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

Jeffrey A. Meyers  
Commissioner

Lisa M. Morris  
Director

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

April 19, 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 Public Health Services, to enter into a **retroactive, sole source** amendment to an existing agreement with Trustees of Dartmouth College, Vendor # 177157-B013, 11 Rope Ferry Road 6210, Box 186, Hanover, NH 03755, to operate a cancer registry system, by increasing the price limitation by \$1,642,306 from \$2,523,240 to \$4,165,546 and by extending the completion date from June 30, 2020 to June 30, 2022, retroactive to April 1, 2019 effective upon Governor and Executive Council approval. 82% Federal Funds and 18% General Funds.

This agreement was originally approved by the Governor and Executive Council on November 18, 2016 (Item #21 Vote 5-0) and amended as approved by the Governor and Executive Council on June 6, 2018 (Item #13 Vote 5-0).

Funds are available in State Fiscal Year (SFY) 2019 and are anticipated to be available in SFYs 2020, 2021, and 2022, upon the availability and continued appropriation of funds in the future operating budgets, with authority to adjust encumbrances between State Fiscal Years through the Budget Office.

**See Attached Fiscal Details**

**EXPLANATION**

This request is **retroactive** because the Department received approval from the Centers for Disease Control and Prevention (CDC) to amend this contract with federal grant funds in February of 2019. The amendment is to combine data on cancer diagnoses with initial treatment data and will require use of a data entry clerk who will bill at an hourly rate for data entry. In order to complete data entry, it was critical to begin this work as early as possible in SFY 2019. Initial treatment data includes information about whether an individual had surgery, radiation therapy, chemotherapy, hormone, or immunotherapy which can be used for research on these interventions.

This request is **sole source** because there are no renewal options left in the original contract and the Department wishes to ensure continuation of work with the Trustees of Dartmouth College under the CDC grant that started in June 30, 2017 and ends June 30, 2022, which is the end of the grant project period.

The Department seeks to expand upon the work that has taken place for the last several years to ensure data quality and completeness through participation in the CDC Data Quality Evaluation

(DQE). This amendment will also ensure the continued operation of an incidence-based statewide cancer registry system as required by RSA 141-B.

The primary purpose of the New Hampshire State Cancer Registry is to identify all reportable cases of cancer in New Hampshire in order to provide information on the overall number, types, and changing patterns of cancer among residents of the state. New Hampshire RSA 141-B obligates the Department to collect information regarding the majority forms of cancers diagnosed in New Hampshire. The Contractor will continue conducting data collection, data processing, quality assurance and database management activities for the collection of cancer information for the New Hampshire State Cancer Registry in accordance with the Department guidelines and standards established by the National Program of Cancer Registries and the North American Association of Central Cancer Registries.

The cancer registry is one of the public health tools used to monitor and investigate trends in cancer diagnoses and treatment in every state in the U.S. The cancer registry through this contract generates critical data for public health investigations, for public health prevention programs, and for academic researchers who work to identify causes of cancer, and prevention and treatment strategies. This amendment will allow the Contractor to continue to capture essential data on people who are newly diagnosed with cancer.

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

- For each incident cancer case, collect all the data variables listed in New Hampshire Administrative Rule He-P 304.2.
- The database shall be, at a minimum, in accordance with accepted Centers for Disease Control's National Program of Cancer Registries and North American Association of Cancer Registry standards.
- The data collected is 95% complete within twelve (12) months of date of diagnosis for cases seen in any New Hampshire hospital.
- The data collected is 90% complete within fifteen (15) months of the date of diagnosis for all cases among New Hampshire residents, regardless of where they received the cancer care.
- The data collected is 95% complete within twenty-four (24) months of date of diagnosis for all cases among New Hampshire residents, with cases identified from death certificate review and follow-up, from physician practices, from non-hospital facilities, and from out-of-state sources.

The Contractor follows the standards required for the National Program of Cancer Registries (NPCR) National Data Quality and Completeness Program and US Cancer Statistics Publication Standard. The Trustees of Dartmouth College has achieved status as a National Program of Cancer Registries Registry of Excellence, and is the recipient of their eleventh consecutive gold standard certification by the North American Association of Central Cancer Registries.

Approximately 1.3 million individuals will be served from April 1, 2019 through June 30, 2022 - through cancer-related programming that is informed using data from the NH State Cancer Registry.

Should the Governor and Executive Council not authorize this request, the Department may be unable to support a high quality cancer registry and will lose the ability to monitor cancer trends; respond to community concerns related to cancer clusters; inform and educate communities about cancer risk; develop policies and plans that address cancer risk in the community; evaluate the

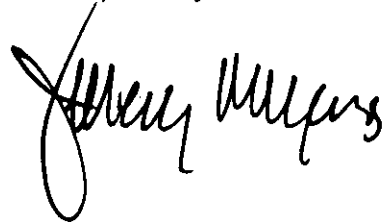
effectiveness, accessibility, and quality of cancer prevention; and control strategies and provide data to researchers to understand the causes and treatments for cancer.

Area served: Statewide

Source of Funds: 82% Federal Funds, Catalog of Federal and Domestic Assistance (CFDA) #93.898, United States Department of Health and Human Services, Centers for Disease Control and Prevention, New Hampshire Breast & Cervical Cancer, Comprehensive Cancer & Cancer Registry, Federal Award Identification Number (FAIN) # NU58DP006298 and Catalog of Federal and Domestic Assistance (CFDA) #93.991, United States Department of Health and Human Services, Centers for Disease Control and Prevention, Preventive Health and Health Services Block Grant, Federal Award Identification Number (FAIN) # NB01OT009205; and 18% General Funds.

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

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jeffrey Meyers". The signature is written in a cursive, flowing style with a large initial "J".

Jeffrey A. Meyers  
Commissioner



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

Jeffrey A. Meyers  
 Commissioner

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Lisa M. Morris  
 Director

**Fiscal Details**

**05-95-90-900510-86660000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF INFORMATICS, CANCER REGISTRY**  
 100% Federal Funds CDC, Comprehensive Cancer Control Program & Cancer Registry

Fiscal Year	Class/Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	102-500731	Contracts for Prog Svc	90080080	\$251,736	\$0	\$251,736
			<i>Sub Total</i>	\$251,736	\$0	\$251,736

**05-95-90-900510-86660000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF INFORMATICS, CANCER REGISTRY**  
 100% General Funds

Fiscal Year	Class/Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	601-500931	State Fund Match	90056005	\$100,045	\$0	\$100,045
			<i>Sub Total</i>	\$100,045	\$0	\$100,045

**05-95-90-902010-22150000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH & COMMUNITY SERVICES, CDC ORAL HEALTH GRANT**  
 100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	102-500731	Contracts for Prog Svc	90080080	\$173,000	\$0	\$173,000
			<i>Sub Total</i>	\$173,000	\$0	\$173,000

**05-95-90-902010-33970000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH & COMMUNITY SERVICES, CANCER REGISTRY**

100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	102-500731	Contracts for Prog Svc	90080080	\$446,542	\$0	\$446,542
SFY 2019	102-500731	Contracts for Prog Svc	90080080	\$435,217	\$0	\$435,217
SFY 2020	102-500731	Contracts for Prog Svc	90080080	\$446,542	\$97,000	\$543,542
SFY 2021	102-500731	Contracts for Prog Svc	90080080	\$0	\$543,542	\$543,542
SFY 2022	102-500731	Contracts for Prog Svc	90080080	\$0	\$543,542	\$543,542
			<i>Sub Total</i>	\$1,328,301	\$1,184,084	\$2,512,385

**05-95-90-902010-33970000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH & COMMUNITY SERVICES, CANCER REGISTRY** 100% General Funds

Fiscal Year	Class/Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	601-500931	State Fund Match	90056005	\$150,000	\$0	\$150,000
SFY 2019	601-500931	State Fund Match	90056005	\$150,000	\$0	\$150,000
SFY 2020	601-500931	State Fund Match	90056005	\$150,000	\$0	\$150,000
SFY 2021	601-500931	State Fund Match	90056005	\$0	\$150,000	\$150,000
SFY 2022	601-500931	State Fund Match	90056005	\$0	\$150,000	\$150,000
			<i>Sub Total</i>	\$450,000	\$300,000	\$750,000

**05-95-90-901010-80110000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF PUBLIC HEALTH SYSTEMS, POLICY & PERFORMANCE, PREVENTIVE HEALTH BLOCK GRANT**

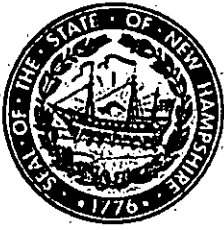
100% Federal Funds CDC Preventative Health and Health Service Block Grant (PHHSBG)

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	102-500731	Contracts for Prog Svc	90001037	\$69,611	\$0	\$69,611
SFY 2019	102-500731	Contracts for Prog Svc	90001037	\$69,611	\$0	\$69,611
SFY 2020	102-500731	Contracts for Prog Svc	90001037	\$69,611	\$0	\$69,611
SFY 2021	102-500731	Contracts for Prog Svc	90001037	\$0	\$69,611	\$69,611
SFY 2022	102-500731	Contracts for Prog Svc	90001037	\$0	\$69,611	\$69,611
			<i>Sub Total</i>	\$208,833	\$139,222	\$348,055

**05-95-90-902010-56590000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH & COMMUNITY SERVICES, COMPREHENSIVE CANCER**

100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2019	102-500731	Contracts for Prog Svc	90080080	\$11,325	\$19,000	\$30,325
			<i>Sub Total</i>	\$11,325	\$19,000	\$30,325
			<b>TOTAL:</b>	<b>\$2,523,240</b>	<b>\$1,642,306</b>	<b>\$4,165,546</b>



**STATE OF NEW HAMPSHIRE**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**  
27 Hazen Dr., Concord, NH 03301  
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[www.nh.gov/doit](http://www.nh.gov/doit)

**Denis Goulet**  
*Commissioner*

April 26, 2018

Jeffrey A. Meyers, Commissioner  
Department of Health and Human Services  
State of New Hampshire  
129 Pleasant Street  
Concord, NH 03301-3857

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 retroactive, sole source contract amendment with Trustees of Dartmouth College (Vendor #177157-B013), as described below and referenced as DoIT No. 2016-081B.

This is a retroactive, sole source contract amendment with the Trustees of Dartmouth College to continue to operate an incidence-based statewide cancer registry system in New Hampshire as required by RSA 141-B and for the use of a data entry clerk to combine data on cancer diagnosis with initial treatment data.

This amendment will increase the contract price by \$1,642,306 from \$2,523,240 to \$4,165,546 and extend the contract end date from June 30, 2020 to June 30, 2022 retroactive to April 1, 2019 effective upon Governor and Executive Council approval.

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 No. 2016-081B

cc: Bruce Smith



**State of New Hampshire  
Department of Health and Human Services  
Amendment #2 to the  
Cancer Registry Operations Contract**

This 2<sup>nd</sup> Amendment to the Cancer Registry Operations contract (hereinafter referred to as "Amendment #2") dated this 13<sup>th</sup> day of December, 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 Trustees of Dartmouth College, (hereinafter referred to as "the Contractor"), a corporation with a place of business at 11 Rope Ferry Road #6210, Hanover, NH 03755.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on November 18, 2016, Item #21, as amended on June 6, 2018, Item #13, 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

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, 2022.
2. Form P-37, General Provisions, Block 1.8, Price Limitation, to read:  
\$4,165,546.
3. Form P-37, General Provisions, Block 1.9, Contracting Officer for State Agency, to read:  
Nathan White, Director.
4. Form P-37, General Provisions, Block 1.10, State Agency Telephone Number, to read:  
603-271-9631.
5. Delete Exhibit A, Scope of Services in its entirety and replace with Exhibit A, Amendment #2.
6. Delete Exhibit B – Amendment #1, Method and Conditions Precedent to Payment, Section 2 and replace with the following:
  2. This Agreement is funded with general funds and federal funds as follows: 73% Federal Funds from US Centers for Disease Control & Prevention, NH Comprehensive Cancer Control Program & Cancer Registry Programs, CFDA #93.898, Federal Award Identification Number (FAIN)#NU58DP006298, and 9% Federal Funds from Centers for Disease Control and Prevention, Preventative Health and Health Services Block Grant, CFDA #93.991, FAIN# NB01OT009205 and 18% General Funds.



**New Hampshire Department of Health and Human Services  
Cancer Registry Operations**



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7. Delete Exhibit B-4, Amendment #1, and replace with Exhibit B-4, Amendment #2.
  8. Delete Exhibit B-5, Amendment #1, and replace with Exhibit B-5, Amendment #2.
  9. Add Exhibit B-6, Amendment #2.
  10. Add Exhibit B-7, Amendment #2.
  11. Add Exhibit K, DHHS Information Security Requirements.

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New Hampshire Department of Health and Human Services  
Cancer Registry Operations



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

4/17/19  
Date

[Signature]  
Name: LISA MORRIS  
Title: DPHS DIRECTOR

Trustees of Dartmouth College

4/16/19  
Date

[Signature]  
Name: Jill M. Mortali, Director  
Title: Office of Sponsored Projects

Acknowledgement of Contractor's signature:

State of New Hampshire County of Grafton on 4/16/19, before the undersigned officer, personally appeared the person identified directly above, or satisfactorily proven to be the person whose name is signed above, and acknowledged that s/he executed this document in the capacity indicated above.

[Signature]  
Signature of Notary Public or Justice of the Peace  
HEATHER A. ARNOLD, Notary Public  
My Commission Expires August 24, 2021

Name and Title of Notary or Justice of the Peace

My Commission Expires: \_\_\_\_\_

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



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

OFFICE OF THE ATTORNEY GENERAL

4/10/2019  
Date

  
Name: Nancy J. Smith  
Title: Sr. Asst. 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 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.
- 1.2. All services to be performed under this contract shall be in accordance with New Hampshire Department of Health and Human Services (DHHS), New Hampshire law RSA 141-B, New Hampshire Administrative rules He-P 304, United States Public Law 102-515, and Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries (NPCR) and North American Association of Central Cancer Registries (NAACCR) standards and guidelines.

### 2. Required Activities

- 2.1. The Contractor shall present for discussion and proposed modifications, a Work Plan, due within 30 days of the contract effective date. The timeline and work plan shall meet all due dates for deliverables noted in the Deliverables and Key Performance Indicators set forth in Section 14 of this document.
- 2.2. The Contractor shall have all fully qualified staff assigned in support of the New Hampshire State Cancer Registry (NHSCR) contract within 30 days of the contract effective date.
- 2.3. The Contractor shall maintain the NHSCR database from a physical location within a seventy-five (75) mile radius of the DHHS, located in Concord. The rationale for this requirement is that the DHHS provides technical and administrative oversight of the NHSCR operations, which includes on-site visits to the NHSCR contractor. In addition, appropriate contractor personnel are required to attend regular meetings with DHHS staff as well as other meetings as necessary.
- 2.4. The Contractor shall allow full participation of the DHHS in the ongoing, onsite operations of contract activities including interacting directly with contractor staff, viewing abstract processing, participating in customizing registry software selecting edits, aspects of database management, system security, and quality assurance that the DHHS deems necessary.
- 2.5. The Contractor shall provide DHHS with technical assistance and expertise on matters within the scope of work of the contract.

