Cause and Prevention Research | - | 19,075 |
| Boston University | 93.393 | R01 CA181392-02 | Cancer Cause and Prevention Research | - | 327,968 |
| Harvard School of Public Health | 93.393 | 111170-5081524 | Cancer Cause and Prevention Research | - | 32,432 |
| Kaiser Foundation Research Institute | 93.393 | SB: RING200623-MPCI-01 | Cancer Cause and Prevention Research | - | 16,739 |
| Klein Buendel, Inc. | 93.393 | SB: 0301-0154-000 | Cancer Cause and Prevention Research | - | 20,373 |
| New York University School of Medicine | 93.393 | 5 R21 CA187612-02 | Cancer Cause and Prevention Research | - | (344) |
| Tridium, Inc. | 93.393 | SB: SBC Project | Cancer Cause and Prevention Research | - | 224,184 |
| University of Pennsylvania | 93.393 | 5 R01 CA202699-02 | Cancer Cause and Prevention Research | - | (5,684) |
| University of Pennsylvania | 93.393 | 565706 PO # 3980600 | Cancer Cause and Prevention Research | - | 23,464 |
| University of Pennsylvania | 93.393 | PO#3758858 | Cancer Cause and Prevention Research | - | 26,173 |
| University of Puerto Rico | 93.393 | 5 R21CA198963-02 | Cancer Cause and Prevention Research | - | 30,814 |
| University of Wisconsin | 93.393 | 173405330 | Cancer Cause and Prevention Research | - | 26,441 |
| Wake Forest University | 93.393 | SB: WFUHS114040 | Cancer Cause and Prevention Research | - | 81,855 |
| Total Cancer Cause and Prevention Research | | | | 666,195 | 3,957,055 |
| National Institutes of Health | 93.394 | Direct | Cancer Detection and Diagnosis Research | 261,311 | 1,217,014 |
| Lumamed LLC | 93.394 | SBIR Dated 12/15/14 | Cancer Detection and Diagnosis Research | - | (20,619) |
| University of Arkansas for Medical Sciences | 93.394 | SB: 51599 | Cancer Detection and Diagnosis Research | - | 38,479 |
| University of Michigan | 93.394 | SB: 3004625568 | Cancer Detection and Diagnosis Research | - | 20,914 |
| Worcester Polytechnic Institute | 93.394 | SB: 14-210730-02 | Cancer Detection and Diagnosis Research | - | 102,328 |
| Total Cancer Detection and Diagnosis Research | | | | 261,311 | 1,358,116 |
| National Institutes of Health | 93.395 | Direct | Cancer Treatment Research | 126,776 | 1,409,655 |
| American College of Radiology | 93.395 | 1 U24 CA18083-04 | Cancer Treatment Research | - | 567,820 |
| American College of Radiology | 93.395 | 1612 | Cancer Treatment Research | - | 822,266 |
| Children's Hospital of Philadelphia | 93.395 | U10 CA180886 | Cancer Treatment Research | - | 35,796 |
| Children's Hospital of Philadelphia | 93.395 | U10CA0180886 | Cancer Treatment Research | - | 15,839 |
| Northwestern University | 93.395 | 1 R01 CA219013-01 | Cancer Treatment Research | - | 6,362 |
| Purdue University | 93.395 | Sub No. 4102-74345 | Cancer Treatment Research | - | 24,660 |
| Total Cancer Treatment Research | | | | 126,776 | 2,882,398 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|---|---|-------------------------------|---|--------------------------|----|----------------------------|
| | CFDA No. | Number | | Through to Subrecipients | | |
| Department of Health and Human Services, continued | | | | | | |
| National Institutes of Health | 93.396 | Direct | Cancer Biology Research | \$ 557,272 | \$ | 3,867,820 |
| Beckman Research Institute City of Hope | 93.396 | 1 R21 CA205106-01 | Cancer Biology Research | - | | 87,640 |
| Beckman Research Institute City of Hope | 93.396 | R21CA205106 | Cancer Biology Research | - | | 23,310 |
| Massachusetts General Hospital | 93.396 | SB: 229519 | Cancer Biology Research | - | | 279,947 |
| Mayo Clinic Rochester | 93.396 | PO: 64195304 / SB: UNI-203270 | Cancer Biology Research | - | | 7,502 |
| Sage Bionetworks | 93.396 | CSBCUMA2017 | Cancer Biology Research | - | | 40,918 |
| Sanford Burnham Prebys Medical Discovery Institute | 93.396 | SB: 60025-12917-UMASS | Cancer Biology Research | - | | 35,743 |
| Total Cancer Biology Research | | | | 557,272 | | 4,342,880 |
| National Institutes of Health | 93.397 | Direct | Cancer Centers Support Grants | - | | 1,962,062 |
| Indiana University | 93.397 | SB: IN4687567UMASS | Cancer Centers Support Grants | - | | 37,839 |
| Indiana University | 93.397 | SB: IN4687577UMASS | Cancer Centers Support Grants | - | | 24,069 |
| Indiana University | 93.397 | SB: PO # 1571596 | Cancer Centers Support Grants | - | | 19,221 |
| Northwestern University | 93.397 | SB: 6003974 UM | Cancer Centers Support Grants | - | | 99,952 |
| Total Cancer Centers Support Grants | | | | - | | 2,143,143 |
| National Institutes of Health | 93.398 | Direct | Cancer Research Manpower | - | | 1,050,939 |
| Dana Farber Cancer Institute | 93.398 | Sub# 1156001 | Cancer Research Manpower | - | | 22,027 |
| Total Cancer Research Manpower | | | | - | | 1,072,966 |
| Association of Maternal & Child Health Program | 93.424 | 1-U38-OT000140-03 | NON-ACA/PPHFBuilding Capacity of the Public Health System to Improve Population Health through National Nonprofit Organizations | - | | 10,364 |
| U.S. Department of Health and Human Services | 93.433 | Direct | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | 371,284 | | 1,641,708 |
| Brandeis University | 93.433 | 403315 | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | - | | 15,840 |
| FTL Labs Corporation | 93.433 | 90BISB0007-01-00 | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | - | | 12,902 |
| Langston University | 93.433 | Sub# LU 5-17044-1 | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | - | | (1,224) |
| Transcen, Inc. | 93.433 | 90RT5034-02-00 | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | - | | 118,998 |
| University of Medicine & Dentistry of NJ | 93.433 | SB: 8094 | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | - | | 99,259 |
| Total ACL National Institute on Disability, Independent Living, and Rehabilitation Research | | | | 371,284 | | 1,887,483 |

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|--|----------|--|--|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Boston University | 93.516 | 4500001666 | Public Health Training Centers Program | \$ - | \$ 54,810 |
| Children's Friend and Family Service | 93.600 | EHSCCP-Eval-001 | Head Start | 18,148 | 34,570 |
| State of Rhode Island | 93.624 | SRI/Agreement #: SIM MTG-002 | ACA - State Innovation Models: Funding for Model Design and Model testing Assistance | - | 34,529 |
| University of Connecticut | 93.624 | 1 G1CMS331404 | ACA - State Innovation Models: Funding for Model Design and Model testing Assistance | - | 2,673 |
| Total ACA - State Innovation Models: Funding for Model Design and Model Testing Assistance | | | | - | 37,202 |
| Florida Developmental Disabilities Council | 93.630 | 973EM16 | Developmental Disabilities Basic Support and Advocacy Grants | - | (7,151) |
| U.S. Department of Health and Human Services | 93.631 | Direct | Developmental Disabilities Projects of National Significance | 9,483 | 168,065 |
| U.S. Department of Health and Human Services | 93.632 | Direct | University Centers for Excellence in Developmental Disabilities Education, Research, and Service | 22,885 | 539,958 |
| Children's Hospital | 93.632 | 90DD0013-04-00, PO# 0000704943 | University Centers for Excellence in Developmental Disabilities Education, Research, and Service | 7,500 | 283,980 |
| Total University Centers for Excellence in Developmental Disabilities Education, Research, and Service | | | | 30,385 | 823,938 |
| Centers For Medicare & Medicaid Services | 93.638 | Direct | ACA-Transforming Clinical Practice Initiative: Practice Transformation Networks (PTNs) | 2,676,544 | 8,185,903 |
| MA Executive Office of Health & Human Services | 93.644 | 16UMMSCONTRACEPTIVSW | Adult Medicaid Quality: Improving Maternal and Infant Health Outcomes in Medicaid and CHIP | - | 40,973 |
| Luk Crisis Center, Inc. | 93.652 | 90C01057 | Adoption Opportunities | - | 17,634 |
| National Institutes of Health | 93.837 | Direct | Cardiovascular Diseases Research | 1,417,183 | 10,083,371 |
| Boston University | 93.837 | 1R01HL136660 | Cardiovascular Diseases Research | - | 141,945 |
| Brigham and Women's Hospital | 93.837 | 113892 | Cardiovascular Diseases Research | - | 11,383 |
| FocalCool LLC | 93.837 | R43-NS095573-01A1 | Cardiovascular Diseases Research | - | 165,032 |
| Gentuity, LLC | 93.837 | 1 R34 NS 100163-01A1 | Cardiovascular Diseases Research | - | 68,875 |
| Harvard Medical School | 93.837 | 1R01HL126896-01A1 | Cardiovascular Diseases Research | - | 213,148 |
| Illinois Institute of Technology | 93.837 | SB: SA557-0614-8907 | Cardiovascular Diseases Research | - | 442,145 |
| Massachusetts General Hospital | 93.837 | SB: 226216 | Cardiovascular Diseases Research | - | 6,539 |
| Massachusetts General Hospital | 93.837 | SB: 228345 | Cardiovascular Diseases Research | - | 11,482 |
| Massachusetts General Hospital | 93.837 | SB: 230189 | Cardiovascular Diseases Research | - | 141,768 |
| Massachusetts General Hospital | 93.837 | 4 R01 HL112661-04 | Cardiovascular Diseases Research | - | (20,032) |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|--|--|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Mobile Sense Technologies, Inc. | 93.837 | SB: 1R43H135961-01A1-MST01 | Cardiovascular Diseases Research | \$ - | \$ 41,985 |
| New England Research Institute, Inc. | 93.837 | SB: CT1500024 | Cardiovascular Diseases Research | - | 29,759 |
| Signablok, Inc. | 93.837 | 5 R44HL110417-03 | Cardiovascular Diseases Research | - | (12,316) |
| Texas Tech University | 93.837 | PR: R15 HL121761-02 | Cardiovascular Diseases Research | - | 59,447 |
| University of Cincinnati | 93.837 | SB: 010679-002 | Cardiovascular Diseases Research | - | 11,000 |
| University of Rochester | 93.837 | 1 R34 HL133526-01 | Cardiovascular Diseases Research | - | 4,842 |
| University of Rochester | 93.837 | SB: 416917-G | Cardiovascular Diseases Research | - | 111,142 |
| University of Utah | 93.837 | SB: 10023730-01 | Cardiovascular Diseases Research | - | 195,283 |
| Yale University | 93.837 | 5 R01 HL115295-04 | Cardiovascular Diseases Research | - | (3,703) |
| Yale University | 93.837 | GR100590 | Cardiovascular Diseases Research | - | 44,325 |
| Total Cardiovascular Diseases Research | | | | 1,417,183 | 11,747,420 |
| National Institutes of Health | 93.838 | Direct | Lung Diseases Research | - | 2,554,676 |
| Baystate Medical Center, Inc. | 93.838 | FED705-17120-1 | Lung Diseases Research | - | 28,205 |
| The University of Texas At Tyler | 93.838 | SB: 6104360165-04 | Lung Diseases Research | - | 12,704 |
| Wayne State University | 93.838 | SB: WSU18011-A1 | Lung Diseases Research | - | 8,031 |
| Total Lung Diseases Research | | | | - | 2,603,616 |
| National Institutes of Health | 93.839 | Direct | Blood Diseases and Resources Research | 235,687 | 1,496,466 |
| L2 Diagnostics LLC | 93.839 | 1 R41AI134497 | Blood Diseases and Resources Research | - | 82,175 |
| Tufts Medical Center | 93.839 | SB: 6013015-SERV | Blood Diseases and Resources Research | - | 55,792 |
| Tufts Medical Center | 93.839 | SB: 6013016-SERV | Blood Diseases and Resources Research | - | 18,955 |
| University of Florida | 93.839 | SB: UFDSP00011731 | Blood Diseases and Resources Research | - | 184,715 |
| Total Blood Diseases and Resources Research | | | | 235,687 | 1,838,103 |
| National Institutes of Health | 93.840 | Direct | Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders | 5,411 | 60,358 |
| Health Strategy and Policy Institute | 93.840 | 1 U01 HL138631 | Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders | - | 101,612 |
| Total Translation and Implementation Science Research for Heart, Lung, Blood Diseases, and Sleep Disorders | | | | 5,411 | 161,970 |
| National Institutes of Health | 93.846 | Direct | Arthritis, Musculoskeletal and Skin Diseases Research | 456,346 | 4,840,779 |
| Brigham and Women's Hospital | 93.846 | 115810 | Arthritis, Musculoskeletal and Skin Diseases Research | - | 124,498 |
| Purdue University | 93.846 | Sub No. 4102-85217 | Arthritis, Musculoskeletal and Skin Diseases Research | - | 4,707 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|---|--|--|---|------|----------------------------|
| Department of Health and Human Services, continued | | | | | | | |
| University of Colorado At Denver | 93.846 | SB: FY15.090.004 | | Arthritis, Musculoskeletal and Skin Diseases Research | \$ - | \$ - | 16,716 |
| University of Florida | 93.846 | 1 R01AR069660-02 | | Arthritis, Musculoskeletal and Skin Diseases Research | - | - | 82,269 |
| University of Nevada | 93.846 | R01 AR070432 | | Arthritis, Musculoskeletal and Skin Diseases Research | - | - | 20,778 |
| University of Pittsburgh | 93.846 | 2 R01 AR060744-07 | | Arthritis, Musculoskeletal and Skin Diseases Research | - | - | 17,643 |
| Washington State University | 93.846 | 1 R01 AR062279-05 | | Arthritis, Musculoskeletal and Skin Diseases Research | - | - | 16,257 |
| Total Arthritis, Musculoskeletal and Skin Diseases Research | | | | | 456,346 | | 5,123,647 |
| National Institutes of Health | 93.847 | Direct | | Diabetes, Digestive, and Kidney Diseases Extramural Research | 890,724 | | 12,431,335 |
| Baystate Medical Center, Inc. | 93.847 | R18 HL08810-05 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 5,148 |
| Beckman Research Institute City of Hope | 93.847 | 51504.2000556.6 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 339 |
| Boston Medical Center | 93.847 | 5101963-7 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | (3,602) |
| Boston Medical Center | 93.847 | 5P30DK046200-25 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 3,000 |
| Children's Hospital | 93.847 | RSTFD00007000021 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 27,157 |
| Duke University | 93.847 | 12-NIH-1125 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 2,442 |
| George Washington University | 93.847 | 2018-40841 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 22,588 |
| George Washington University | 93.847 | R01DK100916 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 63,603 |
| George Washington University | 93.847 | Sub No. 14-M25 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 99,583 |
| Harvard University | 93.847 | SB: 164623-5098789 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 537,925 |
| Indiana University | 93.847 | SB: IN-4581920-UMA | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 51,611 |
| Joslin Diabetes Center | 93.847 | SB: PERL Study | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 15,231 |
| Rutgers University | 93.847 | SB: 5471 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 32,727 |
| Tulane University | 93.847 | 5 R01 DK099598-04 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 17,240 |
| University of Connecticut | 93.847 | 5 R01 DK103944 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 31,448 |
| University of North Carolina | 93.847 | SB: 510150 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 104,606 |
| University of Pennsylvania | 93.847 | 5 P30 DK047757 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 83,750 |
| University of Pittsburgh | 93.847 | SB: 0028057(123009-1) | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | (8,510) |
| University of Wisconsin | 93.847 | 580K646/U54DK104310 YR2 640K942 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | (90,166) |
| University of Wisconsin | 93.847 | SB: 640K942 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 80,046 |
| University of Wisconsin | 93.847 | Sub# 697K163 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 114,463 |
| University of Wisconsin Madison | 93.847 | Sub# 786K870 | | Diabetes, Digestive, and Kidney Diseases Extramural Research | - | - | 103,616 |
| Total Diabetes, Digestive, and Kidney Diseases Extramural Research | | | | | 890,724 | | 13,725,580 |
| Auburn University | 93.852 | R01 NS093941 | | National Syndromic Surveillance Program Community of Practice (NSSP CoP) | - | - | 261,022 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|--|--|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| National Institutes of Health | 93.853 | Direct | Extramural Research Programs in the Neurosciences and Neurological Disorders | \$ 1,042,430 | \$ 12,173,255 |
| Beth Israel Deaconess Medical Center | 93.853 | U01 NS074425-01 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 26,062 |
| Harvard School of Public Health | 93.853 | 114512-5097014 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 48,578 |
| Harvard University | 93.853 | SB: 138074-5085856 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 183,581 |
| Massachusetts General Hospital | 93.853 | 1 U10 NS086729-04 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 10,758 |
| Massachusetts General Hospital | 93.853 | SB: 229293 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 94,789 |
| Research Foundation of SUNY | 93.853 | SB: 1131404-74506 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 157,821 |
| TCG, Inc. | 93.853 | 2R44NS074540-02A1 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | (6,426) |
| TCG, Inc. | 93.853 | SB: UM-20160927-01-TCG | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 84,268 |
| The J. David Gladstone Institute | 93.853 | 5 R01 NS079725-04 | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | (5,149) |
| University of South Florida | 93.853 | SB: 6125-1076-00B | Extramural Research Programs in the Neurosciences and Neurological Disorders | - | 49,836 |
| Total Extramural Research Programs in the Neurosciences and Neurological Disorders | | | | 1,042,430 | 12,817,373 |
| National Institutes of Health | 93.855 | Direct | Allergy and Infectious Diseases Research | 1,974,916 | 28,835,240 |
| Beth Israel Deaconess Medical Center | 93.855 | 1028929 | Allergy and Infectious Diseases Research | - | 103,454 |
| Brigham and Women's Hospital | 93.855 | 112669 | Allergy and Infectious Diseases Research | - | 189,426 |
| Brown University | 93.855 | SB: 00001168 | Allergy and Infectious Diseases Research | - | 99,709 |
| Children's Hospital | 93.855 | RSTFD0000678743 | Allergy and Infectious Diseases Research | - | 390,474 |
| Dana Farber Cancer Institute | 93.855 | SB: 1055115 | Allergy and Infectious Diseases Research | - | 21,996 |
| EpiVax, Inc. | 93.855 | EpiVax/Research Agreement | Allergy and Infectious Diseases Research | - | 18,639 |
| Harvard Medical School | 93.855 | 1 R01AI136789-01 | Allergy and Infectious Diseases Research | - | 125,947 |
| Harvard School of Public Health | 93.855 | SB: 109708-5064861 | Allergy and Infectious Diseases Research | - | 286,448 |
| Johns Hopkins University | 93.855 | 2003004918 | Allergy and Infectious Diseases Research | - | 104,598 |
| Johns Hopkins University | 93.855 | SB: 2003433533 | Allergy and Infectious Diseases Research | - | 87,362 |
| Massachusetts General Hospital | 93.855 | SB: 223544 | Allergy and Infectious Diseases Research | - | 64,577 |
| New York University School of Medicine | 93.855 | 1 P01 AI100151-04 | Allergy and Infectious Diseases Research | - | 134,393 |
| NovaSterilis | 93.855 | 2 R44 AI120282 02 | Allergy and Infectious Diseases Research | - | 46,124 |
| Planet Biotechnology, Inc. | 93.855 | SB: R41 FH-Fc UMASMED | Allergy and Infectious Diseases Research | - | 75,409 |
| Purdue University | 93.855 | Sub No. 4102-72705 | Allergy and Infectious Diseases Research | - | 2,018 |
| Sigmovir Biosystems, Inc. | 93.855 | 2R42-A1109926-02 | Allergy and Infectious Diseases Research | - | 390,751 |
| Texas A&M University | 93.855 | 1 P01 IA1095208-04 | Allergy and Infectious Diseases Research | - | (2,503) |
| Tufts University | 93.855 | SB: 101315-00001 | Allergy and Infectious Diseases Research | - | 33,100 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|---|--------|---|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Health and Human Services, continued | | | | | | | |
| University of Alabama | 93.855 | SB: 000503587-001 | | Allergy and Infectious Diseases Research | \$ - | \$ | 335,187 |
| University of California | 93.855 | PR: HL / SB: VEST/PREDICTS | | Allergy and Infectious Diseases Research | - | | (95) |
| University of California San Diego | 93.855 | 2 U19 AI089681-08 | | Allergy and Infectious Diseases Research | - | | 175,070 |
| University of California San Francisco | 93.855 | SB: 10249sc | | Allergy and Infectious Diseases Research | - | | 40,038 |
| University of California San Francisco | 93.855 | SB: 10250sc | | Allergy and Infectious Diseases Research | - | | 24,508 |
| University of California San Francisco | 93.855 | SB: 9617sc | | Allergy and Infectious Diseases Research | - | | 74,868 |
| University of North Carolina | 93.855 | 5 R01 AI121558-03 | | Allergy and Infectious Diseases Research | - | | 118,068 |
| University of North Carolina | 93.855 | 5 R21 AI115752-02 | | Allergy and Infectious Diseases Research | - | | (699) |
| University of North Carolina | 93.855 | PR: 5 U19 AI109965 | | Allergy and Infectious Diseases Research | - | | 137,277 |
| University of North Carolina | 93.855 | SB: 5109909 | | Allergy and Infectious Diseases Research | - | | 50,878 |
| University of Pennsylvania | 93.855 | SB: 566489 | | Allergy and Infectious Diseases Research | - | | 50,427 |
| University of Pittsburgh | 93.855 | 5 UH2 AI22295-02 | | Allergy and Infectious Diseases Research | - | | 10,183 |
| University of Rhode Island | 93.855 | SB: 07142014/4508 | | Allergy and Infectious Diseases Research | - | | 105,475 |
| University of Texas at San Antonio | 93.855 | SB: 10000753 | | Allergy and Infectious Diseases Research | - | | 29,397 |
| University of Washington | 93.855 | SB: UWSC8525 | | Allergy and Infectious Diseases Research | - | | 88,638 |
| University of Wisconsin | 93.855 | SB: 617K536 | | Allergy and Infectious Diseases Research | - | | 35,709 |
| Veterans Medical Research Foundation | 93.855 | 09473001-318542 | | Allergy and Infectious Diseases Research | - | | 47,043 |
| Washington University | 93.855 | 5 R01 AI081803-08 | | Allergy and Infectious Diseases Research | - | | 97,860 |
| Washington University | 93.855 | SB: WU-14-364-MOD-2 | | Allergy and Infectious Diseases Research | - | | 113,569 |
| Washington University | 93.855 | SB: WU-16-307 | | Allergy and Infectious Diseases Research | - | | 322,642 |
| Wistar Institute | 93.855 | 5 U19 AI109646-03 | | Allergy and Infectious Diseases Research | - | | 274,986 |
| Total Allergy and Infectious Diseases Research | | | | | 1,974,916 | | 31,138,191 |
| National Institutes of Health | 93.859 | Direct | | Biomedical Research and Research Training | 1,190,347 | | 31,214,504 |
| Albert Einstein College of Medicine | 93.859 | PO0619340 | | Biomedical Research and Research Training | - | | 103,207 |
| Beth Israel Deaconess Medical Center | 93.859 | 2 R01 GM104987 | | Biomedical Research and Research Training | - | | 5,481 |
| Boston College | 93.859 | AG048962 | | Biomedical Research and Research Training | - | | 16,737 |
| Cornell University | 93.859 | 78565-10975 | | Biomedical Research and Research Training | - | | 40,980 |
| Emory University | 93.859 | Sub T938891 | | Biomedical Research and Research Training | - | | 5,758 |
| Kansas State University | 93.859 | KSU:S17166 | | Biomedical Research and Research Training | - | | 115,489 |
| Northwestern University | 93.859 | 60042974 UMA | | Biomedical Research and Research Training | - | | 13,405 |
| QuarryBio LLC | 93.859 | 2R44GM116211-02 | | Biomedical Research and Research Training | - | | 19,515 |
| ReclaimRX LLC | 93.859 | Phase 1-Reclaim 2015: Check4283 | | Biomedical Research and Research Training | - | | 3,969 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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|--|----------|--|--|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Smith College | 93.859 | SB: 636070-1 | Biomedical Research and Research Training | \$ - | \$ 2,338 |
| Tufts University | 93.859 | 003129-00002 | Biomedical Research and Research Training | - | 10,534 |
| Tufts University | 93.859 | 4K12GM074869-10 | Biomedical Research and Research Training | - | 95 |
| University of California | 93.859 | SB: 9185sc | Biomedical Research and Research Training | - | 105,419 |
| University of California Berkeley | 93.859 | SB: 00009037 | Biomedical Research and Research Training | - | (1,651) |
| University of California Davis | 93.859 | 1 R01 GM124120-01 | Biomedical Research and Research Training | - | 45,680 |
| University of Michigan | 93.859 | SB: 30038554238 | Biomedical Research and Research Training | - | 179,893 |
| Voronox Technologies, LLC | 93.859 | 1R43GM123868-01A1 | Biomedical Research and Research Training | - | 66,186 |
| Total Biomedical Research and Research Training | | | | 1,190,347 | 31,947,539 |
| National Institutes of Health | 93.865 | Direct | Child Health and Human Development Extramural Research | 2,204,741 | 9,710,489 |
| Brandeis University | 93.865 | 403193 | Child Health and Human Development Extramural Research | - | 27,834 |
| Brandeis University | 93.865 | 403519 | Child Health and Human Development Extramural Research | - | 26,509 |
| Cincinnati Children's Hospital Medical Center | 93.865 | Subaward No. 136785 | Child Health and Human Development Extramural Research | - | 33,510 |
| Columbia University | 93.865 | PO #G0545 | Child Health and Human Development Extramural Research | - | 22,045 |
| Florida State University | 93.865 | Sub# R01954 | Child Health and Human Development Extramural Research | - | 68,477 |
| Harvard Pilgrim Health Care, Inc. | 93.865 | AH000630 | Child Health and Human Development Extramural Research | - | 14,427 |
| Harvard University | 93.865 | Sub# 116353-5087577 | Child Health and Human Development Extramural Research | - | 23,175 |
| Praxis, Inc. | 93.865 | 5R42HD069070-02 | Child Health and Human Development Extramural Research | - | 13,099 |
| Tufts Cummings School of Veterinary Medicine | 93.865 | SB: 1012913-00001 | Child Health and Human Development Extramural Research | - | 67,241 |
| University of Alabama | 93.865 | 2 R01 HD061959-10 | Child Health and Human Development Extramural Research | - | (220) |
| University of California | 93.865 | 55962754 | Child Health and Human Development Extramural Research | - | 12,013 |
| University of California San Francisco | 93.865 | 1 R21 HD082330-01A1 | Child Health and Human Development Extramural Research | - | 1,211 |
| University of Minnesota | 93.865 | 1U54HD093540-01 | Child Health and Human Development Extramural Research | - | 129,429 |
| University of North Carolina | 93.865 | SB: 5108779 | Child Health and Human Development Extramural Research | - | 2,447 |
| University of Tennessee | 93.865 | A16-1281-S001-A01 | Child Health and Human Development Extramural Research | - | 145,089 |
| Weill Cornell Medical College | 93.865 | 1R01HD088571-01A1 | Child Health and Human Development Extramural Research | - | 136,356 |
| Wellesley College | 93.865 | 26390-01 | Child Health and Human Development Extramural Research | - | 3,131 |
| Total Child Health and Human Development Extramural Research | | | | 2,204,741 | 10,436,262 |
| National Institutes of Health | 93.866 | Direct | Aging Research | 820,319 | 5,989,922 |
| Albert Einstein College of Medicine | 93.866 | 311108 | Aging Research | - | 10,472 |
| Brigham and Women's Hospital | 93.866 | 5 U01 AG048270-04 | Aging Research | 244,549 | 326,295 |

See accompanying notes to Schedule of Expenditures of Federal Awards

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| Department of Health and Human Services, continued | | | | | |
| Brown University | 93.866 | 5 R01AG048940-03 | Aging Research | \$ - | \$ 143,110 |
| Fordham University | 93.866 | SUB# FORD0016 | Aging Research | - | 14,050 |
| George Washington University | 93.866 | Sub# 17-M25 | Aging Research | - | 6,467 |
| Hebrew Rehab | 93.866 | 2R01AG025037 | Aging Research | - | 18,678 |
| Hebrew Senior Life | 93.866 | SB: 90083 | Aging Research | - | 3,557 |
| Kaiser Foundation Research Institute | 93.866 | U01 AG034661-04 | Aging Research | - | 54,642 |
| Massachusetts General Hospital | 93.866 | SB: 226821 | Aging Research | - | 172,557 |
| University of Alabama | 93.866 | SB: 000517881-001 | Aging Research | - | 10,277 |
| University of California Los Angeles | 93.866 | 1558 G VA069 | Aging Research | - | 25,000 |
| University of Connecticut | 93.866 | SB: USHS6-62703698 | Aging Research | - | 12,769 |
| University of Michigan | 93.866 | Sub# 3003486688 | Aging Research | - | 98,690 |
| University of Pittsburgh | 93.866 | SB: 0040521(124995-5) | Aging Research | - | 215,795 |
| Weill Cornell Medical College | 93.866 | Subaward# 16091600 | Aging Research | - | (313) |
| Total Aging Research | | | | 1,064,868 | 7,101,968 |
| National Institutes of Health | 93.867 | Direct | Vision Research | - | 1,477,721 |
| National Institutes of Health | 93.879 | Direct | Medical Library Assistance | 103,364 | 1,568,973 |
| Harvard Medical School | 93.879 | G08 LM012154 | Medical Library Assistance | - | 32,354 |
| Total Medical Library Assistance | | | | 103,364 | 1,601,327 |
| Harvard University | 93.884 | 6 UH1 HP29962-01-01 | Grants for Primary Care Training and Enhancement | - | 161,616 |
| Health Resources & Service Administration | 93.918 | Direct | Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease | - | 470,482 |
| Johns Hopkins University | 93.936 | 5 R01 HD080474-04 | National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program | - | 287,143 |
| Purdue University | 93.936 | Sub No. 4301-80198 | National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program | - | 22,935 |
| Total National Institutes of Health Acquired Immunodeficiency Syndrome Research Loan Repayment Program | | | | - | 310,078 |
| National Institutes of Health | 93.989 | Direct | International Research and Research Training | 302,686 | 622,819 |
| Mahidol University | 93.989 | SU01TW010091-02 | International Research and Research Training | - | 12,545 |
| Mahidol University | 93.989 | SU01TW010091-03 REVISED | International Research and Research Training | - | 3,228 |