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### 3. Cancer Registry Operation

- 3.1. The Contractor shall operate an incidence-based statewide cancer registry reporting system in accordance with RSA 141-B and Part He-P 304 of the New Hampshire Administrative Rules,  
[http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html).
- 3.2. The Contractor shall collect information and maintain an electronic database of all incident cancer cases occurring among the New Hampshire population according to the Administrative Rules.
- 3.3. The Contractor shall facilitate and encourage submission of reports for each incident case. Facilitate and encourage submission of reports for each incident case defined in RSA 141-B:7 (<http://www.gencourt.state.nh.us/rsa/html/X/141-B/141-B-mrq.htm>), all the data variables listed in administrative rule He-P 304.02 by "health facilities" within an expected time frame as listed in Administrative Rule He-P 304.01(e) and He-P 304.01(l) ([http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html)). Facilitation and encouragement may include writing letters, calling by telephone and personal visits to health providers and/or health facility administrators or supervisors. ("Health Facilities" shall be defined according to the Administrative Rules.)
- 3.4. The Contractor shall inform DHHS of facilities that remain out of compliance with reporting requirements despite Contractor notification in the following situations:
  - 3.4.1. Denial or lack of access to pathology reports or medical records;
  - 3.4.2. Lack of submission of reports within one month or expected date; and
  - 3.4.3. Lack of response to letter or other formal inquiry within one month.
- 3.5. The Contractor shall adhere to Timetable of Data Deliverables:
  - 3.5.1. The NHSCR data shall meet the following five (5) data quality criteria [National Data Quality Standard (formally known as the 24-Month Standard)]:
    - 3.5.1.1. Data are ninety-five percent (95%) complete based on observed-to-expected cases as computed by CDC.
    - 3.5.1.2. There are three percent (3%) or fewer death-certificate-only cases.
    - 3.5.1.3. There is a one (1) per one thousand (1,000), or fewer,

*Jmm*  
Date 4/16/19



unresolved duplicate rate.

- 3.5.1.4. The maximum percent missing for critical data elements are:
  - 3.5.1.4.1. Two percent (2%) age.
  - 3.5.1.4.2. Two percent (2%) sex.
  - 3.5.1.4.3. Three percent (3%) race.
  - 3.5.1.4.4. Two percent (2%) county.
- 3.5.1.5. Ninety-nine percent (99%) pass a CDC-prescribed set of standard edits.
- 3.5.2. The NHSCR data shall meet the following data quality criteria [Advanced National Data Quality Standards (formally known as the 12-Month Standard)]:
  - 3.5.2.1. Data are ninety percent (90%) complete based on observed-to-expected cases as computed by CDC.
  - 3.5.2.2. There is a two (2) per one thousand (1,000) or fewer unresolved duplicate rate.
  - 3.5.2.3. The maximum percent missing for critical data elements are:
    - 3.5.2.3.1. Three percent (3%) age.
    - 3.5.2.3.2. Three percent (3%) sex.
    - 3.5.2.3.3. Five percent (5%) race.
    - 3.5.2.3.4. Three percent (3%) county.
  - 3.5.2.4. Ninety-seven percent (97%) pass a CDC-prescribed set of standard edits.

#### 4. Case Ascertainment Activities

- 4.1. The Contractor shall establish and implement case reporting from any new or existing free-standing radiation oncology facility in the state.
- 4.2. The Contractor shall establish and implement case reporting from any new or existing free-standing medical oncology facility in the state.
- 4.3. The Contractor shall establish and implement case reporting from any new or existing free-standing surgical oncology facility in the state.
- 4.4. The Contractor shall increase cancer surveillance activities by merging treatment data for high incidence NH cases where treatment occurred in another state by adding it to the NHSCR data to be used for research or public health activities that examine the appropriateness of cancer treatments.
- 4.5. The Contractor shall establish and implement electronic case finding from hospital or private pathology labs and from out-of-state pathology

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Date 4/16/14



laboratories.

- 4.6. The Contractor shall perform death clearance at least annually. Death clearance should be performed by matching records in the NHSCR with New Hampshire mortality data provided by the DHHS and with National Death Index., to determine the level of the NHSCR's record completeness for in-state and out-of-state deaths to New Hampshire residents where cancer is identified as a cause of death.
- 4.7. For in-state deaths, the Contractor shall make a determination as to the cause of and appropriate correction for cancer incidents not reported to the NHSCR. This should include contacting the certifier of the death for case follow back as necessary. For deaths of individuals in NHSCR database, the contractor shall electronically update the Vital Status, date of death and cause of death for matching cases.
- 4.8. The Contractor shall operate query systems that cross checks definitive reports, rapid reports, and non-reportable data sources using data linkage processes to ensure maximum case ascertainment.
- 4.9. The Contractor shall create or update the NHSCR operations manual within 30 days of the contract effective date. This manual on NHSCR procedures is for potential distribution to all reporting health providers and health facilities. The manual will provide documentation of the objectives, implementation and operation of the registry. All the contractor staff of the Cancer Registry Operations and DHHS shall be provided with a copy of the manual. This manual shall contain, at a minimum:
  - 4.9.1. Most current reporting laws/regulations;
  - 4.9.2. List of reportable diagnoses;
  - 4.9.3. List of required data items.
  - 4.9.4. Procedures for data processing operations including:
    - 4.9.4.1. Procedures for monitoring timeliness of reporting;
    - 4.9.4.2. Procedures for receipt of data;
    - 4.9.4.3. Procedures for database management including a description of the Registry Operating System (software);
    - 4.9.4.4. Procedures for conducting death certificate clearance;
    - 4.9.4.5. Procedures for implementing and maintaining the quality assurance/control program:
      - 4.9.4.5.1. Conducting follow-back to reporting facilities on quality issues. These procedures include rules for identifying

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Exhibit A – Amendment #2

- when action or further investigation is needed;
- 4.9.4.5.2. Conducting record consolidation;
  - 4.9.4.5.3. Maintaining detailed documentation of all quality assurance operations;
  - 4.9.4.5.4. Procedures for education and training.
- 4.9.5. Procedures for conducting data exchange including a list of states with which case-sharing agreements are in place;
  - 4.9.6. Procedures for conducting data linkages.
  - 4.9.7. Procedures insuring confidentiality and data security including disaster planning;
  - 4.9.8. Procedures for data release including access to and disclosure of information; and
  - 4.9.9. Procedures for maintaining and updating the operational manual.
- 4.10. The Contractor shall revise the NHSCR operations manual when any changes are made to policies and procedures relating to the NHSCR activities based on contractor need or as requested by the DHHS. The contractor will submit the changes to the DHHS, who will review and seek revision or approve within 30 days.
  - 4.11. The Contractor shall review and update existing documents for reporting facilities, including, but not limited to letters, user application forms, reporting requirement document, and Webplus user guides, within 30 days of the contract effective date.
  - 4.12. The Contractor shall determine needed updates in consultation with the DHHS. When updates are needed, develop updated material, obtain approval of the DHHS, and provide to reporting facilities and post them on web for easier access.
  - 4.13. Through site visits to New Hampshire hospitals conducted as needed, the Contractor shall review discharge, laboratory and pathology reports as well as medical charts to ensure the completeness of case reporting and accuracy for completion.
  - 4.14. The Contractor shall update quality control efforts inclusive of capacity to participate in the CDC-sponsored Data Quality Evaluations (DQEs) and central registry sponsored audits of reporters as per NPCR Program Standards including, but not limited to:
    - 4.14.1. Preparing for the DQE and responding to its findings with procedural changes;
    - 4.14.2. Conducting recoding audits focusing on the new North American

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4/16/19





Association of Central Cancer Registries (NAACCR) 18 variables;

- 4.14.3. Completing unfinished merging of treatment data from out-of-state sources to improve data quality;
- 4.14.4. Obtaining data and reports, and providing feedback related to the DQE including, but not limited to:
  - 4.14.4.1. De-identifying any data that needs to be sent to the auditor;
  - 4.14.4.2. Transmitting the data;
  - 4.14.4.3. Responding to questions on the data and any additional requests from the auditor;
  - 4.14.4.4. Reviewing the preliminary DQE report and providing feedback;
  - 4.14.4.5. Participating in the final DQE feedback meeting; and
  - 4.14.4.6. Utilizing DQE feedback to amend procedures to optimize data quality.
- 4.15. The Contractor shall implement changes to the data release process that will facilitate NAACCR's Virtual Pooled Registry (VPR) linkage projects including, but not limited to:
  - 4.15.1. Reviewing and accepting the VPR template and proposed procedures for the central data release application form;
  - 4.15.2. Amending NH's data release procedures so that the Department (NH DHHS) participates in the central approval process;
  - 4.15.3. Comparing the documents used by NH and those proposed by NAACCR as the coordinating body for the VPR Cancer Linkage System;
  - 4.15.4. Collaborating with the New Hampshire DHHS legal department to approve the common process.

## 5. Information Technology Activities

- 5.1. The Contractor shall establish operations within 30 days of the contract start date. This shall include, but not be limited to system set-up, testing, and deployment, as well as business operations to support the State's requirements defined in Exhibit A-1, Additional Cancer Data Registry Technical Requirements.
- 5.2. Within 30 days of the contract start date, the Contractor shall provide and set up necessary computer hardware, including servers and computers for the NHSCR contractor staff, necessary to maintain the NHSCR database. All hardware and software shall be compatible with NPCR requirements.
- 5.3. Within 30 days of the contract start date, the Contractor shall provide

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connectivity for all reporting facilities to transmit data to the NHCSR.

- 5.4. The Contractor shall maintain secure web access to the NHSCR seven days per week for Web Plus on-line data entry and data file uploading.
- 5.5. Within 30 days of the contract start date, the Contractor shall install and utilize the current automated data management system, consistent with national standards and populated with NHSCR data. (DHHS maintains the discretion to utilize any kind of data management system. There shall be no modifications or upgrades to the software without the approval of the DHHS.)
- 5.6. The Contractor shall train staff in operation of software systems.
- 5.7. The Contractor shall update all the components of the software, as required and shall participate in the relevant CDC software users group.
- 5.8. Within 30 days of the contract execution, the Contractor shall discuss with DHHS the feasibility of implementing a WebPlus User's Agreement, the language of such an agreement, and the protocol for phasing it into use. Implement protocol specified by the program team during a mutually agreed timeframe to restrict reporting via Web Plus data entry or file upload to those reporters who have submitted signed agreements to become Web Plus users.
- 5.9. Within 30 days of the contract start date, the Contractor shall develop and implement procedures for the electronic submission and processing of laboratory pathology and cytology reports utilizing NAACCR standards.
- 5.10. Within 30 days of the contract start date, the Contractor shall maintain a computerized log of facilities and personnel who report data to NHSCR (in excel or access or any other system) which includes at minimum; facility ID, name and demographic information; names and contact information of personnel (reporters and supervisors), and log of prior facility contacts.
- 5.11. Within 30 days of the contract start date, the Contractor shall obtain from the prior NHSCR reports of technical assistance between NHSCR and reporters. Maintain these files or modify or upgrade them with approval of the DHHS.
- 5.12. Within 30 days of the contract start date, the Contractor shall maintain a computerized log of all abstracts received from each reporting facility that includes facility ID, number of abstracts received, date received, format of data received and NAACCR version if electronic submission.
- 5.13. Within 30 days of the contract start date, the Contractor shall obtain from the prior NHSCR vendor copies of hard copy logs and electronic logs of abstracts submitted to NHSCR and shall maintain these files or modify or upgrade them with the approval of DHHS. The DHHS will provide

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necessary contact information and facilitate this transfer.

- 5.14. The Contractor shall upgrade or replace user software and or hardware and make necessary changes to customize software because of advancing technology and or modifications required by DHHS, NPCR or NAACCR standards. Make further upgrade(s) or replacements(s) during the life of this contract, at an additional negotiated price, if so requested by DHHS and subject to all necessary state approvals.
- 5.15. Within 30 days of the contract start date, the Contractor shall provide means for DHHS staff approved by DHHS to periodically receive data from NHSCR, while maintaining data security.
- 5.16. The Contractor shall develop and implement procedures for granting access to data to approved NHSCR staff.

## 6. Database Management Activities

- 6.1. The Contractor shall develop and implement procedures for the timely and accurate consolidation of cancer reports, within 30 days of the contract effective date.
- 6.2. The Contractor shall consolidate tumor records and treatment information in accordance with standards set forth by NPCR, NAACCR or the SEER.
- 6.3. The Contractor shall perform routine, standard edit checks on all reports received in accordance with NPCR and NAACCR standards. The contractor shall be responsible for the accuracy of the data it codes, edits and consolidates and for maintaining the integrity of the data from year to year. At a minimum, the editing and review of data would include:
  - 6.3.1. Routine visual review of abstracts and error reports;
  - 6.3.2. Installation and use of the most recent standard edit set metafiles as chosen by the DHHS and the Contractor;
  - 6.3.3. Detection of errors during editing, documentation of errors found and corrections of errors detected;
  - 6.3.4. Detection and consolidation of multiple abstracts tumor records) received during the contract that match cases reviewed in current or prior years;
  - 6.3.5. Detection and removal of duplicate consolidated cases (that is two or more consolidated records for the same tumor in an individual);
  - 6.3.6. Describe strategy for the routine, continual detection and removal of the duplicates from the NHSCR database –even after current accession year has closed.
- 6.4. The Contractor shall assure that the individual case records in the NHSCR automated database are computer-edited for duplicate records, invalid coding, improbable values, and inconsistencies prior to statistical

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processing and data compilation for analytical purposes. Areas to be edited include, but are not limited to:

- 6.4.1. Data Range Checks;
- 6.4.2. Geographic Coding Assignment;
- 6.4.3. Duplicate Record Checks;
- 6.4.4. Invalid values
- 6.4.5. Relational items as follows:
  - 6.4.5.1. City at diagnosis field must only have values that exactly match legitimate New Hampshire City, town, or village names in list supplied by DHHS.
  - 6.4.5.2. City at diagnosis, the code for county and state of diagnosis must always agree and where city at diagnosis exists, a code for county at diagnosis must be provided.
  - 6.4.5.3. Vital status and cause of death fields must agree and cause of death must be a valid ICD-10 cause of death code or one of the special NAACCR codes.
  - 6.4.5.4. Records should be checked to make sure that the physician's name is correctly entered into first and last name fields.
  - 6.4.5.5. Records should be checked to compare sex of patient and the first name of the patient as a guide for determining correct entry of the record.
  - 6.4.5.6. No logical conflicts shall exist between all the treatment diagnosis fields and the related reason for no treatment fields.
  - 6.4.5.7. Apply applicable NPCR and NAACCR Central Registry edits to data fields.
- 6.5. The Contractor shall geocode all cancer reports of New Hampshire residents for address and census tract, for a given year and accurately incorporate new and revised coding into NHSCR database.

## 7. Penetration Internal Security Testing

- 7.1. The State will perform Penetration Testing of the Internal Security of the Contractor's IT system as defined in the Exhibit A-1 Additional Cancer Data Registry Technical Requirements.
- 7.2. The State and Contractor shall determine a mutually agreed upon date for the Penetration Testing and perform the testing within 90-days of the effective date of the Contract.
- 7.3. The Contractor shall work with the State to negotiate a mutually agreeable

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remediation plan within 180-days of the Contract effective date.

- 7.4. The Contractor shall, as a part of the remediation plan process, fully assess all vulnerabilities identified in the penetration test results. The contractor will acknowledge and accept all vulnerabilities and findings of the penetration test and develop an assessment report that describes, for each vulnerability identified, the root cause, the risk level to the Department, the potential adverse impact to the Department, the level of effort required to remediate in man hours, the resource type or skillset required to remediate, and the cost to remediate. The contractor shall remediate all high risk findings as identified by the Department except where the remediation cost to the Contractor is unacceptable, in which case, the Contractor will work with the Department in good faith to identify appropriate means, alternatives, and or compensating controls to address the vulnerabilities identified.

## 8. Information and System Security Policies and Procedures

- 8.1. The Contractor shall maintain the confidentiality and integrity of information in accordance with the Health Insurance Portability and Accountability Act, Public Law 104-191 (<https://aspe.hhs.gov/report/health-insurance-portability-and-accountability-act-1996>) and with the Standards for Privacy and Security of Individually Identifiable Health Information, 45 CFR Parts 160 and 164 (<http://www.hipaasurvivalguide.com/hipaa-regulations/hipaa-regulations.php>) and those parts of the HITECH Act as applicable (<http://www.hipaasurvivalguide.com/hitech-act-summary.php>). The contractor shall also maintain and protect the confidentiality of the database and information obtained and maintained during this contract in accordance to NH RSA 141-B (<http://www.gencourt.state.nh.us/rsa/html/X/141-B/141-B-mrg.htm>) and NH Administrative Rules He-P 304 ([http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html)) and shall acknowledge agreement with the Data Use Policy of the DHHS, which views NHSCR database as DHHS-owned database, with data release subject to restrictions and conditions.
- 8.2. The Contractor shall preserve the confidentiality, integrity, and accessibility of State of New Hampshire data with administrative, technical and physical information security controls and measures that conform to all application, federal, state, and industry standards, such as NIST 800-53v4; which the Contractor applies to its own information processing environment, and ensures the same is applied to any other subcontractor(s) information processing environments utilized to process or store State of New Hampshire protected data.
- 8.3. The Contractor shall maintain the security of the system environment in accordance with the requirements of the Cancer Data Registry Technical Requirements in Appendix F, the United States Commerce Department's

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National Institute of Standards and Technology (NIST) Special Publication 800-53 and the Open Web Application Security Project (OWASP).

- 8.4. The Contractor shall maintain a system security and integrity manual which includes plans, procedures and protocols for ensuring that the contractor's NHSCR system will be properly secured, maintained and updated throughout the contract term.
- 8.5. Within 14 days after initial contract start date, the Contractor shall implement a series of internal procedures to ensure that:
  - 8.5.1. Access to automated information is restricted to authorized persons, on a needed basis, and control is maintained over all the documents that contain sensitive information to ensure that these documents are available only to authorized persons.
  - 8.5.2. Implement full security measures to ensure the security and quality of all the elements in the NHSCR database through procedures that shall include the following:
    - 8.5.2.1. Ensure that equipment is protected from theft and accidental or deliberate damage or misuse
    - 8.5.2.2. Ensure that once computer programs and data sets are completed and in routine use, they are protected against tampering. Carefully control access to and maintenance of computer programs and NHSCR database.
    - 8.5.2.3. Ensure that copies of original data submitted are maintained and never altered.
    - 8.5.2.4. Ensure that data are protected against inadvertent or deliberate destruction, modification, or dissemination.
    - 8.5.2.5. Ensure procedures for backup, archiving, and disaster recovery for computer programs and NHSCR database.
    - 8.5.2.6. Ensure that passwords are changed, access denied and other security procedures are in place to protect against ongoing access and sabotage when staff resign, are terminated, or no longer assigned to NHSCR contract.
- 8.6. The Contractor shall maintain the security and integrity of the NHSCR data. Re-process data at no additional cost to DHHS in accordance with DHHS instructions if the DHHS or contractor finds that contractor has corrupted, altered, tampered with, or improperly coded/processed any data sets during the duration of the Contract.
- 8.7. The Contractor shall immediately report to DHHS all errors or anomalies in the NHSCR data which could reasonably believe to suggest that security or integrity of the NHSCR or its data may be compromised. The results of any analysis shall be reported to the DHHS and, in addition, the steps it has

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taken or intends to take to ensure security and integrity of the NHSCR and its data.

- 8.8. The Contractor shall implement appropriate policies, procedures and protocols to identify active breaches or threatened breaches of the NHSCR security integrity.
- 8.9. The Contractor shall report to DHHS any suspected breach to the NHSCR data in accordance with Table 1 - Cancer Data Registry Technical Requirements, A,-7.

## 9. Training and Education

- 9.1. The Contractor shall provide consultation, technical assistance, and training to assure accurate, timely and complete data from reporters (registrars, medical record personnel, providers and abstractors) at reporting facilities.
- 9.2. The Contractor shall provide technical assistance by phone or in person to individual reporting facilities and providers during normal weekday business hours; response time for telephone consultation shall be no longer than one working day after request is received or for onsite consultation, no longer than 10 working days.
- 9.3. The Contractor shall assess the training needs of various reporting facilities; develop written guidance, policies and procedures for reporting facilities; and provide technical assistance and training for reporting facilities
- 9.4. Annually, the Contractor shall convene state cancer registrars meeting to include educational and technical sessions to cancer registrars of New Hampshire hospitals to foster compliance with reporting requirements as developed by the DHHS.
- 9.5. The Contractor shall provide twice annually, web-based training and education sessions to cancer registrars of New Hampshire hospitals on topics identified by the contractor in consultation with DHHS that will help improve cancer reporting. These may include instruction on proper cancer coding; use of edit sets; new software etc.
- 9.6. The Contractor shall send one (1) staff member to attend the North American Association of Cancer Registries (NAACR) Conference in order to increase its capacity for collecting and utilizing cancer-related data by increasing staff knowledge.

## 10. Quality Control and Assurance (QA/QC) Activities

- 10.1. The Contractor shall perform quality assurance and control activities to assure appropriate data coding, consolidation and documentation, and assure complete case ascertainment and high quality data from all reporting sources in accordance with NH rules and regulations, NAACCR, and NPCR

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standards.

- 10.2. The Contractor shall implement, within 30 days of the contract effective date, a QA/QC implementation plan (including timeline) which at minimum includes the following activities and routine operations:
  - 10.2.1. Assignment of qualified individuals to perform QA/QC activities.
  - 10.2.2. A routine schedule for edits and internal management reports.
  - 10.2.3. A routine schedule for internal audits for QA/QC and data security and provision of these reports to DHHS. The plan shall include written procedures for the internal monitoring of quality assurance procedures and written procedures /steps implemented if quality control goals are not met.
  - 10.2.4. Procedures for documenting edits/changes made to data during processing.
  - 10.2.5. Routine training, assessment and professional development of the contractors' staff.
- 10.3. The Contractor shall perform case finding activities utilizing traditional and non-traditional sources to assure timeliness and completeness of cancer reporting.
- 10.4. By October 31st of each year, The Contractor shall obtain from each reporting hospital "diagnostic index" for case finding at all hospital reporting facilities. A diagnostic index is a detailed patient listing of all discharges meeting certain definitions in medical records coding. Encourage facilities to submit electronic diagnostic indices.
- 10.5. By October 31st of each year, the Contractor shall complete Death Clearance.
- 10.6. For each hospital, as resources allow, the key variables specified by NAACCR and NPCR will be selected for visual editing of 25 cases at least every five (5) years for experienced registrars, but up to 100 annually for less experienced registrars or registrars who have not achieved an error rate of <2%. If, after review and discussion with the hospital registrar, the error rate identified in total from these fields is greater than 2%, then the NHSCR will continue to visually edit cases from that hospital and will work with the hospital registrar to improve abstracting.
- 10.7. The Contractor shall ensure that cleanliness of the database is, at a minimum, in accordance with accepted NAACCR standards. A 2% error rate threshold shall be the guide for visual editing of hospital registry accuracy.

## 11. Reporting Activities

- 11.1. The Contractor shall produce quarterly timeliness and completeness

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- reports by hospital to monitor case reporting activities. Supply aggregate timeliness and completeness reports to DHHS on a quarterly basis, stating which hospitals are delinquent in their reporting and the steps taken to improve reporting from delinquent hospitals.
- 11.2. The Contractor shall provide DHHS with a commentary relating to the annual reports provided by NPCR and NAACCR. Contingent upon receipt of complete death certificate data from New Hampshire Vital Records provide an annual report monitoring completeness estimating the percent of cases with histological verification (HV%). Submit a report to DHHS upon completion of the contract period or reasonable amount of time when the NAACCR and NPCR reports are available.
  - 11.3. The Contractor shall prepare and submit to DHHS staff a semi-annual review of contract progress by January 15 of the contract period. Provide an update of progress on all contract items through the routine semi-annual NHSCR progress report or work plan.
  - 11.4. The Contractor shall cooperate with any audit of NHSCR for data quality by NPCR or NPCR designated contractor. Submit to DHHS a summary of this audit upon completion.
  - 11.5. The Contractor shall provide, by December 31 of each year of the contract, a finalized data set that has undergone complete QA/QC process. The extract of the data would cover from January 1, 1995 to date.
  - 11.6. The Contractor shall provide DHHS an extract of the complete NHSCR database from Jan 1, 1995 to date upon request.
  - 11.7. Upon approval from the DHHS, the Contractor shall submit finalized datasets to NAACCR and to NPCR as specified by the NAACCR and NPCR standards and Call for Data requirements. Submit copies of each of these submissions to DHHS.
  - 11.8. The Contractor shall provide cancer case data to and receive data from states with which DHHS has a data exchange agreement, in accordance with the terms of the exchange agreement. The data shall be submitted using the agreed upon NAACCR format and will have been edited to the best extent possible. The DHHS currently has exchange agreements with 7 states and additional agreements may be executed by the DHHS during the life of this contract and shall be accommodated by the contractor.
  - 11.9. Upon approval of the DHHS, the Contractor shall provide selected health researchers, with electronic copies of NHSCR data for certain specific data elements requested and cleared by DHHS.
  - 11.10. Upon approval from the DHHS, the Contractor shall provide data to the Vermont Breast and Cervical Program for breast and cervical cancer cases among Vermont residents diagnosed in New Hampshire in accordance with

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the program's approved application for data release by DHHS.

- 11.11. Upon approval from the DHHS, the Contractor shall provide colorectal cancer case data to the NH Colorectal Cancer Screening Program in accordance with the program's approved application for data release by DHHS.
- 11.12. Upon approval from the DHHS, the Contractor shall provide breast cancer case data to the NH Mammography Network in accordance with the program's approved application for data release by DHHS; receive cancer case data from the NH Mammography Network.
- 11.13. The Contractor shall direct any requests for data or analysis of NHSCR data from researchers, the media or general public to the DHHS within 3 working days of receipt of the request.

## 12. Other Programmatic Activity

- 12.1. The Contractor shall make available key personnel to meet with appropriate DHHS personnel, as requested, to discuss policies and procedures, ongoing activities, contract deliverables, performance measures, review contract performance and transition to new contractor, etc.
- 12.2. The Contractor may include travel funds for appropriate staff to attend the National Cancer Registrars Association (NCRA) and NAACCR meetings annually for staff development.
- 12.3. The Contractor shall convene annually the New Hampshire State Cancer Registry Advisory Panel to assist in building consensus, cooperation, and planning for the registry and to enhance chronic disease program coordination and collaboration. Representation should include key organizations and individuals both within (e.g. representatives from all cancer prevention and control components and chronic disease program) and outside the program (e.g. hospital cancer registrars, the American Cancer Society, American College of Surgeons liaison, clinical-laboratory personnel, pathologists, and clinicians).
- 12.4. The Contractor shall participate as an active member when needed in New Hampshire Comprehensive Cancer Collaboration.
- 12.5. The Contractor shall participate as an active member with DHHS to collaborate in applying for grants that DHHS is interested in, regardless of who receives the actual funding. Both DHHS and contractor agree to consider the others' expenses and needs for operation and program growth when applying for grants and distribution of financial resources when funding is received.
- 12.6. The Contractor shall provide ad-hoc services related to cancer epidemiology. Working with DHHS staff at DHHS offices, the time spent may be up to twelve (12) hours per week on such tasks, as long as suitably



qualified staff is available. These tasks will be mutually agreed upon by the contractor and the DHHS, and supervised by the DHHS staff. Tasks associated with these services may include:

- 12.6.1. Assist in the preparation of data and narrative for the annual cancer report for New Hampshire.
- 12.6.2. Assist in the investigation of cancer clusters and response to concerns about the occurrence of cancer clusters in New Hampshire.
- 12.6.3. Assist with the preparation of manuscripts for publication and develop preparatory materials for professional meetings based on the DHHS needs.
- 12.6.4. Provide Institutional Review Board (IRB review) for the DHHS cancer registry section (i.e. Cancer cluster investigations).
- 12.6.5. Enter into agreements with other organizations as needed for processing data according to the NPCR standards, for example, with the National Death Index to obtain death data, and with the Veterans Administration (VA) to obtain VA cancer data.

### **13. Centers for Disease Control and Prevention (CDC) Cooperative Agreement Activities**

- 13.1. The Contractor shall assist in drafting goals and program objectives, progress reports and NHSCR budgets as requested by DHHS for the purposes of the New Hampshire's application for the CDC Continuing Cooperative Agreement for Enhancement of State Cancer Registries which includes, but is not limited to:
  - 13.1.1. Providing all contractor-specific documentation and assurances necessary for the application.
  - 13.1.2. Agreeing that the application for the CDC Cooperative Agreement will be submitted for and all funding will be awarded to the DHHS.
  - 13.1.3. Identifying contractor contributions to the NHSCR effort, not state general funds or federal funds that would be applied to a direct or in-kind match that may be required for application for the CDC cooperative agreement.
  - 13.1.4. Informing DHHS within one (1) working day of any cooperative agreement related inquiries by CDC project or grants management staff.
  - 13.1.5. Representing the NHSCR on the NPCR and NAACCR- task force, users group and or committees to learn recent updates, issues and share NH experiences with all other states and will keep DHHS fully informed of all such activities.
- 13.2. Where appropriate, NHSCR will communicate directly with NPCR and

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NAACCR on technical matters of cancer surveillance, standards and submissions to NPCR and NAACCR and will keep DHHS fully informed of all such activities.

#### 14. Transition Activities

- 14.1. If Contractor is not able to fulfill the terms of this contract and solicitation of a new vendor is necessary, the Contractor shall assist with the transition to a new vendor. Within two (2) months of the end of the contract term, the Contractor shall:
  - 14.1.1. Provide the new vendor with a copy of the latest version of the NHSCR database; the reporters' database; preregistration log; and the original copies of all the backups of the database.
  - 14.1.2. Write up procedures used to purge all NHSCR data from vendor's hardware and send the procedures to DHHS for review and approval. After approval of the procedures by the DHHS, purge all NHSCR data from the hardware of vendor.
  - 14.1.3. Train up to four (4) people employed by the new vendor, by means of a reasonable exchange of information on administration of the NHSCR database, including an overview of reporters and data exchange processes with other states. The training is anticipated to involve at least the vendor's database manager and Quality Assurance supervisor for approximately two days.
  - 14.1.4. Provide the DHHS with any: hard copy of abstracts and pathology reports submitted by reporting facilities; electronic diskettes; and all documentation of interaction with reporting facilities.
  - 14.1.5. Provide DHHS with a hard and electronic copy of the latest version of the operation manual; system security and integrity manual; and all other materials developed for the work process of NHSCR during the contract process.
  - 14.1.6. Close the web access for reporting facilities so that facilities can no longer upload data of NHSCR data to the incumbent vendor.

#### 15. Deliverables and Key Performance Indicators

- 15.1. The Contractor shall ensure that following performance indicators in Table 1 are annually achieved and monitored monthly to measure the effectiveness of the agreement.
  - 15.1.1. All date references in Table 1 shall be used for this contract unless otherwise specifically noted in the main body of this contract.
  - 15.1.2. All time periods are calendar days and not business days unless otherwise specifically noted in the main body of this contract.

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15.2. Annually, the Contractor shall develop and submit to the DHHS, a corrective action plan for any deliverable and/or performance.