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| Department of Health and Human Services, continued | | | | | |
| University of Alabama | 93.989 | SB: 000421737-0001 | International Research and Research Training | \$ - | \$ 19,395 |
| University of California | 93.989 | SB: 61686358 | International Research and Research Training | - | 26,100 |
| Total International Research and Research Training | | | | 302,686 | 684,087 |
| MA Department of Public Health | 93.994 | INTF3054M03300819017/124499 | Maternal and Child Health Services Block Grant to the States | - | 2,040 |
| Antigen Pharmaceuticals, Inc. | 93.U01 | 200-2015-64147 | Department of Health and Human Services Contracts | - | 86,063 |
| Baylor College of Medicine | 93.U02 | 102038483 | Department of Health and Human Services Contracts | - | (2,948) |
| Boston College | 93.U03 | 5101962-10 | Department of Health and Human Services Contracts | - | (121) |
| Boston University | 93.U04 | 4500001819 | Department of Health and Human Services Contracts | - | 660 |
| Cellerant Therapeutics, Inc. | 93.U05 | Protocol: CLT008-03/CT1500031 | Department of Health and Human Services Contracts | - | 3,510 |
| Centers for Disease Control & Prevention | 93.U06 | Direct - Contract No. 200-2014-M-61111 | Department of Health and Human Services Contracts | - | 26,200 |
| Centers for Disease Control & Prevention | 93.U07 | Direct - Contract No. 211-2013-M-57158 | Department of Health and Human Services Contracts | - | 4,006 |
| Duke University | 93.U08 | SB: Task Order 33 | Department of Health and Human Services Contracts | - | 2,315 |
| Harvard Pilgrim Health Care, Inc. | 93.U10 | HHSF223200910006I | Department of Health and Human Services Contracts | - | 3,589 |
| Harvard Pilgrim Health Care, Inc. | 93.U11 | HHSF22301007T | Department of Health and Human Services Contracts | - | (82) |
| Harvard Pilgrim Health Care, Inc. | 93.U12 | HHSF22301002TSB | Department of Health and Human Services Contracts | - | 36,454 |
| Harvard Pilgrim Health Care, Inc. | 93.U13 | 200-2011-42037 | Department of Health and Human Services Contracts | - | 44,909 |
| Harvard Pilgrim Health Care, Inc. | 93.U14 | HHSF223201400002I | Department of Health and Human Services Contracts | - | 28,638 |
| Harvard Pilgrim Health Care, Inc. | 93.U15 | SB: Task Order S03 | Department of Health and Human Services Contracts | - | 13,560 |
| Harvard Pilgrim Health Care, Inc. | 93.U16 | SB: HHSF22301012T-0030 | Department of Health and Human Services Contracts | - | 103,046 |
| Harvard Pilgrim Health Care, Inc. | 93.U17 | HHSF22320140030I | Department of Health and Human Services Contracts | - | 145,240 |
| Harvard Pilgrim Health Care, Inc. | 93.U18 | HHSF223201400042I | Department of Health and Human Services Contracts | - | 76,157 |
| Hospice of Henderson County, Inc. | 93.U19 | 1C1CMS331331 | Department of Health and Human Services Contracts | - | 6,492 |
| Johns Hopkins University | 93.U20 | PO 2001837780 | Miscellaneous Department of Health and Human Services | - | 8,290 |
| Langston University | 93.U21 | Sub# LU 5-17044-1 | Department of Health and Human Services Contracts | - | 144,434 |
| Lawrence Berkeley National Laboratory | 93.U22 | SB: 7339894 | Department of Health and Human Services Contracts | - | 57,304 |
| MA Department of Mental Health | 93.U23 | 32103559UMASS5 | Department of Health and Human Services Contracts | - | 89,060 |
| National Institutes of Health | 93.U24 | Direct - 1 R01 HD083311-01A1 | Department of Health and Human Services Contracts | 181,653 | 645,504 |
| National Institutes of Health | 93.U26 | Direct - 1UG4 LM01234701 | Department of Health and Human Services Contracts | - | 9,694 |
| National Institutes of Health | 93.U27 | Direct - NLM/HHSN276201700195P | Department of Health and Human Services Contracts | - | 37,585 |
| National Institutes of Health | 93.U28 | Direct - NCI HHSN261201500029C | Department of Health and Human Services Contracts | 64,591 | 297,447 |

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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| National Institutes of Health | 93.U29 | Direct - HHSN272201600011C | Department of Health and Human Services Contracts | \$ 6,585 | \$ 30,276 |
| Prism | 93.U30 | Subcontract No.720201 | Department of Health and Human Services Contracts | - | 88,988 |
| Research Triangle International | 93.U31 | HHS283201200006/HHSS2834204T | Department of Health and Human Services Contracts | - | 168,184 |
| Swedish Medical Center | 93.U32 | SMC: 223004 B.01 | Department of Health and Human Services Contracts | - | 509,556 |
| Tridium, Inc. | 93.U33 | Polaris: Prime: 5R44DA23441-3 | Department of Health and Human Services Contracts | - | 5,577 |
| U.S. Food and Drug Administration | 93.U34 | Direct - HHSF223201710131P | Department of Health and Human Services Contracts | - | 55,870 |
| U.S. Food and Drug Administration | 93.U35 | Direct - HHSF223201710435P | Department of Health and Human Services Contracts | - | 70,675 |
| University of Alabama | 93.U36 | SB: 000501394-02 | Department of Health and Human Services Contracts | - | 42,222 |
| University of Minnesota | 93.U37 | A003856705 | Department of Health and Human Services Contracts | - | 31,868 |
| University of Minnesota | 93.U38 | 90RT5019-02-00 | Department of Health and Human Services Contracts | - | 10,796 |
| University of Mississippi | 93.U39 | SB: 66102700414-04UMASS | Department of Health and Human Services Contracts | - | 28,898 |
| University of Mississippi Medical Center | 93.U40 | 66102690414-04UML | Department of Health and Human Services Contracts | - | 16,850 |
| VentureWell | 93.U41 | VENTUREWELL/SPRINT/Houston | Department of Health and Human Services Contracts | - | 14,087 |
| Verilyx Pharma, Inc. | 93.U42 | VLX103-ASH-16-01/CT1600075 | Department of Health and Human Services Contracts | - | 25 |
| Department of Health and Human Services Total | | | | 30,171,121 | 235,842,923 |
| Department of Homeland Security | | | | | |
| MA Emergency Management Agency | 97.036 | CTFEMA405UMASA00340 | Disaster Grants - Public Assistance (Presidentially Declared Disasters) | - | 36,499 |
| MA Emergency Management Agency | 97.039 | HMGP 1994-10 | Hazard Mitigation Grant | - | (412) |
| Department of Homeland Security Total | | | | - | 36,087 |
| Department of Housing and Urban Development | | | | | |
| MA Department of Housing & Community Development | 14.228 | B-17-DC-25-0001 | Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii | 16,000 | 32,353 |
| Pioneer Valley Planning Commission | 14.228 | 00775 | Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii | - | 32,447 |
| Pioneer Valley Planning Commission | 14.228 | FY2017 00806 | Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii | - | 33,298 |
| Total Community Development Block Grants/State's program and Non-Entitlement Grants in Hawaii | | | | 16,000 | 98,098 |
| City of Lowell, Division of Planning & Development | 14.900 | PO# 32770032 / 32760108 | Lead-Based Paint Hazard Control in Privately-Owned Housing | - | 15,932 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|---|---|----------------------------|
| Department of Housing and Urban Development, continued | | | | | |
| MA Department of Public Health | 14.906 | INTF3056HH2500224031 | Healthy Homes Technical Studies Grants | \$ - | \$ (275) |
| U.S. Department of Housing & Urban Development | 14.906 | Direct | Healthy Homes Technical Studies Grants | 41,422 | 325,834 |
| Total Healthy Homes Technical Studies Grants | | | | 41,422 | 325,559 |
| Healthy Housing Solutions, Inc. | 14.U01 | 93HHSH-16-S-1003 | Department of Housing and Urban Development Contracts | - | 9,739 |
| Department of Housing and Urban Development Total | | | | 57,422 | 449,328 |
| Department of Justice | | | | | |
| North American Indian Center of Boston, Inc | 16.016 | 2015-UW-AX-0009 | Culturally and Linguistically Specific Services Program | - | 59,976 |
| U.S. Department of Justice | 16.540 | Direct | Juvenile Justice and Delinquency Prevention | - | 186,744 |
| U.S. Department of Justice | 16.541 | Direct | Part E - Developing, Testing and Demonstrating Promising New Programs | - | 12,079 |
| U.S. Department of Justice | 16.560 | Direct | National Institute of Justice Research, Evaluation, and Development Project Grants | 140,942 | 440,531 |
| University of Iowa Health Care | 16.560 | W000630365 | National Institute of Justice Research, Evaluation, and Development Project Grants | - | 12,929 |
| Wellesley College | 16.560 | 26316-01 | National Institute of Justice Research, Evaluation, and Development Project Grants | - | 1,187 |
| Total National Institute of Justice Research, Evaluation, and Development Project Grants | | | | 140,942 | 454,647 |
| MA Office for Victim Assistance | 16.575 | ISAVWAVOCAEWWCUMA1 8A | Crime Victim Assistance | - | 59,592 |
| MA Office for Victim Assistance | 16.575 | VOCA2017EVVWC00000000 | Crime Victim Assistance | - | 164 |
| MA Department of Public Health | 16.589 | INTF3222M04W40188034 | Rural Domestic Violence, Dating Violence, Sexual Assault, and Stalking Assistance Program | - | 13,831 |
| Town of Amherst | 16.590 | 2017-WE-AX-0009 | Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program | - | 38,465 |
| Town of Belchertown | 16.590 | 2017-WE-AX-0012 | Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program | - | 43,953 |
| Total Grants to Encourage Arrest Policies and Enforcement of Protection Orders Program | | | | - | 82,418 |
| U.S. Department of Justice | 16.726 | Direct | Juvenile Mentoring Program | 25,746 | 27,380 |
| National 4-H Council | 16.726 | 2017-JU-FX-0016 | Juvenile Mentoring Program | - | 10,420 |
| National 4-H Council | 16.726 | DOJ2016JUFXX0022 | Juvenile Mentoring Program | - | 64,567 |
| Total Juvenile Mentoring Program | | | | 25,746 | 102,367 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| Department of Justice, continued | | | | | |
| Boston Public Health Commission | 16.730 | 14013684, PO 201401848 | Reduction and Prevention of Children's Exposure to Violence | \$ - | \$ 327 |
| City of Lowell | 16.738 | PO # 18000093-00 | Edward Byrne Memorial Justice Assistance Grant Program | - | 28,389 |
| City of Boston | 16.745 | MOA_PO BOSTN-0000679639 | Criminal and Juvenile Justice and Mental Health Collaboration Program | - | 3,476 |
| Fox Valley Technical College | 16.751 | D2016010051 | Edward Byrne Memorial Competitive Grant Program | - | 8,298 |
| City of Lowell | 16.754 | PO # 18000212-00 | Harold Rogers Prescription Drug Monitoring Program | - | 21,171 |
| Administrative Office of The Trial Court | 16.812 | 2015-RW-BX-0006 | Second Chance Act Reentry Initiative | - | 931 |
| City of Springfield | 16.817 | Contract # 20170155 | Innovations in Community-Based Crime Reduction | - | 58,982 |
| Federal Bureau of Investigation | 16.U01 | FBI DJF-17-1200-D-0000377 | Department of Justice Contracts | - | 397,707 |
| Federal Bureau of Investigation | 16.U02 | FBI DJF-16-1200-D-0001522 | Department of Justice Contracts | - | 1,399 |
| Town of Amherst | 16.U03 | 2610-15 | Department of Justice Contracts | - | 23,889 |
| Department of Justice Total | | | | 166,688 | 1,516,387 |
| Department of Labor | | | | | |
| National Lab for Education Transformation | 17.282 | 2017-DL002 | Trade Adjustment Assistance Community College and Career Training (TAACCTT) Grants | - | 20,148 |
| U.S. Department of Labor | 17.791 | Direct | Department of Labor Chief Evaluation Office | 20,754 | 168,564 |
| Department of Labor Total | | | | 20,754 | 188,712 |
| Department of State | | | | | |
| International Research and Exchanges Board | 19.021 | Sub# FY16-HEP-UMB-01 | Investing in People in The Middle East and North Africa | - | (1,853) |
| International Research and Exchanges Board | 19.022 | FY18-TEA-UMASS-02 | Educational and Cultural Exchange Programs Appropriation Overseas Grants | - | 28,160 |
| U.S. Department of State | 19.033 | Direct | Global Threat Reduction | - | 23,949 |
| U.S. Department of State | 19.040 | Direct | Public Diplomacy Programs | - | 5,000 |
| Harvard University | 19.345 | 108846-5 102725 | International Programs to Support Democracy, Human Rights and Labor | - | 64,084 |
| Institute for Training and Development | 19.408 | S-ECAGD-15-CA-1078 | Academic Exchange Programs - Teachers | - | 1,486 |
| Institute for Training and Development | 19.408 | S-ECAGD-16-CA-1084 | Academic Exchange Programs - Teachers | - | 10,552 |
| International Research and Exchanges Board | 19.408 | FY18-TEA-UMASS-01 | Academic Exchange Programs - Teachers | - | 171,947 |
| Total Academic Exchange Programs - Teachers | | | | - | 183,985 |
| U.S. Department of State | 19.900 | Direct | AEECA/ESF PD Programs | 19,994 | 61,195 |
| Mitre Corporation | 19.U01 | Subcontract Agmt No. 114866 | Department of State Contracts | - | 84,135 |
| Department of State Total | | | | 19,994 | 448,655 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|--|---|----------------------------|
| Department of The Interior | | | | | |
| MA Division of Ecological Restoration | 15.153 | ISAFWE6008FILMUMA16A 155428 | Hurricane Sandy Disaster Relief - Coastal Resiliency Grants. | \$ - | \$ 41,219 |
| Portland State University | 15.232 | 204JET449 | Wildland Fire Research and Studies | - | 9,828 |
| University of California Davis | 15.232 | 201501679-02 | Wildland Fire Research and Studies | - | 14,398 |
| Total Wildland Fire Research and Studies | | | | - | 24,226 |
| University of Rhode Island | 15.408 | 0006507/111617 | Bureau of Ocean Energy Management Renewable Energy | - | 22,474 |
| Bureau of Ocean Energy Management | 15.424 | Direct | Marine Minerals Activities | - | 129,842 |
| MA Division of Fisheries and Wildlife | 15.608 | 1434-HQ-11-RU-01575 | Fish and Wildlife Management Assistance | 12,617 | 12,617 |
| MA Department of Fish & Game | 15.634 | 1434-HQ-11-RU-01575 | State Wildlife Grants | - | 413 |
| MA Department of Fish & Game | 15.634 | UM18COOP | State Wildlife Grants | - | 163,529 |
| MA Division of Fisheries and Wildlife | 15.634 | FWEWOODTRTLUMA15aB | State Wildlife Grants | - | 20,312 |
| Total State Wildlife Grants | | | | - | 184,254 |
| U.S. Fish and Wildlife Service | 15.650 | Direct | Research Grants (Generic) | - | 24,980 |
| U.S. Fish and Wildlife Service | 15.655 | Direct | Migratory Bird Monitoring, Assessment and Conservation | - | 220,314 |
| Wildlife Management Institute | 15.664 | NALCC 2015-06 | Fish and Wildlife Coordination and Assistance | - | 38,097 |
| Wildlife Management Institute | 15.664 | NALCC 2015-08 | Fish and Wildlife Coordination and Assistance | - | 34,978 |
| Total Fish and Wildlife Coordination and Assistance | | | | - | 73,075 |
| U.S. Fish and Wildlife Service | 15.669 | Direct | Cooperative Landscape Conservation | - | 141,904 |
| U.S. Fish and Wildlife Service | 15.672 | Direct | Wildlife Without Borders Amphibians in Decline | - | 3,481 |
| U.S. Fish and Wildlife Service | 15.677 | Direct | Hurricane Sandy Disaster Relief Activities-FWS | 15,535 | 20,913 |
| U.S. Fish and Wildlife Service | 15.678 | Direct | Cooperative Ecosystem Studies Units | - | 10,983 |
| U.S. Geological Survey | 15.805 | Direct | Assistance to State Water Resources Research Institutes | - | 67,124 |
| U.S. Geological Survey | 15.807 | Direct | Earthquake Hazards Program Assistance | - | (4,608) |
| U.S. Geological Survey | 15.808 | Direct | U.S. Geological Survey- Research and Data Collection | - | 43,699 |
| U.S. Geological Survey | 15.810 | Direct | National Cooperative Geologic Mapping | 89,831 | 110,868 |
| U.S. Geological Survey | 15.812 | Direct | Cooperative Research Units | - | 55,727 |
| U.S. Geological Survey | 15.820 | Direct | National and Regional Climate Adaptation Science Centers | 861,776 | 2,112,550 |
| U.S. Department of Interior | 15.945 | Direct | Cooperative Research and Training Programs Resources of the National Park System | - | 119,310 |
| U.S. Department of Interior | 15.946 | Direct | Cultural Resources Management | - | (8,768) |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|---|----------|--|---|---|----------------------------|
| Department of The Interior, continued | | | | | |
| U.S. Department of Interior | 15.954 | Direct | National Park Service Conservation, Protection, Outreach, and Education | \$ - | \$ 446,036 |
| National Writing Project | 15.954 | 94-MA02-NPS2017 | National Park Service Conservation, Protection, Outreach, and Education | - | 3,500 |
| Total National Park Service Conservation, Protection, Outreach, and Education | | | | - | 449,536 |
| Bureau of Safety and Environmental Enforcement | 15.U01 | BUREAU of SAFETY E16PC00008 | Department of the Interior Contracts | 10,000 | 92,124 |
| MA Division of Fisheries and Wildlife | 15.U02 | ISAFWE6008FILMUMA16A | Department of the Interior Contracts | - | 83,798 |
| U.S. Fish and Wildlife Service | 15.U03 | F16PX01323 | Department of the Interior Contracts | - | 9,800 |
| Department of The Interior Total | | | | 989,759 | 4,041,442 |
| Department of Transportation | | | | | |
| Federal Aviation Administration | 20.108 | Direct | Aviation Research Grants | - | 150,019 |
| University of Wisconsin | 20.200 | 737K634 | Highway Research and Development Program | - | 10,134 |
| U.S. Department of Transportation | 20.215 | Direct | Highway Training and Education | - | 29,464 |
| MA Department of State Police | 20.218 | ISAPOL81002010UMS17A | Motor Carrier Safety Assistance | - | 49,259 |
| Federal Motor Carrier Safety Administration | 20.232 | Direct | Commercial Driver's License Program Implementation Grant | - | 30,046 |
| Federal Motor Carrier Safety Administration | 20.237 | Direct | Motor Carrier Safety Assistance High Priority Activities Grants and Cooperative Agreements | - | 36,920 |
| MA Executive Office of Public Safety & Security | 20.614 | 113-1636 | National Highway Traffic Safety Administration (NHTSA) Discretionary Safety Grants and Cooperative Agreements | - | 51,170 |
| Massachusetts Institute of Technology | 20.701 | 5700003804 | University Transportation Centers Program | - | (1,043) |
| Massachusetts Institute of Technology | 20.701 | 5710003604 | University Transportation Centers Program | - | 306,411 |
| Massachusetts Institute of Technology | 20.701 | 5710003798 | University Transportation Centers Program | - | 31,769 |
| Massachusetts Institute of Technology | 20.701 | 5710003799 | University Transportation Centers Program | - | 55 |
| Massachusetts Institute of Technology | 20.701 | 5710003800 | University Transportation Centers Program | - | 20,842 |
| Massachusetts Institute of Technology | 20.701 | 5710003801 | University Transportation Centers Program | - | 42,242 |
| Massachusetts Institute of Technology | 20.701 | 5710003802 | University Transportation Centers Program | - | 55,947 |
| Massachusetts Institute of Technology | 20.701 | 5710003803 | University Transportation Centers Program | - | 1,590 |
| Ohio State University | 20.701 | 60040605 | University Transportation Centers Program | - | 10,708 |
| University of Iowa Health Care | 20.701 | 69A3551747131 | University Transportation Centers Program | - | 236,709 |
| University of Iowa Health Care | 20.701 | W000546107 | University Transportation Centers Program | - | 69,368 |
| Total University Transportation Centers Program | | | | - | 774,598 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|----------|---|--------|--|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Transportation, continued | | | | | | | |
| U.S. Department of Transportation | 20.931 | Direct | | Transportation Planning, Research and Education | \$ (4,281) | \$ | (5,489) |
| Earth Science Systems, LLC | 20.U01 | 117-0607 | | Department of Transportation Contracts | - | | 44,406 |
| Federal Railroad Administration | 20.U02 | Direct - RAILROAD DOT DTFR5316C00020 | | Department of Transportation Contracts | 12,405 | | 91,238 |
| MA Department of Transportation | 20.U03 | 102534 | | Department of Transportation Contracts | - | | 24,995 |
| MA Department of Transportation | 20.U04 | 92801 | | Department of Transportation Contracts | - | | 629 |
| Pennsylvania State University | 20.U05 | 5519-UM-FRA-0023 | | Department of Transportation Contracts | - | | 49,928 |
| University of Vermont | 20.U06 | Subaward No. 26014SUB51981 | | Miscellaneous Department of Transportation | - | | 88,356 |
| Department of Transportation Total | | | | | 8,124 | | 1,425,673 |
| Department of Veterans Affairs | | | | | | | |
| Providence VA Medical Center | 64.015 | Direct | | Veterans State Nursing Home Care | - | | 64,138 |
| Department of Veterans Affairs | 64.028 | Direct | | Post-9/11 Veterans Educational Assistance | - | | 45,366 |
| Department of Veterans Affairs | 64.U01 | Direct - VA241-14-J-1477/241-12-D-0224 | | Department of Veterans Affairs Contracts | - | | 103,435 |
| Department of Veterans Affairs | 64.U02 | Direct - VA IPA_BROWN | | Department of Veterans Affairs Contracts | - | | 10,473 |
| Veteran Affairs Boston Healthcare System | 64.U03 | VA Boston/ Task Order 2 | | Department of Veterans Affairs Contracts | - | | 9,789 |
| Department of Veterans Affairs Total | | | | | - | | 233,201 |
| Environmental Protection Agency | | | | | | | |
| U.S. Environmental Protection Agency | 66.129 | Direct | | Southeast New England Coastal Watershed Restoration | 25,000 | | 262,929 |
| University of Connecticut | 66.437 | 116033 | | Long Island Sound Program | - | | 3,980 |
| U.S. Environmental Protection Agency | 66.461 | Direct | | Regional Wetland Program Development Grants | - | | 191,504 |
| U.S. Environmental Protection Agency | 66.509 | Direct | | Science To Achieve Results (STAR) Research Program | 661,031 | | 1,045,741 |
| Dartmouth College | 66.509 | Subaward# R953 | | Science To Achieve Results (STAR) Research Program | - | | 34,197 |
| Total Science To Achieve Results (STAR) Research Program | | | | | 661,031 | | 1,079,938 |
| U.S. Environmental Protection Agency | 66.514 | Direct | | Science To Achieve Results (STAR) Fellowship Program | - | | 16,654 |
| U.S. Environmental Protection Agency | 66.516 | Direct | | P3 Award: National Student Design Competition for Sustainability | - | | 23,763 |
| MA Department of Environmental Protection | 66.605 | CTEQF5014UMASSAMHERST01609319 | | Performance Partnership Grants | - | | 131,631 |
| U.S. Environmental Protection Agency | 66.708 | Direct | | Pollution Prevention Grants Program | - | | 16,287 |
| U.S. Environmental Protection Agency | 66.714 | Direct | | Regional Agricultural IPM Grants | - | | 24,655 |
| MA Department of Agricultural Resources | 66.714 | CTAGR15 | | Regional Agricultural IPM Grants | - | | 41,106 |
| Total Regional Agricultural IPM Grants | | | | | - | | 65,761 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed Through to Subrecipients | | Total Federal Expenditures |
|--|----------|---|---------|---|---|---------|----------------------------|
| Environmental Protection Agency, continued | | | | | | | |
| MA Department of Agricultural Resources | 66.U01 | 118-1467 | | Environmental Protection Agency Contracts | \$ | - | \$ 28,436 |
| The Cadmus Group, Inc. | 66.U02 | WA1-91 / 022-UMassLowell-1 | | Environmental Protection Agency Contracts | | - | 127 |
| Environmental Protection Agency Total | | | | | | 686,031 | 1,821,010 |
| National Aeronautics and Space Administration | | | | | | | |
| National Aeronautics and Space Administration | 43.001 | Direct | Science | | | 891,245 | 4,139,974 |
| Bermuda Institute of Ocean Sciences | 43.001 | 154444UMB | Science | | | - | 83,290 |
| California Institute of Technology | 43.001 | JPL Subcontract No. 1560781 | Science | | | - | 87,138 |
| California Institute of Technology | 43.001 | NNN2AAO1C | Science | | | - | 13 |
| California Institute of Technology | 43.001 | RSA 1579247 | Science | | | - | 74,944 |
| California Institute of Technology | 43.001 | [JPL]: 44E-1096749 | Science | | | - | 14,945 |
| Computational Physics Inc. | 43.001 | NNX13AF41G | Science | | | - | (2,686) |
| Hampton University | 43.001 | HU-180001 | Science | | | - | 71,967 |
| Mount Holyoke College | 43.001 | G06861 | Science | | | - | 47,482 |
| Ohio State University | 43.001 | 60050055 | Science | | | - | 35,114 |
| SETI Institute | 43.001 | SC 3153 | Science | | | - | 9,151 |
| SETI Institute | 43.001 | SC3139 | Science | | | - | 18,333 |
| Smithsonian Astrophysical Observatory | 43.001 | G06-17024X | Science | | | - | 51,286 |
| Smithsonian Astrophysical Observatory | 43.001 | G02-13077X | Science | | | - | 5,416 |
| Smithsonian Astrophysical Observatory | 43.001 | TM3-14006X | Science | | | - | 2,543 |
| Space Telescope Science Institute | 43.001 | HST-AR-14299.001-A | Science | | | - | 29,499 |
| Space Telescope Science Institute | 43.001 | HST-AR-14589.001-A | Science | | | - | 53,377 |
| Space Telescope Science Institute | 43.001 | HST-GO-13293.004-A | Science | | | - | 5,109 |
| Space Telescope Science Institute | 43.001 | HST-GO-13342.002-A | Science | | | - | 18,490 |
| Space Telescope Science Institute | 43.001 | HST-GO-14066.004-A | Science | | | - | 2,206 |
| Space Telescope Science Institute | 43.001 | HST-GO-14134.005-A | Science | | | - | 17,781 |
| Space Telescope Science Institute | 43.001 | HST-GO-14227.003-A | Science | | | - | 6,359 |
| Space Telescope Science Institute | 43.001 | HST-GO-14602.003-A | Science | | | - | 24,530 |
| Space Telescope Science Institute | 43.001 | HST-GO-14653.004-A | Science | | | - | 68,866 |
| Space Telescope Science Institute | 43.001 | HST-GO-14684.005-A | Science | | | - | 4,295 |
| Space Telescope Science Institute | 43.001 | HST-HF2-51392.001-A | Science | | | - | 81,638 |
| Space Telescope Science Institute | 43.001 | NAS5-26555 | Science | | | - | 117,306 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed Through to Subrecipients | | Total Federal Expenditures |
|--|----------|---|---|---------------|---|---------|----------------------------|
| | | Number | | | | | |
| National Aeronautics and Space Administration, continued | | | | | | | |
| Space Telescope Science Institute | 43.001 | STSI: HST-AR-14285.001-A | Science | | \$ - | \$ | 15,060 |
| Space Telescope Science Institute | 43.001 | STSI: HST-GO-14095.003-A | Science | | - | | 25,439 |
| Tufts University | 43.001 | TUFTS: NASA90 | Science | | - | | 58,266 |
| University of California Irvine | 43.001 | U of California Irvine 2017-3522 | Science | | - | | 13,972 |
| University of California Los Angeles | 43.001 | 1295 G VA072 | Science | | - | | 64,066 |
| University of Colorado | 43.001 | 1551866 | Science | | - | | 64,150 |
| University of New Hampshire | 43.001 | 17-025 | Science | | - | | 21,940 |
| University of South Florida | 43.001 | 2500-1602-00-A | Science | | - | | 5,073 |
| Total Science | | | | | | 891,245 | 5,336,332 |
| Space Telescope Science Institute | 43.002 | HST-GO-12060.16-A | Aeronautics | | - | | (32) |
| Space Telescope Science Institute | 43.002 | HST-GO-13491.001-A | Aeronautics | | - | | 23,153 |
| Total Aeronautics | | | | | - | | 23,121 |
| National Aeronautics and Space Administration | 43.003 | Direct | Exploration | | - | | 216,944 |
| National Aeronautics and Space Administration | 43.007 | Direct | Space Operations | | - | | 352,836 |
| NASA Goddard Space Flight Center | 43.008 | Direct | Education | | - | | 53,649 |
| Delaware State University | 43.008 | Subaward No. 17-014HEH | Education | | - | | 106,830 |
| National Institute of Aerospace | 43.008 | C17-201018-UMASSD | Education | | - | | 25,899 |
| Total Education | | | | | - | | 186,378 |
| National Aeronautics and Space Administration | 43.009 | Direct | Cross Agency Support | | - | | 9,399 |
| NASA Goddard Space Flight Center | 43.012 | Direct | Space Technology | | - | | 181,165 |
| Northeastern University | 43.012 | Subaward 505098-78050 | Space Technology | | - | | 93,035 |
| Total Space Technology | | | | | - | | 274,200 |
| Aurora Flight Sciences Corporation | 43.U01 | Subcontract No. AFS15-1266 (STTR) | National Aeronautics and Space Administration Contracts | | - | | 39,743 |
| California Institute of Technology | 43.U02 | [JPL]: 1486198 | National Aeronautics and Space Administration Contracts | | - | | 22,558 |
| California Institute of Technology | 43.U03 | [JPL]: 1509300 | National Aeronautics and Space Administration Contracts | | - | | (5,412) |
| California Institute of Technology | 43.U04 | Sub# 1561247 | Miscellaneous National Aeronautics and Space Administration | | - | | 69,330 |
| California Institute of Technology | 43.U05 | [JPL]: 1539558 | National Aeronautics and Space Administration Contracts | | - | | (1,917) |
| Massachusetts Institute of Technology | 43.U06 | 7000387885 | National Aeronautics and Space Administration Contracts | | - | | 110,446 |
| MIT Lincoln Laboratory | 43.U08 | 7000377396 | National Aeronautics and Space Administration Contracts | | - | | 8,897 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|---|---|---|-------------------------------|
| National Aeronautics and Space Administration, continued | | | | | |
| Mount Holyoke College | 43.U09 | GD8761 | National Aeronautics and Space Administration Contracts | \$ - | \$ (525) |
| Space Telescope Science Institute | 43.U10 | HST-AR-13894.002-A | National Aeronautics and Space Administration Contracts | - | (1,067) |
| Space Telescope Science Institute | 43.U11 | STSI: HST-GO-13846.001-A | National Aeronautics and Space Administration Contracts | - | 39,714 |
| Space Telescope Science Institute | 43.U12 | STSI: HST-HF2-51368.001 A | National Aeronautics and Space Administration Contracts | - | 13,450 |
| Space Telescope Science Institute | 43.U13 | HST-GO-13773.005-A | National Aeronautics and Space Administration Contracts | - | 10,118 |
| Space Telescope Science Institute | 43.U14 | HST-GO-13743.004-A | National Aeronautics and Space Administration Contracts | - | 6,002 |
| Space Telescope Science Institute | 43.U15 | HST-GO-13688.002-A | National Aeronautics and Space Administration Contracts | - | 5,509 |
| National Aeronautics and Space Administration Total | | | | 891,245 | 6,716,056 |
| National Endowment for the Arts | | | | | |
| New England Foundation for The Arts | 45.025 | 17-33556 | Promotion of the Arts-Partnership Agreements | - | 700 |
| National Endowment for the Arts Total | | | | - | 700 |
| National Endowment for the Humanities | | | | | |
| National Endowment for the Humanities | 45.149 | Direct | Promotion of the Humanities-Division of Preservation and Access | - | 78,771 |
| National Endowment for the Humanities | 45.161 | Direct | Promotion of the Humanities-Research | - | 93,774 |
| National Endowment for the Humanities | 45.163 | Direct | Promotion of the Humanities-Professional Development | - | 145,944 |
| National Endowment for the Humanities Total | | | | - | 318,489 |
| National Science Foundation | | | | | |
| National Science Foundation | 47.041 | Direct | Engineering Grants | 300,185 | 6,567,644 |
| First RF Corporation | 47.041 | T14249 | Engineering Grants | - | 1,671 |
| Georgia Institute of Technology | 47.041 | RJ378-GI | Engineering Grants | - | 24,255 |
| Glauconix Bioscience Inc | 47.041 | 1660131 | Engineering Grants | - | 37,713 |
| Smart Material Solutions | 47.041 | IIP-1738387 | Engineering Grants | - | 2,839 |
| University of California | 47.041 | #00008613-02 | Engineering Grants | - | 137,891 |
| University of Illinois | 47.041 | 20 15-04326-0200 | Engineering Grants | - | 186,545 |
| University of New Hampshire | 47.041 | 13-027 | Engineering Grants | - | 1,151 |
| Washington State University | 47.041 | 120239 G003229-2 | Engineering Grants | - | 99,965 |
| Total Engineering Grants | | | | 300,185 | 7,059,674 |
| National Science Foundation | 47.049 | Direct | Mathematical and Physical Sciences | 892,251 | 7,441,076 |
| American Physical Society | 47.049 | 19333 | Mathematical and Physical Sciences | - | 5,310 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| National Science Foundation, continued | | | | | |
| Brandeis University | 47.049 | (NSF)/DMR- 1420382 | Mathematical and Physical Sciences | \$ - | \$ 41 |
| Brandeis University | 47.049 | 402430-1 | Mathematical and Physical Sciences | - | 73,990 |
| Kansas State University | 47.049 | SubAward Agreement# S16117 | Mathematical and Physical Sciences | - | 2,551 |
| Smithsonian Astrophysical Observatory | 47.049 | SAO SV5-85007 AMEND 2 | Mathematical and Physical Sciences | - | 198,523 |
| University of Pittsburgh | 47.049 | 005794 1 (012021-3) | Mathematical and Physical Sciences | - | 17,524 |
| Total Mathematical and Physical Sciences | | | | 892,251 | 7,739,015 |
| National Science Foundation | 47.050 | Direct | Geosciences | 268,669 | 4,430,220 |
| Columbia University | 47.050 | 111-1227 | Geosciences | - | 42,030 |
| Columbia University | 47.050 | 14(0G009393-01)-4 | Geosciences | - | 49,200 |
| Marine Biological Laboratory | 47.050 | OCE-1637630 / 52682 | Geosciences | - | 53,094 |
| Southern California Earthquake Center | 47.050 | SCEC 91268180 | Geosciences | - | 24,764 |
| State University of New York at Albany | 47.050 | I#14-02 RF 1111514-2-55 131 Mod I | Geosciences | - | 8,663 |
| The Broad Institute | 47.050 | 5400000052 | Geosciences | - | (47) |
| University of Arizona | 47.050 | 125160-Mod 5 | Geosciences | - | 16,239 |
| University of Minnesota | 47.050 | A003176711 | Geosciences | - | 19,109 |
| University of Texas at Austin | 47.050 | 17-000314 | Geosciences | - | 6,568 |
| Woods Hole Oceanographic Institution | 47.050 | A101063 | Geosciences | - | 2,281 |
| Woods Hole Oceanographic Institution | 47.050 | Project# 85850300V Sub# A101282 | Geosciences | - | 46,321 |
| Total Geosciences | | | | 268,669 | 4,698,442 |
| National Science Foundation | 47.070 | Direct | Computer and Information Science and Engineering | 449,968 | 12,832,714 |
| Brown University | 47.070 | #00000685 amend #3 | Computer and Information Science and Engineering | - | 40,099 |
| Cornell University | 47.070 | 72954-10599-01 | Computer and Information Science and Engineering | - | 55,049 |
| New York University | 47.070 | F7298-01 | Computer and Information Science and Engineering | - | 32,060 |
| Raytheon BBN Technologies Corp | 47.070 | BBN Ref # 14564 | Computer and Information Science and Engineering | - | 16,699 |
| University of Texas at Arlington | 47.070 | I 26100536520-003 | Computer and Information Science and Engineering | - | 70,943 |
| University of Utah | 47.070 | 10045119-UMAmherst | Computer and Information Science and Engineering | - | 17,581 |
| University of Utah | 47.070 | I 0034358-AMHRST-001 | Computer and Information Science and Engineering | - | 100,074 |
| Total Computer and Information Science and Engineering | | | | 449,968 | 13,165,219 |
| National Science Foundation | 47.074 | Direct | Biological Sciences | 183,997 | 5,765,930 |
| Arizona State University | 47.074 | ASU 17-139-01 | Biological Sciences | - | 5,067 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|---|---|----------------------------|
| National Science Foundation, continued | | | | | |
| BioXFEL | 47.074 | BioXFEL/6224- 2 Mod #1 | Biological Sciences | \$ - | \$ 56,942 |
| Cold Spring Harbor Laboratory | 47.074 | 525 70115-1 | Biological Sciences | - | 172,031 |
| Harvard Forest | 47.074 | 31716-5097576-02 | Biological Sciences | - | 115,282 |
| University of California Davis | 47.074 | 201302983-01 | Biological Sciences | - | 8,601 |
| University of Cincinnati | 47.074 | 0 10754-002 | Biological Sciences | - | 24,352 |
| University of Georgia | 47.074 | RC3 71-289/S001134 -2 | Biological Sciences | - | 124,527 |
| Total Biological Sciences | | | | 183,997 | 6,272,732 |
| National Science Foundation | 47.075 | Direct | Social, Behavioral, and Economic Sciences | 83,260 | 1,840,896 |
| Harvard University | 47.075 | 136375-5096339 | Social, Behavioral, and Economic Sciences | - | 84,105 |
| University of Florida | 47.075 | UFDSP00010946 | Social, Behavioral, and Economic Sciences | - | 74,100 |
| University of Minnesota | 47.075 | PO# A005162201 | Social, Behavioral, and Economic Sciences | - | 26,409 |
| Total Social, Behavioral, and Economic Sciences | | | | 83,260 | 2,025,510 |
| National Science Foundation | 47.076 | Direct | Education and Human Resources | 1,283,748 | 8,850,477 |
| Black Hills State University | 47.076 | BP1100005 | Education and Human Resources | - | 16,428 |
| Cast, Inc. | 47.076 | UMASSO91516-20 | Education and Human Resources | - | 114,559 |
| Education Development Center, Inc. | 47.076 | 72954-10599-01 | Education and Human Resources | - | 13,324 |
| Education Development Center, Inc. | 47.076 | CNS-1339300 | Education and Human Resources | - | 17,670 |
| Holyoke Community College | 47.076 | DUE 1400500UM | Education and Human Resources | - | 29,287 |
| Smith College | 47.076 | SC 636522 Amend #2 | Education and Human Resources | - | 10,922 |
| State University of New York at Cortland | 47.076 | Sub# 1141641-79013 | Education and Human Resources | - | 9,239 |
| Tufts University | 47.076 | Sub# NS7218 | Education and Human Resources | - | 76,016 |
| University of Connecticut | 47.076 | 116-0727 | Education and Human Resources | - | 36,273 |
| University of Connecticut | 47.076 | SB: 135339 | Education and Human Resources | - | 37,755 |
| University of Maryland | 47.076 | 29983-Z4602002-B | Education and Human Resources | - | 22,336 |
| University of Wisconsin | 47.076 | 490K770 Mod 2 | Education and Human Resources | - | 26,961 |
| Worcester Polytechnic Institute | 47.076 | 12-202930-01-00 | Education and Human Resources | - | 12,623 |
| Total Education and Human Resources | | | | 1,283,748 | 9,273,870 |
| National Science Foundation | 47.078 | Direct | Polar Programs | - | 5,048 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|---|----------|---|--------|---|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| National Science Foundation, continued | | | | | | | |
| National Science Foundation | 47.079 | Direct | | Office of International Science and Engineering | \$ - | \$ | 34,378 |
| Civilian Research & Development Foundation | 47.079 | N/A | | Office of International Science and Engineering | - | | 136,134 |
| Civilian Research & Development Foundation | 47.079 | ONSE-9531011 | | Office of International Science and Engineering | - | | 21,398 |
| Total Office of International Science and Engineering | | | | | - | | 191,910 |
| Association of Public & Land-Grant Universities | 47.U01 | 115-0977 | | National Science Foundation Contracts | - | | 116,818 |
| Genoverde Biosciences | 47.U02 | I 16-0877 | | National Science Foundation Contracts | - | | 66,702 |
| National Science Foundation | 47.U03 | Direct - CSE-1523309-003 | | National Science Foundation Contracts | - | | 382,927 |
| National Science Foundation | 47.U04 | Direct - CBET-1619792 | | National Science Foundation Contracts | - | | 312,671 |
| National Science Foundation | 47.U05 | Direct - (NSF)CNS- 1740558 | | National Science Foundation Contracts | - | | 295,472 |
| National Science Foundation | 47.U06 | Direct - AST-1517503 | | Miscellaneous National Science Foundation | - | | 54,491 |
| Uniqarta, Inc. | 47.U07 | IIP 1632387 | | National Science Foundation Contracts | - | | (4,157) |
| National Science Foundation Total | | | | | 3,462,078 | | 51,656,344 |
| Nuclear Regulatory Commission | | | | | | | |
| U.S. Nuclear Regulatory Commission | 77.008 | Direct | | U.S. Nuclear Regulatory Commission Scholarship and Fellowship Program | - | | 411,650 |
| Nuclear Regulatory Commission Total | | | | | - | | 411,650 |
| Social Security Administration | | | | | | | |
| U.S. Social Security Administration | 96.008 | Direct | | Social Security - Work Incentives Planning and Assistance Program | - | | 225,784 |
| Mathematica Policy Research | 96.007 | MPR/SSA DRC12000001-01-00 | | Social Security-Research and Demonstration | - | | 244,581 |
| Social Security Administration Total | | | | | - | | 470,365 |
| Research and Development Cluster Total | | | | | 44,531,393 | | 371,532,614 |
| Student Financial Assistance Cluster: | | | | | | | |
| Department of Education | | | | | | | |
| U.S. Department of Education | 84.038 | Direct | | Federal Perkins Loan Program | - | | 46,336,030 |
| U.S. Department of Education | 84.268 | Direct | | Federal Direct Student Loans | - | | 334,309,872 |
| U.S. Department of Education | 84.007 | Direct | | Federal Supplemental Educational Opportunity Grants | - | | 3,111,808 |
| U.S. Department of Education | 84.033 | Direct | | Federal Work-Study Program | - | | 4,979,002 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|----------|---|--------|--|--------------------------|----|----------------------------|
| | | | Number | | Through to Subrecipients | | |
| Department of Education, continued | | | | | | | |
| U.S. Department of Education | 84.063 | Direct | | Federal Pell Grant Program | \$ - | \$ | 78,368,293 |
| U.S. Department of Education | 84.379 | Direct | | Teacher Education Assistance for College and Higher Education Grants (TEACH Grants) | - | | 246,042 |
| Department of Education Total | | | | | - | | 467,351,047 |
| Department of Health and Human Services | | | | | | | |
| U.S. Department of Health and Human Services | 93.264 | Direct | | Nurse Faculty Loan Program (NFLP) | - | | 5,287,125 |
| U.S. Department of Health and Human Services | 93.264 | Direct | | Nurse Faculty Loan Program - ARRA | - | | 64,863 |
| U.S. Department of Health and Human Services | 93.342 | Direct | | Health Professional Primary Care Loans | - | | 1,223,397 |
| U.S. Department of Health and Human Services | 93.342 | Direct | | Loans for Disadvantaged Students | - | | 354,820 |
| U.S. Department of Health and Human Services | 93.364 | Direct | | Nursing Student Loans | - | | 23,054 |
| Department of Health and Human Services Total | | | | | - | | 6,953,259 |
| Student Financial Assistance Cluster Total | | | | | - | | 474,304,306 |
| Other Clustered Programs: | | | | | | | |
| Department of Agriculture: | | | | | | | |
| SNAP Cluster | | | | | | | |
| U.S. Department of Agriculture | 10.561 | Direct | | State Administrative Matching Grants for the Supplemental Nutrition Assistance Program | - | | 35,736 |
| MA Department of Transitional Assistance | 10.551 | CTISAWEL44003064UMS13A | | Supplemental Nutrition Assistance Program | 12,828 | | 1,014,808 |
| MA Department of Transitional Assistance | 10.561 | CT ISA 44003064 UMS18A | | State Administrative Matching Grants for the Supplemental Nutrition Assistance Program | - | | 196,628 |
| MA Department of Transitional Assistance | 10.561 | CTISAWEL44003064UMS13A | | State Administrative Matching Grants for the Supplemental Nutrition Assistance Program | 10,937 | | 2,722,479 |
| SNAP Cluster Total | | | | | 23,765 | | 3,969,651 |
| Department of Commerce: | | | | | | | |
| Economic Development Cluster | | | | | | | |
| Economic Development Administration | 11.307 | Direct | | Economic Adjustment Assistance | - | | (7,065) |
| Economic Development Cluster Total | | | | | - | | (7,065) |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
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| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed Through to Subrecipients | | Total Federal Expenditures |
|--|----------|---|------------|---|---|----|----------------------------|
| Department of Education: | | | | | | | |
| Special Education Cluster (IDEA) | | | | | | | |
| MA Department of Elementary & Secondary Education | 84.027 | 17CT6500UMASSAIRC | TRN | Special Education-Grants to States | \$ - | \$ | (1,171) |
| Virginia Department of Education | 84.027 | 786-DOE87025-H027A | 150107 | Special Education-Grants to States | - | | 3,296 |
| Special Education Cluster (IDEA) Total | | | | | - | | 2,125 |
| TRIO Cluster | | | | | | | |
| U.S. Department of Education | 84.042 | Direct | | TRIO-Student Support Services | - | | 831,245 |
| U.S. Department of Education | 84.044 | Direct | | TRIO-Talent Search | - | | 628,931 |
| U.S. Department of Education | 84.047 | Direct | | TRIO-Upward Bound | 188,244 | | 1,483,101 |
| U.S. Department of Education | 84.217 | Direct | | TRIO-McNair Post-Baccalaureate Achievement | - | | 225,954 |
| TRIO Cluster Total | | | | | 188,244 | | 3,169,231 |
| Department of Health and Human Services: | | | | | | | |
| 477 Cluster | | | | | | | |
| MA Department of Housing & Community Development | 93.569 | Reference Account# | 70060 | Community Services Block Grant | - | | 27,159 |
| 477 Cluster Total | | | | | - | | 27,159 |
| Department of Housing and Urban Development: | | | | | | | |
| CDBG - Entitlement Grants Cluster | | | | | | | |
| City of Springfield | 14.218 | 20170069 | | Community Development Block Grants/Entitlement Grants | - | | 22 |
| City of Springfield | 14.218 | 20180242 | | Community Development Block Grants/Entitlement Grants | - | | 7,486 |
| CDBG - Entitlement Grants Cluster Total | | | | | - | | 7,508 |
| Department of Labor: | | | | | | | |
| Employment Service Cluster | | | | | | | |
| MA Executive Office of Labor & Workforce Development | 17.207 | CT EOL3250 15DEIIC | 000000000 | Employment Service/Wagner-Peyser Funded Activities | - | | 214,050 |
| MA Executive Office of Labor & Workforce Development | 17.207 | CT EOL3250 15DEIWW | L000000000 | Employment Service/Wagner-Peyser Funded Activities | - | | 44,863 |
| Masshire Brockton Workforce Board | 17.207 | FY 17 BAWB WAGNER PEYSER | | Employment Service/Wagner-Peyser Funded Activities | - | | 57,302 |
| Masshire Brockton Workforce Board | 17.207 | SB: 10SCC10 | | Employment Service/Wagner-Peyser Funded Activities | - | | 255,058 |
| Masshire Brockton Workforce Board | 17.801 | SB: 10SCC10 | | Disabled Veterans' Outreach Program (DVOP) | - | | 16,720 |
| Employment Service Cluster Total | | | | | - | | 587,993 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| WIOA Cluster, Department of Labor | | | | | |
| Greater New Bedford Workforce Investment Area | 17.278 | 245-327-17 | WIOA Dislocated Worker Formula Grants | \$ - | \$ 9,682 |
| Greater New Bedford Workforce Investment Area | 17.278 | 245-372-17-01 | WIOA Dislocated Worker Formula Grants | - | (16) |
| Masshire Brockton Workforce Board | 17.258 | FY 17 BAWIB ADULT | WIOA Adult Program | - | 89,951 |
| Masshire Brockton Workforce Board | 17.258 | SB: 10SCC10 | WIOA Adult Program | - | 291,081 |
| Masshire Brockton Workforce Board | 17.278 | FY 17 BAWIB DISLOCATED WORKER | WIOA Dislocated Worker Formula Grants | - | 87,975 |
| Masshire Brockton Workforce Board | 17.278 | SB: 10SCC10 | WIOA Dislocated Worker Formula Grants | - | 370,397 |
| Regional Employment Board of Hampden County | 17.258 | SB: 28814 | WIOA Adult Program | - | 6,540 |
| WIOA Cluster Total | | | | - | 855,610 |
| Department of Transportation: | | | | | |
| Highway Planning and Construction Cluster, Department of Transportation | | | | | |
| MA Department of Transportation | 20.205 | INTF00X02015A0081923 | Highway Planning and Construction | - | 90,428 |
| MA Department of Transportation | 20.205 | INTF00X0218A91905 | Highway Planning and Construction | - | 96,107 |
| MA Department of Transportation | 20.205 | INTF00X02018H0100519 | Highway Planning and Construction | - | 114,604 |
| MA Department of Transportation | 20.205 | INTF00X02018A0103206 | Highway Planning and Construction | - | 13,774 |
| MA Department of Transportation | 20.205 | SB: 83190 | Highway Planning and Construction | - | 60,303 |
| MA Department of Transportation | 20.205 | SPR-SPR-A-018-X00 | Highway Planning and Construction | - | 3,715 |
| Highway Planning and Construction Cluster Total | | | | - | 378,931 |
| Highway Safety Cluster, Department of Transportation | | | | | |
| MA Executive Office of Public Safety & Security | 20.616 | CTUMASSD2018SBSURVEY | National Priority Safety Programs | - | 687 |
| MA Executive Office of Public Safety & Security | 20.616 | CTXUMASS2018SEATBELT | National Priority Safety Programs | - | 29,997 |
| MA Executive Office of Public Safety & Security | 20.616 | ISACT2016UMASSCRDATA | National Priority Safety Programs | - | 82,564 |
| MA Executive Office of Public Safety & Security | 20.616 | ISACTEPSUMSCRAHFY15 | National Priority Safety Programs | - | 19,792 |
| Highway Safety Cluster Total | | | | - | 133,040 |
| Transit Services Programs Cluster, Department of Transportation | | | | | |
| MA Department of Transportation | 20.513 | INTF00X02016P0092758 | Enhanced Mobility of Seniors and Individuals with Disabilities | - | 164,121 |
| Transit Services Programs Cluster Total | | | | - | 164,121 |

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| Federal Grantor/Pass Through Grantor/Cluster Title | Direct Award or Pass Through Entity Identifying | | Program Title | Amounts Passed | | Total Federal Expenditures |
|--|---|------------------------|--|--------------------------|----|----------------------------|
| | CFDA No. | Number | | Through to Subrecipients | | |
| Other Programs | | | | | | |
| Agency For International Development | | | | | | |
| U.S. Agency International Development | 98.001 | Direct | USAID Foreign Assistance for Programs Overseas | \$ 48,272 | \$ | 259,320 |
| Agency For International Development Total | | | | 48,272 | | 259,320 |
| Department of Agriculture | | | | | | |
| National Institute of Food and Agriculture | 10.500 | Direct | Cooperative Extension Service | - | | 412,910 |
| U.S. Department of Agriculture | 10.001 | Direct | Agricultural Research-Basic and Applied Research | - | | 14,661 |
| U.S. Department of Agriculture | 10.500 | Direct | Cooperative Extension Service | 70,800 | | 3,162,353 |
| Kansas State University | 10.500 | KANSAS S18089 | Cooperative Extension Service | - | | 13,586 |
| Kansas State University | 10.500 | KSUS17096 4-H MILITARY | Cooperative Extension Service | - | | 5,645 |
| Department of Agriculture Total | | | | 70,800 | | 3,609,155 |
| Department of Defense | | | | | | |
| National Security Agency | 12.900 | Direct | Language Grant Program | - | | 93,764 |
| Department of Defense Total | | | | - | | 93,764 |
| Department of Education | | | | | | |
| U.S. Department of Education | 84.031 | Direct | Higher Education-Institutional Aid | - | | 289,184 |
| U.S. Department of Education | 84.129 | Direct | Rehabilitation Long-Term Training | - | | 410,143 |
| U.S. Department of Education | 84.200 | Direct | Graduate Assistance in Areas of National Need | - | | 11,110 |
| U.S. Department of Education | 84.264 | Direct | Rehabilitation Training-Continuing Education | 923,156 | | 2,410,123 |
| U.S. Department of Education | 84.299 | Direct | Indian Education – Special Programs for Indian Children | - | | 120,811 |
| U.S. Department of Education | 84.324 | Direct | Research in Special Education | 151,294 | | 485,691 |
| U.S. Department of Education | 84.325 | Direct | Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | - | | 782,547 |
| U.S. Department of Education | 84.327 | Direct | Special Education Educational Technology Media, and Materials for Individuals with Disabilities | - | | 338,149 |
| U.S. Department of Education | 84.365 | Direct | English Language Acquisition State Grants | - | | (2,347) |
| U.S. Department of Education | 84.382 | Direct | Strengthening Minority-Serving Institutions | - | | 335,762 |
| Boston Plan for Excellence | 84.336 | 9U336S140088 YR2 | Teacher Quality Partnership Grants | - | | 30,078 |
| Boston Plan for Excellence | 84.336 | U336S140088 | Teacher Quality Partnership Grants | - | | 343,052 |
| Brockton Public Schools | 84.002 | 359-014-0044R | Adult Education - Basic Grants to States | - | | 1,017 |
| Brockton Public Schools | 84.002 | 359-137700-2018-004R | Adult Education - Basic Grants to States | - | | 1,029 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
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|--|----------|--|--|---|----------------------------|
| Department of Education, continued | | | | | |
| MA Department of Elementary & Secondary Ed | 84.002 | CTDOE-1678UMASSAMHERSTMAPT | Adult Education - Basic Grants to States | \$ - | \$ 429,585 |
| MA Department of Elementary & Secondary Ed | 84.002 | FY 18 ABE | Adult Education - Basic Grants to States | - | 83,394 |
| MA Department of Elementary & Secondary Ed | 84.002 | SB: 25393 | Adult Education - Basic Grants to States | - | 23,011 |
| MA Department of Elementary & Secondary Ed | 84.366 | CTDOE 1247UMASSDONAHUE0293 | Mathematics and Science Partnerships | - | 138,637 |
| Maine Department of Labor | 84.421 | PO# CT12A 20170221000000002436 | Disability Innovation Fund (DIF) | - | 205,466 |
| National Writing Project | 84.367 | #2A/92-MA01-SEED2012 NWP 2014-2016 | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | - | 7,227 |
| National Writing Project | 84.367 | SB: 03-MA04-SEED2016-IL | Supporting Effective Instruction State Grants (formerly Improving Teacher Quality State Grants) | - | 455 |
| Salus University | 84.325 | UMB 88403 17-18 | Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | - | 40,049 |
| Special Olympics, Inc. | 84.128 | Project Unity | Rehabilitation Services-Service Projects | - | 433,846 |
| University of Connecticut | 84.325 | Sub# UCHC7-98699674 | Special Education - Personnel Development to Improve Services and Results for Children with Disabilities | - | 12,112 |
| Department of Education Total | | | | 1,074,450 | 6,930,131 |
| Department of Health and Human Services | | | | | |
| Health Resources & Service Administration | 93.178 | Direct | Nursing Workforce Diversity | 66,228 | 329,530 |
| U.S. Department of Health and Human Services | 93.048 | Direct | Special Programs for the Aging-Title IV-and Title II-Discretionary Projects | - | 256,314 |
| U.S. Department of Health and Human Services | 93.297 | Direct | Teenage Pregnancy Prevention Program | 27,086 | 48,240 |
| U.S. Department of Health and Human Services | 93.433 | Direct | ACL National Institute on Disability, Independent Living, and Rehabilitation Research | 23,029 | 613,688 |
| U.S. Department of Health and Human Services | 93.464 | Direct | ACL Assistive Technology | 172,799 | 313,654 |
| U.S. Department of Health and Human Services | 93.600 | Direct | Head Start | 1,112,927 | 6,804,298 |
| U.S. Department of Health and Human Services | 93.631 | Direct | Developmental Disabilities Projects of National Significance | - | 223,329 |
| U.S. Department of Health and Human Services | 93.045 | Direct - HHSP233201500006C | Department of Health and Human Services Contracts | - | 2,946,716 |
| Administrative Office of The Trial Court | 93.243 | 1-TI026677-01 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | (124) |
| Administrative Office of The Trial Court | 93.243 | 20179100092916UM | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 1,022 |
| Administrative Office of The Trial Court | 93.243 | 201810011117UMASS1 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 80,600 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| Administrative Office of The Trial Court | 93.243 | 201810011117UMASS2 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | \$ - | \$ 44,920 |
| Administrative Office of The Trial Court | 93.243 | H79-TI080277 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 5,182 |
| Community Transportation Association of America | 93.631 | 900N0001-01-00 | Developmental Disabilities Projects of National Significance | - | 65,868 |
| Florida Development Disabilities Council | 93.630 | 1003EM17F | Developmental Disabilities Basic Support and Advocacy Grants | - | 92,501 |
| Florida Development Disabilities Council | 93.630 | 983EM16E | Developmental Disabilities Basic Support and Advocacy Grants | 8,000 | 37,387 |
| Georgetown University | 93.632 | 412687_GR412564-UMB | University Centers for Excellence in Developmental Disabilities Education, Research, and Service | - | 27,922 |
| Holyoke Health Center Inc | 93.289 | Lets Move Holyoke Cntrl Svcs 2/1/15 | President's Council on Fitness, Sports, and Nutrition | - | 7,989 |
| MA Department of Mental Health | 93.104 | 821014080220000 | Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED) | 16,564 | 107,977 |
| MA Department of Mental Health | 93.104 | SCDMH8210180H6990 | Comprehensive Community Mental Health Services for Children with Serious Emotional Disturbances (SED) | - | 83,001 |
| MA Department of Mental Health | 93.243 | SC DMH 822015081490000 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | (763) |
| MA Department of Mental Health | 93.243 | SCDMH822015081490000 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 140,142 |
| MA Department of Public Health | 93.243 | INTF2330MM3W16007103 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 2,925 |
| MA Department of Public Health | 93.243 | INTF2400HH2706811198 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | (5) |
| MA Department of Public Health | 93.757 | 4120HH250024053 | State and Local Public Health Actions to Prevent Obesity, Diabetes, Heart Disease and Stroke (PPHF) | - | 15,000 |
| MA Department of Public Health | 93.918 | INTF4943MM3200120038 | Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease | - | 174,258 |
| MA Department of Public Health | 93.918 | INTF4944MM3181926039 | Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease | - | 446,719 |
| MA Department of Public Health | 93.994 | INTF3054M03182122021 | Maternal and Child Health Services Block Grant to the States | - | 28,825 |
| MA Department of Public Health | 93.994 | INTF7900M03180627598 | Maternal and Child Health Services Block Grant to the States | - | 91,923 |
| MA Department of Public Health | 93.994 | INTF7900MM3701516150 | Maternal and Child Health Services Block Grant to the States | - | 71 |
| MA Department of Public Health | 93.043 | INTF5291HH4300522026 | Department of Health and Human Services Contracts | - | 26,610 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|---|---|----------------------------|
| Department of Health and Human Services, continued | | | | | |
| MA Department of Public Health | 93.U44 | INTF5291HH4300522027 | Department of Health and Human Services Contracts | \$ - | \$ 7,953 |
| MA Department of Developmental Services | 93.631 | 17UMSICIGRANTEMPLY1 | Developmental Disabilities Projects of National Significance | - | 177,938 |
| MA Bureau of Substance Abuse Services | 93.184 | INTF3042HH2500224047 | Disabilities Prevention | - | 38,300 |
| MA Bureau of Substance Abuse Services | 93.243 | INTF2400H78500224220 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 21,574 |
| MA Bureau of Substance Abuse Services | 93.243 | INTF2400HH2500224348 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 41,908 |
| MA Developmental Disabilities Council | 93.630 | 1100-1702 | Developmental Disabilities Basic Support and Advocacy Grants | - | 17,240 |
| MA Executive Office of Elder Affairs | 93.051 | MA EOEA/AoA/Alzheimers/Cragin | Alzheimer's Disease Demonstration Grants to States | - | 76,978 |
| MA Executive Office of Health & Human Services | 93.624 | CMS-1G1-12-001 | ACA - State Innovation Models: Funding for Model Design and Model Testing Assistance | - | 171,339 |
| MA Department of Revenue | 93.597 | CTDOR2017JMBHH4 | Grants to States for Access and Visitation Programs | - | 2,007 |
| Policy Research Associates | 93.239 | 1101-0001-004-001 | Policy Research and Evaluation Grants | - | 4,123 |
| Policy Research Associates | 93.243 | 1101-0002-006-001 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 2,273 |
| Seven Hills Foundation | 93.243 | Contract for Services dated 9/30/15 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 53,278 |
| WA State Department of Social & Health Services | 93.243 | 1665-79606 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 6,510 |
| WA State Department of Social & Health Services | 93.243 | 1765-16812 | Substance Abuse and Mental Health Services-Projects of Regional and National Significance | - | 24,701 |
| Department of Health and Human Services Total | | | | 1,426,633 | 13,661,841 |
| Department of Justice | | | | | |
| U.S. Department of Justice | 16.525 | Direct | Grants to Reduce Domestic Violence, Dating Violence, Sexual Assault, and Stalking on Campus | 6,477 | 8,161 |
| U.S. Department of Justice | 16.726 | Direct | Juvenile Mentoring Program | 326,105 | 557,392 |
| Administrative Office of The Trial Court | 16.812 | 20180311ACCBJAUMASS1 | Second Chance Act Reentry Initiative | - | 36,779 |
| Administrative Office of The Trial Court | 16.812 | 20189100120417UMJDC | Second Chance Act Reentry Initiative | - | 10,616 |
| Administrative Office of The Trial Court | 16.812 | MA TRC/DOJ/Juv Drug Ct-17 | Second Chance Act Reentry Initiative | - | 1,546 |
| Administrative Office of The Trial Court | 16.812 | MA TRC/DOJ/Juv Drug Ct-FY19 | Second Chance Act Reentry Initiative | - | 1,877 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| Department of Justice, continued | | | | | |
| MA Department of Mental Health | 16.812 | SC DMH 822016083280000 | Second Chance Act Reentry Initiative | \$ - | \$ 188,325 |
| MA Office for Victim Assistance | 16.575 | MOVA-VOCALFY2017 | Crime Victim Assistance | - | 74 |
| MA Office for Victim Assistance | 16.575 | MOVA-VOCALFY2018 | Crime Victim Assistance | - | 275,397 |
| Department of Justice Total | | | | 332,582 | 1,060,167 |
| Department of Labor | | | | | |
| MA Division of Career Services | 17.245 | SB: 93512 | Trade Adjustment Assistance | - | 5,569 |
| MA Executive Office of Labor & Workforce Development | 17.283 | CT EOL 3250 17ICIDEIV1000000000 | Workforce Innovation Fund | - | 96,943 |
| MA Executive Office of Labor & Workforce Development | 17.283 | CT EOL 325017WWLDEVI0000000000 | Workforce Innovation Fund | - | 106,948 |
| Massasoit Community College | 17.282 | Navigator - TAACCCT IV | Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grants | - | 337 |
| Masshire Brockton Workforce Board | 17.225 | CY 17 BAWIB RESEA | Unemployment Insurance | - | 116,578 |
| Masshire Brockton Workforce Board | 17.225 | FY 18 BAWIB DUA | Unemployment Insurance | - | 14,997 |
| Masshire Brockton Workforce Board | 17.225 | SB: 10SCC10 | Unemployment Insurance | - | 86,086 |
| Masshire Brockton Workforce Board | 17.245 | SB: 10SCC10 | Trade Adjustment Assistance | - | 97,320 |
| Masshire Brockton Workforce Board | 17.277 | BAWIB NDWG: Garber | WIOA National Dislocated Worker Grants / WIA National Emergency Grants | - | 65,750 |
| Masshire Brockton Workforce Board | 17.277 | Master Agreement # RT-002 | WIOA National Dislocated Worker Grants / WIA National Emergency Grants | - | 2,850 |
| Masshire Brockton Workforce Board | 17.277 | SB: 10SCC10 | WIOA National Dislocated Worker Grants / WIA National Emergency Grants | - | 313,333 |
| Masshire Brockton Workforce Board | 17.285 | AP-30060-16-60-A-25 | Apprenticeship USA Grants | - | 2,744 |
| Department of Labor Total | | | | - | 909,455 |
| Department of State | | | | | |
| U.S. Department of State | 19.009 | Direct | Academic Exchange Programs - Undergraduate Programs | - | 748,390 |
| U.S. Department of State | 19.401 | Direct | Academic Exchange Programs - Scholars | - | 278,473 |
| U.S. Department of State | 19.501 | Direct | Public Diplomacy Programs for Afghanistan and Pakistan | - | 525,512 |
| Association of University Centers on Disabilities | 19.415 | Sub# 21-16-8100 | Professional and Cultural Exchange Programs - Citizen Exchanges | - | 91,982 |
| Association of University Centers on Disabilities | 19.415 | Sub# 32-17-8150 | Professional and Cultural Exchange Programs - Citizen Exchanges | - | 31,148 |

See accompanying notes to Schedule of Expenditures of Federal Awards

UNIVERSITY OF MASSACHUSETTS
Schedule of Expenditures of Federal Awards
Year Ended June 30, 2018

| Federal Grantor/Pass Through Grantor/Cluster Title | CFDA No. | Direct Award or Pass Through Entity Identifying Number | Program Title | Amounts Passed Through to Subrecipients | Total Federal Expenditures |
|--|----------|--|--|---|----------------------------|
| Department of State, continued | | | | | |
| Fulbright Commission Argentina | 19.402 | 19-0201-0-1-154 Fulbright-Hays Act of 1961 | Professional and Cultural Exchange Programs - International Visitor Leadership Program | \$ - | \$ 65,468 |
| Fulbright Commission Argentina | 19.402 | Argentina 2018 | Professional and Cultural Exchange Programs - International Visitor Leadership Program | - | 21,643 |
| Fulbright Commission Argentina | 19.002 | 19-0201-0-1-154 Fulbright-Hays Act of 1961 | Miscellaneous Department of State | - | (686) |
| Meridian International Center | 19.021 | SB: IYELP2016 | Investing in People in The Middle East and North Africa | - | (428) |
| World Learning, Inc. | 19.021 | SB: IYLEP 2017 | Investing in People in The Middle East and North Africa | - | 110,914 |
| Department of State Total | | | | - | 1,872,416 |
| Department of The Interior | | | | | |
| National Park Service | 15.945 | Direct | Cooperative Research and Training Programs Resources of the National Park System | - | 3,886 |
| Department of The Interior Total | | | | - | 3,886 |
| National Endowment for the Humanities | | | | | |
| National Endowment for the Humanities | 45.163 | Direct | Promotion of the Humanities-Professional Development | - | 66,755 |
| National Endowment for the Humanities Total | | | | - | 66,755 |
| Small Business Administration | | | | | |
| Small Business Administration | 59.037 | Direct | Small Business Development Centers | 1,049,227 | 2,167,246 |
| Small Business Administration Total | | | | 1,049,227 | 2,167,246 |
| Expenditures of Federal Awards Total | | | | \$ 48,745,366 | \$ 885,779,360 |

See accompanying notes to Schedule of Expenditures of Federal Awards

continued
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UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

For the year ended June 30, 2018

1. BASIS OF PRESENTATION

The accompanying schedule of expenditures of federal awards (the Schedule) presents the direct and indirect expenditures of federal financial assistance programs administered by the University of Massachusetts (the "University") an entity defined in the financial statements except that the federal financial assistance programs, if any, of the University of Massachusetts Amherst Foundation, the Worcester City Campus Corporation, the University of Massachusetts Foundation, Inc. and the University of Massachusetts Dartmouth Foundation, Inc., are not included. Accordingly, the accompanying Schedule presents the federal award expenditures administered by the University, as defined above, for the year ended June 30, 2018.