**Table 1**

Description of Key Variables	Section Number	Initial Term
Work Plan	2.1	30 days
Fully Qualified Staff	2.2	30 days
Allow DHHS Participation	2.4	Ongoing
Case Reporting	3, 4.1-4.3, 4.14.4, 11.1	Ongoing
Create/Update operation manual	4.9	30 days & ongoing
IT infrastructure/Webserver	5.5-5.8	30 Days
Install Registry Software and prior data	5.9 - 5.10	30 days
Processes for laboratory and pathology reports	4 - 5	30 days
Reporters database	5.12	30 days
Registration log	5.13	30 days
Upgrade/Replace software	5.14	ongoing
DHHS data access	5.12- 5.13	30 days & as needed
Procedures for Consolidation of cases and reports	6.1	30 days
Run edit checks	6.3	Ongoing
Geocoding	6.4.2	Ongoing
System security and policies and procedures	9.1, 9.2, 9.5	14-60 days
Responsibility for consultation/assessment	8.1-8.2	Ongoing
QA/QC Plan	10.2	30 Days
Case Finding and Diagnostic Indices	10.4	October 31 of each year
Death Clearance	10.5	October 31 of each year
Quarterly Facility Reports	11.1	Once in 4 months
Histological Verification Report	11.2	Yearly
Semi Annual progress Report	11.3	January 15 & August 15 of each year
Final Incidence dataset	11.5	January 30 of each year
Extract of Incidence dataset	11.6	Ongoing
NPCR and NAACCR Annual Report	11.7	Yearly
Submit data to NPCR	11.7	November 30 of each year
Submit data to NAACCR	11.7	November 30 of each year
Interstate Data Exchange	11.8	Ongoing
Release of Data to researchers	11.9	Ongoing
Patient Centered Outcomes data	11	With Final Incidence dataset in 2016 and 2017 only, subject to funding
Attend Meetings	12.2	Ongoing
CDC Cooperative Agreement Activities	13	Ongoing
Transition Activities	14	2 months

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Exhibit B-4, Amendment #2

New Hampshire Department of Health and Human Services

Bidder/Program Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations

Budget Period: July 1, 2018 to June 30, 2019 (SFY19)

Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 410,062.55	\$ 41,006.26	\$ 451,068.81	\$ -	\$ -	\$ -	\$ 410,062.55	\$ 41,006.26	\$ 451,068.81
2. Employee Benefits	\$ 152,788.27	\$ 15,278.92	\$ 168,067.19	\$ -	\$ -	\$ -	\$ 152,788.27	\$ 15,278.92	\$ 168,067.19
3. Consultants	\$ 8,400.00	\$ 840.00	\$ 9,240.00	\$ -	\$ -	\$ -	\$ 8,400.00	\$ 840.00	\$ 9,240.00
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 19,091.00	\$ 1,909.00	\$ 21,000.00	\$ -	\$ -	\$ -	\$ 19,091.00	\$ 1,909.00	\$ 21,000.00
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,025.00	\$ 1,802.00	\$ 19,827.00	\$ -	\$ -	\$ -	\$ 18,025.00	\$ 1,802.00	\$ 19,827.00
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13. Other (specific details mandatory):	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital level), contrib	\$ 228,384.00	\$ 22,838.40	\$ 251,222.40	\$ 228,384.00	\$ 22,838.40	\$ 251,222.40	\$ -	\$ -	\$ -
15. Indirect cost waiver, contributed	\$ -	\$ 152,802.37	\$ 152,802.37	\$ -	\$ 152,802.37	\$ 152,802.37	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 851,250.62</b>	<b>\$ 237,726.95</b>	<b>\$ 1,088,977.77</b>	<b>\$ 228,384.00</b>	<b>\$ 175,440.77</b>	<b>\$ 403,824.77</b>	<b>\$ 622,866.82</b>	<b>\$ 62,288.18</b>	<b>\$ 685,153.00</b>

Indirect As A Percent of Direct 27.9%

Contractor's Initials *Jmm*  
Date *4/16/19*

**Exhibit B - 5, Amendment #2**

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

Bidder/Program Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations

Budget Period: July 1, 2019 to June 30, 2020 (SFY'20)

Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82	\$ -	\$ -	\$ -	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82
2. Employee Benefits	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75	\$ -	\$ -	\$ -	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30	\$ -	\$ -	\$ -	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14	\$ -	\$ -	\$ -	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14
10. Marketing/Communication	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
13. Other (specific details man	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital lev	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ -	\$ -	\$ -
15. Indirect cost waiver, contrib	\$ -	\$ 169,975.03	\$ 169,975.03	\$ -	\$ 169,975.03	\$ 169,974.99	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 992,222.46</b>	<b>\$ 269,197.28</b>	<b>\$ 1,261,419.73</b>	<b>\$ 298,447.00</b>	<b>\$ 199,819.73</b>	<b>\$ 498,266.69</b>	<b>\$ 693,775.46</b>	<b>\$ 69,377.55</b>	<b>\$ 763,153.00</b>

Indirect As A Percent of Direct

27.1%

Contractor's Initials *Jmm*

Date 4/16/19

**Exhibit B - 6, Amendment #2**

New Hampshire Department of Health and Human Services									
Bidder/Program Name: Trustees of Dartmouth College									
Budget Request for: Cancer Registry Operations									
Budget Period: July 1, 2020 to June 30, 2021 (SFY21)									
Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82	\$ -	\$ -	\$ -	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82
2. Employee Benefits	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75	\$ -	\$ -	\$ -	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30	\$ -	\$ -	\$ -	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14	\$ -	\$ -	\$ -	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Trainin	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
13. Other (specific details man	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital lev	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ -	\$ -	\$ -
15. Indirect cost waiver, contrib	\$ -	\$ 169,974.99	\$ 169,974.99	\$ -	\$ 169,974.99	\$ 169,974.99	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 992,222.46</b>	<b>\$ 269,197.24</b>	<b>\$ 1,261,419.69</b>	<b>\$ 298,447.00</b>	<b>\$ 199,819.69</b>	<b>\$ 498,266.69</b>	<b>\$ 693,776.46</b>	<b>\$ 69,377.66</b>	<b>\$ 763,163.00</b>

Indirect As A Percent of Direct 27.1%

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4/16/19



**Exhibit B-7, Amendment #2**

New Hampshire Department of Health and Human Services									
Bidder/Program Name: Trustees of Dartmouth College									
Budget Request for: Cancer Registry Operations									
Budget Period: July 1, 2021 to June 30, 2022 (SFY'22)									
Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82	\$ -	\$ -	\$ -	\$ 463,671.65	\$ 46,367.17	\$ 510,038.82
2. Employee Benefits	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75	\$ -	\$ -	\$ -	\$ 176,195.23	\$ 17,619.52	\$ 193,814.75
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30	\$ -	\$ -	\$ -	\$ 18,843.00	\$ 1,884.30	\$ 20,727.30
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14	\$ -	\$ -	\$ -	\$ 18,565.58	\$ 1,856.56	\$ 20,422.14
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
13. Other (specific details man)	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital lev)	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ 298,447.00	\$ 29,844.70	\$ 328,291.70	\$ -	\$ -	\$ -
15. Indirect cost waiver, contrib	\$ -	\$ 169,974.99	\$ 169,974.99	\$ -	\$ 169,974.99	\$ 169,974.99	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	\$ 992,222.46	\$ 269,197.24	\$ 1,261,419.69	\$ 298,447.00	\$ 199,819.69	\$ 498,266.69	\$ 693,775.46	\$ 69,377.55	\$ 763,153.00

Indirect As A Percent of Direct

27.1%

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4/16/19



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) working on behalf of the contractor 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 mail,

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Exhibit K

DHHS Information Security Requirements

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

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

**I. RESPONSIBILITIES OF DHHS AND THE CONTRACTOR**

**A. Business Use and Disclosure of Confidential Information.**

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

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

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

## II. METHODS OF SECURE TRANSMISSION OF DATA

1. Application Encryption. If End User is transmitting DHHS data containing Confidential Data between applications, the Contractor attests the applications have been evaluated by an expert knowledgeable in cyber security and that said application's encryption capabilities ensure secure transmission via the internet.
2. Computer Disks and Portable Storage Devices. End User may not use computer disks or portable storage devices, such as a thumb drive, as a method of transmitting DHHS data.
3. Encrypted Email. End User may only employ email to transmit Confidential Data if email is encrypted and being sent to and being received by email addresses of persons authorized to receive such information.
4. Encrypted Web Site. If End User is employing the Web to transmit Confidential Data, the secure socket layers (SSL) must be used and the web site must be secure. SSL encrypts data transmitted via a Web site.
5. File Hosting Services, also known as File Sharing Sites. End User may not use file hosting services, such as Dropbox or Google Cloud Storage, to transmit Confidential Data.
6. Ground Mail Service. End User may only transmit Confidential Data via *certified* ground mail 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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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 under its control in whatever form it may exist, unless, otherwise required by law or permitted under this Contract. To this end, the parties must:

#### A. Retention

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

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DHHS Information Security Requirements



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

B. Disposition

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

IV. PROCEDURES FOR SECURITY

- A. Contractor agrees to safeguard the DHHS Data received under this Contract, and any derivative data or files, as follows:
  1. The Contractor will maintain proper security controls to protect Department confidential information collected, processed, managed, and/or stored in the delivery of contracted services.
  2. The Contractor will maintain policies and procedures to protect Department confidential information throughout the information lifecycle, where applicable, (from creation, transformation, use, storage and secure destruction) regardless of the media used to store the data (i.e., tape, disk, paper, etc.).

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 costs of response and recovery from the breach,

*Jmm*  
4/16/19

New Hampshire Department of Health and Human Services

Exhibit K

DHHS Information Security Requirements



subject to the limitation of liability as agreed to by the parties in Subsection 4.2 of Exhibit C-1 of the contract, 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.



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
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 subject to the limitation of liability as agreed to by the parties in Subsection 4.2 of Exhibit C-1 of the contract.

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

*Jmm*  
4/14/19

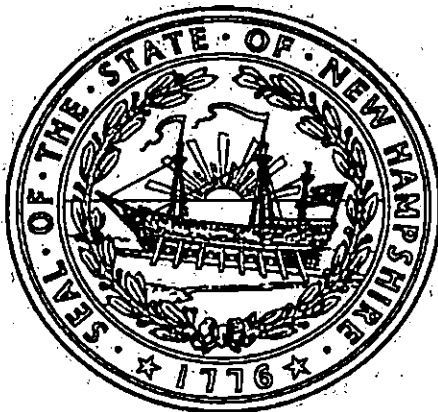
**State of New Hampshire**  
**Department of State**

CERTIFICATE

I, William M. Gardner, Secretary of State of the State of New Hampshire, do hereby certify that TRUSTEES OF DARTMOUTH COLLEGE a New Hampshire State Chartered (Legislative) formed to transact business in New Hampshire on December 13, 1769. I further certify that it has paid the fees required by law and has not dissolved.

Business ID: 66740

Certificate Number: 0004374568



IN TESTIMONY WHEREOF,

I hereto set my hand and cause to be affixed  
the Seal of the State of New Hampshire,  
this 11th day of January A.D. 2019.

A handwritten signature in cursive script, appearing to read "William M. Gardner".

William M. Gardner  
Secretary of State



BOARD OF TRUSTEES

CERTIFICATE

I, Laura H. Hercod, hereby certify that I am Assistant Clerk of Trustees of Dartmouth College, a corporation created by Royal Charter and existing under the laws of the State of New Hampshire; that as Assistant Clerk I have custody of the records of meetings of the Board of Trustees of said corporation; and that at a meeting of said Board duly called and held on the 9<sup>th</sup> day of April, 2011 at which a quorum was present and acting throughout, the following vote was adopted:

VOTED: To approve the Signature and Requisition Authority Policy, effective July 1, 2011 or such earlier date as the Executive Vice President/Chief Financial Officer shall determine. The provisions of the Signature and Requisition Authority Policy shall take precedence over any previous inconsistent vote of the Board of Trustees.

I further certify that said Board voted to adopt amendments to the Signature and Requisition Authority Policy on March 3, 2012 (effective January 1, 2012), September 22, 2013, January 2, 2014, March 8, 2014, November 8, 2014, and September 17, 2016, March 4, 2017, and November 4, 2017, and that pursuant to authority granted in the policy, amendments by the Executive Vice President and the Provost were made August 7, 2015 (effective July 1, 2015), as amended on September 17, 2016, March 4, 2017 and as further amended on November 6, 2017. The document is available on Dartmouth's website at: <http://www.dartmouth.edu/~control/policies/signature-authority.html>.

I further certify that said vote remains in full force and effect as of the date hereof and is not contrary to any provision of the Charter of said corporation.

I further certify that attached hereto is a true and correct copy of the Introduction and the Sponsored Activities Administration and Intellectual Property Transactions section (Appendix G) of the said Signature and Requisition Authority Policy.

I further certify that the following persons were appointed to the positions opposite their respective names and continue to serve in said positions as of the dates shown:

David F. Kotz	Interim Provost	November 23, 2017
Dean Madden	Vice Provost for Research	July 1, 2017
Gail Goodness	Controller	June 9, 2008
Jill Mortali	Director, Office of Sponsored Projects	September 15, 2008
Nila Bhakuni	Director of Technology Transfer Office	July 1, 2015
Heather A. Arnold	Associate Director, Office of Sponsored Projects	September 1, 2016

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the corporation this 16<sup>th</sup> day of April, 2019.

Laura H. Hercod, Assistant Clerk  
Trustees of Dartmouth College

## Appendix G: Sponsored Activities Administration and Intellectual Property Transactions

<p>Grants (including sub-grants) for external support for research (applications and agreements)</p>	<p><u>Over \$5,000,000</u> Director, OSP, or Vice Provost for Research</p> <p><u>Up to \$5,000,000</u> Director, Associate Director, or Assistant Director, OSP</p> <p><u>Up to \$2,000,000</u> Director, Associate Director, Assistant Director, Senior Grants Officer, or Grants Officer, OSP</p>
<p>Contracts (including sub-contracts) for external support for research (applications and agreements) and fee for service agreements.</p>	<p><u>Up to \$500,000</u> Director, Associate Director, Assistant Director, or Senior Grants Officer, OSP</p> <p><u>Up to \$1,000,000</u> Director or Associate Director, OSP</p> <p><u>Over \$1,000,000</u> Director, OSP, or Vice Provost for Research</p>
<p>Agreements with federal agencies for reimbursement of facilities and administrative costs</p>	<ul style="list-style-type: none"> <li>• Director, OSP, or Vice Provost for Research; and</li> <li>• EVP or CFO</li> </ul> <p>jointly</p>
<p>Approval of Sub-recipient Invoices/payments</p>	<p>OSP and PI, jointly</p>
<p>Purchases of goods and services with grant or contract funds</p> <p><i>Titles (e.g., "Director of Budget &amp; Fiscal Affairs", "EDAF") refer to the designated position in the school or department that is the recipient of the grant or contract as recorded in the Office of Sponsored Projects.</i></p> <p><i>When a grant or contract has more than one PI, each PI is authorized to exercise the authority under this Policy with respect to the portion of the project for which he or she is responsible.</i></p>	<p>In addition to the delegations set forth below, authorized staff members, and research team members designated in writing by the PI, may make purchases through any procurement mechanism up to the dollar amount permitted under the Procurement Card System, or such lower dollar amount as may be set by the PI.</p> <p><u>Up to \$5,000</u> Any regular employee with purchasing responsibility for the grant</p> <p><u>Up to \$25,000</u></p> <ul style="list-style-type: none"> <li>• PI, Laboratory Manager, or Grant Manager, or PI designee; and</li> <li>• OSP</li> </ul> <p><u>Up to \$100,000</u></p> <ul style="list-style-type: none"> <li>• PI; or</li> <li>• Dean's designee with permission of PI</li> </ul>

	<p>(PI and EDAF, jointly, may delegate authority up to \$100,000 in writing to other staff members); -and-</p> <ul style="list-style-type: none"> <li>• OSP</li> </ul> <p><u>Up to \$250,000</u></p> <ul style="list-style-type: none"> <li>• PI; and</li> <li>• Dean's Designee jointly;</li> </ul> <p>-and-</p> <ul style="list-style-type: none"> <li>• OSP</li> </ul> <p><u>Over \$250,000</u></p> <ul style="list-style-type: none"> <li>• PI and Dean or Dean's designee, jointly; and</li> <li>• OSP</li> </ul> <p><u>Additional Approvals:</u></p> <ul style="list-style-type: none"> <li>• Review by the General Counsel, Associate or Assistant General Counsel is also required for transactions over \$500,000</li> </ul>
<p>Agreements relating to the transfer of materials used in scientific research</p>	<p>Director , Technology Transfer Office; in the Director's absence, Director or Associate Director, OSP</p> <p>The Director of Technology Transfer may delegate authority to the Contract Manager.</p>
<p>Agreements for licenses and options of inventions/patents owned by Dartmouth pursuant to Dartmouth's Policy on Patents, Copyrights and Other Intellectual Property Rights</p>	<p><u>Up to \$500,000</u> Director, Technology Transfer Office</p> <p><u>Over \$500,000</u> Director, Technology Transfer Office, and Associate Provost for Entrepreneurship and Technology Transfers, jointly</p>
<p>Agreements for licenses and options of works of authorship/copyrights owned by Dartmouth pursuant to Dartmouth's Policy on Patents, Copyrights and Other Intellectual Property Rights</p>	<p>Dean of Libraries with respect to works administered by the Libraries</p> <p>Director, Technology Transfer Office with respect to software</p> <p>General Counsel. Associate or Assistant General Counsel with respect to all other works</p>
<p>Authority to execute documents pertaining to the registration and protection of intellectual property, including but not limited to powers of attorney, assignments, small entity forms and certifications required by the United States</p>	<p>Director, Technology Transfer Office</p> <p>The Director of Technology Transfer may delegate authority to the Contract Manager or Senior Business Development &amp; Licensing Manager.</p>

Patent and Trademark Office of patent authorities of foreign countries	
Authority to sign confidentiality and non-disclosure agreements in connection with the licensing (outgoing and incoming) and marketing of intellectual property	Director, Technology Transfer Office The Director of Technology Transfer may delegate authority to the Contract Manager or Senior Business Development & Licensing Manager.
Engagement of attorneys to represent Dartmouth in connection with the evaluation of inventions and the filing and prosecution of patents	Director, Technology Transfer Office, in consultation with the General Counsel
Licenses for the use of College-owned trademarks	General Counsel, Associate General Counsel, Assistant General Counsel, or Trademark Licensing Administrator
State and federal trademark registrations	General Counsel, Associate General Counsel or Assistant General Counsel



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
04/15/2019

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).