The amounts reported were obtained from the University's general ledger which is the source of the federal financial reports and is maintained on an accrual basis. The Schedule is prepared on the accrual basis of accounting. The information in the Schedule is presented in accordance with the requirements of *Title 2 U.S. Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*. Therefore, some amounts presented in the Schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements. Negative amounts that appear on the Schedule represent adjustments made after the closeout process has been completed. CFDA and pass-through numbers are presented when available. Federal loan programs the University administers are represented on the Schedule in accordance with Uniform Guidance Part 200.502, and include the outstanding balance at the beginning of the year, plus loans disbursed in the current year and the administrative cost allowance for the year.

2. DIRECT AND INDIRECT FEDERAL AWARD EXPENDITURES

The University applies its predetermined approved facilities and administrative costs to federal awards rather than the 10 percent de minimus cost rate as described in Section 200.414 of the Uniform Guidance. Rates are negotiated with and approved by the University's cognizant audit agency, the U.S. Department of Health and Human Services.

3. FEDERAL STUDENT FINANCIAL ASSISTANCE

a) Student Loan Programs

The Perkins Loans, Primary Care Loans, Loans for Disadvantaged Students, Nurse Faculty Loan Program and the Nursing Student Loans are administered directly by the University and balances and transactions are included in the University's financial statements. Loan activities and balances consist of the following:

| | Federal CFDA Number | Balance as of July 1, 2017 | Loans Issued | Payments Received | Balance as of June 30, 2018 |
|----------------------------------|---------------------------|-------------------------------|---------------------|-----------------------|--------------------------------|
| Perkins Loan program | 84.038 | \$ 40,905,367 | \$ 4,889,534 | \$ (7,411,659) | \$ 38,383,242 |
| Health Professions Student Loans | 93.342 | 1,073,397 | 150,000 | (177,790) | 1,045,607 |
| Loans for Disadvantaged Students | 93.342 | 279,820 | 75,000 | (132,605) | 222,215 |
| Nursing Faculty Loans | 93.264 | 4,180,754 | 1,171,234 | (484,861) | 4,867,127 |
| Nursing Student Loans | 93.364 | 23,054 | - | (6,553) | 16,501 |
| | | <u>\$ 46,462,392</u> | <u>\$ 6,285,768</u> | <u>\$ (8,213,468)</u> | <u>\$ 44,534,692</u> |

For the year ended June 30, 2018, the University's recovered an administrative cost allowance of \$541,129 under the Federal Perkins Loan Program.

UNIVERSITY OF MASSACHUSETTS

Notes to the Schedule of Expenditures of Federal Awards

For the year ended June 30, 2018

b) Federal Direct Loans

The University is responsible only for the performance of certain administrative duties relating to Federal Direct Student Loans and, accordingly, these loans are not included in the University's financial statements. Federally guaranteed loans distributed to students of the University through the Federal Direct Student Loans Program during the year ended June 30, 2018 are summarized as follows:

| | <u>Federal CFDA Number</u> | <u>Loans Distributed</u> |
|---|--------------------------------|------------------------------|
| Federal Direct Student Loans (FDL) | 84.268 | \$ 286,154,477 |
| FDL Parent Loans for Undergraduate Students (PLUS) | 84.268 | 48,155,395 |
| Total Federal Direct Student Loans | | <u>\$ 334,309,872</u> |

PART II
REPORTS ON INTERNAL CONTROL AND COMPLIANCE



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**REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS ON INTERNAL CONTROL
OVER FINANCIAL REPORTING AND ON COMPLIANCE AND
OTHER MATTERS REQUIRED BY *GOVERNMENT AUDITING STANDARDS***

Board of Trustees of the
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") as of and for the year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated January 8, 2019 .

The financial statements of Worcester City Campus Corporation, the University of Massachusetts Foundation, and the University of Massachusetts Dartmouth Foundation Inc. were not audited in accordance with *Government Auditing Standards* and, accordingly, this report does not include reporting on internal controls over financial reporting and on compliance and other matters associated with these entities.

Internal control over financial reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting ("internal control") to design audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the University's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in the University's internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and other matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Intended purpose

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

Grant Thornton LLP

Boston, Massachusetts

January 8, 2019



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**REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS
ON COMPLIANCE FOR EACH MAJOR FEDERAL PROGRAM
AND ON INTERNAL CONTROL OVER COMPLIANCE REQUIRED
BY THE UNIFORM GUIDANCE**

Board of Trustees of the
University of Massachusetts

Report on compliance for each major federal program

We have audited the compliance of the University of Massachusetts (the "University") with the types of compliance requirements described in the U.S. Office of Management and Budget's *OMB Compliance Supplement* that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2018. The University's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Our audit of, and opinion on, the University's compliance for each major federal program does not include the compliance requirements governing student loan repayments under the Student Financial Assistance cluster because the University engaged Heartland ECSI and Unisa to perform these compliance activities. These third-party servicer's have each obtained a compliance examination from other practitioners for the year ended June 30, 2018 in accordance with the U.S. Department of Education's, *Guide for Audits of Federal Student Financial Programs at Participating Institution and Institution Servicers*.

Management's responsibility

Management is responsible for compliance with federal statutes, regulations, and the terms and conditions of its federal awards applicable to the University's federal programs.

Auditor's responsibility

Our responsibility is to express an opinion on compliance for each of the University's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United

States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Those standards and the Uniform Guidance require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the University's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the University's compliance.

Opinion on each major federal program

In our opinion, the University complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2018.

Report on internal control over compliance

Management of the University is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the University's internal control over compliance with the types of compliance requirements that could have a direct and material effect on each major federal program to design audit procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the University's internal control over compliance.

As described in our Report on Compliance for Each Major Federal Program above, this Report on Internal Control Over Compliance does not include the results of the other auditors' testing of internal control over compliance that is reported on separately by those auditors.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in the University's internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this Report on Internal Control Over Compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Brent Thornton LLP

Boston, Massachusetts
January 8, 2019

PART III
SCHEDULE OF FINDINGS AND QUESTIONED COSTS

UNIVERSITY OF MASSACHUSETTS
Schedule of Findings and Questioned Costs
For the year ended June 30, 2018

SECTION I - SUMMARY OF AUDITOR'S RESULTS

Financial statements:

Type of report the auditor issued on whether the financial statements audited were prepared in accordance with GAAP:

Unmodified

Internal control over financial reporting:

- Material weakness (es) identified? ☐ yes ☒ no
- Significant deficiency (ies) identified? ☐ yes ☒ none reported
- Noncompliance material to the financial statements noted? ☐ yes ☒ no

Federal awards:

Internal control over the major programs:

- Material weakness (es) identified? ☐ yes ☒ no
- Significant deficiency (ies) identified that are not considered to be material weakness (es)? ☐ yes ☒ none reported

Type of auditors' report issued on compliance for major federal programs:

Unmodified

Any audit findings disclosed that are required to be reported in accordance with 2 CFR 200.516(a)?

☐ yes ☒ no

Identification of major federal programs:

Program or Cluster Title

Federal CFDA Number

Multiple Student Financial Assistance Cluster
Cooperative Extension Services

Multiple
Multiple

Dollar threshold used to distinguish between type A and type B programs:

\$3,000,000

Auditee qualified as low-risk auditee?

☒ yes ☐ no

UNIVERSITY OF MASSACHUSETTS
Schedule of Findings and Questioned Costs
For the year ended June 30, 2018

SECTION II - FINANCIAL STATEMENT FINDINGS

None noted

SECTION III - FEDERAL AWARD FINDINGS AND QUESTIONED COSTS

None noted

SECTION IV - SUMMARY SCHEDULE OF PRIOR YEAR AUDIT FINDING

Finding: 2017-001: Timeliness of recognition of certain activities

Original Corrective Action Plan

Boston will implement a new process that will install enhanced controls for the monitoring of subrecipient invoices. Starting with all new subrecipient agreements, Office of Research and Sponsored Programs ("ORSP") will instruct subrecipient institutions to deliver invoices to a new ORSP email box (orsp-postaward@umb.edu). After invoices are received, ORSP staff will review each invoice to ensure it has proper institutional certification text and signature (per UG 2CFR 200.415), a subaward number, and current/cumulative costs are listed. Proper invoices will be routed to the department Grants Managers and the PI using an electronic routing and signature software (i.e., Adobe E-Sign). ORSP will track invoices and ensure appropriate billing and timely submission for payment of subrecipient invoices per OMB Uniform Guidance 200.305.

Status: Boston's Office of Research and Sponsored Programs (ORSP) will pilot a new process that will install enhanced controls for the monitoring of subrecipient invoices for one college. Once the pilot has been reviewed and refined, it will be implemented for all new subrecipient agreements issued after June 30, 2018. At that point, the process will instruct subrecipient institutions to deliver invoices electronically to a new ORSP email box (ORSPsubawards@umb.edu). ORSP staff will review each invoice to ensure it has proper institutional certification text and signature (per UG 2CFR 200.415), a subaward number, and current/cumulative costs are listed. Appropriate invoices will be routed electronically using Adobe Sign to the PI and department Grants Manager. ORSP will track invoice processing, ensure appropriate billing, and timely submission for payment of subrecipient invoices per OMB Uniform Guidance 200.305.

Finding: 2017-002: Timeliness of earmarking controls

Original Corrective Action Plan

The Talent Search program staff has reached an agreement with the BPS that will enable them to again certify low income students, and are already confirming this as students are enrolled in the program. Additionally, the Project Director for TS will report earmarking levels to the Principal Investigator and Associate Vice Provost for Research and Director of ORSP every quarter to provide additional oversight.

Status: The University has implemented the corrective action plan noted above.

UNIVERSITY OF MASSACHUSETTS
Schedule of Findings and Questioned Costs
For the year ended June 30, 2018

Finding: 2017-003: Reporting "Late Reporting"

Original Corrective Action Plan:

The University has updated our internal operating procedures for the consistent treatment of milestone due dates and have included an additional monitoring resource to ensure timely submission

Status: The University has implemented the corrective action plan noted above.

**University of Massachusetts
Board of Trustees**

(as of 5/18/2020)

There are nineteen voting members of the Board. Two members shall be full time students from said institution and seventeen members shall be appointed by the Governor, at least five of whom shall be alumni of said institution, and one of whom shall be a representative of organized labor. Two student Trustees elected by their peers are voting members; the other three elected student representatives are considered ex officio non-voting members of the Board.

| <u>Trustees</u> | <u>Principal Affiliation/Title</u> | <u>Hometown</u> |
|--|--|--|
| Robert J. Manning (Chair) Appt. 9/1/2006-Exp. 2011 <i>Appointed by Governor Mitt Romney</i> <i>Resigned from the Board 12/8/2010</i> Appt. 8/11/2015-Exp. 2016 <i>Appointed by Governor Charles Baker</i> Re-appt. 11/18/2016-Exp. 2021 <i>Appointed by Governor Charles Baker</i> <i>(UMass Lowell Alumnus-1984)</i> | Chairman and co-CEO MFS Investment Management Boston, MA | Swampscott, MA Male-White |
| R. Norman Peters, Esq. (Vice Chair) Appt. 9/28/2009-Exp. 2014 <i>Appointed by Governor Deval Patrick</i> Re-appt. 8/11/2014-Exp. 2019 <i>Appointed by Governor Deval Patrick</i> | Partner, Peters & Sowyrda Worcester, MA | Paxton, MA Male-Albanian |
| Mary L. Burns Appt. 11/18/2016-Exp. 2021 <i>Appointed by Governor Charles Baker</i> <i>(UMass Lowell Alumna-1984)</i> | Principal Splash Media Group Boston, LLC Boston, MA | Lowell, MA Female-Irish-American |
| Robert Epstein Appt. 9/1/2015-Exp. 2020 <i>Appointed by Governor Charles Baker</i> <i>(UMass Amherst Alumnus-1967)</i> | President & CEO Horizon Beverage Group Norton, MA | Boston, MA Male-White-Jewish |
| Maria D. Furman Appt. 11/16/2009-Exp. 2014 <i>Appointed by Governor Deval Patrick</i> Re-appt. 8/26/2014-Exp. 2019 <i>Appointed by Governor Deval Patrick</i> <i>(UMass Dartmouth Alumna-1976)</i> | Former Managing Director and Bond Portfolio Manager of Standish, Ayer and Wood Boston, MA (RETIRED) | Boston, MA Female-Portuguese-American |
| Stephen R. Karam Appt. 9/18/2017-Exp. 2022 <i>Appointed by Governor Charles Baker</i> | Principal, Karam Financial Group Fall River, MA | Fall River, MA Male-White |

Trustees

Richard M. Kelleher
Appt. 4/29/2019-Exp. 2023
*Appointed by Governor Charles Baker
(UMass Amherst Alumnus-1973)*

Principal Affiliation/Title

Chairman
Pyramid Group

Hometown

Duxbury, MA
Male-White

Michael V. O'Brien
Appt. 11/18/2016-Exp. 2021
*Appointed by Governor Charles Baker
(UMass Amherst Alumnus-1988)*

Vice President
WinnCompanies
Boston, MA

Southborough, MA
Male-White

Noreen C. Okwara
Appt. 8/1/2018-Exp. 2023
*Appointed by Governor Charles Baker
(UMass Boston Alumna-2012)
(UMass Medical School Alumna-2017)*

Internal Medicine Resident
Brigham and Women's Hospital
Boston, MA

Lowell, MA
Female-African
American

Kerri Osterhaus-Houle, M.D.
Appt. 9/14/2007-Exp. 2008
*Appointed by Governor Deval Patrick
Re-appt. 9/1/2008-Exp. 2013
Appointed by Governor Deval Patrick
Re-appt. 7/24/2013-Exp. 2018
Appointed by Governor Deval Patrick
(UMass Worcester Alumna-1999)*

Partner, Women's Health of Central Mass, PC
Worcester, MA

Hudson, MA
Female-White

Imari K. Paris Jeffries
Appt. 11/18/2016-Exp. 2021
*Appointed by Governor Charles Baker
(UMass Boston Alumnus-1997, 1999, 2003)*

Executive Director
King Boston
Boston, MA

Boston, MA
Male-African American

James A. Peyser
Appointed: December 2014
*Ex-officio
Appointed by Governor Charles D. Baker, Jr.*

Secretary of Education, Commonwealth of Mass.
Executive Office of Education

Milton, MA
Male-White

Elizabeth D. Scheibel
Appt. 11/18/2016-Exp. 2021
Appointed by Governor Charles Baker

Former District Attorney
Northwestern District
Northampton, MA
Principal/Consultant
Scheibel Associates
South Hadley, MA

South Hadley, MA
Female-White

Henry M. Thomas, III
Appt. 9/14/2007-Exp. 2012
*Appointed by Governor Deval Patrick
Re-appt. 10/4/2012-Exp. 2017
Appointed by Governor Deval Patrick*

President, Urban League of Springfield, Inc.
Springfield, MA

Springfield, MA
Male-African American

Trustees

Steven A. Tolman
Appt. 9/2017-Exp. 2022
(Labor Rep)
*Appointed by Governor Charles Baker
(UMass Boston Alumnus-1999)*

Victor Woolridge
Appt. 11/16/2009-Exp. 2014
Appointed by Governor Deval Patrick
Re-appt. 10/21/2014-Exp. 2019
*Appointed by Governor Deval Patrick
(UMass Amherst Alumnus-1980)*

Charles F. Wu
Appt. 11/18/2016-Exp 2021
Appointed by Governor Charles Baker

Title/Principal Affiliation

President, Massachusetts AFL-CIO
Malden, MA

Vice President
Barings
Hartford, CT

Senior Lecturer
Harvard Business School
Founding Partner
Baynorth Capital, LLC
Boston, MA

Hometown

Brighton, MA
Male-White

Springfield, MA
Male-African-American

Newton, MA
Male-Asian

STUDENT TRUSTEES:

Jacob S. Binnall
(Non-Voting)
Elected 4/2019-Exp. 6/30/2020

Kush Patel
(Non-Voting)
Elected 4/2019-Exp. 6/30/2020

Amanda Kuffoh
(Non-Voting)
Elected 4/2019-Exp. 6/30/2020

Ryan Callahan
(Voting)
Elected 4/2019-Exp. 6/30/2020

Peter Cruz-Gordillo
(Voting)
Elected 4/2019-Exp. 6/30/2020

University of Massachusetts Amherst

University of Massachusetts Boston

University of Massachusetts Dartmouth

University of Massachusetts Lowell

University of Massachusetts Medical School

Framingham, MA
Male-Caucasian

Malborough, MA
Female-Indian

Tewksbury, MA
Female-African

Chelmsford, MA
Male-Caucasian

Worcester, MA
Male-Hispanic/Latino

University of Massachusetts Medical School
Disability Reviewer II, Disability Evaluation Services

Education

Assumption College, Worcester, MA
Master of Arts in Rehabilitation Counseling, May 2002, GPA 3.9
Bachelor of Arts in Social and Rehabilitation Services, summa cum laude, May 2001

Certifications

Certified Rehabilitation Counselor

Employment

UMass Medical School, Disability Evaluation Services – Shrewsbury, MA
Disability Reviewer II June 2002-Present

- Responsible for examining medical records to assess applicant's medical and vocational capacity
- Communicate with applicant and providers to obtain history and clinical information
- Collaborate with nurse reviewers and physician advisors to synthesize information and determine if combined impairments meet state and federal regulations
- Leader of Continuous Quality Improvement group focused on making recommendations regarding vocational review refinements

UMass Medical School, Disability Evaluation Services – Auburn, MA
Clinical Training Coordinator..... January 2004-December 2006

- Responsible for developing and implementing training programs for new staff, presenting updates and new concepts in group setting, representing and serving as liaison between Disability Reviewers and management staff

Institute for Social and Rehabilitation Services, Assumption College – Worcester, MA
Graduate Assistant..... September 2001-May 2002

- Assisted graduate department administrator with the development and implementation of graduate program for vocational rehabilitation counselors

Massachusetts Commission for the Blind – Worcester, MA
Vocational Rehabilitation Intern..... January 2002-May 2002

- Responsible for assisting regional director, managing caseload, assessing clients for on the job accommodations

PROFESSIONAL SUMMARY

I am a dedicated and professional certified legal nurse consultant with excellent management and communication skills with over 25 years of experience in healthcare.

WORK HISTORY

Associate Director of Appeals and Regulatory Compliance, July 2019 to present

University of Massachusetts Medical School-Commonwealth Medicine-333 South Street Shrewsbury, MA 01545

- For Disability Evaluation Services (DES) and Disability and Community Services (DCS), I oversee the daily functions of appeals, grievances and ensure that assigned operations comply with appropriate state and federal regulatory standards. Prepare and deliver testimony for both DES and DCS appeals for all disability decisions and determinations of medically necessary community health services. Ensure that all appeals staff is in compliance with applicable state and federal laws and regulations. Assist all directors in DCS and DES to streamline department appeal operations.

Senior Manager, Appeals and Regulatory Compliance, October 2016 to July 2019

University of Massachusetts Medical School-Commonwealth Medicine-333 South Street Shrewsbury, MA 01545

- Manages and oversees the daily functioning of appeals, grievances and ensures assigned operations comply with appropriate regulatory standards.
- Ensures compliance with all applicable state and federal laws and regulations governing these appeals which are in response to determination of medical necessity for medical services related to MassHealth benefits, eligibility, and other related matters.
- Develop and provide regulations-based training programs for clinical staff in conjunction with Executive Office of Health and Human Services (EOHHS) and the Board of Hearings (BOH).
- Train and supervise staff in negotiating appeals, informally with MassHealth members and Providers, as appropriate and per regulations.
- Monitor program workflows, procedures and outcomes to ensure adherence to appropriate state and federal regulations.
- Lead policy, procedure, workflow and performance improvement activities, as related to BOH decisions and trends, regulatory requirements and /or changes and team case review outcomes.
- Participate in case reviews, presentations and team decisions for complex cases and those at risk of requesting a BOH appeal or filing a grievance.

Appeals Nurse Reviewer, September 2011 to October 2016

University of Massachusetts Medical School-Commonwealth Medicine – 333 South Street Shrewsbury, MA 01545

- Prepare and deliver testimony for MassHealth appeals for adult and pediatric populations including: Prior Authorization Unit (PAU) for Personal Care Attendant (PCA) Services, Enteral Supplies and Absorbent Products; the Acquired Brain Injury (ABI); and Money Follows the Person (MFP) Waivers.
- Participate in several multidisciplinary team meetings for Community Case Management (CCM), ABI/MFP Waiver and Disability and Community Services (DCS).
- Provide supervision to staff when the Associate Director of Appeals, Regulatory Compliance and Complex Cases is absent.
- Assist in interviewing, training and orientation of new appeal clinical reviewers.
- Assist in trainings for PCA, Prior Authorization (PA) and clinical support services for clinical staff in the ABI/MFP Waivers.
- Extensive knowledge and consistent application of MassHealth Regulations.

RN Nurse Reviewer, December 2007 to September 2011

University of Massachusetts Medical School-Commonwealth Medicine – 333 South Street Shrewsbury, MA 01545

- Provided coordination for the following support systems: include reviewing and authorizing prior authorization requests for PCA, Durable Medical Equipment (DME) and Allied Skilled Therapy services for both Transitional Case Management (TCM) and the ABI Waiver programs.
- Assisted TCM and ABI Waiver programs to transition eligible participants into the community and coordinate medical supports through both state plan and Waiver services.
- Reviewed and authorized prior authorization requests for medically necessary services for TCM clients adhering to MassHealth Regulations.
- Reviewed and authorized pediatric and adult PA requests for PCA services from May 2010 through March 2011.

-
- Collaborated with Personal Care Management agency staff and directors to target and problem solve issues that arose with PCA services.
 - Coordinated DME needs for all clients transitioning out of long term care into a community residence under the TCM program.
 - Proposed and created new documentation and processes to improve the clinical support role in TCM and Nursing Home Initiative (NHI) for active treatment and Individual Transition Service Plan (ITSP) reviews.
 - In 2010 through 2011, there were over forty Transition Support Plans and Active Treatment Reviews that were subject to the Rolland Settlement court review process. My responsibilities included: collecting the data via nursing facility records and staff interviews; discerning all relevant medical information; and creating a comprehensive clinical support summary for each client's review. In addition, I participated in all the interviews with each court reviewer and the summary meetings with the court monitor.
 - As the only nurse reviewer for the TCM and the NHI programs, my response to time sensitive requests were always consistent, concise and timely.
 - Facilitated team meetings in long term care facilities for TCM. In addition I provided clinical support to case management as needed within DCS.
 - In 2011, in collaboration with the Department of Developmental Services (DDS), I prepared and delivered testimony for the first Community Rule-Out appeal under the Rolland Class Action Lawsuit. The Board of Hearings upheld MassHealth/DDS' decision.

Certified Legal Nurse Consultant, April 2007 to December 2007
Independent Consulting

- Consulted with several Central Massachusetts attorneys to provide information regarding the expertise a Certified Legal Nurse Consultant could provide to their practices. In addition, I consulted on medical legal cases providing clinical review of medical records for attorneys.

Registered Nurse, December 1998 to December 2007
Beaumont Skilled Nursing and Rehabilitation – 3 Lyman Street Westborough, MA 01581

- Charge Nurse and Weekend Supervisor
- Experience with various medical conditions including Long and Short Term Rehabilitation, Parkinson's, Dementia, Diabetes, Cancer, Alzheimer's and Paget's disease
- Coordinated patient admissions and discharges
- Coordinated patient care for both skilled and non-skilled staff support
- Reviewed documentation for compliance with HMO, JCAHO, Medicare and Medicaid regulations

EDUCATION

Bachelor of Science in Nursing: 1995
Salem State University

Board Certified Legal Nurse Consultant: 2007
Massachusetts Legal Consulting Institute, Inc.

Certified Specialist in Legal Nurse Consulting: 2012
American College of Legal Nurse Consulting

AFFILIATIONS

Massachusetts Board Certified Registered Nurse 1995 to present



Member of National Association of Professional Women 2015

University of Massachusetts Medical School – Disability Evaluation Services
Medical Director

Education

St. Vincent Hospital, Worcester, MA – 1986
Intern and resident

University of Massachusetts Medical School, Worcester, MA – 1983
Doctor of Medical

Massachusetts Eye & Ear Infirmary, Berman-Gund Lab, Boston, MA – 1979
Research Associate

Massachusetts Institute of Technology, Cambridge, MA – 1979
Research Associate

University of Georgia, Athens, GA – 1979
Master of Science, Medical Microbiology

Middlebury College, Middlebury, VT – 1974
Bachelor of Arts

Employment

UMass Medical School, Disability Evaluation Services, Shrewsbury, MA 2006–Present
Medical Director, Disability Evaluation Services

Cambridge Health Alliance, Cambridge, MA 2000–2003
Medical Director, Ambulatory Services

Practicing Internist

- Managed a \$22 million budget
- Supervised 70 physicians and 26 nurse practitioners at 17 centers across Cambridge Somerville, and Everett, Massachusetts
- After arriving at CHA, accomplished a one-year turnaround of the Ambulatory budget from a \$1.4 million loss to break even status
- Developed new panel and compensation model for primary care physicians
- Implemented Open Access for all CHA primary care sites
- Instructor, Harvard Medical School teaching Primary Care Internal Medicine
- Lectured at Bellevue Hospital to the NYC Hospital Association re: Open Access
- Participated in JCAHO (Joint Commission on Accreditation of Hospitals) review of Ambulatory sites
- Medical Director to Partners Community Healthcare, Inc. (PCHI) working closely with Mass. General Hospital (MGH) and Brigham and Women's Hospital
- Awarded the PCHI Neeson prize for CHA's Open Access Project
- Awarded National Association of Public Hospitals Award for Open Access Project
- Chair of both the CHA Ambulatory Committee and Managed Care Committee
- Member of CHA Physician's Organization Board of Directors
- Member of the CHA team that secured a \$1.9 million "Pursuing Perfection" grant in 2002 from the Robert Wood Johnson Foundation to create an innovative practice

Dartmouth-Hitchcock Medical Center, Manchester, NH 1998–2000
Medical Director

Practicing Internist

- Supervised a 70-provider, multi-specialty group, including Surgery, Orthopedics, Rheumatology, Dermatology, Pediatrics, Urgent Care, OB-GYN, Radiology, Neurology, Physical Therapy, Internal Medicine, Family Practice
- Supervision of Ambulatory Surgery Center
- Initiated Women's Health Center
- Developed physician performance reviews; compensation system
- Established new Board of Governors structure
- Instituted customer service improvement program
- Assistant Professor, Dartmouth Medical School

Fallon Clinic, Worcester, MA 1993–1998

Chair, Department of Internal Medicine

Practicing Internist

- Supervised 90 Internal Medicine providers at 31 different sites in Central Mass. Supervised Division of Geriatrics, Behavioral Medicine and Alternative Medicine
- Developed innovative programs including:
 - o Hospital-based internists
 - o Access nurse program
 - o Home assessment team
 - o Pre-operative process
 - o Panel compensation system for primary care physicians
- "Fallon University" physician education programs
 - o "Dr. Float" flexible staffing program, Internal Medicine
 - o Implemented access report for all departments
- Assistant Professor of Medicine, University of Mass. Medical School, "Manager of the Year," Fallon Clinic, 1993
- Member, task force on impact of managed care on PA education, Center for Health Professionals, Univ. of California, San Francisco
- Longitudinal Preceptor, Univ. of Mass. Medical School
- Representative, Alumni Council Univ. of Mass. Medical School
- Ward Attending, St. Vincent Hospital
- Attending, Fairlawn Rehabilitation Hospital
- Member, Mentor Program, St. Vincent Hospital
- Member, Steering Committee Robert Wood Johnson Foundation - Early Geriatric Intervention Grant
- Participant, Fallon Facilitator Programs. Vincent Hospital
- Associate, American College of Physicians
- Member, Massachusetts Medical Society

Practicing Internist 1986–1998

Managed Care Experience

Fallon Community Health Plan (FCHP) 1993–1998

- Set up Case Management at all 31 Fallon Clinic ambulatory sites
- Initiated inpatient case management program; set up disease management programs with specialty depts. and FCHP in Congestive Heart Failure, Fractured Hip, Ischemic Heart Disease, Asthma, COPD and Diabetes.

Blue Cross Blue Shield of New Hampshire and Healthsource (now Cigna)..... 1998–2000

- Developed case management and utilization management for Dartmouth Hitchcock Clinic
- Became certified in case management

Partners Community Healthcare, Inc. (PCHI)..... 2000–2002

- Developed case management at Cambridge Health Alliance
- Member of utilization review committee, member of Care Improvement Committee at PCHI.