<b>PRODUCER</b> Marsh USA Inc. 1717 Arch Street Philadelphia, PA 19103-2797  J09254-DART-GAWUP-18-19	<b>CONTACT NAME:</b> PHONE (A/C, No, Ext): E-MAIL: ADDRESS:		<b>FAX (A/C, No):</b>													
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INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR 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  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			PCHE2018-03	07/01/2018	07/01/2019	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 2,000,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			CAS4057025 'SELF-INSURED FOR 'PHYSICAL DAMAGE'	07/01/2018	07/01/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
	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	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)

EVIDENCE OF INSURANCE

<b>CERTIFICATE HOLDER</b>  State of NH, DHHS, 129 Pleasant Street, Concord, NH 03301	<b>CANCELLATION</b>  SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	<b>AUTHORIZED REPRESENTATIVE</b> of Marsh USA Inc.  Manashi Mukherjee <i>Manashi Mukherjee</i>





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
07/01/18

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<b>J09254-DART-GAWUP-18-19</b>  <b>INSURED</b> TRUSTEES OF DARTMOUTH COLLEGE ATTN: TINA FEENEY 53 S. MAIN STREET, SUITE 212 HANOVER, NH 03755																						

### COVERAGES

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 INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS		
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER: _____						EACH OCCURRENCE	\$	
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	
							MED EXP (Any one person)	\$	
							PERSONAL & ADV INJURY	\$	
							GENERAL AGGREGATE	\$	
							PRODUCTS - COMP/OP AGG	\$	
								\$	
	<b>AUTOMOBILE LIABILITY</b> <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)	\$	
								\$	
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED _____ RETENTION \$ _____						EACH OCCURRENCE	\$	
							AGGREGATE	\$	
								\$	
E	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY			6024204717 (AOS)	07/01/2018	07/01/2019	X	PER STATUTE	
F	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y/N		6024204720 (CA)	07/01/2018	07/01/2019		E.L. EACH ACCIDENT	\$ 1,000,000
D	If yes, describe under DESCRIPTION OF OPERATIONS below	N	N/A	EWC008364 (NH) *Below SIR Applies* SIR: \$1,000,000	07/01/2018	07/01/2019		E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
								E.L. DISEASE - POLICY LIMIT	\$ 1,000,000

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

### CERTIFICATE HOLDER

State of NH, DHHS,  
129 Pleasant Street,  
Concord, NH 03301

### CANCELLATION

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  
of Marsh USA Inc.  
Manashi Mukherjee *Manashi Mukherjee*



# CERTIFICATE OF LIABILITY INSURANCE

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07/01/18

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).

<b>PRODUCER</b> Marsh USA Inc. 1717 Arch Street Philadelphia, PA 19103-2797	<b>CONTACT NAME:</b>	
	<b>PHONE (A/C No., Ext.):</b>	<b>FAX (A/C No.):</b>
<b>E-MAIL ADDRESS:</b>		
<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
<b>INSURER A : N/A</b>		N/A
<b>INSURER B : N/A</b>		N/A
<b>INSURER C : N/A</b>		N/A
<b>INSURER D : Midwest Employers Casualty Company</b>		23612
<b>INSURER E : American Casualty Company Of Reading, Pa</b>		20427
<b>INSURER F : Transportation Insurance Co</b>		20494

### COVERAGES

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.

INSTR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COM/PROP AGG \$	
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$	
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$	
E F D	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	6024204717 (AOS) 6024204720 (CA) EWC008364 (NH) "Below SIR Applies" SIR: \$1,000,000	07/01/2018 07/01/2018 07/01/2018	07/01/2019 07/01/2019 07/01/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000	

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

### CERTIFICATE HOLDER

For Informational Purposes Only

### CANCELLATION

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  
of Marsh USA Inc.

Manashi Mukherjee

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**Dartmouth College** HANOVER • NEW HAMPSHIRE • 03755-3529  
Office of the Provost • 6004 Parkhurst Hall, • Tel (603)646-2404 • Fax (603)646-3773

## Mission Statement

Dartmouth College combines the best features of an undergraduate liberal arts college with the intellectual vitality of a research university. Founded as an undergraduate institution more than two centuries ago, Dartmouth offers excellent graduate programs within the Arts and Sciences and in business, engineering, and medicine. The professional schools, among the first established in their respective fields, have had a historic role in defining the school's intellectual values. Dartmouth encourages a love of learning and discovery in every member of its community. It celebrates the diversity of that community, which includes men and women from different backgrounds, abilities, economic circumstances, perspectives, races, religions, national origins, and sexual orientations.

Dartmouth has a special character and is committed to fostering the unique bonds that exist between the institution and those who learn, teach, and work here. This character is rooted in the following essential elements:

A devotion to a vital learning environment that relies on a faculty dedicated to outstanding teaching and scholarship; a talented and intellectually curious student body; a staff committed to the institution and its purposes, and alumni/ae supportive of the pursuit of the highest ideals of teaching and learning.

A conviction that one of Dartmouth's strengths is providing students with close contact with faculty, and an appreciation that the quality of the educational and research experiences Dartmouth offers is one measure of its success.

A resolve to enrich the learning experience at Dartmouth by encouraging regular interaction among members of a diverse community. A Dartmouth education should prepare students for life in complex world, one in which the ability to understand and appreciate differences and similarities among all people and societies is essential.

A commitment to sustain an academic residential community that cultivates and nurtures the social, emotional, moral, and physical well-being of its members. Dartmouth encourages intellectual endeavors, artistic expression, community service, athletics and outdoor activities, religious life, and political and social activism.

A recognition that its setting and location in northern New England offer Dartmouth unique advantages, special traditions, and ongoing obligations related to understanding our relationships to our community and to our environment.

Adopted June, 2002

# **Dartmouth College**

**Report on Federal Awards in Accordance  
with the Uniform Guidance**

**June 30, 2018**

**EIN #02022111**

**Dartmouth College**  
**Report on Federal Awards in Accordance with the Uniform Guidance**  
**June 30, 2018**

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## Report of Independent Auditors

To the Board of Trustees of Dartmouth College:

### Report on the Consolidated Financial Statements

We have audited the accompanying consolidated financial statements of Dartmouth College and its subsidiaries ("Dartmouth College"), which comprise the consolidated statements of financial position as of June 30, 2018 and 2017, and the related consolidated statements of activities and of operating expenses for the year ended June 30, 2018, and of cash flows for the years ended June 30, 2018 and 2017, and the related notes to the financial statements.

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

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

### *Auditors' Responsibility*

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

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

### *Opinion*

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Dartmouth College and its subsidiaries as of June 30, 2018 and 2017, and the changes in their net assets for the year ended June 30, 2018 and their cash flows for the years ended June 30, 2018 and 2017 in accordance with accounting principles generally accepted in the United States of America.



### ***Other Matters***

We previously audited the consolidated statement of financial position as of June 30, 2017, and the related consolidated statements of activities, of operating expenses and of cash flows for the year then ended (not presented herein), and in our report dated October 26, 2017, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying summarized financial information as of June 30, 2017 and for the year then ended is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

### ***Other Information***

Our audit was conducted for the purpose of forming an opinion on the consolidated financial statements as a whole. The accompanying schedule of expenditures of federal awards for the year ended June 30, 2018 is presented for purposes of additional analysis as required by Title 2 U.S. Code of Federal Regulations Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and is not a required part of the consolidated financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the consolidated financial statements. The information has been subjected to the auditing procedures applied in the audit of the consolidated financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated financial statements or to the consolidated financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedule of expenditures of federal awards is fairly stated, in all material respects, in relation to the consolidated financial statements as a whole.

### ***Other Reporting Required by Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated October 24, 2018 on our consideration of Dartmouth College'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 for the year ended June 30, 2018. 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 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 Dartmouth College's internal control over financial reporting and compliance.

*Brian W. Hulse, CPA, CFP*

Boston, MA  
October 24, 2018

## Dartmouth College

### Consolidated Statement of Financial Position

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

	2018	2017
<b>Assets</b>		
Cash and cash equivalents	\$ 203,676	\$ 175,997
Receivables and other assets, net	133,016	137,687
Investment related receivables	37,833	52,591
Pledges receivable, net	352,079	244,714
Investments	6,591,811	6,318,176
Land, buildings, equipment, and construction in progress, net	967,686	967,639
<b>Total assets</b>	<b>\$ 8,286,101</b>	<b>\$ 7,896,804</b>
<b>Liabilities</b>		
Accounts payable and other liabilities	\$ 91,833	\$ 94,929
Investment related payables	53,188	157,308
Deferred revenues and deposits	48,011	39,975
Liability for split-interest agreements	51,637	52,715
Pension and other employment related obligations	353,606	400,872
Bonds, mortgages, and notes payable, net	1,052,782	1,211,124
Interest rate swap liabilities, at fair value	135,102	175,646
Conditional asset retirement obligations	24,062	25,314
Government advances for student loans	17,797	20,551
<b>Total liabilities</b>	<b>1,828,018</b>	<b>2,178,434</b>
<b>Net Assets</b>		
Unrestricted	1,524,144	1,329,106
Temporarily restricted	3,384,711	2,986,934
Permanently restricted	1,549,228	1,402,330
<b>Total net assets</b>	<b>6,458,083</b>	<b>5,718,370</b>
<b>Total liabilities and net assets</b>	<b>\$ 8,286,101</b>	<b>\$ 7,896,804</b>

See accompanying notes to the consolidated financial statements.



## Dartmouth College

### Consolidated Statement of Activities

For the year ended June 30, 2018, with summarized financial information for the year ended June 30, 2017

(in thousands)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total	
				2018	2017
<b>Endowment Activities</b>					
Gifts	\$ 129	\$ 17,294	\$ 84,626	\$ 102,049	\$ 56,799
Net investment return	135,874	453,763	1,239	590,876	630,383
Distributed for spending	(53,291)	(182,830)	(413)	(236,534)	(225,409)
Other changes	2,435	(11,829)	18,593	9,199	4,881
Amounts transferred from other funds, net	63,647	5,388	3,085	72,120	15,436
<b>Change in net assets from endowment activities</b>	<b>148,794</b>	<b>281,786</b>	<b>107,130</b>	<b>537,710</b>	<b>482,090</b>
<b>Operating Activities</b>					
<b>Revenues</b>					
Tuition and fees	374,268	-	-	374,268	355,454
Student scholarships	(158,094)	-	-	(158,094)	(150,460)
Net tuition and fees	216,174	-	-	216,174	204,994
Sponsored research grants and contracts	169,948	-	-	169,948	171,007
Dartmouth College Fund and other gifts	75,199	15,594	-	90,793	86,999
Distributed endowment investment return	224,058	10,558	-	234,616	223,545
Other operating income	99,772	643	-	100,415	123,655
Auxiliaries	81,548	-	-	81,548	77,680
Net assets released from restrictions	8,767	(8,767)	-	-	-
<b>Total revenues</b>	<b>875,466</b>	<b>18,028</b>	<b>-</b>	<b>893,494</b>	<b>887,880</b>
<b>Expenses</b>					
Academic and student programs	560,168	-	-	560,168	551,549
Sponsored programs	125,182	-	-	125,182	128,469
General institutional services	101,606	-	-	101,606	100,457
Auxiliaries	87,150	-	-	87,150	83,078
<b>Subtotal expenses for ongoing operations</b>	<b>874,106</b>	<b>-</b>	<b>-</b>	<b>874,106</b>	<b>863,553</b>
<b>Change in net assets from ongoing operations</b>	<b>1,360</b>	<b>18,028</b>	<b>-</b>	<b>19,388</b>	<b>24,327</b>
Environmental remediation and related expenses	-	-	-	-	26,950
<b>Change in net assets from operating activities</b>	<b>1,360</b>	<b>18,028</b>	<b>-</b>	<b>19,388</b>	<b>(2,623)</b>
<b>Non-operating Activities</b>					
Gifts	-	67,575	1,979	69,554	61,845
Other non-operating changes, net	(550)	2,285	-	1,735	51,405
Distributed endowment investment return	589	1,329	-	1,918	1,864
Increase in outstanding pledges, net	-	67,818	39,547	107,365	33,259
Other components of net periodic benefit cost	(7,965)	-	-	(7,965)	(9,570)
Pension and postretirement benefit related changes other than net periodic benefit cost	64,198	-	-	64,198	37,422
Disposals and non-capitalized expenditures	(3,748)	(469)	-	(4,217)	(9,452)
Change in unrealized gain related to interest rate swap agreements	40,544	-	-	40,544	74,675
Net assets released from restrictions	14,903	(14,903)	-	-	-
Amounts transferred to endowment, net	(63,276)	(8,844)	-	(72,120)	(15,436)
Net change in split-interest agreements	189	(16,828)	(1,758)	(18,397)	(14,069)
<b>Change in net assets from non-operating activities</b>	<b>44,884</b>	<b>97,963</b>	<b>39,768</b>	<b>182,615</b>	<b>211,943</b>
<b>Change in net assets</b>	<b>195,038</b>	<b>397,777</b>	<b>146,898</b>	<b>739,713</b>	<b>691,410</b>
<b>Net Assets, beginning of year</b>	<b>1,329,106</b>	<b>2,986,934</b>	<b>1,402,330</b>	<b>5,718,370</b>	<b>5,026,960</b>
<b>Net Assets, end of year</b>	<b>\$ 1,524,144</b>	<b>\$ 3,384,711</b>	<b>\$ 1,549,228</b>	<b>\$ 6,458,083</b>	<b>\$ 5,718,370</b>

See accompanying notes to the consolidated financial statements.

Dartmouth College

**Consolidated Statement of Operating Expenses**

For the year ended June 30, 2018, with summarized financial information for the year ended June 30, 2017  
(in thousands)

	Academic & Student Programs	Sponsored Programs	General Institutional Services				Auxiliaries	Total Expenses	
			Administrative Support	Facilities Operation & Maintenance	Development	Total		2018	2017
Salaries and wages	\$ 241,729	\$ 50,263	\$ 29,180	\$ 18,845	\$ 23,344	\$ 71,369	\$ 16,358	\$ 379,719	\$ 366,654
Employee benefits	75,192	15,635	9,077	5,862	7,261	22,200	5,088	118,115	124,114
Fellowships and student support	13,607	3,718	-	-	-	-	-	17,325	17,090
Materials, equipment, and supplies	36,756	9,301	7,224	1,604	1,160	9,988	17,709	73,754	72,370
Purchased services	42,309	42,588	4,571	3,592	4,527	12,690	11,526	109,113	115,013
Utilities, taxes, and occupancy	1,961	127	-	31,620	494	32,114	8,132	42,334	38,134
Depreciation and amortization	46,857	-	3,903	4,866	380	9,149	9,895	65,901	66,189
Lodging, travel, and similar costs	24,656	3,258	1,269	109	2,228	3,606	148	31,668	30,149
Interest	-	-	-	24,937	-	24,937	1,407	26,344	27,356
Other expenses	5,585	292	1,651	302	751	2,704	1,252	9,833	6,484
	488,652	125,182	56,875	91,737	40,145	188,757	71,515	874,106	863,553
Facilities operation & maintenance	71,516	-	4,380	(91,737)	206	(87,151)	15,635	-	-
<b>Total expenses for FY18</b>	<b>\$ 560,168</b>	<b>\$ 125,182</b>	<b>\$ 61,255</b>	<b>\$ -</b>	<b>\$ 40,351</b>	<b>\$ 101,606</b>	<b>\$ 87,150</b>	<b>\$ 874,106</b>	
<b>Total expenses for FY17</b>	<b>\$ 551,549</b>	<b>\$ 128,469</b>	<b>\$ 63,853</b>	<b>\$ -</b>	<b>\$ 36,604</b>	<b>\$ 100,457</b>	<b>\$ 83,078</b>		<b>\$ 863,553</b>

See accompanying notes to the consolidated financial statements.

Dartmouth College

**Consolidated Statement of Cash Flows**

For the years ended June 30, 2018 and June 30, 2017  
(in thousands)

	2018	2017
<b>Cash flows from operating activities</b>		
Total change in net assets	\$ 739,713	\$ 691,410
Adjustments to reconcile total change in net assets to net cash used by operating activities:		
Depreciation and amortization	65,721	66,499
Change in estimated value of interest rate swap agreements	(40,544)	(74,675)
Change in estimated pension and post-retirement benefit obligation	(50,365)	(26,056)
Net change in split-interest liability	(1,078)	3,188
Change in pledges receivable, net	(107,365)	(33,259)
Other non-cash transactions	885	854
Contributions, investment income, and other changes restricted for long-term investment	(198,154)	(106,153)
Net realized and changes unrealized (gains) losses	(620,898)	(717,837)
Changes in operating assets and liabilities:		
Receivables and other assets, net	142	597
Accounts payable and other liabilities	(6,186)	(5,452)
Deferred revenues and deposits	8,036	(1,073)
Employment related obligations	3,099	6,218
Net cash used in operating activities	<u>(206,994)</u>	<u>(195,739)</u>
<b>Cash flows from investing activities</b>		
Student loans granted	(5,796)	(6,977)
Student loans repaid	10,234	10,559
Purchases of land, buildings, and equipment	(65,161)	(79,629)
Purchases of investments	(4,673,592)	(3,838,691)
Sales and maturities of investments	4,931,493	4,006,376
Net cash provided by investing activities	<u>197,178</u>	<u>91,638</u>
<b>Cash flows from financing activities</b>		
Proceeds from issuance of debt	46,831	-
Repayment of debt	(204,736)	(33,878)
Contributions, investment income, and other changes restricted for long-term investment in:		
Facilities	23,795	34,159
Endowment, life income, and similar funds	174,359	71,994
Changes in government advances for student loans	(2,754)	(109)
Net cash provided by financing activities	<u>37,495</u>	<u>72,166</u>
<b>Net change in cash and cash equivalents</b>	27,679	(31,935)
Cash and cash equivalents, beginning of year	175,997	207,932
Cash and cash equivalents, end of year	<u>\$ 203,676</u>	<u>\$ 175,997</u>
<b>Supplemental disclosure of cash flow information</b>		
Cash paid for interest	\$ 45,252	\$ 50,703
Accounts payable related building and equipment additions	\$ 1,838	\$ 1,313
Fair value of contributed securities received	\$ 62,849	\$ 41,735

See accompanying notes to the consolidated financial statements.

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

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**A. Summary of Significant Accounting Policies**

**Description of Organization**

Dartmouth College (Dartmouth) is a private, nonprofit, co-educational, nonsectarian institution of higher education with approximately 4,400 undergraduate and 2,100 graduate students. Established in 1769, Dartmouth includes the four-year undergraduate college, with graduate schools of business, engineering, medicine, and arts and sciences.

**Basis of Presentation**

The accompanying consolidated financial statements have been prepared on the accrual basis. Dartmouth's consolidated financial statements include the accounts of its wholly owned subsidiaries and certain affiliated organizations over which it has financial control. The wholly owned subsidiaries and financially controlled entities include real estate corporations, which own real estate in the Hanover, NH area; the Dartmouth Education Loan Corporation (DELC), which provides scholarships and loans to Dartmouth students who are unable to finance their education through other sources; and various separately incorporated entities which support experiential learning and other activities that enrich the experience of students and the community.

In accordance with U.S. generally accepted accounting principles (GAAP), net assets, revenues, gains, and losses are classified into three categories: unrestricted, temporarily restricted, or permanently restricted. Unrestricted net assets include all resources that are not subject to donor-imposed restrictions and therefore may be used for any purpose in furtherance of Dartmouth's mission. Under the authority of Dartmouth's management and Board of Trustees, in order to support Dartmouth's strategic initiatives, all or a portion of unrestricted net assets may be set aside in segregated Dartmouth-designated reserve accounts and earmarked for use in future years by specific departments, divisions or schools to cover program costs or contingencies. These Dartmouth-designated net assets include funds designated for operating initiatives, facilities, and long-term quasi-endowment. The purposes for which Dartmouth-designated net assets are earmarked may be changed under the authority of Dartmouth's management or Board of Trustees. The use of designated net assets is at the discretion of the responsible department. All expenses are recorded as a reduction of unrestricted net assets.

Temporarily restricted net assets carry donor-imposed restrictions on the expenditure or other use of contributed funds. Temporary restrictions may expire either because of the passage of time or because actions are taken to fulfill the restrictions. Temporarily restricted net assets include unexpended endowment return, unexpended restricted use gifts, term endowment funds, loan funds, certain uncollected pledges, and life income and similar funds. Donor-restricted resources intended for capital projects are released from their temporary restrictions and presented as unrestricted support when the related asset is placed in service. Temporarily restricted endowment distribution and donor-restricted gifts which are received, and either spent or deemed spent within the same fiscal year, are reported as unrestricted.

Permanently restricted net assets are those that are subject to donor-imposed restrictions which will never lapse, thus requiring that the net assets be retained permanently. Based upon a legal interpretation of New Hampshire State Law, Dartmouth has determined that appreciation on restricted endowment funds should be classified as temporarily restricted net assets until such time as the appreciation is appropriated by the Board of Trustees. Investment return from endowment activities that has been appropriated by Dartmouth's Board of Trustees is presented as an increase in operating or non-operating activities according to the unrestricted or temporarily restricted nature of the donor's intended use of the funds. In the case of quasi-endowment funds designated for long-term investment by Dartmouth, investment return that has been appropriated by Dartmouth's Board of Trustees is presented as an increase in unrestricted operating or non-operating activities, depending upon Dartmouth's intended use of the funds. Permanently restricted net assets consist of the original principal of endowment gifts, life income and similar funds, and certain pledges.

**Comparative Financial Information**

The 2018 consolidated financial statements are presented with certain prior-year comparative information summarized in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with GAAP. Accordingly, such information should be read in conjunction with Dartmouth's consolidated financial statements for the year ended June 30, 2017, from which the summarized information was derived. Certain prior year amounts have been reclassified to conform to the fiscal year 2018 presentation.

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

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**Use of Estimates**

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. The most significant estimates in these consolidated financial statements are the fair value of investments, interest rate swap agreements, pension and postretirement benefit obligations, conditional asset retirement obligations, liabilities for self-insured programs and split-interest agreements, and allowances for uncollectible accounts and pledges receivable. Actual results could differ materially from these estimates, particularly during periods of investment and/or interest rate volatility.

**Recent Accounting Pronouncements**

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*, which addresses certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The ASU is effective for Dartmouth's fiscal year 2020; however, as permitted by the ASU, Dartmouth chose to early adopt the provision to eliminate the requirement to disclose the fair value of financial instruments measured at cost (such as the fair value of debt) in fiscal year 2016. Dartmouth is evaluating the impact of the remainder of the new guidance on the consolidated financial statements.

In fiscal year 2017, Dartmouth adopted ASU 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, which requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from that debt liability, consistent with the presentation of a debt discount.

In fiscal year 2018, Dartmouth adopted Accounting Standards Update (ASU) No. 2017-07, *Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This guidance requires that the service cost component of net periodic benefit cost for pension and other postretirement benefits be included in employee benefit expenses. The other components of net periodic benefit cost are required to be presented as a nonoperating change in unrestricted net assets. See Note H.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* at the conclusion of a joint effort with the International Accounting Standards Board to create common revenue recognition guidance for U.S. GAAP and international accounting standards. This framework ensures that entities appropriately reflect the consideration to which they expect to be entitled in exchange for goods and services, by allocating the transaction price to identified performance obligations, and recognizing that revenue as performance obligations are satisfied. Qualitative and quantitative disclosures will be required to enable users of financial statements to understand the natures, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. In August of 2015, FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which makes ASU 2014-09 effective for the fiscal year ending June 30, 2019. Dartmouth is planning for the implementation of this new standard.

In August 2016, the FASB issued ASU 2016-14, *Not-for-Profit Entities (Topic 958): Presentation of Financial Statements for Not-for-Profit Entities*, to improve the information presented in the financial statements and notes about a not-for-profit entity's liquidity, financial performance and cash flows. The significant changes under the new guidance include the reduction of net asset classifications to two categories based on the existence or absence of donor restrictions, and additional disclosure requirements related to board designation of net assets, and related to the liquidity and availability of the entity's financial assets. The ASU is effective for fiscal year ending June 30, 2019. Dartmouth is planning for the implementation of the new standard.

In June 2018, the FASB issued ASU 2018-08, *Not-for-Profit Entities (Topic 958): Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made*. The update provides clarifying guidance on accounting for the grants and contracts of nonprofit organizations as they relate to the new revenue standard (ASU 2014-09 Revenue from Contracts with Customers) and aims to minimize diversity in the classification of grants and contracts that exists under current guidance. The new guidance also clarifies the criteria for evaluating whether contributions are unconditional (and thus recognized immediately in income) or conditional (for which income recognition is deferred). The ASU is effective for the fiscal year ending June 30, 2019. Dartmouth is planning for the implementation of the new standard.

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In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which provides guidance for leases from both the lessor's and lessee's perspective. The main difference between previous GAAP and Topic 842 is the recognition of lease assets and lease liabilities for those leases classified as operating leases. The new standard will be effective for the fiscal year ending June 30, 2020. Dartmouth has begun planning for the implementation of this new standard.

**Consolidated Statement of Activities**

Operating activities presented in the Consolidated Statement of Activities consist of revenues earned, endowment net investment return appropriated by Dartmouth's Board of Trustees, and expenses incurred in conducting Dartmouth's programs and services. Auxiliary enterprises, primarily the operation of residence halls, dining services, and recreational facilities, are included in operating activities. Expenses such as development, public affairs, and central services and administration are reported as general institutional services. Depreciation and facilities operations and maintenance expenses are allocated to functional classifications of expenses based on the square footage of each building. Amortization expense of capitalized information technology costs is allocated to the functional classification that the technology supports. Interest expense is allocated to functional classifications of expenses based on the use of each building that has been debt financed.

Non-operating activities presented in the Consolidated Statement of Activities consist of gifts for facilities projects and gifts whose purpose has not yet been finalized, grants, investment income, other earnings, and endowment investment return appropriated by Dartmouth's Board of Trustees for loan programs and the construction, purchase or sale of capital assets, non-capitalizable construction in progress, net change in life income and similar split-interest agreements, the net change in pledges receivable, the net change in the estimated value of interest rate swap agreements, and postretirement benefit changes other than service cost.

Endowment activities presented in the Consolidated Statement of Activities consist of gifts that are restricted by donors to invest in perpetuity, amounts designated by Dartmouth's management and Board of Trustees for long-term investment, the net investment return on these invested funds, and the annual distribution of an amount appropriated by Dartmouth's Board of Trustees to support operating and non-operating activities. Other endowment activities include increases in endowment net assets from certain matured split-interest agreements.

Endowment and non-operating activities also include transfers of net assets that occur when donors change the restrictions on certain gifts or when Dartmouth changes the designation of unrestricted funds.

**Cash and Cash Equivalents**

Cash and cash equivalents are recorded at cost which approximates fair value and may include U.S. treasury funds, money market accounts, certificates of deposit, commercial paper, foreign currency and certain currency related contracts, and liquid short-term investments with maturities of 90 days or less at the date of acquisition. Cash and cash equivalents held for investment purposes in the Endowment are reported as Investments on the Consolidated Statement of Financial Position.

**Tuition and Fees and Student Scholarships**

Tuition and fees revenue is recognized in the fiscal year in which substantially all of the academic program occurs. Tuition and fees revenue from undergraduate enrollment represents approximately 66 percent of tuition and fees revenue for the years ended June 30, 2018 and 2017. Student scholarships provided by Dartmouth are presented in the Consolidated Statement of Activities as a reduction in tuition and fees revenue. In addition, Dartmouth acts as an agent for recipients of scholarships from other sponsors in the amounts of \$3,821,000 and \$3,475,000 for the years ended June 30, 2018 and 2017, respectively, which are not presented in the Consolidated Statement of Activities.

Prior to fiscal year 2017, all students admitted to Dartmouth's undergraduate program were admitted without regard to financial need. Beginning in fiscal year 2017, for international applicants only, Dartmouth has considered the financial need of those applicants as part of the admissions process. All admitted students are offered financial aid to fully meet their demonstrated need, which is defined using a uniform formula that determines the ability to pay based on the family's income and assets, along with many other factors. The full amount of demonstrated need is met with a financial aid package that includes a combination of employment eligibility, grants, and in some cases, loans.

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**Sponsored Research Grants and Contracts**

Revenues from government and private sponsored research grants and contracts are recognized when the direct costs associated with the sponsored program are incurred. Revenue from the reimbursement of facilities and administrative costs incurred by Dartmouth on U.S. government grants and contracts is based upon negotiated rates including predetermined rates through June 30, 2018 and provisional rates effective July 1, 2018 until amended. Dartmouth recovered facilities and administrative costs of approximately \$44,095,000 and \$42,718,000 during the years ended June 30, 2018 and 2017, respectively.

**Taxes**

Dartmouth is exempt from federal income taxes under Section 501(c)(3) of the U.S. Internal Revenue Code (the Code), except with regard to unrelated business income, which is taxed at corporate income tax rates. Dartmouth is also subject to state and local property tax on the value of dormitories and dining and kitchen facilities in excess of \$150,000, as well as on the value of its off-campus rental properties, commercial properties, and other real estate holdings to the extent they are not used or occupied for Dartmouth's tax exempt purposes. Certain Dartmouth real estate entities are exempt from federal income tax under Sections 501(c)(2) and 501(c)(25) of the Code. As of June 30, 2018, tax years ended June 30, 2015 through June 30, 2017 remain open and are subject to federal and state taxing authority examination. Dartmouth believes it has taken no significant uncertain tax positions.

The Tax Cuts and Jobs Act (the "Act") was enacted on December 22, 2017. The Act impacts Dartmouth in several ways, including imposing excise taxes on executive compensation in excess of \$1,000,000 and net investment income, increases to unrelated business taxable income (UBTI) by the amount of certain fringe benefits for which a deduction is not allowed, changes to the net operating loss rules, repeal of the alternative minimum tax (AMT), and the computation of UBTI separately for each unrelated trade or business. Further, the Act reduces the US federal corporate tax rate and federal corporate unrelated business income tax rate from 35% to 21%. For fiscal year 2019 the full impact of the Act will not be known until further regulatory guidance is provided regarding the calculation of income and excise tax liabilities. Dartmouth continues to evaluate the impact of tax reform on the institution.

**Affiliation with Dartmouth-Hitchcock Medical Center**

Dartmouth, through the Geisel School of Medicine (Geisel), is a member of the Dartmouth-Hitchcock Medical Center (DHMC), a confederation of health care organizations intended to coordinate medical education and health care delivery for the residents of New Hampshire and Vermont. DHMC is a nonprofit, tax-exempt corporation organized under New Hampshire State Law. The other members of DHMC are: (i) Mary Hitchcock Memorial Hospital (MHMH), (ii) Dartmouth-Hitchcock Clinic (Clinic), and (iii) Veterans Administration Medical Center of White River Junction, Vermont (VAMC). The staff of the Clinic serves as the primary resource for Geisel clinical faculty, with the Hitchcock Hospital and the VAMC acting as principal sites of clinical instruction for Geisel students. Each member of DHMC is a separately organized, governed, and operated institution, with Dartmouth having no ownership interest in any other member.