Hospital Appointments

St Vincent Hospital 2010
Board of Trustees
Member, Physician Leadership Council

Saint Vincent Hospital 2008–Present
President, Medical staff

Primary Physician Partners 2003–Present
President, Consulting and Primary care

Harvard Pilgrim Health Plan
Physician advisor

Other Appointments

- Physician advisor, Blue Cross Blue Shield of Massachusetts in Diabetes disease management
- Physician advisor, Harvard Pilgrim Health Plan
- Assistant Professor of Medicine, University of Massachusetts Medical School
- Associate Editor, Worcester District Medical Society publication
- Delegate from Worcester, Massachusetts Medical Society

Awards and Honors

- University of Massachusetts Medical School Community Educator Award, 2015
- Nominee, compassionate Caregiver Award, 2013
- Physician of the Year, St. Vincent Hospital, 2011
- University of Massachusetts School of Nursing Community Educator Award, 2011
- University of Massachusetts Medical School Community Educator Award, 2008

University of Massachusetts Medical School – Disability Evaluation Services
Physician Advisor

Education

University of Massachusetts Medical Center, Worcester, MA – 2002
Resident in Emergency Medicine

Columbia University, New York, NY – 1999

Amherst College, Amherst, MA – 1995

Employment

UMass Medical School, Disability Evaluation Services, Shrewsbury, MA 2005–Present
Physician Advisor, Disability Evaluation Services

- Provide case review and consultation for Massachusetts state disability

Day Kimball Emergency Department – Putnam, CT

Assistant Director 2004–2005

- Arranged scheduling for full-time and part-time physicians
- Participated in department redesign
- Responsible for peer review and quality control

Attending Physician..... 2002–2005

- Recipient of multiple service excellence awards
- Attending physician to over 3000 patients annually
- Supervised physician assistants and nurse practitioners

University of Massachusetts Medical School – Disability Evaluation Services
Physician Advisor

Education

University of Massachusetts Medical School, Worcester, MA – 1991
Resident, Family Practice

Cranston General Hospital, Cranston, RI – 1989
Internship

University of New England, Biddeford, ME – 1988
Doctor of Osteopathic Medicine
Psi Sigma Alpha
National Osteopathic Honor Society

Plymouth State College, Plymouth, NH – 1984
Bachelor of Arts, Biology

Board Certification

American Board of Family Physicians, 1991

Employment

University of Massachusetts Medical School, Shrewsbury, MA 1999–Present
Physician Advisor, Disability Evaluation Services

Private Practice Family Medicine, West Boylston, MA 1993–2011

Social Security Disability, Worcester, MA 1992–1999

Private Practice, Shrewsbury, MA 1991–1993

Westborough Primary Care, Westborough, MA 1991–1992

Memberships

American Academy of Family Physicians

University of Massachusetts Medical School, Disability Evaluation Services
Psychologist Advisor

Education

University of Wisconsin, Madison, WI – 1987
Doctor of Philosophy, Clinical Psychology

University of Wisconsin, Madison, WI – 1982
Master of Science in Clinical Psychology

University of Rochester, Rochester, NY – 1973
Bachelor of Art in Psychology

Employment

UMass Medical School, Disability Evaluation Services (DES), Shrewsbury, MA 2004–Present
Psychologist Advisor

- Evaluation of medical records and determination of disability for individuals applying for Medicaid.
- Research regarding the Affordable Care Act and disability policy.

Alicare Medical Management, Salem, NH 2005–Present
Consulting Psychologist

- Utilization review of requests for psychological and neuropsychological tests.
- Academic Affiliation: Assistant Clinical Professor, Department of Neurology, Boston University School of Medicine

Professional Disability Services, Inc., Northfield, IL 2004–Present
(Now owned by Hewitt Associates, New Britain, CT)
Consulting Psychologist

- Reviewed medical records of individuals applying for long-term disability.

Reliable Review Services, Boca Raton, FL 2004–Present
Consulting Psychologist

- Reviewed medical records of individuals applying for short-term and long-term disability.

MES Solutions, Norwood, MA 2004–2010; 2012–present
Consulting Psychologist

- Utilization review of workers' compensation and health insurance treatment requests; review of short- and long-term disability claims.

Peer Review Analysis, Inc. (MCMC, LLC), Boston, MA 1994–Present
Consulting Psychologist

- Utilization review involving medical necessity for mental health services for workers' compensation, managed care insurers, and auto accident cases. Also performed long- and short-term disability determinations.

Clinical Experience

Acton Psychiatric Associates, Acton, MA 1997–Present
Psychologist

- Private practice with adults involving psychotherapy, neuropsychological and psychological testing.

Pain and Wellness Center, Peabody, MA 1998–Present
Staff Psychologist

- Evaluation and treatment of individuals with chronic pain. Evaluation of individuals for psychological contraindications who are being considered for specialized procedures such as implantable morphine pumps and spinal cord stimulators.

Boston Medical Center Sickle Cell Center, Boston, MA 2005–2008
Consulting Psychologist

- Administering neuropsychological tests to subjects involved in a multi-center study on the effects of blood transfusions on cognitive functioning in sickle cell patients.

Boston University Neurology Associates, Department of Neurology,
Boston University Medical Center, Boston, MA 1988–2005
Staff Psychologist

- Evaluation and treatment of individuals with a combination of medical and psychological disorders.
- Specialized in assisting individuals and families in coping with chronic neurological disorders such as Parkinson's disease, multiple sclerosis, and Huntington's disease.
- Also involved in evaluation and treatment of patients with chronic and acute pain disorders and other neurological problems such as seizure disorders and head injuries.

Headache and Facial Pain Center, Faulkner Hospital, Boston, MA 1995–2003
(Facility ceased operation September 2003)
Staff Psychologist

Huntington's Disease Porcine Transplant Study 1996–1999
Consulting Psychologist

- Psychological evaluation of Huntington's disease porcine transplant subjects pre- and post-surgery.

Mentor Head Injury Rehabilitation Program, Woburn, MA 1995–2000
Consulting Psychologist

National Acute Brain Injury Study: Hypothermia 1994–1997
• Neuropsychological evaluation of patients with severe head injury receiving hypothermia treatment. Part of a national multi-center research grant.

North Suffolk Mental Health Association, Boston, MA 1994–1997
Consulting Psychologist

Boston Police Department, Medical Affairs Division, Boston, MA 1988–1989
Consulting Psychologist
• Responsibilities involved evaluating police officers with a history of stress disorders to determine fitness for duty.

Community Re-entry Services, Lynn, MA 1985–1986
Psychology Associate
• Involved in assessment and social and vocational rehabilitation of head-injured adults in a residential setting.
• Responsibilities included individual, group, and family treatment as well as program development and evaluation.

Boston VA Medical Center, Boston, MA 1983–1984
APA-Approved Clinical Internship
• Rotations included health psychology and inpatient psychiatry.

Anxiety Disorders Clinic, Department of Psychiatry,
University of Wisconsin Hospitals, Madison, WI 1980–1983
• Involved in the evaluation and treatment of adults with phobic and obsessive-compulsive disorders.

Grants

Mosbach, P. State Differences in the Application of Medical Frailty Under the Affordable Care Act. University of Massachusetts Medical School, Commonwealth Medicine, Micro Grant Program. September 2014.

Publications

- Feldman, R., Mosbach, P., Thomas, C., & Perry, L. "Psychosocial Factors in the Treatment of Parkinson's Disease: A Contextual Approach." In A. Cohen and W. Weiner (Eds.), *Comprehensive Management of Parkinson's Disease*. New York: Demos Press, 199.
- Feldman, R., Mosbach, P., Thomas, C., Kelly, M. & St. Hilaire, M. "Double-blind comparison of Sinemet and Sinemet CR in patients with mild to moderate Parkinson's disease." *Neurology* (Supplement 2), 96-101, Vol. 39, 1989.
- Feldman, R., Mosbach, P., Thomas, C. & St. Hilaire, M. "Etiology of Parkinson's disease." *American Parkinson's Disease Association Newsletter*, October, 1989.
- Mosbach, P. & Leventhal, H. "Peer group identification and smoking: Implications for intervention." *Journal of Abnormal Psychology*, 238-245, Vol. 97, 1988.
- Leventhal, H. & Mosbach, P. "The Perceptual-motor theory of emotions." In J. Cacioppo, and R. Petty (Eds.) *Social Psychophysiology*, New York, Guilford Press, 1983.
- Adams, A. E., Edwards, K. J., Mosbach, P., Pelletier, J., Barrell, P., Sweet, C., Newhall, L., Koenig, R., and Lindblad, P. "The Impact of a Proposed L-4 Medical Standard Revision on Disability Determination Decisions and the Data Required to Make Those Decisions." Report prepared for the Massachusetts Department of Transitional Assistance, February, 2011.

Abstracts

- Mosbach, P. & Campanelli, S. State Differences in the Application of Medical Frailty Under the Affordable Care Act-2017 Update. AcademyHealth Annual Research Meeting. New Orleans, LA. June 2017.
- Mosbach, P., Campanelli, S., Adams, A.E. State Differences in the Application of Medical Frailty Under the Affordable Care Act. Poster presented at AcademyHealth Annual Research Meeting. Minneapolis, MN. June 2015.
- O'Callaghan, C., Mosbach, P., Crider, C., Imber, M.L., Paiva, A. Variability in Test Administration Times in Clinical vs. Nonclinical Samples on the WAIS-IV and WISC-IV. Poster presented at the Massachusetts Neuropsychological Society Science Symposium, Boston, MA., May 2015.
- Gettens, J., Adams, A.E., Mosbach, P., Campanelli, S., Newhall, L., Barrell, P. Identifying Persons with Disabilities to Improve Access and Coverage Under the Affordable Care Act. American Public Health Association, Annual Convention, Boston, MA, November 2014.
- Estrada-Lyder, M.J., Mosbach, P., Porter, R., DiBenedetto, D. A Structured Integrated Model for the Assessment and Case Management of Opioid and Adjuvant Medications in Chronic Pain Patients. Poster presented at the International Conference on Opioids, Boston, MA June 2013.
- Mosbach, P.A., Auerbach, S.H. & St. Hilaire, M. "Phototherapy as a treatment for sleep disorder in Parkinson's disease: A case study." *American Academy of Neurology Annual Meeting*, New York, NY, April 1993.
- Auerbach, S.H., Mosbach, P.A. & Licata-Gehr, E. "Sundowning and advanced sleep phase in Alzheimer's disease." *Northeastern Sleep Society Annual Meeting*, Warwick, RI, April 1993.
- Sax, D.S. Kornetsky, C., Mosbach, P. A. & Kim, A. "Naltrexone in the treatment of dyskinesias associated with

- Huntington's disease." American College of Neuropharmacology Annual Meeting, San Juan, PR, December, 1992.
- Sax, D.S., Kornetsky, C., Mosbach, P.A., Myers, R.H. & Feldman, R.G. "Safety and efficacy of Naltrexone in the treatment of Huntington's disease and severe oral-lingual dyskinesias." American Neurological Association Annual Meeting, Toronto, October, 1992
- Auerbach, S.H. and Mosbach, P.A. "Pseudoseizures: The value of early identification of childhood sexual abuse." American Academy of Neurology Annual Meeting, San Diego, CA, May, 1992:
- Sax, D.S., Kornetsky, K, Mosbach, P.A., Myers, R.S., Feldman, R.G. "Naltrexone in the treatment of chorea in Huntington's disease." American Neurological Association Annual Meeting, Seattle, WA, October, 1991.
- Wolf, P.A., Feldman, R.G., St. Hilaire, M., Kelly-Hayes, M., Torres, F.J., Mosbach, P., Kase, C.S., & D'Agostino, R.B. "Precursors and natural history of Parkinson's disease: The Framingham Study." American Academy of Neurology Annual Conference, Boston, MA, April, 1991.
- Mosbach, P., St. Hilaire, M. & Feldman, R.G. "Correlates of visual hallucinations in idiopathic Parkinson's disease patients." American Academy of Neurology Annual Conference, Miami Beach, FL, May, 1990.
- St. Hilaire, M. & Mosbach, P. "Hallucinations in Parkinson's Disease." International Conference of French Language Neurology, Montreal, Canada, July, 1989.
- St. Hilaire, M., Mosbach, P., Usher, G. & Feldman, R. "Parkbase: A relational database for Parkinson's disease patients." International Congress on Parkinson's disease. Tel Aviv, Israel, May, 1988.
- Glosser, D., Mosbach, P., Thomas, C., Kelly, M. & Feldman, R. "Correlates of depression in Parkinson's disease patients." American Academy of Neurology Annual Conference, Cincinnati, OH, April, 1988.
- Mosbach, P. & Leventhal, H. "A peer groups approach to adolescent substance use." American Psychological Association Annual Convention, New York, August 1987.
- Mosbach, P. "A six-stage intervention model for the rehabilitation of head injured adults." Southwest Regional Head Injury Conference, Cancun, Mexico, January, 1987.
- Mosbach, P. "An intervention model for the vocational rehabilitation of head injured adults." Southwest Regional Head Injury Conference, Snowmass, CO, January, 1986.
- Hirschman, R., Glynn, K., & Mosbach, P. "Predictors of cigarette smoking behavior in elementary and junior high school students." American Public Health Association Annual Convention, Dallas, TX, November, 1983.

Presentations

- Mosbach, P. & Campanelli, S. *State Differences in the Application of Medical Frailty Under the Affordable Care Act-2017 Update*. Poster presented at AcademyHealth Annual Research Meeting. New Orleans, LA. June 2017.
- Coping with dystonia and related disorders*. Presented at the South Shore Dystonia Support Group, Brockton, MA, February, 1995.
- Effective methods for coping with Parkinson's disease*. Presented at the Parkinson's Disease Support Group of the South Shore, South Shore Hospital, South Weymouth, MA, November 1994.
- How to effectively cope with Parkinson's disease*. Presented at the Winchester Parkinson's Disease Support Group, Winchester, MA, May, 1993.
- Coping with Parkinson's disease*. Presented at the Andover Parkinson's Disease Support Group, Andover, MA, May, 1993.
- Behavioral Management of Huntington's Disease*. Presented to the staff of the Pine Street Inn, Boston, MA, December, 1992.
- Coping with behavioral symptoms of Parkinson's disease*. Presented at the Parkinson's Disease Support Group of the South Shore, South Shore Hospital, S. Weymouth, MA, October, 1992.
- Coping with Parkinson's disease*. Presented at the North Shore Parkinson's Disease Support Group, Lynnfield, MA,

October, 1992.

Dealing with Dystonia and related disorders. Presented at the South Shore Dystonia Support Group, Cardinal Cushing Hospital, Brockton, MA, September, 1992.

How to Cope with Parkinson's disease. Presented to the Parkinson's Support Group of Winchester, MA, November, 1991.

Coping with Parkinson's disease. Presented to the Parkinson's Disease Support Group of Augusta, Maine, May, 1991.

University Hospital's Alzheimer's Disease Assessment Team. Presented at a Conference Sponsored by the Alzheimer's Association of Eastern Massachusetts, November, 1990.

Coping with Parkinson's disease (facilitated panel discussion). Boston University Medical School Department of Neurology, Symposium on Parkinson's disease, May, 1990.

How to cope with Parkinson's disease. Presented to Parkinson's Disease Support Group of Cape Cod, February, 1990.

Strategies for coping with Parkinson's disease. Presented to Newton-Wellesley Hospital Parkinson's Disease Support Group, February, 1989.

Hallucinations in Parkinson's disease. Department of Neurology Grand Rounds, Boston VA Medical Center, February, 1989.

Coping with Parkinson's disease. Boston University Parkinson's Disease Information and Referral Center Symposium, April, 1988.

A multi-stage model for the community re-integration of the head injured adult. Braintree Hospital Traumatic Head Injury Conference, Braintree, MA, October, 1986.

An intervention model for the vocational rehabilitation of head injured adults. Northeast Rehabilitation Association Annual Convention, Cromwell, CT, May, 1986.

Professional Affiliations

- American Psychological Association
- Massachusetts Psychological Association

University of Massachusetts Medical School – Disability Evaluation Services
Psychologist Advisor

Education

Boston University, Sargent College of Health and Rehabilitation Sciences, Boston, MA–1982
Doctor of Science (ScD) Rehabilitation Counseling

Assumption College, Worcester, MA–1974
Master of Arts (MA) & Certificate of Advanced Graduate Study (CAGS)

Fitchburg State College, Fitchburg, MA–1968
Bachelor of Arts (BA) in History

Licensure

Washington Licensed Psychologist (PY 60490273) 2015
Oregon Licensed Psychologist (2577) 2015
Rhode Island Licensed Psychologist (1166) 2009
Massachusetts Licensed Psychologist/Health Service Provider (3373) 1982

Employment

University of Massachusetts Medical School – Shrewsbury, MA 2016–Present
Physician Advisor (rehabilitation psychologist), Disability Evaluation Services

- Provide assessments of functional capacity of applicants for EADC, TAFDC, and Massachusetts Health benefits based on disability, and consultation to disability reviewers and other professional staff; and assessments of functional capacity for New Hampshire APTD program

Behavioral Medical Interventions, Edna, MN 2015–Present
Consulting Psychologist

- Provide peer review services for complex disability claims and early intervention reviews. Focus of reviews is on assessment of functional capacity, treatment, and related questions. Reviews include provider and claimant interviews. Reviews include focus on best practices and provision of evidence-based opinions regarding diagnosis, treatment, level of function, restrictions, limitations, and disability duration.

Private Practice, Tiverton, RI. 2009–2015

- Psychological services with specialization in health and rehabilitation psychology.

University of Massachusetts Medical School – Worcester, MA

Center for Mental Health Services Research..... 2002–Present

Adjunct Assistant Professor of Psychiatry..... 2002–2012

Physician Advisor (rehabilitation psychologist), Disability Evaluation Services 2001–2015

- Provide assessments of functional capacity of applicants for EADC, TAFDC, and Massachusetts Health benefits based on disability, and consultation to disability reviewers and other professional staff; and assessments of functional capacity for New Hampshire APTD program

- Consultation to disability reviewers and other professional staff
- Quality assurance management

Assumption College, Worcester, MA

Human Services and Rehabilitation Studies

Associate Professor2005–2008

Assistant Professor1998–2008

- Taught undergraduate courses in Psychiatric Rehabilitation, Medical and Psychosocial Aspects of Disability, and Introduction to Social and Rehabilitation Services.
- Graduate courses included Introduction to Psychiatric Rehabilitation, Advanced Seminar in Psychiatric Rehabilitation, Advanced Medical Seminar, Psychosocial and Environmental Aspects of Disability, and Group Work in Rehabilitation.

Coordinator, Graduate-Extension Programs1998–2000

Coordinator, Graduate Programs2000–2001

Boston Road Clinic, Worcester, MA

Consulting Psychologist1998–2000

- Supervision of pre-doctoral psychology interns, direct clinical services, and consultation to the Fallon Back to Work Center.

Co-Clinical Director1997–1998

- Management of clinical behavioral health services in a multi-site outpatient system affiliated with the Fallon Clinic.
- Provision of clinical services, continuing involvement with the Fallon Clinic's Division of Behavioral Medicine and Department of Internal Medicine, Director of pre-doctoral training in psychology, and member of the Research Committee.

Assumption College, Worcester, MA1994–1998

Lecturer, Institute for Social and Rehabilitation Services

- Taught introductory and advanced courses in counselor development, psychiatric rehabilitation, and psychosocial and environmental aspects of disability.

The Fallon Clinic, Worcester, MA1990–1997

Department of Behavioral Health Services

Staff Psychologist

- Clinical services and staff supervision.
- Core member of the Behavioral Medicine Team, including provision of specialized programs for individuals with varied medical problems.
- One of two lead clinicians in the Integrated Program for Treatment of Depression in Primary Care; leader of the Inward Bound Group Team.
- Coordinator of pre-doctoral psychology training.
- Consultation to the Department of Rehabilitation and Sports Medicine.
- Co-chair of Fallon–St. Vincent Hospital Oncology Psychosocial Task Force (1/94–7/95) and member of the Clinical Redesign Team for congestive heart failure.

Massachusetts School of Professional Psychology, Boston, MA 1992–1998
Adjunct Clinical Faculty

- Clinical supervision of pre-doctoral psychology interns and membership on two doctoral project committees.

Private Practice, Norwood, MA 1983–1992

- Psychological services to primarily adults with specialization in rehabilitation psychology and consultation to varied organizations, including the Massachusetts Rehabilitation Commission and the Multiple Sclerosis Society.

PRIDE-Braintree Center, Braintree, MA 1989–1990
Director of Clinical Services

- Program development and supervision of a multidisciplinary staff (physical therapy, occupational therapy, nursing, psychology, and rehabilitation counseling) and direct clinical services in a functional restoration program for individuals with chronic back pain and work-related disability. Additional consultation to Braintree Hospital's Center for Occupational Rehabilitation.

Medical East Community Health Plan, Braintree, MA 1985–1988
Staff Psychologist

- Direct clinical services and consultation to varied medical staff; involvement in educational programs (stress management and cardiac education), and member of the Utilization Review Committee.

Coastal Community Counseling Center, Braintree, MA 1985–1987
Chief Consultant

- Psychological Center for Individuals with Disability (PCID), Program development and staff supervision in an outreach program for individuals with severe physical disability.

Bay Colony Health Services, Quincy, MA 1984–1985
Supervising Psychologist

- Direct clinical services with people having varied substance abuse-related problems; clinical staff supervision; and organizational consultation to Massachusetts State Police and Vaughn Corporation.

Boston University School of Nursing, Boston, MA 1984–1985
Lecturer

- Rehabilitation Nursing Specialty. Taught Counseling Role of the Nurse in Rehabilitation

Boston University- Sargent College,
Center for Psychiatric Rehabilitation, Boston, MA 1982–1984
Research Associate

- Primary involvement in a comprehensive study of the mental health needs of individuals with severe physical disability. Planned and implemented survey research, data analysis, and writing publications and reports.

South Shore Mental Health Center, Quincy, MA 1980–1984
Director, Adult Outpatient Clinic

- Overall responsibility for clinical and consultation services serving people with a wide range of psychiatric problems, a mental retardation resource team, and an elderly outreach program.
- Duties included program planning and evaluation, coordination of training activities in an APA-approved pre-doctoral program, direct clinical services, and clinical supervision of staff & interns.

Boston University- Sargent College,
Center for Psychiatric Rehabilitation, Boston, MA 1982–1984

Research Assistant

- Completed doctoral dissertation as part of a comprehensive study of the mental health needs of individuals with severe physical disability.

South Shore Mental Health Center, Quincy, MA 1979–1980

Psychology Trainee

Boston University- Sargent College,
Department of Rehabilitation Counseling, Boston, MA 1978–1980

Doctoral Teaching Fellow

Massachusetts Rehabilitation Commission, Quincy Area Office, Quincy, MA

Area Director 1976–1980

- Duties included program planning, interagency program development, direct diagnostic and counseling services, and supervision of staff, consultants, and students.

Unit Supervisor 1976

- Supervised a unit of five professional staff in provision of vocational rehabilitation services and provided direct services.

Massachusetts Rehabilitation Commission, Milford Area Office, Milford, MA 1974–1976

Rehabilitation Counselor

- Provided rehabilitation services to individuals with both physical and psychiatric disabilities. Services included counseling, vocational assessment and planning, assisting individuals in adjustment to disability, and coordination of psychological, educational, vocational, and community resources.

Military Experience

1968–1972: United States Army. Discharged at rank of Captain.

Awards and Honors

- Mary E. Switzer Fellow. One of 18 persons in the United States selected for their achievements in psychiatric rehabilitation to participate in a three-day seminar entitled "The Rehabilitation of the Mentally Ill in the 1980s" held in New York City. October 31–November 2, 1979.
- Distinguished Service Award. South Shore Mental Health Center, 1984.
- 1985 Annual Research Award (Honorable Mention). Presented by the American Counseling Association (Research Award Committee) at the Annual Meeting of the American Association of Counseling and Development. April, 1986.

Professional Organizations

- American Psychological Association
- US Psychiatric Rehabilitation Association

Faculty Development Grants

- 2006: Health promotion in clubhouse programs: Needs, barriers, and current and planned activities. Supported manuscript completion. Study published by the Psychiatric Rehabilitation Journal (2007).
- 2002: Genesis Wellness Project. Supported ongoing research during the summer and Fall of 2002. Study published by the Psychiatric Rehabilitation Journal (2005).
- 2000: Forgiveness and health: A study of forgiveness processes and their relationship to health.

External Grant Support

- 2007: Collaboration with the Program for Clubhouse Research, Department of Psychiatry, University of Massachusetts Medical School in a grant proposal entitled "Development of a Sustainable Exercise and Nutritional Intervention for Individuals with Serious Mental Illness.
- 2000: Genesis Wellness Project. Collaborated with K. Bradley, Genesis Club, Inc. and faculty of the Department of Family and Community Medicine, University of Massachusetts Medical School on a successful grant application to The Health Foundation of Central Massachusetts. Funding included reimbursement to the college for release time during the Spring 2002 and 2003 semesters.

Research

- Pelletier, J.R., Primary Investigator & McKay, C., Co-investigator. Health promotion in the ICCD community: Needs, barriers, and current and planned activities. Study supported by the Program for Clubhouse Research, University of Massachusetts Medical School. 2005–2006.
- Pelletier, J.R. & Nguyen, M., Co-principal investigators. Genesis Wellness Project: A pilot study of the feasibility and effectiveness of integrating a structured exercise program into a Certified Clubhouse. Supported by a grant from The Health Foundation of Central Massachusetts. 2001–2003.
- Och, R. & Pelletier, J.R. (Site co-investigators). Computer-assisted versus clinician-administered behavior therapy for obsessive-compulsive disorder: A multi-center randomized, controlled trial. Study sponsored by Pfizer, Inc. 1997–1999.
- Pelletier, J.R. & Slaten, S. A study of the effects of time-limited cognitive-behavioral group psychotherapy on perceived well-being, mood, health, and functional status. The Fallon Clinic. 1994–1997.

Presentations and Workshops

- Pelletier, J.R., Landsman, H.S., & Sanborn, E. The Genesis Wellness Project: 2001–2008. Presentation in a workshop entitled "Establishing Functional Health as the Foundation for Recovery" at From Innovations to Practice: The Promise and Challenge of Achieving Recovery for All, a conference sponsored by the Boston University Center for Psychiatric Rehabilitation, Consumer Organization and Networking Technical Assistance Center, American College of Mental Health Administration, National Resource Center for Hispanic Mental Health, and the World Association for Psychosocial Rehabilitation, Cambridge, MA. April, 2008.
- Pelletier, J.R., Bradley, K., & Sanborn, E. Genesis Wellness Project. Invited panel presentation (Wellness Initiatives, Programs, and Systems) at The Challenge of Promoting Health in Persons with Serious and Persistent Mental Illness: From Science to Service, a conference co-sponsored by the Department of Psychiatry, Boston

University School of Medicine, Center for Psychiatric Rehabilitation at Boston University, and Bayridge Hospital, Cambridge, MA. March, 2007.

- Pelletier, J.R. "Health promotion for individuals with serious mental illness." Invited presentation to faculty, residents, and Fellows of the Department of Family Medicine and Community Health, University of Massachusetts Medical School, Worcester, MA. December, 2004.
- Pelletier, J.R., Bradley, K., & Rettig, M. "Integrating structured physical exercise into an ICCD certified clubhouse program: Results of a pilot study." Plenary address and workshop at the 12th International Seminar on the Clubhouse Model, Minneapolis, MN. October, 2003.
- Pelletier, J.R., Cooney, C., & Leistricz, R. "The Genesis Wellness Project: Program update." Workshop conducted at the Eastern Regional Clubhouse Conference, Stamford, CT. November, 2002.
- Pelletier, J.R. "Forgiveness processes and recovery." Invited workshop conducted for faculty and staff of the Center for Psychiatric Rehabilitation, Boston University. November, 2001.
- Pelletier, J.R. & McCarthy, T.P. "An innovative approach to teaching psychiatric rehabilitation in a CSPD-related graduate program." Presentation conducted at the National Conference of the National Council on Rehabilitation Education, Tuscon, AZ. February, 2001.
- Pelletier, J.R. & McCarthy, T.P. "Motivational interviewing in rehabilitation counseling." One-day workshop for the professional staff of the Vermont Division of Vocational Rehabilitation, Stowe, VT. January, 2001.
- Pelletier, J.R. "Perspectives on forgiveness." Presentation to faculty and staff of Quinsigamond Community College, Worcester, MA. December, 2000.
- Pelletier, J.R. "Anger, forgiveness, and health." Presentation conducted at the Second Annual Southeast Conference of the Massachusetts Rehabilitation Association, entitled Self-care and Healing for Rehabilitation Counselors. June, 2000.
- Pelletier, J.R. "Motivational interviewing in rehabilitation counseling." Two-day workshop for rehabilitation counselors sponsored by the Regional Continuing Education Program (RCEP) at Assumption College. March and November, 1999.
- Pelletier, J.R. "Forgiveness and health." Workshop conducted as part of a teaching conference entitled Behavioral medicine: New directions in health care for the next millennium, sponsored by Fallon Healthcare Systems and The Institute for Clinical Health Psychology of the Massachusetts School of Professional Health Psychology, at Clark University. October, 1999.
- Pelletier, J.R. "Forgiveness and health." Presentation at a program entitled The Phenomenon of Forgiveness, sponsored by the Aaron T. Beck Institute for Cognitive Studies, Assumption College. April, 1998.
- Pelletier, J.R. "Forgiveness: It's good for your health." A continuing education workshop sponsored by the Massachusetts School of Professional Psychology. September, 1997.
- Pelletier, J.R. & Walker, J. "The treatment of depression." Program sponsored by the M. Elizabeth Fletcher Women's Wellness Center, Worcester, MA. February, 1997.
- Pelletier, J.R. "Managing the mind and body for optimum health." Presentation conducted as part of a seminar entitled Managing Stress Effectively in the Workplace sponsored by the Worcester Area Chamber of Commerce. November, 1996.

- Pelletier, J.R. "The Inward Bound Group program: A cognitive-behavioral intervention for individuals with chronic mood disorders." A continuing education workshop sponsored by the Massachusetts School of Professional Psychology. June, 1996.
- Pelletier, J.R. "Forgiveness: It's good for your health." Presentation sponsored by the M. Elizabeth Fletcher Women's Wellness Center, Worcester, MA. February, 1996.
- Pelletier, J.R. "Managing mind and body for optimum health." Presentation conducted as part of a seminar entitled Stress, Strain, and the Bottom Line sponsored by the Worcester Area Chamber of Commerce. January, 1995.
- Pelletier, J.R. "Management of chronic pain." A workshop for allied health professionals sponsored by the Fallon Clinic Department of Sports Medicine and Rehabilitation. January, 1993.
- Pelletier, J.R. "Forgiveness: It's good for your health." Fallon Community Forum, Worcester, MA. May, 1992.
- Pelletier, J.R. "Health, behavior, and longevity." Fallon Community Forum, Worcester, MA. May, 1992.
- Pelletier, J.R. "Overcoming psychological barriers for return to work." Presentation conducted at the Fifth Annual Regional Meeting of the American Congress of Rehabilitation Medicine entitled Industrial Injuries: Management and Trends, Boston, MA. June, 1990.
- Pelletier, J.R., Kocher, M., & Woy, J.R. "Needs and barriers faced by mental health and substance abuse service providers." Presentation conducted at a one-day conference entitled Mental Health and Substance Abuse Services to Persons with Disabilities at Boston University. December, 1986.
- Pelletier, J.R. "Mental health services needs of individuals with severe physical disability." Presentation at the Annual Meeting of the Massachusetts Rehabilitation Association, Boston, MA. November, 1985.
- Pelletier, J.R. "Counseling skills for enterostomal therapists." Two-day workshop as part of a study designed to evaluate the effects of this training on therapeutic effectiveness. Boston University School of Nursing. 1984.
- Pelletier, J.R. & Spaniol, L. "Perceptions of community mental health professionals in New England regarding mental health services to individuals with severe physical disability and psychiatric problems." Presentation at the Annual Meeting of the American Psychological Association, Washington, D.C. August, 1982.
- Pelletier, J.R. "Psychosocial aspects of severe physical disability." Series of four presentations to mental health professionals as part of cross-training in independent living, co-sponsored by the Massachusetts Rehabilitation Commission and the Massachusetts Department of mental Health. October, 1981–February, 1982.
- Pelletier, J.R. "Group counseling in rehabilitation: A structured experiential approach." A workshop conducted at the Annual Meeting of the Connecticut Rehabilitation Association. January, 1982.
- Pelletier, J.R. "Collaboration between vocational rehabilitation and mental health agencies: A local perspective." Seminar presentation at the Fifth Learning Community Conference of the National Institute of Mental Health Community Support Program, Washington, D.C. June, 1981.
- Pelletier, J.R. "Psychosocial aspects of ostomy rehabilitation." A presentation conducted for the Spring New England Regional Meeting of the International Association of Enterostomal Therapists, Worcester, MA. April, 1981.
- Pelletier, J.R., Saxton, M., & Romero, D. "Toward and understanding of the impact of physical disability." One-day workshop for mental health professionals co-sponsored by the Boston Self-Help Center, Massachusetts

Rehabilitation Commission, and the South Shore Mental Health Center at Boston University. October, 1980.