Certain costs, including salaries, facilities use (including construction planning and management, and facilities operation and maintenance), and direct and indirect research, incurred by Geisel and the other members of DHMC are shared among the members based on negotiated allocations of the costs on an annual or project specific basis. Dartmouth, MHMH and the Clinic, are also parties to a Condominium Ownership Agreement that governs the ownership and operation of their shared facilities. During the years ended June 30, 2018 and 2017, Dartmouth paid approximately \$19,500,000 and \$19,300,000, respectively, and received approximately \$11,400,000 and \$9,100,000, respectively, in connection with these arrangements.

**Insurance**

Dartmouth maintains several insurance arrangements with the objective of providing the most cost effective and comprehensive coverage for most insurable risks. Both conventional and alternative insurance coverage approaches, including utilization of appropriate deductible or self-insured retention amounts, are in place to cover trustee errors and omissions and employment practices, crime bond, commercial general and automobile liability, pension trust fiduciary errors and omissions liability, and property losses. Workers' compensation losses are covered by a self-insured retention and excess insurance program. Dartmouth currently participates in two risk retention groups that provide general liability and professional and medical malpractice liability insurance.

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Dartmouth's annual premium payments for conventional insurance coverage are included in operating expenses. Estimated liabilities for losses under Dartmouth's deductible and/or self-insurance retention limits are reflected in the Consolidated Statement of Financial Position, which includes estimates for known losses and for losses incurred but not yet reported. Insurance reserves are based on actuarial analysis and/or estimates of historical loss experience, and while management believes that the reserves are adequate, the ultimate liabilities may be different than the amounts provided.

**Gifts and Pledges Receivable**

Total contributions to Dartmouth include gifts that are received and the net change in pledges receivable during a period. Gifts, pledges and pledge payments are recognized as increases in the appropriate category of net assets in the period the gift or pledge is received. The net change in total pledges is recorded as a net increase (decrease) in non-operating activities in the Consolidated Statement of Activities. Contributions of capitalizable assets other than cash are recorded at their estimated fair value at the date of gift. Pledges are stated at the estimated present value of future cash flows, net of an allowance for uncollectible amounts. Conditional promises to give are not recognized until the conditions on which they depend are substantially met.

**Investments**

Investments are reported at fair value in accordance with U.S. GAAP. Purchases and sales of securities are recorded on the trade date, and realized gains and losses are determined on the basis of the average cost of securities sold. Advance contributions to commingled fund investments and redemptions receivable from commingled fund investments at June 30, 2018 and June 30, 2017 are included within Investments as presented on the Consolidated Statement of Financial Position.

For investments held directly by Dartmouth for which an active market with quoted prices exists, the market price of an identical security is used as fair value. Fair values for shares in listed commingled funds are based on the quoted market value or share prices reported as of the last business day of the fiscal year. Dartmouth's interest in certain other private commingled funds and private partnership interests are reported at the net asset value (NAV) as determined by the external fund manager. As permitted by GAAP, Dartmouth uses NAV as a practical expedient to estimate the fair value of Dartmouth's ownership interest, unless it is probable that all or a portion of the investment will be sold for an amount different from NAV. Dartmouth performs due diligence procedures related to these investments to support recognition at fair value at fiscal year-end. Because many of these investments are not readily marketable, the estimates of fair value involve assumptions and estimation methods which are uncertain, and therefore the estimates could differ from actual results.

Directly held real estate is reflected at fair value in accordance with Dartmouth's valuation policy. Management estimates fair value for these properties using primarily inputs from independent third-party appraisals, which are updated annually, but may consider other metrics including discounted cash flow analysis or recent tax assessments, or at cost which approximates fair value for properties held for less than one year or which are being actively developed.

Total investment return (interest, dividends, rents, royalties, and net realized and changes in unrealized gains and losses) earned by Dartmouth's endowment investments is included in endowment activities on the Consolidated Statement of Activities, while the net investment return earned by the non-endowment investments is included in operating or non-operating activities, as appropriate, on the Consolidated Statement of Activities. Dividend income is recognized, net of applicable withholding taxes, on the ex-dividend date. Non-cash dividends are recorded at the fair value of the securities received on the date of distribution. Interest income and expenses are recorded net of applicable withholding taxes on the accrual basis of accounting. Dartmouth amortizes bond premiums and accretes bond discounts using the effective yield method. Fees charged by external investment managers are generally based on contractual percentages of the fair value of assets under management or on annual total investment return and are, in most cases, netted against investment return. However, certain expenses paid directly by Dartmouth for investment management and custody services, including certain internal costs, amounted to approximately \$17,653,000 and \$15,817,000 for the years ended June 30, 2018 and 2017, respectively, and have been netted against total investment return and other operating and non-operating investment return in the accompanying Consolidated Statement of Activities.



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The asset allocation of Dartmouth's investment portfolio involves exposure to a diverse set of markets. The investments within these markets involve various risks such as price, interest rate, sovereign, currency, liquidity, and credit risks. Additionally, investments in real assets through commingled funds and direct real estate expose Dartmouth to a unique set of risks such as operational, environmental, and political risks. Dartmouth anticipates that the value and composition of its investments may, from time to time, fluctuate substantially in response to any or all of the risks described herein.

**Endowment**

Dartmouth's endowment consists of gifts restricted by donors and unrestricted net assets designated by management and the Board of Trustees for long-term support of Dartmouth's activities, and the accumulated investment return on these gifts and designated net assets. Accumulated investment return consists of endowment net investment return that has not been appropriated by the Board of Trustees for expenditure to support Dartmouth's operating and non-operating activities. Generally, only a portion of accumulated net investment return is made available for spending each year in accordance with the Board of Trustees-approved endowment utilization policy and New Hampshire State Law. However, certain donor restricted endowment funds do allow for the expenditure of principal; and Dartmouth-designated endowment funds are unrestricted net assets that may be re-designated for authorized expenditures.

Giving consideration to the New Hampshire Uniform Prudent Management of Institutional Funds Act (UPMIFA), Dartmouth classifies as permanently restricted net assets all endowment funds that must be retained permanently in accordance with stipulations imposed by a donor at the time of a gift, plus the original value of assets donated to permanent endowment, along with any investment earnings that are directed by the donor to be reinvested in perpetuity (i.e., historic book value). The remaining portion of the donor-restricted endowment fund that is not classified in permanently restricted net assets is classified as temporarily restricted net assets until those amounts are appropriated for expenditure in a manner consistent with the standard of prudence prescribed by UPMIFA and in accordance with purpose designated by the donor.

Unrestricted endowment net assets include Dartmouth funds and certain unrestricted gifts from donors, and any accumulated investment return thereon, which may be expended; however, by trustee or management designation, these net assets may remain invested in the endowment for the long-term support of Dartmouth activities. Investment return on unrestricted endowment net assets and the annual distribution of a portion of accumulated investment return to operating and non-operating activities are presented as changes in unrestricted net assets in the Consolidated Statement of Activities. Temporarily restricted endowment net assets include certain expendable endowment gifts, and any retained income and appreciation thereon, which are restricted by the donor to a specific purpose or by law. When the temporary restrictions on these funds have been met, the gifts ordinarily remain in the endowment by trustee designation to continue supporting the same activities as those specified by the donors, but the net assets are reclassified to unrestricted endowment net assets.

Investment return on temporarily and permanently restricted net assets are generally presented as changes in temporarily restricted net assets in the Consolidated Statement of Activities.

**Split-Interest Agreements**

Certain donors have established irrevocable split-interest agreements with Dartmouth, primarily charitable gift annuities, pooled life income funds, and irrevocable charitable remainder trusts, whereby the donated assets are invested and distributions are made to the donor and/or other beneficiaries in accordance with the agreement for a specified period of time, after which time the remaining assets and future investment return are retained by Dartmouth. At the discretion of the donor, Dartmouth may or may not serve as trustee for the split-interest agreement.

Dartmouth has recorded the estimated fair value of the investments associated with irrevocable split-interest agreements and an estimated liability, using a discount rate of 3.4% and 2.4% for June 30, 2018 and 2017, respectively, for the net present value of the future cash outflows to beneficiaries of the agreements for which Dartmouth serves as trustee. When Dartmouth is not the trustee of the assets associated with a split-interest agreement, a receivable for Dartmouth's beneficial interest is established when Dartmouth is notified of the trust's existence and when the third-party trustee has provided Dartmouth with sufficient reliable information to estimate the value of the receivable, which Dartmouth considers a Level 3 measurement. Dartmouth requests information regularly from third-party trustees for financial reporting purposes; however, these trustees are not obligated to provide Dartmouth with the information necessary to estimate fair value and record the asset. Dartmouth respects

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the privacy of donors and trustees in these limited instances. Dartmouth reports the net change in split-interest agreements as a non-operating change in net assets in the Consolidated Statement of Activities.

**Land, Buildings, Equipment, and Construction in Progress**

Land, buildings, equipment, and construction in progress are recorded at cost at the date of acquisition or, if acquired by gift, at the estimated fair value as of the date of the gift. Purchases, construction, and renovations of assets which exceed Dartmouth's specified dollar threshold and have a useful life greater than one year are capitalized, while scheduled maintenance and minor renovations of less than that amount are charged to operations.

Land, buildings, and equipment are reflected net of accumulated depreciation calculated on a straight-line basis over the following estimated economic lives.

Buildings and building components	13 – 50 years
Depreciable land improvements	15 – 20 years
Equipment	5 – 20 years

Depreciation expense for facilities that are primarily used for sponsored research is based on the estimated economic lives of each component.

**Collections**

Dartmouth's collections include works of art, literary works, historical treasures, and artifacts that are maintained in its museum and libraries. These collections are protected and preserved for public exhibition, education, research, and the furtherance of public service. Each of the items is cataloged, preserved, and cared for, and activities verifying their existence and assessing their condition are performed continuously. The collections are subject to a policy that requires proceeds from their sale to be used to acquire other items for collections.

The collections, which were acquired through purchases and contributions since Dartmouth's inception, are not recognized as assets in the Consolidated Statement of Financial Position. Purchases of collection items are recorded in the Consolidated Statement of Activities as non-operating decreases in unrestricted net assets in the year in which the items are acquired or in temporarily restricted net assets if the assets used to purchase the items are restricted by donors. Contributed collection items are not recorded in the consolidated financial statements.

**B. Receivables and Other Assets**

Receivables and other assets consisted of the following at June 30 (in thousands):

	2018	2017
Student accounts	\$ 1,052	\$ 1,884
Sponsored research grants and contracts	18,570	20,149
Other accounts	44,637	35,858
Notes and student loans	56,811	61,249
Less: allowance for uncollectible accounts	(2,537)	(2,446)
Receivables, net	\$ 118,533	\$ 116,694
Prepaid costs, inventories, and other assets	14,483	20,993
<b>Total receivables and other assets, net</b>	<b>\$ 133,016</b>	<b>\$ 137,687</b>

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Federally sponsored student loans with mandated interest rates and repayment terms are subject to significant restrictions as to their transfer and disposition. Amounts received from the Federal government to fund a portion of the Perkins student loans are ultimately refundable to the Federal government and are classified as government advances for student loans in the Consolidated Statement of Financial Position. The Perkins Loan Extension Act of 2015 ("the Act") ended the authority of participating institutions to make new Perkins Loans to students on September 30, 2017. The Act also requires each participating institution to refund to the federal government an amount calculated annually based on remaining outstanding loans and other factors. Dartmouth refunded \$2,981,000 of the government advance during fiscal year 2018. Due to the nature and terms of student loans funded by the Federal government, and restricted and unrestricted Dartmouth funds, it is not practical to estimate the fair value of such loans. All other receivables are carried at estimated net realizable value.

**C. Gifts and Pledges Receivable**

Gifts and pledge payments received during the years ended June 30 were as follows (in thousands):

	2018	2017
Gifts to support operations	\$ 90,793	\$ 86,999
Gifts for:		
Facilities and student loans	23,795	34,159
Other restricted uses	19,556	4,838
Endowment	102,049	56,799
Split-interest agreements	26,203	22,848
<b>Total gifts and pledge payments</b>	<b>\$ 262,396</b>	<b>\$ 205,643</b>

Unconditional pledges as of June 30 are expected to be realized in the following periods, discounted at rates ranging from 0.7% to 6.2% (in thousands):

	2018	2017
In one year or less	\$ 113,061	\$ 60,631
Between one year and five years	201,588	150,323
Six years and after	57,891	47,847
Gross pledges receivable	\$ 372,540	\$ 258,801
Less: present value discount	(16,582)	(10,722)
Less: allowance for uncollectible pledges	(3,879)	(3,365)
<b>Pledges receivable, net</b>	<b>\$ 352,079</b>	<b>\$ 244,714</b>

The change in net pledges receivable is presented as a non-operating activity in the Consolidated Statement of Activities.

**D. Investments**

Dartmouth's endowment and other investment portfolios include investments in various asset classes, each with different return expectations, risk characteristics, and liquidity provisions.

Cash and cash equivalents designated for investment purposes in the Endowment are included in Investments on the Consolidated Statement of Financial Position and may include money market funds, foreign currency, certain foreign currency contracts, foreign government bonds and U.S. treasury securities with an original or remaining maturity of three months or less when purchased. These investments are valued based on market price or cost, which approximates fair value.

Fixed income includes strategies based on capital preservation and yield as well as more opportunistic strategies focused on generating return through price appreciation. These strategies generally include corporate debt securities, government securities, mortgage backed and asset backed securities and other financial instruments. Exposures to these investments may

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include directly held securities as well as investments through commingled funds and derivatives, including fixed income futures and forwards, and interest rate and credit default swaps.

Global equity investments include directly held public equity securities and commingled funds, whose managers primarily invest in global public long-only and long/short equity securities with portfolios that are directionally exposed to the market.

Hedge funds include investments in commingled funds with discrete and blended strategies, including long/short equity, absolute return, market neutral, distressed and credit strategies. Hedge funds generally hold long and short securities or other financial instruments for which a ready market exists, and may include stocks, bonds, put or call options, swaps, futures, currency hedges, and other financial instruments.

Dartmouth also invests in venture capital, private equity, real estate, other real assets, and other debt-related strategies primarily through private limited partnerships, which are illiquid. These investments often require the estimation of fair value by the general partner in the absence of readily determinable market values. The private portfolio is based primarily in the United States but includes managers who may invest globally. Real estate investments also include real estate investment trust securities held directly or through publicly traded mutual funds as well as direct real estate. Other real asset investments may include limited partnerships, commingled funds and/or public index exposure targeting natural resource investments.

Investments at fair value consisted of the following at June 30 (in thousands):

	2018	2017
Endowment investments	\$ 5,538,502	\$ 5,069,078
Split-interest agreement investments	149,494	142,773
Operating and other investments	903,815	1,106,325
<b>Total investments</b>	<b>\$ 6,591,811</b>	<b>\$ 6,318,176</b>

The framework for measuring fair value utilizes a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The three levels of the fair value hierarchy are as follows:

Level 1 - Quoted prices (unadjusted) in active markets for identical investments as of the reporting date. The type of investments in Level 1 includes cash and cash equivalents, actively listed and traded equities, U.S. treasury securities, and exchange traded and registered funds all held directly by Dartmouth, and excludes listed equities and other securities held indirectly through commingled funds.

Level 2 - Pricing inputs, including broker quotes, are generally those other than exchange quoted prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. The type of investments in Level 2 includes fixed income securities and derivatives.

Level 3 - Pricing inputs are unobservable for the investment and include situations where there is little, if any, market activity for the investment. The inputs into the determination of fair value require significant management judgment or estimation. The type of investments in Level 3 includes directly held real estate and other illiquid investments.

The inputs or methodology used to value or classify investments for financial reporting purposes is not necessarily an indication of the risk associated with investing in those investments.