- Pelletier, J.R. "An overview of vocational rehabilitation services for the long-term psychiatrically handicapped client." Plenary address to participants in the Third Regional Community Support System Conference, Burlington, VT. March, 1979.
- Pelletier, J.R., Quinn, P., & Howell, J. "Successful vocational rehabilitation programs with the long-term client." A workshop conducted at the Third Regional Community Support Systems Conference, Burlington, VT. March, 1979.
- Pelletier, J.R., Hazen, L., & Twiggs, R. "Developing self-help in the community." A workshop conducted for the Massachusetts Rehabilitation Commission Conference of Consumer Involvement, Sturbridge, MA. June, 1979.
- Pelletier, J.R. & Shulman, H. "Working towards a needs-based service delivery system: The Massachusetts Rehabilitation Commission and Department of Mental Health linkage in the South Shore area." A one-day workshop conducted for MRC and DMH staff, Newton, MA. April, 1979.
- Dell Orto, A.E. & Pelletier, J.R. "How to develop and implement group counseling in rehabilitation agencies and settings." Pre-Conference Institute of the National Rehabilitation Association, Salt Lake City, Utah. September, 1978.

Publications

- Pelletier, J.R., Nguyen, M., Bradley, K., Johnsen, M., & McKay, C. (2011). A study of a structured exercise program with members of an ICCD certified clubhouse: Program design, benefits, and implications for feasibility. In Anthony, W. & Furlong-Norman, K. (Eds.), *Readings in psychiatric rehabilitation and recovery* (pp. 452-465). Boston, MA: Boston University Center for Psychiatric Rehabilitation, Sargent College of Health and Rehabilitation Sciences.
- McKay, C. & Pelletier, J.R. (2007). "Health promotion in clubhouse programs: Needs, barriers, and current and planned activities." *Psychiatric Rehabilitation Journal*, 31 (2), 155-159.
- Pelletier, J.R., Nguyen, M., Bradley, K., Johnsen, M., & McKay, C. (2005). "A study of a structured exercise program with members of an ICCD certified clubhouse: Program design, benefits, and implications for feasibility." *Psychiatric Rehabilitation Journal*, 29 (2), 89-96.
- McCarthy, T., Pelletier, J., & Accordino, M. (2005). "Psychiatric rehabilitation in a rehabilitation counseling graduate program: Training effect on vocational rehabilitation counselor knowledge and skills." *Rehabilitation Education*, 19, 215- 224.
- Bradley, K., Pelletier, J.R., Rettig, M., McKay, C., & Johnsen, M. (2004). "Developing a structured physical exercise program for clubhouse members: The Genesis wellness project." *The Clubhouse Community Journal*, 5, 14-21.
- Rogers, E.S., Thurer, S., & Pelletier, J.R. (1986). "Mental health needs of individuals with severe physical disabilities." *Rehabilitation Counseling Bulletin*, 29, 240- 250.
- Pelletier, J.R., Rogers, E.S., & Dellario, D.J. (1985). "Barriers to the provision of mental health services to individuals with severe physical disability." *Journal Counseling Psychology*, 32, 422-430.
- Pelletier, J.R., Rogers, E.S., & Thurer, S. (1985). "The mental health needs of individuals with severe physical disability: A consumer advocate perspective." *Rehabilitation Literature*, 16, 186-193.
- Pelletier, J.R. (1982). "Perceptions of community mental health professionals in New England regarding mental

health services to individuals with severe physical disability and psychiatric problems." Unpublished Dissertation.
Ann Arbor, MI: University Microfilms International.

University of Massachusetts Medical Center
Disability Reviewer, Disability Evaluation Services

Education

University of Massachusetts Medical School/ Clark University, Worcester, MA—2009
Leadership Development Program

Anna Maria College, Paxton, MA—1987
Graduate Courses in Nursing

Memorial Hospital, Worcester, MA—1981
Intravenous Therapy Training Program

Fitchburg State College, Fitchburg, MA—1979
Bachelor of Science in Nursing

Employment

University of Massachusetts Medical Center, Worcester, MA
Program Manager, Disability Evaluation Services 2016–Present

- Supervise professional review staff productivity and quality.
- Develop and train on efficiencies for improvement of case processing.
- Provide professional staff support around UMMS and DES policies and communication initiatives.
- Measure team aggregate performance in alignment with team goals.
- Provide QA to professional staff.
- Work with DES trainers to orient and prepare ongoing in-service / continuing education programs.
- Monitor determinations made by assigned team members to ensure adherence to appropriate state and federal regulations, and Disability Evaluation Services policies and procedures.

Disability Reviewer, Disability Evaluation Services 2003–2016

- Utilize best practice and federal regulations to integrate medical records, applicant's reporting and residual functional capacity to complete disability determination for out-of-state contractors.
- Collaborate with out of state consumer to develop tools to assist in the disability determination process.
- Manage a caseload providing single point disability determination for state agencies.
- Provide CDR (Continuous Disability Determinations) for applicable caseload. Act as facilitator and leader of Continuous Quality Improvement teams that develop Medical Impairment Questionnaires and criteria revisions.

Salter School-Worcester, MA 2002–2003
Instructor in Medical Assistance Program

- Developed Curriculum and instructed students in Anatomy and Physiology, Clinical Procedures and Pharmacology

Massachusetts Executive Office of Elder Affairs-Worcester, MA 2002–2003

Long Term Care Ombudsman-Volunteer

- Worked in conjunction with Extended Care Facilities to resolve complaints which impact patient's rights and comfort.

American Red Cross-Melrose, MA 1995–2003

Test Administrator

- Administered clinical and written tests to candidates eligible for Nurse Aide State Certification.
- Assisted with test development for updated certification test.

Seven Hills Foundation-Worcester, MA 2001

Case Manager

- Provided medical assessment, education and support to developmentally challenged individuals in adult foster care.

St Vincent's Hospital-Worcester, MA 1994

Orthopedic Staff Nurse

- Provided Primary Care Nursing to medical/surgical orthopedic patients.

Wayside Nursing Home-Worcester, MA 1991

Treatment/Infection Control Nurse

- Implemented wound management and infection control procedure for long term care patients.

University of Massachusetts Medical Center-Worcester, MA 1989

Orthopedic Nurse (Per Diem)

- Provided Primary Care Nursing to medical/surgical orthopedic, and trauma patients.

Greendale YMCA/University of Massachusetts Medical Center-Worcester, MA 1989

Volunteer Cardiac Rehabilitation Nurse

- Served as community resource in health promotion and blood pressure screening program.

Visiting Nurse Association of Worcester-Worcester MA 1981–1984

Staff Nurse

- Provided primary care and administrative support for a patient load of 25–30, including medical, surgical, hospice and adult foster care plans.

University of Massachusetts Medical School
Disability Reviewer, Disability Evaluation Services

Education

Assumption College, Worcester, MA – 2006
Master of Arts in Rehabilitation Counseling

Assumption College, Worcester, MA – 2005
Bachelor of Arts in Social and Rehabilitation Services

Certifications

Certified Rehabilitation Counselor

Employment

UMass Medical School, Disability Evaluation Services - Shrewsbury, MA..... 2006–Present
Disability Reviewer, Disability Evaluation Services

- Determine eligibility based on disability for individuals applying for public benefits including TAFDC, EAEDC, and MassHealth for a caseload of 150-200 individuals
- Compare clinical findings with state and federal regulations through review of medical information, clinical consultations with providers, and ordering of consultative exams when appropriate
- Perform vocational review based on the analysis of RFCs and through utilization of “The Grid”
- Utilize agency’s case management system through documentation of critical steps within the review, documentation of clinical phone notes, and the running of daily reports
- Answer questions and provide information to clients regarding review process and benefits while being able to de-escalate agitated or anxious individuals
- Assist colleague managing the clinical call desk: take phone calls from providers and obtain and document clinical information for the cases of 40-50 colleagues while maintaining 100 percent caseload
- Awarded four-month opportunity to work as part of Resource Team pilot program at the Worcester TAO assisting applicants with completing disability supplement, providing information, and performing short term approvals based upon medical documentation and clinical phone calls

Massachusetts Rehabilitation Commission - Worcester, MA..... 2008
Qualified Vocational Rehabilitation Counselor (Transition Specialist)

- Assist individuals with disabilities and their families with the transition from high school to post-secondary education, employment, and/or training through career exploration, counseling and guidance, job placement and follow-up, information and referral, interest/aptitude testing, and interviews
- Determine eligibility and priority category of individuals with disabilities based on interviews, IEPs/504 plans, psychological testing, medical records, and other documentation

Massachusetts Rehabilitation Commission - Worcester, MA..... 2006

Rehabilitation Counselor Intern (part-time)

- Perform intake interviews, establish rapport, and determine eligibility and priority category of individuals with psychiatric, cognitive, and/or physical disabilities
- Collaborate with individuals to determine realistic vocational goals
- Utilize agency's computerized case management system
- Assist with orientation of individuals to the agency upon referral
- Assist with development and implementation of individualized plans for employment

Wayside Youth and Family Support Network: Day Treatment - Framingham, MA..... 2005–2006

Clinical Intern

- Diagnose and assess adolescents with behavioral or psychiatric disorders
- Develop and implement individual treatment plans in collaboration with clients
- Counsel individuals and groups regarding current issues and situations
- Develop and implement group therapy curriculums including life skills group (resume building, interviewing techniques, and job searching)
- Collaborate with families, social workers, and other service providers in gathering information and determining potential solutions

Advocates, Inc.: Choices - Ashland, MA

Case Manager..... 2005–2006

- Collaborate with team members to teach adults with developmental disabilities vocational skills through games, volunteering, discussion and community activities
- Counsel individuals regarding personal or vocational related concerns
- Monitor, report, and document individual behavior daily
- Case management and implementation of goals for seven individuals

Administrative Assistant..... 2001–2005

- Research, development, and management of mailing list database with over 7,000 constituents
- Research and creation of a timeline of the thirty year history of Advocates, Inc.
- Worked with the chairperson of the Continuum of Care 2004 by gathering applications, taking meeting minutes, and completing forms
- Prepared regulatory documents when applying for grants
- Managed fundraiser mailings from creation through solicitation, follow-up and acknowledgements
- Worked with colleagues to create program ad book for annual event, acted as a liaison between program managers and the Department of Transitional Assistance in completing food stamp applications and recertification for clients in the Developmental Disabilities Division
- Gathered and reported statistics on seen of the agency's divisions

Volunteer Experience

United Way of Tri-County: Pear Street Cupboard 7 Café - Framingham, MA 2012–Present

Volunteer

- Perform all duties at food pantry located in downtown Framingham, including stocking shelves, personalized shopping, greeting customers, and providing basic dissemination of information
- Completing paperwork with customers and entering information into computerized database on a weekly basis

University of Massachusetts Medical School – Disability Evaluation Services
Psychologist Advisor

Education

Boston University, Boston, MA – 1985
EdD, Program in Counseling Psychology
EdM, Counselor Education–1975

The Family Institute of Philadelphia, Philadelphia, PA – 1974
First clinical year course in Family Therapy

Philadelphia State Hospital, Philadelphia, PA – 1972 - 1974
Family Therapy training program
Group Psychotherapy training program–1971- 1972

Temple University, Philadelphia, PA – 1969
Bachelor of Arts in History

Employment

UMass Medical School, Disability Evaluation Services, Shrewsbury, MA 2004–Present
Psychologist Advisor

Prescott Health Care, Worcester, MA 2001–2015
Psychologist

Boston Road Clinic, Worcester, MA
Clinical Director 1997–2001
Associate Clinical Director 1993–1997

Boston Road Clinic at St. Vincent’s Hospital, Worcester, MA 1991–1993
Assistant Clinical Director/Chief Psychologist

- Supervised staff of over 50 licensed clinicians.
- Directed Quality Management/Quality Improvement Program
- Member of Executive Risk Management and Utilization Management Committees.
- Provided outpatient Services to adolescent, adult & geriatric populations, in individual, group and family/couples treatment.
- Responsible for staff training in protocol driven, solution-focused treatment methods.
- Responsible for Clinical Policies and Procedures.

On Inpatient Unit:

- Led treatment team, provided psychotherapy services.
- Responsible for function of inpatient psychology staff.
- Member of Department Chiefs Committee.

Day Hospital, Heritage Hospital - Somerville, MA Jan.–Mar. 1991
Director

Intermission Adolescent Assessment Center, Everett, MA 1989–1996
Consultant

- Psychological and neuropsychological assessment of adolescents with behavioral, emotional, and/or educational difficulties requiring treatment and placement

Quincy Mental Health Center, Quincy, MA 1988–1990
Director of Psychology

- Group and individual psychotherapy, psychological and neuropsychological testing for a 21 bed locked inpatient unit and 30-50 client Day Hospital (RCF A and JCARO accredited)
- Supervision of licensed psychologist, consulting neuropsychologist and two APA interns. Multi-disciplinary treatment team member.
- Executive, Quality Assurance, and Medical Records Committee member

Eastern Middlesex Human Services, Wakefield, MA 1988–1990
Consultant

- Psychological and neuropsychological assessments of adolescent and adult outpatients.

Center for Mental Health, Watertown, MA 1979–1988
Psychologist/Clinical Supervisor

- Short and long-term individual, couples and family therapy; psychological and neuropsychological testing of an adult outpatient clinic population
- Supervision and training of outpatient clinicians
- Ongoing consultation to VNA and center residential staff

Westwood Lodge Hospital, Westwood, MA 1987–1988
Consultant

- Psychological assessments of adolescent and adult inpatients.

Arbour Hospital, Boston, MA 1987–1988
Consultant

- Psychological and neuropsychological assessments of adolescent and adult inpatients.

Bay State Psychological Associates, Boston, MA 1985–1986
Consultant

- Neuropsychological assessment of adult outpatients and inpatients in treatment with a neuropsychiatrist

New England Memorial Hospital, Stoneham, MA 1978–1980
Psychometrician/Consultant

- Psychological testing of inpatient and outpatient children, adolescents, and adults.
- Psychologist/Team Coordinator

Tri-City Mental Health Center, Malden, MA 1977–1979

- Crisis intervention and short-term therapy with families of children and adolescents in crisis
- Psychological testing and long-term therapy with selected clinic patients

Internship

Freedom Trail Clinic, Erich Lindermann Community Mental Health Center – Boston, MA
(Affiliated with Massachusetts General Hospital)

- Short and long-term individual and group
- Psychotherapy, psychological testing and crisis intervention with an adult outpatient population
- Consultant to the Advent School, a heterogeneous private grade school

Professional Affiliations

- American Psychological Association
- Massachusetts Psychological Association
- American Group Psychotherapy Association (past member)
- Massachusetts Neuropsychological Society (past member)
- American Board of Medical Psychotherapists (past member)

Publications

Scherz, J.I. and Levant, R.F. (1977) Network Therapy: A Videotape Presentation of its Rationale, Strategy and Impact. Boston University. (Film)

Scherz, J.I. (1985) Late Adolescent and Early Adult Male Perceptions of the Father-Son Relationship. Implications for the Development of Self-Esteem (Doctoral dissertation, Boston University, 1985).

Presentations

Brief Psychotherapy. Training to staff of North Essex Community Health Center (March 1990)

University of Massachusetts Medical School – Disability Evaluation Services
Director, Clinical Services

Education

Becker College, Worcester, MA–1999
Associate in Science, Nursing

Worcester State College, Worcester, MA–1996
Liberal Arts

Employment

University of Massachusetts Medical School, Shrewsbury, MA 2015–Present
Director, Clinical Services, Disability Evaluation Services (DES)

- Responsible for supervision of five program managers who in turn provide direction and oversight for 40-50 professional disability reviewers and 40-50 direct support staff
- Additional supervision responsibilities of two clinical training coordinators
- Acts as final point of contact regarding DES policy, planning, and decision making
- Actively pursue new business opportunities for Disability Evaluation Services which includes writing for and submitting Request for Proposals (RFP) and Request for Information (RFI)
- Participates and makes recommendations in agency budget development and staffing level issues
- Participates in hiring and disciplinary activities
- Data collection and analysis
- Ongoing monitoring of case assignment/productivity goals set forth by contracts with the Commonwealth of Massachusetts and the State of New Hampshire
- Conducted performance reviews and salary adjustments on an annual basis

University of Massachusetts Medical School, Shrewsbury, MA
New Hampshire Program Manager, Disability Evaluation Services 2009–Present

- DES' first new business venture is to provide backlog reduction to the New Hampshire Disability Determination Unit in addition to implementation of process improvement strategies leading to compliance with federally mandated timelines and enhanced efficiency and quality of disability determinations
- Daily communication with New Hampshire Disability Determination Unit to monitor progress of process improvement measures and backlog reduction
- Manage a team of Nurse Reviewers who provide backlog reduction for the NH DDU completing approximately 1500 cases annually
- Lead weekly interdepartmental meetings to discuss status of backlog reduction
- Provide clinical mentorship to New Hampshire Nurse Reviewers

Program Manager, Disability Evaluation Services 2006–Present

- Supervise a team of Disability Reviewers conducting disability determinations for the state of Massachusetts
- Developed and implemented Best Practice Model for Nurse Reviewers
- Participate in quality improvement and policy initiatives
- Implement quality assurance measures
- Daily monitoring of productivity
- Manage a case load of clients applying for assistance as a disabled individual through state benefit program

University of Massachusetts Medical School, Auburn, MA 2001–2006
Registered Nurse Disability Case Manager

- Managed a caseload of clients applying for assistance as a disabled individual through state benefit programs
- Reviewed clinical information and other pertinent evidence against appropriate criteria in accordance with Title XVI guidelines
- Evaluated the impact of exertional and non-exertional impairments on the client's ability to perform past relevant work and other work
- Assessed medical and vocational improvement and the impact on current disability status
- Communicated with applicants and providers to obtain and clarify information
- Collaborated with Physician Advisors in the final case determination

Child Health Associates, PC, Shrewsbury, MA 2000–2001

Registered Nurse, Pediatrics

- Assisted physicians and nurse practitioners in a thriving pediatric practice
- Performed well-child exams, administered immunizations, updated patient charts
- Consulted with and advised parents on healthcare, development and behavior

St. Vincent's Hospital, Worcester, MA 1999–2000

Registered Nurse, Transitional Care Center

- Provided direct patient care to sub-acute patients in a 40-bed unit
- Administered patient medications and interpreted physician instructions
- Provided patient and family education and support

PROFESSIONAL EXPERIENCE

U-MASS MEDICAL SCHOOL, DISABILITY EVALUATION SERVICES, Shrewsbury, MA **June 2018 -present**
January 2003-December 2014

Disability Reviewer

- Review of TAFDC, EAEDC and Mass Health applications following a five-step review process including a vocational review to determine eligibility for disability benefit programs following state and federal guidelines.
- Obtain further information from applicants as well as treating providers, including: Physicians, Therapists and Nurse Practitioners.
- Consultations with on-site Physician Advisers to aide in the determination process.
- Request of independent consultative exams when treating source information is not provided or insufficient.
- Independently manage timeline and adjust case flow accordingly to meet contract deadlines.
- Work as a Licensed Healthcare Provider (LHCP) to Conduct Medical record reviews following all Massachusetts and Federal Regulations
- Nurse reviewer completing NH Home care for Children with Severe Disabilities (HCCSD) Disability determinations.
- Manage all types of communication with out of state contactors and providers, developing procedures to ensure the timely receipt of medical documents.
- Demonstrate ongoing flexibility to frequent process adjustments as directed by DDU.
- Developed and continually use tools to increase work production and enhance communication.
- Successfully manage a difficult caseload while independently adjusting workflow to meet monthly quotas and contract needs.
- Proven Team leader by establishment of a clinical resource manual.

U-MASS MEDICAL SCHOOL, Disability & Community Services, Shrewsbury, MA **January 2015-June 2018**
Nurse Case Manager

- Served as a Case Manager for assigned caseload of members requiring long term care services in the community.
- Contribute as an active member of a multi-disciplinary team to assess, plan, organize, review and evaluate the care needs of assigned members
- Conduct on-site reviews and assessments of Member's community long term care needs determining medical necessity and eligibility for Community Case Management and Continuous Skilled Nursing Services following program guidelines and utilizing MassHealth Regulations
- Promote continuity of care by providing cooperative partnerships by acting as a Liaison with nursing providers, state agency staff, acute care hospitals and other service providers
- Participate in performance improvement initiatives and demonstrate use of quality improvement in daily operations
- Assist in orientation and training of newly hired staff

MEDICAL ASSOCIATES PEDIATRICS , Leominster, MA **June 2000-January 2003**
Registered Nurse

- Worked as a staff nurse in a busy pediatric group practice providing direct patient care.
- Prepared patients and assisted with examinations, as well performed various tests and procedures, including: audiograms and vision screenings.
- Set-up appointments, administered injections and medications, dressed wounds and incisions, interpreted physician's instructions to patients, assisted physicians in emergency situations, and performed related tasks as directed.
- Maintained records of vital statistics and other pertinent patient data.

- Provided Telephone Triage screening calls for urgency, providing appointments as necessary as well as providing advice for various minor ailments.
- Cleaned and sterilized instruments and equipment and maintained stock of supplies.

WHITTIER REHABILITATION HOSPITAL, Westborough, MA

Registered Nurse

June 1999-June 2000

CNA/Student Nurse

May 1998-June 1999

- Provided direct care for patients in an acute rehabilitation setting.
- Worked with a multidisciplinary team consisting of Staff Physicians, Pharmacists, Physical Therapists, Occupational Therapists, Respiratory Therapists, and Dialysis Nurses.
- Administered prescribed medications and treatments.
- Performed assessments of patients, recording vital signs, assessing patient's condition, charting observations, monitored for reactions to various meds and treatments and discussed findings among the various specialties to provide optimal patient care.

VNA, Millbury, MA

1996-1997

Personal Care Attendant

- Traveled to the homes of elderly and disabled individuals
- Assisted patients with grooming and hygiene, cleaning, shopping, laundry, cooking and additional household tasks
- Participated in intake assessment and care plan with Registered Nurse Case Managers.
- Maintained records of services provided and condition of patient

EDUCATION/DEGREES

BECKER COLLEGE, Worcester, MA

August 1996-June 1999

Associate of Science in Nursing

LICENSURE/CERTIFICATIONS/AWARDS

- Registered Nurse licensed in the Commonwealth of Massachusetts
- Certified in Basic Life Support/AED
- Certification in Customer/Patient Relations
- Mental Health First Aid Certification
- Recipient of Commonwealth Medicine's Employee Award

1999-present

COMPUTER SKILLS

- Microsoft Office, Word, Outlook, Excel, PowerPoint
- Adobe
- Massachusetts MMIS
- MA21
- NH Department of Health & Human Services MMIS

References available upon request

- 21 years experience vocational rehabilitation counseling
- Case management
- Job development
- Rehabilitation planning
- Labor market analysis
- Expert vocational testimony
- Job analysis

Work Experience

UMassDisability Evaluation Services, Auburn, MA Appeals Reviewer

2004 - Present

Responsible for presenting cases at fair hearings when disability has been denied. Utilize the SSI/SSA criteria to determine disability and support rationale for denial by presenting vocational and medical evidence, citing appropriate regulations and explaining the basis for decision. Responsible for reviewing additional medical/vocational evidence supplied after denial of disability and determine if decision will change.

Prepare case for appeals process utilizing pertinent medical/vocational information. Review additional information submitted prior to hearing and determine if original decision will be upheld. Presents case at hearing, in person or via telephone for the Commonwealth, responding to Questions/interrogatories posed by hearing officer and legal counsel. Knowledge of 5 step and 8 step SSA review critical in all MA cases.

Stirling Case Management, Bedford, NH Vocational Consultant

1997- Present

Vocational consultant for insurers and 3rd party administrators for workers compensation claims. Provide vocational case management, job development, career exploration, expert labor market analysis, earnings capacity assessments and expert testimony. Provide monthly status reports to insurers on case status. Testify at the Dept of Industrial Accidents and Federal Court.

Independent Consultant/sole proprietor

1985 - Present

Independent consultant to business, insurers, legal community on vocational rehabilitation issues, case management, ADA job analysis/descriptions, expert vocational testimony, labor market analysis.

Education

Our Lady of Providence Seminary College

Bachelor's degree , Philosophy

University of Toronto, Toronto School of Theology

Master's of Divinity

University of Toronto, Masters in Vocational Rehabilitation Counseling

CRC: Certified Rehabilitation Counselor; National Commission on Rehabilitation

Certification Lic# 23759

Social Security Administration: Licensed Vocational expert lic# 6649

CONTRACTOR NAMEKey Personnel

| Name | Job Title | Salary | % Paid from this Contract | Amount Paid from this Contract |
|--|---|--------------|---------------------------|--------------------------------|
| Simpson, Jody | Clinical Director | \$116,736.96 | 0.1 | \$11,673.70 |
| Perron, Eileen | Program Manager | \$88,359.73 | 0.2 | \$17,671.95 |
| Klaus, Lisa/Spokis, Dawn/Sadowski, Melanie | Disability Reviewer II | \$79,746.85 | 0.55 | \$43,860.77 |
| Phillips, Linda | Associate Director, Appeals and Regulatory Compliance | \$97,920.00 | 0 | \$0.00 |
| Colella, Stephen A | Disability Reviewer II- Appeals | \$76,617.79 | 0 | \$0.00 |
| Lindblad, Peter C | Medical Director | \$160,484.61 | 0.05 | \$8,024.23 |
| Manning, Nathaniel | Physician Advisor | \$222,895.30 | 0.02 | \$4,457.91 |
| Mosbach, Peter A | Physician Advisor | \$113,676.18 | 0.05 | \$5,683.81 |
| Pelletier, John R | Physician Advisor | \$113,611.68 | 0.65 | \$73,847.59 |
| Scherz, Jeffrey I | Physician Advisor | \$113,676.60 | 0.02 | \$2,273.53 |
| Meade, Larry | Physician Advisor | \$43,680.00 | 1.00 | \$43,680.00 |



Jeffrey A. Meyers
Commissioner

Christine L. Santaniello
Director

SEP24'19 PM 4:01 DAS

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF ECONOMIC & HOUSING STABILITY

129 PLEASANT STREET, CONCORD, NH 03301
603-271-9474 1-800-852-3345 Ext. 9474
Fax: 603-271-4230 TDD Access: 1-800-735-2964 www.dhhs.nh.gov

September 16, 2019

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 Economic & Housing Stability to enter into a sole source amendment to an existing agreement with the University of Massachusetts Medical School (Vendor # 177576), 333 South Street, Shrewsbury, MA 01545 for the provision of Disability Determination services by increasing the price limitation by \$281,853, from \$1,080,890 to \$1,362,743 with no change in the completion date of June 30, 2020, effective upon Governor and Executive Council approval. 75% Federal. 25% General funds.

This agreement was originally approved by Governor and Executive Council on October 26, 2016 (Item #11) and amended on June 7, 2017 (Item #9) and March 13, 2019 (Item #14A).

Funds to support this request are anticipated to be available in the following account in State Fiscal Year 2020 upon the availability and continued appropriation of funds in the future operating budget.

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS:
COMMISSIONER, DCBCS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/ Account | Class Title | Activity Code | Current Budget | Increase/ (Decrease) | Modified Budget |
|-------|-------------------|---------------------|---------------|-------------------|-------------------------|--------------------|
| 2017 | 046-500462 | Program Services | 45142100 | \$206,250 | \$0.00 | \$206,250 |
| 2018 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0.00 | \$286,000 |
| 2019 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0.00 | \$286,000 |
| 2020 | 046-500463 | Program Services | 45142100 | \$302,640 | \$281,853 | \$584,493 |
| Total | | | | \$1,080,890 | \$281,853 | \$1,362,743 |

EXPLANATION

This request is **sole source** because the increase in funding exceeds 10% of the original contract price limitation.

The purpose of this request is to include the eligibility category of Home Care for Children with Severe Disabilities into the scope of the contract. This enables the vendor to provide medical, psychological and/or psychiatric consultative services in order to evaluate eligibility for Medicaid under the Home Care for Children with Severe Disabilities category.

The Department anticipates approximately 2,009 Individuals will be served through State Fiscal Year 2020.

Disability Determination Services, as required by the Federal Centers for Medicare and Medicaid Services, provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes.

The amendment allows the contractor to provide consultation to the Department to enable the determination of eligibility for Home Care for Children with Severe Disabilities. This is in addition to current evaluation of applicants for Aid to the Permanently and Total Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

Should the Governor and Executive Council not approve this request, the Department may not be able to determine eligibility for Medicaid for those children who apply under the Home Care for Children with Severe Disabilities category, which has the potential to limiting access for medical services.

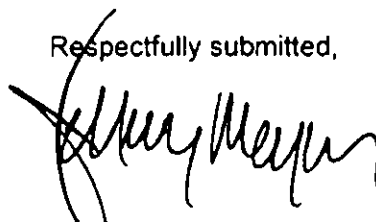
Area Served: Statewide

Source of funds: 75% Federal Funds CFDA #93.778, U.S. Department of Health & Human Services, Centers for Medicare and Medicaid Services, Medical Assistance Program, Medicaid Title XIX. FAIN # NH20164.

25% General Funds

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

Respectfully submitted,



Jeffrey A. Meyers
Commissioner



STATE OF NEW HAMPSHIRE
DEPARTMENT OF INFORMATION TECHNOLOGY

27 Hazen Dr., Concord, NH 03301
Fax: 603-271-1516 TDD Access: 1-800-735-2964
www.nh.gov/doit

Denis Goulet
Commissioner

September 18, 2019

Jeffrey A. Meyers, Commissioner
Department of Health and Human Services
State of New Hampshire
129 Pleasant Street
Concord, NH 03301

Dear Commissioner Meyers:

This letter represents formal notification that the Department of Information Technology (DoIT) has approved your agency's request to enter into a sole source contract amendment with the University of Massachusetts Medical School (Vendor #177576), 333 South Street, Shrewsbury, MA 01545 for the continued provision of Disability Determination Services as described below and referenced as DoIT No. 2016-116B-C.

The purpose of this request is to enter into a sole source amendment to an existing agreement with the University of Massachusetts Medical School for the continued provision of Disability Determination Services as required by the Federal Centers for Medicare and Medicaid Services, to provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination Services evaluates applicants for aid to Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

The amount of the amendment is \$281,853, increasing the current contract from \$1,080,890 to \$1,362,743. The contract will become effective upon Governor and Executive Council approval through June 30, 2020.

A copy of this letter should accompany the Department of Health and Human Services' submission to the Governor and Executive Council for approval.

Sincerely,

A handwritten signature in dark ink, appearing to read "Denis Goulet", written over a horizontal line.

Denis Goulet

DG/kaf/ck
DoIT #2016-116B-C

cc: Bruce Smith, IT Manager, DoIT

**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**



**State of New Hampshire
Department of Health and Human Services
Amendment #3 to the Disability Determination Services Contract**

This 3rd Amendment to the Disability Determination Services contract (hereinafter referred to as "Amendment #3") is by and between the State of New Hampshire, Department of Health and Human Services (hereinafter referred to as the "State" or "Department") and University of Massachusetts Medical School, (hereinafter referred to as "the Contractor"), with a place of business at 333 South Street, Shrewsbury, MA 01545.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on October 26, 2016, (Item #11), as amended on June 7, 2017 (Item #9) and March 13, 2019 (Item #14A), the Contractor agreed to perform certain services based upon the terms and conditions specified in the Contract as amended 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 the State may modify the scope of work and the payment schedule of the contract upon written agreement of the parties and approval from the Governor and Executive Council; and

WHEREAS, the parties agree to increase the price limitation, and modify the scope of services to support continued delivery of these services; and

WHEREAS, all terms and conditions of the Contract and prior amendments not inconsistent with this Amendment #3 remain in full force and effect; and

NOW THEREFORE, in consideration of the foregoing and the mutual covenants and conditions contained in the Contract and set forth herein, the parties herelo agree to amend as follows:

1. Form P-37, General Provisions, Block 1.8, Price Limitation, to read:
\$1,362,743.
2. Add Exhibit A, Scope of Services, Section 1, Provisions Applicable to All Services, Subsection 1.7, Paragraph 1.7.4. to read:
1.7.4. In Home Care for Children with Severe Disabilities.
3. Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 2, Subparagraph 2.1, to read:
2.1. Cost reimbursement for Disability Determination (DD) activities shall not exceed one million three hundred and sixty two thousand seven hundred and forty three dollars (\$1,362,743).
4. Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 3, to read:
3. Payment for services shall be on a cost reimbursement basis only for actual services provided with rates as follows:
 - 3.1. APTD and MEAD Cases requiring all steps 1-5, - \$291 per case.
 - 3.2. APTD cases requiring RFC, Voc (steps 4-5), and final sign-off by a Doctor (steps 1-3 are completed at the DDU) - \$243.00 per case.
 - 3.3. APTD cases requiring a RFC and sign off by a Doctor (steps 4-5 are completed at the DDU)- \$210 per case.
 - 3.3. HC-CSD cases requiring steps 1-3 -, determine if Level of Care is met and, final sign off by a Doctor - \$145 per case.

New Hampshire Department of Health and Human Services
Disability Determination Services Contract



3.4. HC-CSD, APTD, MEAD, and ANB cases requiring final sign off by a Doctor only - \$64 per case.

New Hampshire Department of Health and Human Services
Disability Determination Services Contract



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

9/9/19
Date

Christine Santaniello
Name: Christine Santaniello
Title: Director

University of Massachusetts Medical School

Date

Patti A. Onorato
Name: Patti A. Onorato
Title: Deputy Executive Vice Chancellor for Operations
9.3.19

Acknowledgement of Contractor's signature:

State of Massachusetts, County of Worcester on Sept. 3, 2019, 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.

Judith A. Nelson
Signature of Notary Public or Justice of the Peace

Judith A. Nelson, Notary Public
Name and Title of Notary or Justice of the Peace



JUDITH A. NELSON
Notary Public
Commonwealth of Massachusetts
My Commission Expires July 24, 2020

My Commission Expires: 7.24.2020

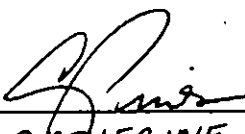
**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**



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

OFFICE OF THE ATTORNEY GENERAL

9/13/19
Date


Name: CATHERINE PINOS
Title: Attorney

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:

MAR01'19 PM12:37 DAS

14A mac



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
OFFICE OF HUMAN SERVICES
DIVISION OF CLIENT SERVICES

Jeffrey A. Meyers
Commissioner

Christine J. Santanillo
Director

129 PLEASANT STREET, CONCORD, NH 03301
603-271-9404 1-800-852-3346 Ext. 9404
Fax: 603-271-4232 TDD Access: 1-800-736-2964 www.dhhs.nh.gov

February 11, 2019

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 Client Services to exercise a renewal option with University of Massachusetts Medical School (Vendor # 177576), 333 South Street, Shrewsbury, MA 01545 for the provision of Disability Determination services and extend the completion date from June 30, 2019 to June 30, 2020 and increasing the price limitation by \$302,640 from \$778,250 to an amount not to exceed \$1,080,890, effective upon the date of the Governor and Executive Council approval. 75% Federal. 25% General funds.

This agreement was originally approved by Governor and Executive Council on October 26, 2016 (Item #11) and amended on June 7, 2017 (Item #9).

Funds to support this request are anticipated to be available in State Fiscal Year 2020 upon the availability and continued appropriation of funds in the future operating budgets, with authority to adjust amounts within the price limitation and adjust encumbrances between State Fiscal Years through the Budget Office without approval from Governor and Executive Council if needed and justified.

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS:
COMMISSIONER, DCBCS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/ Account | Class Title | Activity Code | Current Budget | Increase/ (Decrease) | Modified Budget |
|-------|-------------------|---------------------|---------------|-------------------|-------------------------|--------------------|
| 2017 | 046-500462 | Program Services | 45142100 | \$206,250 | \$0.00 | \$206,250 |
| 2018 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0.00 | \$286,000 |
| 2019 | 046-500462 | Program Services | 45142100 | \$286,000 | \$0.00 | \$286,000 |
| 2020 | 046-500463 | Program Services | 45142100 | \$0.00 | \$302,640 | \$302,640 |
| Total | | | | \$778,250 | \$302,640 | \$1,080,890 |

EXPLANATION

The purpose of this request is to exercise a renewal option with the University of Massachusetts Medical School for the provision Disability Determination services. Disability Determination Services, as required by the Federal Centers for Medicare and Medicaid Services, provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination services evaluate applicants for Aid to the Permanently and Total Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

Disability Determination services include requests to medical and non-medical information from applicants and medical/psychological providers in order to prepare the applicant's case for review. If no medical/psychological records exist, appointments with providers are scheduled. Fully developed cases are reviewed by a Medical Review Team that consists of physicians, nurses, and psychiatrists or psychologists. This team of professionals determines the medical eligibility of each individual applying for assistance through Aid to the Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities or Aid to the Needy Blind on the basis of medical, diagnostics, and mental health, in accordance with criteria set forth in New Hampshire Administrative Rule He-W 504 and the Social Security Administration grid rules.

Section 1903(a) (2) of the Social Security Act allows the Department, as the State Medicaid agency, to receive Federal match funds at an enhanced rate of seventy-five percent (75%) for contracted services with a public entity for compensation of skilled professional medical personnel and the direct support staff.

The vendor is expected to serve 1,040 individuals per year.

Notwithstanding any other provision of the Contract to the contrary, no services shall continue after June 30, 2019, and the Department shall not be liable for any payments for services provided after June 30, 2019, unless and until an appropriation for these services has been received from the state legislature and funds encumbered for the SFY 2020-2021 biennia.

Should the Governor and Executive Council not approve this request the Department may not be able to continue supporting a sufficient level of clinical staff to administer the Disability Determinations within the ninety (90) day time frame established by federal and state regulations. Additionally the Department may not be eligible to receive the federal match funds at a rate of seventy-five percent for contracted services with a public entity.

Area Served: Statewide

Source of funds: 75% Federal Funds CFDA #93.778, U.S. Department of Health & Human Services, Centers for Medicare and Medicaid Services, Medical Assistance Program, Medicaid Title XIX, FAIN # NH20164.
 25% General Funds

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffrey Meyers", written in a cursive style.

Jeffrey A. Meyers
Commissioner



STATE OF NEW HAMPSHIRE
DEPARTMENT OF INFORMATION TECHNOLOGY
27 Hazen Dr., Concord, NH 03301
Fax: 603-271-1516 TDD Access: 1-800-735-2964
www.nh.gov/doit

Denis Goulet
Commissioner

February 25, 2019

Jeffrey A. Meyers, Commissioner
Department of Health and Human Services
State of New Hampshire
129 Pleasant Street
Concord, NH 03301

Dear Commissioner Meyers:

This letter represents formal notification that the Department of Information Technology (DoIT) has approved your agency's request to enter into a contract amendment with the University of Massachusetts Medical School (Vendor #177576), 333 South Street, Shrewsbury, MA 01545 for the continued provision of Disability Determination Services as described below and referenced as DoIT No. 2016-116B-B.

The purpose of this request is to amend an agreement with the University of Massachusetts Medical School for the continued provision of Disability Determination Services as required by the Federal Centers for Medicare and Medicaid Services, to provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination Services evaluates applicants for aid to Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

The amount of the amendment is \$302,640, increasing the current contract from \$778,250 to \$1,080,890. The contract will become effective upon Governor and Executive Council approval through June 30, 2020.

A copy of this letter should accompany the Department of Health and Human Services' submission to the Governor and Executive Council for approval.

Sincerely,

Denis Goulet

DG/ik/ck
DoIT #2016-116B-B

cc: Bruce Smith, IT Manager, DoIT



**State of New Hampshire
Department of Health and Human Services**

Amendment #2 to the Disability Determination Services Contract

This 2nd Amendment to the Disability Determination Services contract (hereinafter referred to as "Amendment #2") dated this 27th day of September, 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 University of Massachusetts Medical School, (hereinafter referred to as "the Contractor"), with a place of business at 333 South Street, Shrewsbury, MA 01545.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on October 26, 2016, (Item #11), as amended on June 7, 2017 (Item #9), the Contractor agreed to perform certain services based upon the terms and conditions specified in the Contract as amended 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, Revisions to General Provisions Paragraph 2, Subparagraph 10.6, the State may modify the scope of work and the payment schedule of the contract upon written agreement of the parties and approval from the Governor and Executive Council; and

WHEREAS, the parties agree to extend the term of the agreement, increase the price limitation, and modify the scope of services to support continued delivery of these services; and

NOW 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, 2020.
2. Form P-37, General Provisions, Block 1.8, Price Limitation, to read:
\$1,080,890.
3. Form P-37, General Provisions, Block 1.9, Contracting Officer for State Agency, to read:
Nathan D. White, Director.
4. Form P-37, General Provisions, Block 1.10, State Agency Telephone Number, to read:
603-271-9631.
5. Exhibit A, Scope of Services, Paragraph 1, Provisions Applicable to All Services, Subparagraph 1.8, Amendment #1, to read:
1.8. Notwithstanding any other provision of the Contract to the contrary, no services shall continue after June 30, 2019, and the Department shall not be liable for any payments for services provided after June 30, 2019, unless and until an appropriation for these services has been received from the state legislature and funds encumbered for the SFY 2020-2021 biennium.

**New Hampshire Department of Health and Human Services
Disability Determination Services Contract**



6. Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 2, Subparagraph 2.1, Amendment #1, to read:

2.1. Cost reimbursement for Disability Determination (DD) activities shall not exceed one million, eighty thousand and eight hundred and ninety dollars (\$1,080,890).

7. Delete Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 3, and replace with the following:

3. Payment for services shall be on a cost reimbursement basis only for actual services provided at a rate of two hundred and ninety one dollars (\$291) per case, for a maximum of one thousand and forty (1040) cases.

8. Add Exhibit K, DHHS Information Security Requirements.

New Hampshire Department of Health and Human Services
Disability Determination Services Contract



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

2/14/19
Date

Christina Santanillo
Name: Christina Santanillo
Title: Director, DEHS

University of Massachusetts Medical School

2.7.19
Date

Patti Morato 2.7.19
Name: Patti Morato
Title: Associate Vice Chancellor, CUM

Acknowledgement of Contractor's signature:

State of Massachusetts County of Worcester on February 7, 2019, 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.

Judith A. Nelson
Signature of Notary Public or Justice of the Peace



JUDITH A. NELSON
Notary Public
Commonwealth of Massachusetts
My Commission Expires July 24, 2020

Judith A. Nelson, Notary
Name and Title of Notary or Justice of the Peace

My Commission Expires: 7-24-20

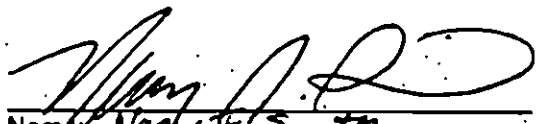
New Hampshire Department of Health and Human Services
Disability Determination Services Contract



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

OFFICE OF THE ATTORNEY GENERAL

2/22/2019
Date


Name: Nancy J. Smith
Title: Senior Assoc. State Attorney Gen.

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:

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



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 (either failed or 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

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



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

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



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 therefrom 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 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

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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. SFTP folders and sub-folders used for transmitting Confidential Data will be coded for 24-hour auto-deletion cycle (i.e. Confidential Data will be deleted every 24 hours).
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

[Signature]

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



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 of 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.).

New Hampshire Department of Health and Human Services

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DHHS Information Security Requirements



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

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New Hampshire Department of Health and Human Services

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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 established by the State of New Hampshire, Department of Information Technology. Refer to Vendor Resources/Procurement at <https://www.nh.gov/doi/vendor/index.htm> for the Department of Information Technology policies, guidelines, standards, and procurement information relating to vendors.
14. Contractor agrees to maintain a documented breach notification and incident response process. The Contractor will notify the State's Privacy Officer and the State's Security Officer of any security breach immediately, at the email addresses provided in Section VI. 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.

A handwritten signature in black ink, appearing to be "P" or "R", is written over the "Contractor Initials" label.

New Hampshire Department of Health and Human Services

Exhibit K

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, 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 and Security Officer of any Security Incidents and Breaches immediately, at the email addresses provided in Section VI.

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

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New Hampshire Department of Health and Human Services

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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 Privacy Officer:

DHHSPrivacyOfficer@dhhs.nh.gov

B. DHHS Security Officer:

DHHSInformationSecurityOffice@dhhs.nh.gov

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Jeffrey A. Meyers
Commissioner

Carol E. Sideris
Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
OFFICE OF HUMAN SERVICES
DIVISION OF CLIENT SERVICES

129 PLEASANT STREET, CONCORD, NH 03301
603-271-9404 1-800-852-3346 Ext. 9404
Fax: 603-271-4232 TDD Access: 1-800-736-2964 www.dhhs.nh.gov

April 17, 2017

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 Client Services to renew an existing agreement with University of Massachusetts Medical School (Vendor # 177576), 333 South Street, Shrewsbury, MA 01545 by extending the contract completion date from June 30, 2017 to June 30, 2019 and increasing the price limitation by \$572,000 from \$206,250 to \$778,250 for the provision of Disability Determination Services effective June 30, 2017 or upon Governor and Executive Council approval, whichever is later. This agreement was originally approved by Governor and Executive Council on October 26, 2016 (Item #11). 75% Federal, 25% General funds.

Funds to support this request are available in State Fiscal Year 2017, and are anticipated to be available in State Fiscal Years 2018 and 2019 upon the availability and continued appropriation of funds in the future operating budgets, with authority to adjust amounts within the price limitation and adjust encumbrances between State Fiscal Years through the Budget Office if needed and justified, without approval from Governor and Executive Council, as follows:

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS:
COMMISSIONER, DCBCS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/ Account | Class Title | Activity Code | Current Budget | Increase/ (Decrease) | Modified Budget |
|-------|-------------------|-----------------------------------|------------------|-------------------|-------------------------|--------------------|
| 2017 | 046-500462 | Contracts for Program Services | 45142100 | \$206,250 | \$0 | \$206,250 |
| 2018 | 046-500462 | Contracts for Program Services | 45142100 | \$0 | \$286,000 | \$286,000 |
| 2019 | 046-500462 | Contracts for Program Services | 45142100 | \$0 | \$286,000 | \$286,000 |
| Total | | | | \$206,250 | \$572,000 | \$778,250 |

EXPLANATION

The purpose of this request is to renew an agreement with the University of Massachusetts Medical School for the provision of Disability Determination Services to individuals applying for certain assistance and services to extend the Completion Date and increase the Price Limitation.

Disability Determination Services, as required by the Federal Centers for Medicare and Medicaid Services, provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination

services evaluate applicants for Aid to the Permanently and Total Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

Disability Determination services include requests to medical and non-medical information from applicants and medical/psychological providers in order to prepare the applicant's case for review. If no medical/psychological records exist, appointments with providers are scheduled. Fully developed cases are reviewed by a Medical Review Team that consists of physicians, nurses, and psychiatrists or psychologists. This team of professionals determines the medical eligibility of each individual applying for assistance through Aid to the Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities or Aid to the Needy Blind on the basis of medical, diagnostics, and mental health, in accordance with criteria set forth in New Hampshire Administrative Rule He-W 504 and the Social Security Administration grid rules.

Section 1903(a) (2) of the Social Security Act allows the Department, as the State Medicaid agency, to receive Federal match funds at an enhanced rate of seventy-five percent (75%) for contracted services with a public entity for compensation of skilled professional medical personnel and the direct support staff. Services contracted with a non-public entity are subject to the standard fifty percent (50%) reimbursement.

This contract was competitively bid. On May 10, 2016 the Department issued a Request for Applications for qualified organizations to provide Pre-Admission Screening and Resident Review services; and/or Nursing Facility Level of Care Determination services and/or Disability Determination services. Vendors could submit applications for one, two or all services. The request for application was available on the Department of Health and Human Services website from May 10, 2016 through June 10, 2016. Four (4) proposals were submitted.

The applications were evaluated by a team of individuals with program specific knowledge and experience, as well as individuals with significant business and management expertise. The Department selected the highest scoring vendor, University of Massachusetts Medical School, who submitted an application to provide Disability Determination Services only.

This agreement contains language that allows the Department to renew contract services up to three (3) additional years, subject to continued availability of funds, satisfactory performance of services, and approval by the Governor and Executive Council. The Department is requesting a renewal of services for two (2) years, leaving one (1) additional year of renewal remaining.

Notwithstanding any other provision of the Contract to the contrary, no services shall continue after June 30, 2017, and the Department shall not be liable for any payments for services provided after June 30, 2017, unless and until an appropriation for these services has been received from the state legislature and funds encumbered for the SFY 2018-2019 biennia.

Should the Governor and Executive Council not approve this request the Department may not have sufficient clinical staff to administer the Disability Determinations within the ninety (90) day time frame established by federal and state regulations. In addition, the Department would not be eligible to receive the Federal match funds at a rate of seventy-five percent for contracted services with a public entity.

Area Served: Statewide

Source of funds: 75% Federal Funds CFDA #93.778, U.S. Department of Health & Human Services, Centers for Medicare and Medicaid Services, Medical Assistance Program, Medicaid Title XIX, FAIN # NH20164.
25% General Funds

His Excellency, Governor Christopher T. Sununu
and the Honorable Council
Page 3 of 3

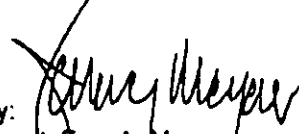
In the event that the Federal Funds become no longer available, General Funds will not be requested to support this program.

Respectfully submitted,



Carol E. Sideris
Director

Approved by:



Jeffrey A. Meyers
Commissioner



STATE OF NEW HAMPSHIRE
DEPARTMENT OF INFORMATION TECHNOLOGY

27 Hazen Dr., Concord, NH 03301
Fax: 603-271-1516 TDD Access: 1-800-735-2964
www.nh.gov/doit

Denis Goulet
Commissioner

6
May 1, 2017

Jeffrey A. Meyers, Commissioner
Department of Health and Human Services
State of New Hampshire
129 Pleasant Street
Concord, NH 03301

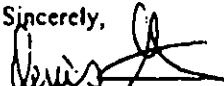
Dear Commissioner Meyers:

This letter represents formal notification that the Department of Information Technology (DoIT) has approved your agency's request to enter into a contract amendment with the University of Massachusetts Medical School (Vendor #177576) for the continued provision of Disability Determination Services as described below and referenced as DoIT No. 2016-116A.

The purpose of this request is to amend an agreement with the University of Massachusetts Medical School for the continued provision of Disability Determination Services as required by the Federal Centers for Medicare and Medicaid Services, to provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination Services evaluates applicants for aid to Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

The amount of the contract is \$572,000, increasing the current contract from \$206,250 to \$778,250. The contract will become effective upon Governor and Executive Council approval through June 30, 2019.

A copy of this letter should accompany the Department of Health and Human Services' submission to the Governor and Executive Council for approval.

Sincerely,

Denis Goulet

DG/kaf
DoIT #2016-116A

cc: Bruce Smith, IT Manager, DoIT



**State of New Hampshire
Department of Health and Human Services
Amendment #1 to the Preadmission Screening Resident Review and
Nursing Facility Level of Care Determination Services Contract**

This 1st Amendment to the Preadmission Screening Resident Review and Nursing Facility Level of Care Determination Services contract (hereinafter referred to as "Amendment #1") dated this March 24, 2017, is by and between the State of New Hampshire, Department of Health and Human Services (hereinafter referred to as the "State" or "Department") and University of Massachusetts Medical School (hereinafter referred to as "the Contractor") with a place of business at 333 South Street, Shrewsbury, MA 01545.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on October 26, 2016 (# 11), 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 the Form P-37 General Provisions, Paragraph 18, and Exhibit C-1, Paragraph 3, the State may extend or modify the agreement by written agreement of the parties;

NOW THEREFORE, in consideration of the foregoing and the mutual covenants and conditions contained in the Contract and set forth herein, the parties hereto agree as follows:

1. Form P-37, General Provisions, Block 1.7, Completion Date, to read:
June 30, 2019
2. Form P-37, General Provisions, Block 1.8, Price Limitation, to read:
\$778,250
3. Form P-37, General Provisions, Block 1.9, Price Limitation, to read:
Jonathan V. Gallo, Esq.
Interim Director of Contracts and Procurement
4. Form P-37, General Provisions, Block 1.10, Price Limitation, to read:
603-271-9246
5. Add to Exhibit A, Scope of Services, Paragraph 1, Provisions Applicable to All Services, Subparagraph 1.8:

1.8. Notwithstanding any other provision of the Contract to the contrary, no services shall continue after June 30, 2017, and the Department shall not be liable for any payments for services provided after June 30, 2017, unless and until an appropriation for these services has been received from the state legislature and funds encumbered for the SFY 2018-2019 biennia.



6. Delete Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 2, Subparagraph 2.1 and replace with the following:
 - 2.1. Cost reimbursement for Disability Determination (DD) activities shall not exceed seven hundred seventy-eight thousand two hundred fifty dollars (\$778,250).
7. Delete Exhibit B, Methods and Conditions Precedent to Payment, Paragraph 3, and replace with the following:
 3. Payment for services shall be on a cost reimbursement basis only for actual services provided at a rate of two hundred seventy-five dollars (\$275) per case, for a maximum of two thousand eight hundred thirty (2,830) cases.

New Hampshire Department of Health and Human 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

Carol E. Sideris
Director

4/28/2017
Date

University of Massachusetts Medical School

April 14, 2017
Date

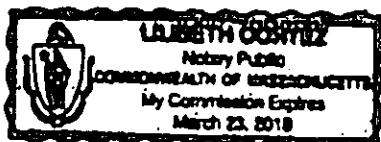
NAME: Joyce A. Murphy
TITLE: Executive Vice Chancellor

Acknowledgement:

State of Massachusetts, County of Worcester on April 14, 2017, before the undersigned officer, personally appeared the person identified 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

Name and Title of Notary or Justice of the Peace



New Hampshire Department of Health and Human Services



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

OFFICE OF THE ATTORNEY GENERAL

Date 5/10/17

Name: [Signature]

Title: Attorney

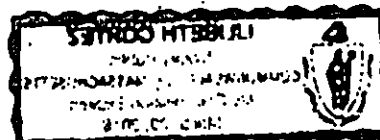
I hereby certify that the foregoing Amendment was approved by the Governor and Executive Council of the State of New Hampshire at the Meeting on:
_____ (date of meeting)

OFFICE OF THE SECRETARY OF STATE

Date _____

Name: _____

Title: _____





Jeffrey A. Meyers
Commissioner

Carol E. Sideris
Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
OFFICE OF HUMAN SERVICES
DIVISION OF CLIENT SERVICES

129 PLEASANT STREET, CONCORD, NH 03301
603-271-9404 1-800-852-3346 Ext. 9404
Fax: 603-271-4232 TDD Access: 1-800-735-2964 www.dhhs.nh.gov

September 19, 2016

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

G&C Approved

Date

10/26/16

Item #

11

REQUESTED ACTION

Authorize the Department of Health and Human Services, Division of Client Services to enter into an agreement with the University of Massachusetts Medical School (Vendor #177576) for the provision of Disability Determination Services in an amount not to exceed \$206,250 effective upon Governor and Executive Council approval through June 30, 2017. 75% Federal Funds, 25% General Funds

Funds to support this request are available in State Fiscal Year 2017, as follows:

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS: COMMISSIONER, OCBDS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/Account | Class Title | Activity Code | Total |
|---------|---------------|--------------------------------|---------------|-----------|
| 2017 | 046-500462 | Contracts for Program Services | 45142100 | \$206,250 |
| Total : | | | | \$206,250 |

EXPLANATION

The purpose of this request is to enter into an agreement with the University of Massachusetts Medical School for the provision of Disability Determination Services to individuals applying for certain assistance and services.

Disability Determination Services, as required by the Federal Centers for Medicare and Medicaid Services, provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination services evaluate applicants for Aid to Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

Disability Determination services include requests to medical and non-medical information from applicants and medical/psychological providers in order to build a case. If no medical/psychological records exist, appointments with providers are scheduled. Fully developed cases are reviewed by a Medical Review Team that consists of physicians, nurses, and psychiatrists or psychologists. This team of professionals determines the medical eligibility of each individual applying for assistance through Aid to the Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, or Aid to the Needy Blind on the basis of medical, diagnostic, and mental health, in accordance with criteria set forth in New Hampshire Administrative Rule He-W 504 and the Social Security Administration's grid rules.

Section 1903(a) (2) of the Social Security Act allows the Department, as the State Medicaid agency, to receive Federal match funds at an enhanced rate of seventy-five percent (75%) for contracted services with a public entity for compensation of skilled professional medical personnel and the direct support staff. Services contracted with a non-public entity are subject to the standard fifty percent (50%) reimbursement.

This contract was competitively bid. On May 10, 2016 the Department issued a Request for Application for qualified organization to provide Pre-Admission Screening and Resident Review services; and/or Nursing Facility Level of Care Determination services and/or Disability Determination services. Vendors could submit applications for one, two or all services. The request for application was available on the Department of Health and Human Services website from May 10, 2016 through June 10, 2016. Four (4) proposals were submitted.

The applications were evaluated by a team of individuals with program specific knowledge and experience, as well as individuals with significant business and management expertise. The Department selected the highest scoring vendor who submitted an application to provide Disability Determination Services only. The bid summary is attached.

This agreement contains language that allows the Department to renew contract services up to four (4) additional years, subject to continued availability of funds, satisfactory performance of services, and approval by the Governor and Executive Council.

Should the Governor and Executive Council not approve this request the Department may not have sufficient clinical staff to administer the Disability Determinations within the ninety (90) day time frame established by federal and state regulations. In addition, the Department would not be eligible to receive the Federal match funds at a rate of seventy-five percent for contracted services with a public entity.

Area Served: Statewide

Source of Funds: 75% Federal Funds CFDA #93.778, U.S. Department of Health & Human Services, Centers for Medicare and Medicaid Services, Medical Assistance Program, Medicaid Title XIX.

25% General Funds

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

Respectfully submitted,


Carol E. Sideris
Director

Approved by:


Jeffrey A. Meyers
Commissioner



New Hampshire Department of Health and Human Services
Office of Business Operations
Contracts & Procurement Unit
Summary Scoring Sheet

Pre-Admission Screening Resident Review
Services Disability Determination Services
Nursing Facility Level of Care
Determination Services

RFA Name

RFA-2017-DCS-01-Disab

RFA Number

Reviewer Names

Bidder Name

1. Keystone Peer Review Organization, Inc.
(KEPRO)
2. Pilot Health, LLC
3. Maximus Health Services, Inc.
4. UMASS Medical School

| Pass/Fail | Maximum Points | Actual Points |
|-----------|-------------------|------------------|
| | 200 | 172 |
| | 200 | 100 |
| | 200 | 180 |
| | 200 | 190 |

1. Sally Varney, Administrator III
2. Scott Beckwith, Supervisor IV
3. Mickie Grimes, Supervisor VII
- 4.
- 5.
- 6.

Subject: Disability Determination Services (REA-2017-DCS-01-Disab-02)

FORM NUMBER P-37 (version 5/8/15)

Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

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

GENERAL PROVISIONS

1. IDENTIFICATION.

| | | | |
|---|--|---|-----------------------------------|
| 1.1 State Agency Name Department of Health & Human Services | | 1.2 State Agency Address 129 Pleasant Street Concord, NH 03301 | |
| 1.3 Contractor Name University of Massachusetts Medical School | | 1.4 Contractor Address 333 South Street Shrewsbury, MA 01545 | |
| 1.5 Contractor Phone Number (774) 455-8326 | 1.6 Account Number 05-95-93-930010-7014 05-95-93-930010-5947 05-95-92-920010-5945 05-95-48-481510-6180 05-95-45-451010-7997 | 1.7 Completion Date June 30, 2017 | 1.8 Price Limitation \$206,250 |
| 1.9 Contracting Officer for State Agency Eric D. Borin, Director | | 1.10 State Agency Telephone Number (603) 271-9558 | |
| 1.11 Contractor Signature <i>[Signature]</i> | | 1.12 Name and Title of Contractor Signatory Joyce A. Murphy, Executive Vice-Chancellor | |
| 1.13 Acknowledgement: State of _____ County of _____ On <u>Sept. 8, 2016</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 <i>[Signature]</i> (Seal) | | JUDITH A. NELSON Notary Public Commonwealth of Massachusetts My Commission Expires July 24, 2020 | |
| 1.13.2 Name and Title of Notary or Justice of the Peace Judith A. Nelson, Notary Public | | | |
| 1.14 State Agency Signature <i>[Signature]</i> 9/19/16 | | 1.15 Name and Title of State Agency Signatory Director | |
| 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) (if applicable) By: <i>[Signature]</i> On: <i>[Signature]</i> 10/10/16 | | | |
| 1.18 Approval by the Governor and Executive Council (if applicable) 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, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement as indicated in block 1.18, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.14 ("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. This may include the requirement to utilize auxiliary aids and services to ensure that persons with communication disabilities, including vision, hearing and speech, can communicate with, receive information from, and convey information to the Contractor. 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

[Handwritten Signature]
9/8/16

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.

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 notice and consent of the State. None of the Services shall be subcontracted by the Contractor without the prior written notice and 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 \$1,000,000 per occurrence and \$2,000,000 aggregate; and

14.1.2 special cause of loss coverage form 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 thirty (30) 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 the Contracting Officer identified in block 1.9, or his or her successor, no less than thirty (30) 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 unless no

such approval is required under the circumstances pursuant to State law, rule or policy.

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.



Jeffrey A. Meyers
Commissioner

Carol E. Sidoris
Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
OFFICE OF HUMAN SERVICES
DIVISION OF CLIENT SERVICES

129 PLEASANT STREET, CONCORD, NH 03301
603-271-9404 1-800-832-3343 Ext. 9404
Fax: 603-271-4232 TDD Access: 1-800-735-2954 www.dhhs.nh.gov

September 19, 2016

Denis Goulet
Commissioner
Department of Information Technology
27 Hazen Drive
Concord, NH 03301

Requested Action

The Department of Health and Human Services, Division of Client Services requests approval to enter into an agreement the University of Massachusetts Medical School (Vendor #177576) for the provision of Disability Determination Services in an amount not to exceed \$206,250 effective upon Governor and Executive Council approval through June 30, 2017. 75% Federal Funds, 25% General Funds

Certain tasks require computer related information to be received and accessed in this contract, these tasks are:

Access to New Hampshire Easy and Medicaid Management Information System (MMIS) for receipt and delivery of technical information in order to complete Pre-admission Screening and Resident Review, Nursing Facility Level of Care and Disability Determination Services.

Funding Sources and Amounts

Funds to support this request are available in State Fiscal Year 2017, as follows:

05-95-45-451010-7997 HEALTH AND SOCIAL SERVICES, DEPT. OF HEALTH AND HUMAN SERVICES, HHS: COMMISSIONER, DCBCS DISABILITY DETERMN UNIT, MEDICAL

| SFY | Class/Account | Class Title | Activity Code | Total |
|---------|---------------|--------------------------------|---------------|-----------|
| 2017 | 046-500462 | Contracts for Program Services | 45142100 | \$206,250 |
| Total : | | | | \$206,250 |

Explanation

The purpose of this request is to enter into an agreement with the University of Massachusetts Medical School for the provision of Disability Determination Services to individuals applying for certain assistance and services.

Disability Determination Services, as required by the Federal Centers for Medicare and Medicaid Services, provide medical, psychological, and/or psychiatric consultative services in order to evaluate individual claims of disability for Medicaid eligibility purposes. Disability Determination services evaluate applicants for Aid to Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, and Aid to Needy Blind.

Disability Determination services include requests to medical and non-medical information from applicants and medical/psychological providers in order to build a case. If no medical/psychological records exist, appointments with providers are scheduled. Fully developed cases are reviewed by a Medical Review Team that consists of physicians, nurses, and psychiatrists or psychologists. This

team of professionals determines the medical eligibility of each individual applying for assistance through Aid to the Permanently and Totally Disabled, Medicaid for Employed Adults with Disabilities, or Aid to the Needy Blind on the basis of medical, diagnostic, and mental health, in accordance with criteria set forth in New Hampshire Administrative Rule He-W. 504 and the Social Security Administration's grid rules.

Section 1903(a) (2) of the Social Security Act allows the Department, as the State Medicaid agency, to receive Federal match funds at an enhanced rate of seventy-five percent (75%) for contracted services with a public entity for compensation of skilled professional medical personnel and the direct support staff. Services contracted with a non-public entity are subject to the standard fifty percent (50%) reimbursement.

Prior Related Actions

Governor and Executive Council approved a contract with the University of Massachusetts on November 12, 2014 (Late Item A) and subsequently approved Amendment #1 on June 29, 2016 (Item #13). In this agreement, the University of Massachusetts provided Pre-admission Screening and Resident Review, Nursing Facility Level of Care and Disability Determination Services.

This contract was competitively bid. On May 10, 2016 the Department issued a Request for Application for a qualified organization to provide Pre-Admission Screening and Resident Review Services; and/or Nursing Facility Level of Care Determination services and/or Disability Determination Services. Vendors could submit applications for one, two or all services. The request for application was available on the Department of Health and Human Services website from May 10, 2016 through June 10, 2016.

Alternatives to contracting these services include continuing to make Medicaid eligibility determination with Department staff in three different Divisions, Bureaus and Units. At this time, the Department does not meet the eligibility determination need, which continues to grow. Not meeting the needs of New Hampshire citizens should not be an alternative.

Benefits to contracting these services include aligning three program areas within the Department that are responsible for determining eligibility for individuals applying for certain assistance and services

Summary of Requested Action

| |
|---|
| Date of most recently approved project: <u>May 10, 2016</u> |
| Project Name: <u>Pre-Admission Screening Resident Review Services, Disability Determination Services, Nursing Facility Level of Care Determination Services</u> |
| Project Number: <u>RFA 2017-DCS-01-Disab</u> |

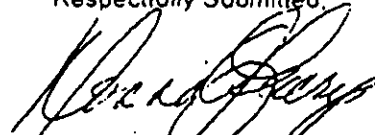
CONTACT PERSON

State of New Hampshire
Department of Health and Human Services
Denise Sherburne
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129 Pleasant Street
Concord, New Hampshire 03301
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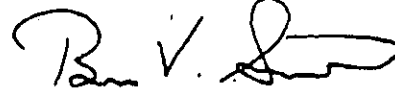
CERTIFICATION

The undersigned hereby certify that the information provided in this document and any attachment is complete and accurate, and that alternatives to the solution defined in this document have been appropriately considered.

Respectfully Submitted,



Donna O'Leary, MBA, PMP
Chief Information Officer



Bruce Smith
IT Leader
Department of Information Technology

Approved by:



Jeffrey A. Meyers
Commissioner


Cc: M. Hughes, DoIT Contract Manager



Scope of Services

1. Provisions Applicable to All Services

- 1.1. The Contractor shall meet all technical requirements for information technology systems in order to collect, store, and distribute client data. Information technology systems must conform to the requirements in Exhibit A-1, Information Technology.
- 1.2. 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 ten (10) days of the contract effective date.
- 1.3. The Contractor agrees that, to the extent future legislative action by the New Hampshire General Court or federal or state court orders may have an impact on the Services described herein, the State Agency has the right to modify Service priorities and expenditure requirements under this Agreement so as to achieve compliance therewith.
- 1.4. For the purposes of this contract, any reference to business days shall mean Monday through Friday, excluding NH State Employee and UMASS Medical School Employee holidays.
- 1.5. For the purposes of this contract, any reference to regular business hours shall mean from 8:00 AM through 4:00 PM, Eastern Standard Time or Eastern Daylight Savings Time (EDST), when EDST is in effect, during business days.
- 1.6. For the purposes of Disability Determination (DD) services in this contract, the Department shall:
 - 1.6.1. Receive and review all applications for assistance under the Aid to the Permanently and Totally Disabled (APTD), Aid to the Needy Blind (ANB) and Medicaid for Employed Adults with Disabilities (MEAD).
 - 1.6.2. Assemble case files for APTD and MEAD determinations.
 - 1.6.3. Transfer case files to the Contractor via the Medicaid Management Information System (MMIS).
- 1.7. The Contractor shall provide Disability Determination Services to individuals identified as:
 - 1.7.1. Qualifying for Aid to the Permanently and Totally Disabled (APTD), Medicaid for Employed Adults with Disabilities (MEAD), and Aid to the Needy Blind (ANB).
 - 1.7.2. Residents of the State of New Hampshire.


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- 1.7.3. Individuals disabled as defined in the federal Social Security Act, Titles II and XVI and regulations adopted under such act, except that the minimum required duration of the impairment is 48 months.

2. Scope of Work – Disability Determination

- 2.1. The Contractor must establish a Medical Review Team (MRT) to complete New Hampshire Medical Eligibility Review Summaries (MERS)/5-Step Sequential Evaluation Process.
- 2.2. The Contractor's MRT must receive case files transferred via the Medicaid Management Information System (MMIS) MRT for completion of the New Hampshire Medical Eligibility Review Summary (MERS)/5-Step Sequential Evaluation Process, which complies with Federal Rule 20 CFR Part 416.
- 2.3. The Contractor must complete the MERS and determine applicant eligibility within the federally mandated time period. The Contractor must ensure:
 - 2.3.1. Documentation clearly and adequately supports the determination.
 - 2.3.2. All records and decisions include sign off by each member of the MRT.
 - 2.3.3. Approval or denial of the applicant is completed utilizing the MMIS system.
 - 2.3.4. All applicable files, relevant materials, and supporting documentation must be re-routed to the Department via the MMIS system within five (5) business days after the determination.
- 2.4. All correspondence and transferring of files and data must be handled in a secure and confidential manner.
- 2.5. The Contractor must be available to communicate with the Department during regular business hours, which may include travel to meet with Department.
- 2.6. The Contractor must maintain a security and logistics structure for handling of case files that comports with HIPAA.
- 2.7. The Contractor must maintain the confidentiality of all participant information that is acquired, by any means including computer access, in accordance with all state and federal confidentiality requirements.
- 2.8. The Contractor must ensure that access to participant information is limited to only those staff that has a need to know in order to perform their job duties.
- 2.9. The Contractor must ensure all staff are trained on the confidentiality requirements and that all contract staff sign a confidentiality statement attesting to the fact that all state and federal confidentiality requirements are understood and will be observed.

3. Reporting Requirements


Date: 9/8/16

New Hampshire Department of Health and Human Services
Disability Determination Services

Exhibit A



3.1. The Contractor shall provide monthly disability determination reports to the Department that include:

3.1.1. The number of disability determinations completed to include the names of the individuals.

3.1.2. The number of disability determinations denied to include the names of the individuals.

4. Deliverables for Required Services

4.1. The Contractor shall complete all disability determinations and return completed files within thirty (30) days from receiving applicant information from the Department.

A handwritten signature inside a circle, with the date "9/8/14" written below it.

Exhibit A-1 Technology Requirements

| EXHIBIT A-1. INFORMATION TECHNOLOGY | | | | | |
|-------------------------------------|---|-------------|---------------|---|--|
| State Requirements | | | | | |
| Req # | Requirement Description | Criticality | Current State | Target State | Comments |
| GENERAL SPECIFICATIONS | | | | | |
| A1.0 | State data must be available in an open data format as specified in RSA 21R-11 and 21R-13. | A1 | No | N/A | MS Access used for reporting until NH ACCESS reports are available |
| B2.0 | Users with stand access need to be authenticated with a unique user identifier and password | A1 | Yes | Standard | |
| B2.1 | Only authorized users who have specified login credentials with a password at least ten characters in length can have access to the system | A1 | No | Future | 60 days from approval of contract |
| B2.2 | Require strong passwords. Password complexity needs to be managed and required, including a mixture of upper case letters, lower case letters, numbers, special characters. | A1 | Yes | Standard | |
| B2.3 | Password expiration policies to include mandatory password reset intervals after a maximum of 60 days | A1 | Yes | Standard | |
| B2.4 | User account access is locked after three failed login attempts | A1 | Yes | Standard | |
| B2.5 | Terminated or transferred staff are removed from access immediately | A1 | Yes | Standard | |
| B2.6 | Systems automatically log out a user after 15 minutes of inactivity, and after maximum session duration | A1 | Yes | Standard | |
| B2.7 | The application shall not store authentication credentials or sensitive data in its code. | A1 | Yes | Standard | |
| B2.8 | User access needs to be limited to HTTPS/SSL | M | No | On our internal network behind firewall | |
| B2.9 | All administrative access to require SSL VPN and use two factor authentication leveraging RSA tokens | A1 | No | On our internal network behind firewall | |
| B2.10 | The application must allow a user to explicitly terminate a session. No remnants of the prior session should then remain. | A1 | Yes | Standard | |
| B2.11 | Keep any sensitive data or communications private from unauthorized individuals and programs. | A1 | Yes | Standard | |
| B2.12 | Subsequent application enhancements or upgrades shall not remove or degrade security requirements | A1 | Yes | Standard | |
| B2.13 | Create change management documentation and procedures | A1 | Yes | Standard | |
| B2.14 | Systems changes need to be logged, reviewed and updated regularly by a compliance manager, senior manager and the IT security officer | A1 | Yes | Standard | |
| C3.0 | Provide the State with validation of 3rd party penetration testing performed on the application and system environment. | A1 | Yes | Standard | |

[Signature]
9/8/16
Date

Exhibit A-1 Technology Requirements

EXHIBIT A-1. INFORMATION TECHNOLOGY

| State Requirements | | | | | |
|--------------------|---|-------------|-----|----------|---|
| Req. | Requirement Description | Criticality | | | |
| 04.0 | Certify that the vendor will use a hosting environment for the New Hampshire project that meets or exceeds the following physical and electronic security measures to protect data and the network, including: | A1 | | | |
| 04.1 | Alarms, restricted access, foghorn, CCTV monitored 24 x 7 x 365 and retained for 90 days, caged / locked environment | M | Yes | Standard | |
| 04.2 | Flood-sensing walls, A/C, fire sensors, smoke detectors, raised floors, wet/dry/chemical fire suppression, fire extinguishers, water pumps, and UPS and backup generator system | M | Yes | Standard | |
| 04.3 | Firewalls - all external connections need to terminate at the firewall (Internet, Intranet) | A1 | Yes | Standard | |
| 04.4 | Documented process for securing and hardening all network devices; devices are configured to prevent communications from unapproved networks | M1 | Yes | Standard | |
| 04.5 | Network traffic and audit event logs are maintained | M2 | Yes | Standard | |
| 04.6 | Isolated production server and IP subnet, insecure protocols disabled, restricted access to file shares and maintenance ports on network drives | M | Yes | Standard | |
| 04.7 | Vulnerability is assessed by daily server anti-virus scans, all emails are scanned, no patch management solution, Symantec/Alaris in the data center, LANDesk on user LAN. Penetration tests are performed bi-annually and all external links are private | M | No | Custom | Penetration tests are annual |
| 04.8 | Email servers to continuously scan for viruses embedded within attachments | M | Yes | Standard | |
| 04.9 | Remote devices are password protected with encrypted hard drives, and have tracking and recovery software and virus protection installed, users should not save anything to removable storage and only use secure pathways for electronic transmissions | M | Yes | Standard | |
| 04.10 | Access into the Data Center is protected by electronic badge and biometric authentication systems | M | Yes | Standard | |
| 04.11 | Data at rest encryption for data housed within the data center | M | No | N/A | We have physical and virtual mitigating controls to protect data at rest. |
| 04.12 | All encryption needs to be at least 2,048 bit | M | Yes | Standard | |
| 04.13 | Electrical support system to ensure 7x24x365 continuous electrical supply to the data center hosting all systems | A1 | Yes | Standard | |
| 05.0 | The Provider shall employ security measures to ensure that the State's application and data is protected. | A1 | Yes | Standard | |
| 05.1 | State data exchanges between and among servers must be encrypted. | A1 | No | N/A | No server to server data exchanges |
| 05.2 | All servers and devices must have currently-supported and hardened operating systems, the latest updates, anti-virus, anti-spam, anti-spyware, and anti-malware updates. The environment, as a whole, shall have aggressive intrusion-detection and firewall protection. | M | Yes | Standard | |
| 05.3 | All components of the infrastructure shall be reviewed and tested to ensure they protect the State's data and client information. Tests shall focus on the technical, administrative and physical security controls that have been designed into the system architecture in order to provide confidentiality, integrity and availability. | M | Yes | Standard | |
| 05.4 | In the development or maintenance of any code, the Provider shall ensure that the software is independently verified and validated using a methodology determined appropriate by the State. All software and hardware shall be free of malicious code. | A1 | No | N/A | There is no code development |
| 05.5 | The Provider will notify the DHHS PASIR Manager and/or the DHHS Information Security Officer of any security breach as soon as possible, but in any event no later than three business days of the time that the Provider learns of the occurrence. | M | Yes | Standard | |
| 05.6 | The Provider shall ensure its complete cooperation with the State's Chief Information Officer in the detection of any security vulnerability of the Provider's hosting infrastructure and/or the application. | M | Yes | Standard | |
| 05.7 | The Provider shall be liable for costs associated with any breach of State data housed at its location(s) caused by the negligence, willful misconduct, or willful, wanton or reckless failure by its agents, employees, or independent contractors engaged in the performance of their related obligations. | A1 | Yes | Standard | |
| 05.8 | The Provider shall authorize the State to perform scheduled and random security audits, including vulnerability assessments, of the Provider's hosting infrastructure and/or the application upon request with reasonable prior notice. | M | Yes | Standard | |

Exhibit A-1 Technology Requirements

| EXHIBIT A-1. INFORMATION TECHNOLOGY | | | | | | |
|-------------------------------------|---|----------|-----|----------|-------|---|
| Scale Requirements | | | | | | |
| No. | Requirement Description | Category | Yes | Standard | Other | Comments |
| F6.0 | Provider shall have documented disaster recovery plans that address the recovery of lost state data as well as their own. Systems shall be architected to meet the defined recovery needs. | A1 | Yes | Standard | | |
| F6.1 | The disaster recovery plan shall identify appropriate methods for acquiring additional hardware in the event of a component failure. In most instances, systems shall offer a level of redundancy so the loss of a drive or power supply will not be sufficient to terminate services; however, these failed components will have to be replaced. | A1 | Yes | Standard | | |
| F6.2 | Provider shall adhere to a defined and documented back-up schedule and procedure. | M | Yes | Standard | | |
| G7.0 | Training documents and procedure for vendor staff to receive training on handling protected health information/personally identifying information (PHI/PII), the importance of HIPAA, and how to address HIPAA breaches including the best date of revision to the training documents. | A1 | Yes | Standard | | |
| G7.1 | Security training documents and procedure that will be used by the vendor for the DHHS PASRR manager and DHHS staff to access reports remotely and for real time access to data. | F2 | No | N/A | | DHHS uses the MH MMIS for reporting |
| G7.2 | Guidance documents for effective screening of calls to ensure that the caller has the credentials/permissions to obtain information to ensure HIPAA compliance for PHI/PII protection. | A1 | Yes | Standard | | |
| G7.3 | Procedure for design and implementation of role-based security for all the systems used by the vendor for the MH DHHS project. | A1 | Yes | Standard | | |
| G7.4 | Procedure for granting and terminating access to MMIS and MH Easy for vendor staff. | M | Yes | Standard | | |
| G7.5 | Documentation that describes the implementation and enforcement of state-of-the-art encryption, secured networks, and role-based access for every application that will be used for the New Hampshire project. | A1 | No | Custom | | Can be tailored to meet the specific needs. |
| H8.0 | Procedure to identify the system requirements and specifications to design the case tracking/reporting systems that will be built for MH DHHS. | A1 | No | N/A | | DHHS uses the MH MMIS for reporting |
| H8.1 | Procedures used to ensure the system infrastructure will be designed to support internet e-mail capability and comply with HIPAA standards. | A1 | No | N/A | | No new infrastructure to be designed |
| H8.2 | Security procedures used for administration of the cloud-based QuickBase system. | A1 | No | N/A | | QuickBase is not used |
| H8.3 | Procedures used for creating management reports, PASRR Level II reports and other reports required for New Hampshire's PASRR activities. | A1 | No | N/A | | Not PASRR - Use MMIS |
| H8.4 | Procedures used to identify records, data sets and related documents for transfer to the vendor from DHHS. | A1 | Yes | Standard | | |
| H8.5 | Procedure for creation/configuration of secure email exchanges between DHHS and the vendor. | A1 | Yes | Standard | | |
| H8.6 | Procedure to reassemble if document will be sent to the DDU or for processing center, via a secure email, fax, or courier. | M | Yes | Standard | | |
| H8.7 | Risk management procedures for IT systems used for MH DHHS by the vendor. | M | No | Future | | Risk management procedures can be created. |
| H8.8 | Procedure used by the vendor to track inadvertent disclosures and monitor their appropriate reporting and resolution. | M | Yes | Standard | | |
| H8.9 | Document that provides step-by-step instructions for verification of identity when making or receiving telephone contacts and prevention of inadvertent disclosures via fax. | M | Yes | Standard | | |
| H8.10 | Procedure to ensure security is integral and up-front to all designs. | A1 | No | N/A | | No new infrastructure to be designed |
| H8.11 | Procedure for deployment of reports that will be made available via secure web sites, or transferred through secure email or file transfer technology. | M | Yes | Standard | | |
| H8.12 | Submit a document that details the applicable SSA regulations to the New Hampshire project. | N | Yes | Standard | | |
| H8.13 | Provide business and technical architecture for central eligibility tracking using Incent QuickBase database. | M | No | N/A | | Not QuickBase |
| H8.14 | Provide business and technical architecture for a claims reconciliation system use for the Nursing Home Application. | M | No | N/A | | Not a DDU function |
| H8.15 | Provide business and technical architecture for the Community Case Management database. | M | No | N/A | | Not a DDU function |
| H8.16 | Evidence that staff assigned to the DHHS project have received HIPAA training and the date each staff received the training. | M | Yes | Standard | | |
| H8.17 | Copies of the confidentiality documents that is used by the vendor to ensure that all staff working on the New Hampshire contract attests to the fact that all state and federal confidentiality requirements are understood and will be observed. | A1 | Yes | Standard | | |
| H8.18 | Last date, when the vendor reviewed Data Center policies, procedures, and practices to ensure that security adheres to relevant regulatory requirements. | M | Yes | Standard | | |

[Signature]
Date: 9/16/16

Exhibit A-1 Technology Requirements

| EXHIBIT A-1, INFORMATION TECHNOLOGY | | | | | |
|-------------------------------------|---|-------------|-----|----|---|
| Req. # | Requirement Description | Criticality | Yes | No | Comments |
| 19.0 | Certify that the system(s) used by the vendor for the New Hampshire project are fully compliant with applicable federal and state laws, regulations, standards, and executive orders pertaining to confidential health care information including but not limited to HIPAA, HITECH, New Hampshire RSA 359-C:19, RSA 359-C:20 and RSA 359-C:31, and New Hampshire RSA 332-A:1-4:6. | M | No | | Custom laws, regulations, standards, and executive orders are under review |
| 19.1 | Certify that the vendor will use locked containers and use an insured courier who specializes in medical transport services for transportation of paper files and materials from NH DHHS to the vendor. | M | Yes | | Standard |
| 19.2 | Certify that the vendor will use a secure encrypted email system for secure email between NH DHHS and the vendor. | M | Yes | | Standard |
| 19.3 | Certify that hard copy documents to be discarded will be placed in a locked box for shredding. | M | Yes | | Standard |
| 19.4 | Certify that the SQL database used to house the data will provide database-level and column-level encryption, to provide "at-rest" data security, and 2-factor authentication for sensitive online data such as Social Security numbers. | M | No | | N/A Not SQL |
| 19.5 | Certify that all communication between the UI and the database, and the end-platform and UI, will be encrypted using the latest available technologies (SSL/TLS) and trusted Certificate Authorities. | M | No | | N/A No UI |
| 19.6 | Certify that the systems used for the NH DHHS project will be hosted in the vendor's Data Center that follows measurements and standards set by the HIPAA and HITECH Act security standards for the storage and management of Protected Health Information (PHI). | M | Yes | | Standard |
| 19.7 | Certify that the systems used for the NH DHHS project will be hosted in a data center that adheres to the principles of ISO/IEC 27001:2005, AICPA SSAE16 Reporting Standards and Trust Security Principles (TSP) Criteria. | M | Yes | | Standard |



Method and Conditions Precedent to Payment

1. This contract is funded by federal Medicaid funds. The contractor must ensure compliance with CFDA #93.778, U.S. Department of Health & Human Services, Centers for Medicare and Medicaid Service, Medical Assistance Program, Medicaid, Title XIX.
2. The State shall pay the Contractor an amount not to exceed the Price Limitation on Form P37, Block 1.8, for the services provided by the Contractor pursuant to Exhibit A, Scope of Services, as follows:
 - 2.1. Cost reimbursement for Disability Determination (DD) activities shall not exceed two hundred six thousand two hundred fifty dollars (\$206,250).
3. Payment for services shall be on a cost reimbursement basis only for actual services provided at a rate of two hundred seventy-five dollars (\$275) per case, for a maximum of seven hundred fifty (750) cases.
4. Payment for services shall be made as follows:
 - 4.1. The Contractor shall submit monthly invoices that indicate the name of the individuals and the number of Disability Determination reviews completed.
 - 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 identified in Section 4.1 must be submitted to:

Financial Manager
Division of Client Services
129 Pleasant Street
Concord, NH 03301
5. Payments may be withheld pending receipt of required reports or documentation as identified in Exhibit A, Scope of Services.
6. A final payment request shall be submitted no later than forty (40) days after the Contract ends. Failure to submit the invoice, and accompanying documentation could 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.

[Handwritten Signature]
7/8/14



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 Contractors 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]
Date 9/8/14

New Hampshire Department of Health and Human Services
Exhibit C



- 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.

[Signature]
Date 7/8/16

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 (EEO):** The Contractor will provide an Equal Employment Opportunity Plan (EEO) 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

New Hampshire Department of Health and Human Services
Exhibit C



more employees, it will maintain a current EEO on file and submit an EEO Certification Form to the OCR, certifying that its EEO 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 EEO Certification Form to the OCR certifying it is not required to submit or maintain an EEO. Non-profit organizations, Indian Tribes, and medical and educational institutions are exempt from the EEO requirement, but are required to submit a certification form to the OCR to claim the exemption. EEO Certification Forms are available at: <http://www.ojp.usdoj/about/ocr/pdfs/cert.pdf>.

17. **Limited English Proficiency (LEP):** As clarified by Executive Order 13186, 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

[Signature]
Date 9/5/16

New Hampshire Department of Health and Human Services
Exhibit C



- 19.4. Provide to DHHS an annual schedule identifying all subcontractors, delegated functions and responsibilities, and when the subcontractor's performance will be reviewed
19.6. 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.

[Handwritten Signature]
Date *7/8/14*



ADDITIONAL SPECIAL PROVISIONS

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

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, 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 fifteen (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.

[Signature]
Date: 9/8/14



- 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 (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:
13. **INDEMNIFICATION.** 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 of 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, paragraph 14.1.2 is struck.
- Subparagraph 14.1.2 of the General Provisions shall be struck.
5. Subparagraph 14 of the General Provisions of this contract, Insurance, paragraph 14.3 is replaced as follows:
- 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 renewals 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

[Handwritten Signature]
[Handwritten Date: 7/28/16]



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.

6. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, 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:

7. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Paragraph 3, Documentation, is replaced as follows:

3. Documentation: The Contractor shall furnish the Department with all forms and documentation regarding the 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.

8. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Paragraph 6, Retroactive Payments, is struck.

Paragraph 6 of the Special Provisions shall be struck.

9. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Paragraph 7, Conditions of Purchase, is struck.

Paragraph 7 of the Special Provisions shall be struck.

10. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Paragraph 8, Maintenance of Records, Subparagraph 8.2, replaced as follows:

- 8.2 Statistical Records: Contractor shall maintain records as specified in Exhibit A - Scope of Services.

11. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Paragraph 8, Maintenance of Records, Subparagraph 8.3, is struck.

Subparagraph 8.3 of the Special Provisions shall be struck.

12. Standard Exhibit C of this contract, Health Insurance Portability Act Business Associate Agreement, Special Provisions, Definitions, UNIT, is replaced as follows:

UNIT: For each service that the Contractor is to provide for the



Department hereunder, shall mean that period of time or that specified activity determined by the Department and specified in Exhibit B and Exhibit B-1 of the Contract.

13. Standard Exhibit I of this contract, Health Insurance Portability Act Business Associate Agreement, Paragraph 3, Obligations and Activities of Business Associate, Subparagraph (a), is replaced as follows:

- a. 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.

14. Standard Exhibit I of this contract, Health Insurance Portability Act Business Associate Agreement, Paragraph 3, Subparagraph (b) is revised as follows:

- 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:
 - The nature and extent of the protected health information involved, including the types of identifiers and the likelihood of re-identification;
 - The unauthorized person used the protected health information or to whom the disclosure was made;
 - Whether the protected health information was actually acquired or viewed;
 - The extent to which the risk to the protected health information has been mitigated.

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.

15. Standard Exhibit I of this contract, Health Insurance Portability Act Business Associate Agreement, Paragraph 3, Obligations and Activities of Business Associate, Subparagraph (e), is replaced as follows:

- e. The Business Associate shall require all of its business associates that receive, use, or have access to PHI under the Agreement, to agree to



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.

16. Standard Exhibit I of this contract, Health Insurance Portability Act Business Associate Agreement, Paragraph 3, Subparagraph (f) is revised as follows:

- 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.

17. Standard Exhibit I of this contract, Health Insurance Portability Act Business Associate Agreement, Paragraph 6, Miscellaneous, Subparagraph (f), is replaced as follows:

- f. Survival: Provisions of 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.

[Signature]
Date: 9/8/16



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 GRANTEEES 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
128 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 actively 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.

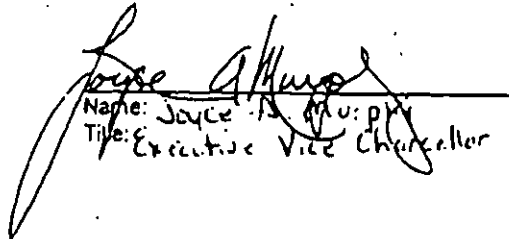
2. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant.

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:

9/8/16
Date


Name: Joyce A. Murphy
Title: Executive Vice Chancellor

9/8/16



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-4.)
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:

9/8/14
Date

[Signature]
Name: *[Signature]*
Title: Executive Vice Chancellor

Exhibit E - Certification Regarding Lobbying

Contractor Initials

[Signature]
Date 9/8/14



**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

New Hampshire Department of Health and Human Services
Exhibit F



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 (11)(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:

9/8/16
Date

Name: Joyce A. Murphy
Title: Executive Vice President

Contractor Initials

Date 9/8/16



**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.

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

New Hampshire Department of Health and Human Services
Exhibit G



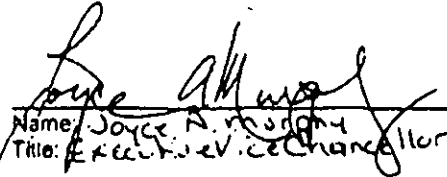
against a recipient of funds, the recipient will forward a copy of the finding to the Office for Civil Rights, to the applicable contracting agency or division within the Department of Health and Human Services, and to the Department of Health and Human Services Office of the Ombudsman.

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:

9/8/16
Date


Name: Joyce A. Murphy
Title: Executive Vice Chancellor

Contractor Initial


Date 9/8/16



CERTIFICATION REGARDING ENVIRONMENTAL TOBACCO SMOKE

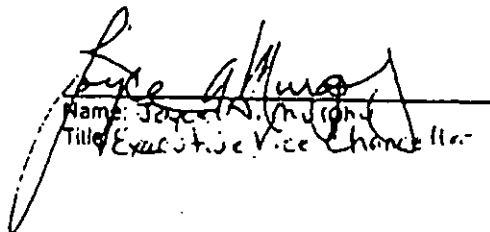
Public Law 103-227, Part C - Environmental Tobacco Smoke, also known as the Pro-Children Act of 1994 (Act), requires that smoking not be permitted in any portion of any indoor facility owned or leased or contracted for by an entity and used routinely or regularly for the provision of health, day care, 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.

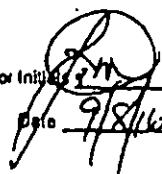
The Contractor identified in Section 1.3 of the General Provisions agrees, by signature of the Contractor's representative as identified in Section 1.11 and 1.12 of the General Provisions, to execute the following certification:

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:

Date 9/8/16


Name: Joseph N. Murphree
Title: Executive Vice Chancellor


Date 9/8/16



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.

[Handwritten Signature]
9/8/12



- 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

[Signature]
Date 9/8/16



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 (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

3/2014

Contractor Initials

Date

7/2/12
7/2/12



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

[Signature]
Date 9/8/16



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

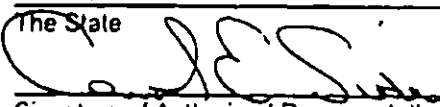
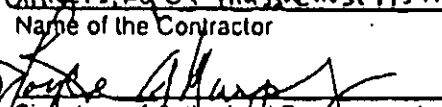
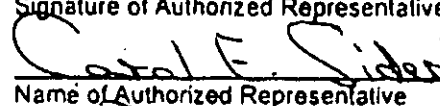
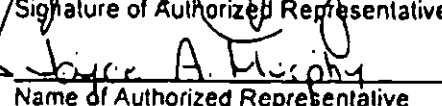
- a. Definitions and Regulatory References. All terms used, but not otherwise defined herein, shall have the same meaning as those terms in the Privacy and Security Rule, amended from time to time. A reference in the Agreement, as amended to include this Exhibit I, to a Section in the Privacy and Security 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.



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.

| | |
|---|--|
| The State | University of Massachusetts Medical School |
|  |  |
| Signature of Authorized Representative | Signature of Authorized Representative |
|  |  |
| Name of Authorized Representative | Name of Authorized Representative |
| Director | Executive Vice Chancellor |
| Title of Authorized Representative | Title of Authorized Representative |
| 9/19/16 | 9/8/16 |
| Date | Date |


Date 9/8/16



**CERTIFICATION REGARDING THE FEDERAL FUNDING ACCOUNTABILITY AND TRANSPARENCY
ACT (FFATA) COMPLIANCE**

The Federal Funding Accountability and Transparency Act (FFATA) requires prime awardees of individual Federal grants equal to or greater than \$25,000 and awarded on or after October 1, 2010, to report on data related to executive compensation and associated first-tier sub-grants of \$25,000 or more. If the initial award is below \$25,000 but subsequent grant modifications result in a total award equal to or over \$25,000, the award is subject to the FFATA reporting requirements, as of the date of the award.

In accordance with 2 CFR Part 170 (Reporting Subaward and Executive Compensation Information), the Department of Health and Human Services (DHHS) must report the following information for any subaward or contract award subject to the FFATA reporting requirements:

1. Name of entity
2. Amount of award
3. Funding agency
4. NAICS code for contracts / CFDA program number for grants
5. Program source
6. Award title descriptive of the purpose of the funding action
7. Location of the entity
8. Principle place of performance
9. Unique identifier of the entity (DUNS #)
10. Total compensation and names of the top five executives if:
 - 10.1. More than 80% of annual gross revenues are from the Federal government, and those revenues are greater than \$25M annually and
 - 10.2. Compensation information is not already available through reporting to the SEC.

Prime grant recipients must submit FFATA required data by the end of the month, plus 30 days, in which the award or award amendment is made.

The Contractor identified in Section 1.3 of the General Provisions agrees to comply with the provisions of The Federal Funding Accountability and Transparency Act; Public Law 109-282 and Public Law 110-252, and 2 CFR Part 170 (Reporting Subaward and Executive Compensation Information), 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:

The below named Contractor agrees to provide needed information as outlined above to the NH Department of Health and Human Services and to comply with all applicable provisions of the Federal Financial Accountability and Transparency Act.

Contractor Name:

Date

Name: Joyce A. Myron
Title: Executive Vice Chancellor

New Hampshire Department of Health and Human Services
Exhibit J



FORM A

As the Contractor identified in Section 1.3 of the General Provisions, I certify that the responses to the below listed questions are true and accurate.

1. The DUNS number for your entity is: 003-847393
2. In your business or organization's preceding completed fiscal year, did your business or organization receive (1) 80 percent or more of your annual gross revenue in U.S. federal contracts, subcontracts, loans, grants, sub-grants, and/or cooperative agreements; and (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

X NO _____ YES

If the answer to #2 above is NO, stop here

If the answer to #2 above is YES, please answer the following:

3. Does the public have access to information about the compensation of the executives in your business or organization through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

_____ NO _____ YES

If the answer to #3 above is YES, stop here

If the answer to #3 above is NO, please answer the following:

4. The names and compensation of the five most highly compensated officers in your business or organization are as follows:

| | |
|-------------|---------------|
| Name: _____ | Amount: _____ |
| Name: _____ | Amount: _____ |
| Name: _____ | Amount: _____ |
| Name: _____ | Amount: _____ |
| Name: _____ | Amount: _____ |

9/18/16