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The following Fair Value Leveling table summarizes Dartmouth's investments that are reported at fair value by their fair value hierarchy classification as of June 30, 2018 (in thousands):

	Level 1	Level 2	Level 3	Total
<b>Investments:</b>				
Cash and cash equivalents	\$ 106,966	\$ -	\$ -	\$ 106,966
Fixed income	413,413	164,031	27	577,471
<b>Global equity:</b>				
US equity	237,994	-	23	238,017
International	111,829	-	-	111,829
Emerging markets	50,360	-	-	50,360
Private equity/Venture capital	-	-	25	25
<b>Real assets:</b>				
Real estate	15,863	-	195,049	210,912
Other real assets	77,151	-	-	77,151
Other investments	-	90	1,137	1,227
Contributions in advance	79,000	-	-	79,000
<b>Total investments</b>	<b>\$ 1,092,576</b>	<b>\$ 164,121</b>	<b>\$ 196,261</b>	<b>\$ 1,452,958</b>

The following Fair Value Leveling table summarizes Dartmouth's investments that are reported at fair value by their fair value hierarchy classification as of June 30, 2017 (in thousands):

	Level 1	Level 2	Level 3	Total
<b>Investments:</b>				
Cash and cash equivalents	\$ 153,411	\$ -	\$ -	\$ 153,411
Fixed income	491,471	245,763	1	737,235
<b>Global equity:</b>				
US equity	423,837	-	23	423,860
International	24,601	-	-	24,601
Emerging markets	109,178	-	-	109,178
<b>Real assets:</b>				
Real estate	17,367	-	189,934	207,301
Other real assets	42,700	-	-	42,700
Other investments	-	85	2,151	2,236
Contributions in advance	15,000	-	-	15,000
Redemption receivable	101,396	-	-	101,396
<b>Total investments</b>	<b>\$ 1,378,961</b>	<b>\$ 245,848</b>	<b>\$ 192,109</b>	<b>\$ 1,816,918</b>

The following tables present Dartmouth's activity for the fiscal years ended June 30, 2018 and 2017 for investments measured at fair value in Level 3 (in thousands):

	Fixed Income	US Equity	Real Assets	Private Equity/Venture Capital	Other Investments	Total
Balance as of June 30, 2017	\$ 1	\$ 23	\$ 189,934	\$ -	\$ 2,151	\$ 192,109
Acquisitions / purchases	-	-	3,067	25	4	3,096
Distributions / sales	-	-	(3,660)	-	(849)	(4,509)
Transfers in	25	-	-	-	-	25
Realized gain/(loss)	-	-	303	-	(170)	133
Change in unrealized gain	1	-	5,405	-	1	5,407
<b>Balance as of June 30, 2018</b>	<b>\$ 27</b>	<b>\$ 23</b>	<b>\$ 195,049</b>	<b>\$ 25</b>	<b>\$ 1,137</b>	<b>\$ 196,261</b>

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	Fixed Income	US Equity	Real Assets	Private Equity/Venture Capital	Other Investments	Total
Balance as of June 30, 2016	\$ 79	\$ 523	\$ 199,253	\$ -	\$ 1,454	\$ 201,309
Acquisitions / purchases	-	-	3,315	-	908	4,223
Distributions / sales	(8)	(652)	(27,895)	-	(211)	(28,766)
Realized gain	8	152	13,626	-	-	13,786
Change in unrealized gain/(loss)	(78)	-	1,635	-	-	1,557
Balance as of June 30, 2017	<u>\$ 1</u>	<u>\$ 23</u>	<u>\$ 189,934</u>	<u>\$ -</u>	<u>\$ 2,151</u>	<u>\$ 192,109</u>

All net realized and unrealized gains/(losses) in the table above are reflected in the Consolidated Statement of Activities. Cumulative unrealized gains related to Level 3 investments totaled \$29,050,000 and \$23,436,000 as of June 30, 2018 and 2017, respectively. The net change in unrealized gains/(losses) related to Level 3 investments held at June 30, 2018, and June 30, 2017, are disclosed in the table above. Transfers between levels of the fair value hierarchy are reported at the beginning of the reporting period in which they occur. For fiscal year 2018, transfers from Level 2 to Level 3, are primarily due to the decreased observability of pricing inputs for certain securities.

The following tables provide quantitative information about the significant unobservable inputs used in the valuation of directly held real estate as of June 30, 2018 and June 30, 2017. Investments in real estate represent the estimated asset value of each of the underlying property investments, which are primarily informed by third party appraisals. Actual results could differ materially from these estimates particularly during periods of investment and/or interest rate volatility.

June 30, 2018 (in thousands):

Valuation Technique	Fair Value <sup>1</sup>	Unobservable Inputs	Input Value(s)
Third party appraisal-income capitalization approach	\$ 172,085	Capitalization rate	5.00 – 7.00%
Third party appraisal-comparable sales	16,406	Recent sales	
Third party appraisal-comparable sales	2,927	Discount rate	25.00%
Tax assessed value – adjusted annually	2,909	State / Local equalization ratios	0.810
Cost	722	Not applicable	Not applicable
Total	<u>\$ 195,049</u>		

<sup>1</sup>The fair value may be determined using multiple valuation techniques.

June 30, 2017 (in thousands):

Valuation Technique	Fair Value <sup>1</sup>	Unobservable Inputs	Input Value(s)
Third party appraisal-income capitalization approach	\$ 168,590	Capitalization rate	4.00 – 7.00%
Third party appraisal-comparable sales	15,832	Recent sales	
Market bid	2,070	Not applicable	25.00%
Tax assessed value – adjusted annually	2,753	State / Local equalization ratios	0.834
Cost	689	Not applicable	Not applicable
Total	<u>\$ 189,934</u>		

<sup>1</sup>The fair value may be determined using multiple valuation techniques.

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The following Fair Value NAV table lists specified investment terms by asset category for Dartmouth's interest in certain commingled funds and private partnership interests that are reported using NAV as the practical expedient to estimate fair value as of June 30, 2018 (in thousands):

	Fair Value	Redemption Terms	Days Notice	Remaining Unfunded Commitment	Remaining Life
Fixed income	\$ 62,215	Monthly	30 – 40	\$ -	No Limit
Global equity:					
US equity <sup>1</sup>	1,070,290	Ranges from quarterly to bi-annual	30 – 90	46,700	No Limit
International <sup>2</sup>	683,833	Ranges from semi-monthly to quarterly	3 – 180	-	No Limit
Emerging markets <sup>3</sup>	340,270	Ranges from quarterly to annually	45 – 180	5,000	No Limit
Hedge funds <sup>4</sup>	1,297,214	Ranges from monthly to annually; illiquid	30 – 90	90,003	No Limit
Private equity / Venture capital	1,145,896	Illiquid	Not applicable	713,707	1 – 12 years
Real assets:					
Real estate	205,483	Illiquid	Not applicable	259,632	1 – 12 years
Other real assets	333,652	Illiquid	Not applicable	233,766	1 – 20 years
<b>Total</b>	<b>\$ 5,138,853</b>			<b>\$ 1,348,808</b>	

<sup>1</sup> US equity includes funds that have restrictions on the ability to fully redeem up to five years.

<sup>2</sup> International includes funds that have restrictions on the ability to fully redeem up to three years.

<sup>3</sup> Emerging markets includes funds that have restrictions on the ability to fully redeem up to five years.

<sup>4</sup> Hedge funds includes funds that have restrictions on the ability to fully redeem up to six years, excluding illiquid securities and special investments.

The following Fair Value NAV table lists specified investment terms by asset category for Dartmouth's interest in certain commingled funds and private partnership interests that are reported using NAV as the practical expedient to estimate fair value as of June 30, 2017 (in thousands):

	Fair Value	Redemption Terms	Days Notice	Remaining Unfunded Commitment	Remaining Life
Fixed income	\$ 61,016	Monthly	30 – 40	\$ -	No Limit
Global equity:					
US equity <sup>1</sup>	929,131	Ranges from monthly to bi-annual	30 – 90	35,000	No Limit
International <sup>2</sup>	628,969	Ranges from semi-monthly to quarterly	3 – 180	-	No Limit
Emerging markets <sup>3</sup>	214,692	Ranges from monthly to annually	45 – 180	-	No Limit
Hedge funds <sup>4</sup>	1,202,445	Ranges from quarterly to annually	30 – 90	68,132	No Limit
Private equity / Venture capital	940,667	Illiquid	Not applicable	511,477	1 – 12 years
Real assets:					
Real estate	213,982	Illiquid	Not applicable	255,343	1 – 12 years
Other real assets	310,356	Quarterly, Illiquid	30, Not applicable	209,767	1 – 20 years
<b>Total</b>	<b>\$ 4,501,258</b>			<b>\$ 1,079,719</b>	

<sup>1</sup> US equity includes funds that have restrictions on the ability to fully redeem up to three years.

<sup>2</sup> International includes one fund with partial capital in lockup through December 31, 2016.

<sup>3</sup> Emerging markets includes funds that have restrictions on the ability to fully redeem up to three years.

<sup>4</sup> Hedge funds includes funds that have restrictions on the ability to fully redeem up to five years, excluding illiquid securities and special investments.

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Investments reported in the Fair Value Leveling and Fair Value NAV tables total \$6,591,811,000 and \$6,318,176,000 and are presented on the Consolidated Statement of Financial Position as of June 30, 2018 and 2017, respectively.

The following tables set forth the fair value of Dartmouth's derivative instruments for investment purposes by contract type as of June 30, 2018 and 2017 and gains/(losses) related to derivative activities for the years ended June 30, 2018 and 2017 (in thousands):

June 30, 2018:

	Notional Exposure		Fair Value <sup>1</sup>		Net Gain/(Loss) <sup>2</sup>
	Long	Short	Asset	Liability	
Foreign currency forward contracts	\$ 141,296	\$ (13,975)	\$ (167)	\$ 1,284	\$ (281)
Fixed income futures contracts	59,548	(63,631)	337	(666)	778
Interest rate swaps <sup>3</sup>	29,854	-	280	(3)	151
Credit default swaps	1,565	(3,751)	89	(130)	1
Other	-	-	196	-	(5)
Total	\$ 232,263	\$ (81,357)	\$ 735	\$ 485	\$ 644

June 30, 2017:

	Notional Exposure		Fair Value <sup>1</sup>		Net Gain/(Loss) <sup>2</sup>
	Long	Short	Asset	Liability	
Foreign currency forward contracts	\$ 42,958	\$ (44,757)	\$ 718	\$ (600)	\$ (86)
Fixed income futures contracts	48,197	(61,497)	139	(299)	1,365
Interest rate swaps	11,661	-	289	(7)	(60)
Credit default swaps	3,532	(6,749)	55	(415)	(435)
Total	\$ 106,348	\$ (113,003)	\$ 1,201	\$ (1,321)	\$ 784

<sup>1</sup>The net fair value of these derivative instruments is included in the Consolidated Statement of Financial Position as investments at fair value.

<sup>2</sup>The net gain/(loss) from these derivative instruments is presented in the endowment, operating, and non-operating sections of the Consolidated Statement of Activities as other operating income and other non-operating changes.

<sup>3</sup>The notional amount of these contracts represents a structure which pay based on a fixed rate and receive based on a variable rate.

Dartmouth enters into certain foreign currency forward contracts and government bond futures and forwards to efficiently manage portfolio exposures to global currencies and interest rates. These instruments may be used to hedge the portfolio from unwanted currency and interest rate risk, but also to efficiently implement active duration and relative value currency strategies. In certain circumstances Dartmouth is obligated to pledge to the appropriate broker cash or securities to be held as collateral, as determined by exchange margin requirements for futures contracts held. At June 30, 2018 and 2017, Dartmouth had no pledged collateral on futures contracts for investment purposes.

Dartmouth enters into swap contracts for investment purposes. Interest rate swap contracts are used to efficiently manage portfolio exposures to interest rates. These instruments may be used to hedge the portfolio from unwanted interest rate risk, but also to efficiently implement active duration strategies. These instruments are valued using market-based prices and are included in Level 2 in the Fair Value Leveling table. The fair value of the contracts is included in the Consolidated Statement of Financial Position as investments at fair value. The gain/(loss) on these contracts is presented in the operating and non-operating sections of the Consolidated Statement of Activities.

Credit default swaps are used to simulate long or short positions or to reduce credit risk where exposure exists. The buyer of a credit default swap is obligated to pay to the seller a periodic stream of payments over the term of the contract in return for a contingent payment upon occurrence of a contracted credit event. The seller of a credit default swap bears the obligation to pay the buyer upon occurrence of a contracted credit event in return for a periodic stream of fixed payments from the buyer over the term of the contract. These instruments are valued using market-based prices and are included in Level 2 in the Fair Value Leveling table. The fair value of these credit default swap contracts is included in the Consolidated Statement of Financial Position as investments at fair value. The net gain/(loss) on these credit default swap contracts is presented in the operating and non-operating sections of the Consolidated Statement of Activities.



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**E. Endowment**

The changes in fair value of net assets held in endowment and similar funds for the years ended June 30 were as follows (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Endowment net assets, June 30, 2017	\$ 1,100,449	\$ 2,523,545	\$ 1,332,500	\$ 4,956,494
Net investment return:				
Investment income	5,035	17,218	46	22,299
Net appreciation	130,839	436,545	1,193	568,577
Total net investment return	135,874	453,763	1,239	590,876
Gifts	129	17,294	84,626	102,049
Distribution of endowment return to all funds	(53,291)	(182,830)	(413)	(236,534)
Transfers and other changes, net	66,082	(6,441)	21,678	81,319
<b>Endowment net assets, June 30, 2018</b>	<b>\$ 1,249,243</b>	<b>\$ 2,805,331</b>	<b>\$ 1,439,630</b>	<b>\$ 5,494,204</b>
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Endowment net assets, June 30, 2016	\$ 1,008,220	\$ 2,179,853	\$ 1,286,331	\$ 4,474,404
Net investment return:				
Investment income	3,371	13,052	34	16,457
Net appreciation	137,585	475,070	1,271	613,926
Total net investment return	140,956	488,122	1,305	630,383
Gifts	37	21,399	35,363	56,799
Distribution of endowment return to all funds	(49,407)	(175,976)	(26)	(225,409)
Transfers and other changes, net	643	10,147	9,527	20,317
<b>Endowment net assets, June 30, 2017</b>	<b>\$ 1,100,449</b>	<b>\$ 2,523,545</b>	<b>\$ 1,332,500</b>	<b>\$ 4,956,494</b>

Transfers and other changes, net include additions to the endowment from matured split-interest agreements, net transfers resulting from changes in donor restrictions or Dartmouth designations, and other internal charges including certain fundraising costs. During fiscal year 2018, Dartmouth transferred approximately \$60,000,000 from unrestricted non-endowment net assets to create an unrestricted quasi-endowment.

Included in temporarily restricted endowment net assets at the end of the year is the remaining amount of expendable accumulated appreciation on permanent endowment funds of \$2,324,717,000 and \$2,090,499,000 as of June 30, 2018 and 2017, respectively.

Endowment net assets consist of the following as of June 30, 2018 (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Donor-restricted endowment funds	\$ -	\$ 2,805,331	\$ 1,439,630	\$ 4,244,961
Board-designated endowment funds	1,249,243	-	-	1,249,243
<b>Total endowment net assets</b>	<b>\$ 1,249,243</b>	<b>\$ 2,805,331</b>	<b>\$ 1,439,630</b>	<b>\$ 5,494,204</b>

Endowment net assets consist of the following as of June 30, 2017 (in thousands):

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Donor-restricted endowment funds	\$ -	\$ 2,523,545	\$ 1,332,500	\$ 3,856,045
Board-designated endowment funds	1,100,449	-	-	1,100,449
<b>Total endowment net assets</b>	<b>\$ 1,100,449</b>	<b>\$ 2,523,545</b>	<b>\$ 1,332,500</b>	<b>\$ 4,956,494</b>

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From time to time, the fair values of assets associated with individual donor restricted endowment funds may fall below the level that the donor or UPMIFA requires to retain as a fund of perpetual duration due to market declines. In accordance with GAAP, events of this nature are reported as reductions in unrestricted net assets. There were no such events in fiscal year 2018 or fiscal year 2017. In order to provide stable funding for the programs supported by the endowment, in fiscal year 2017 Dartmouth's Board of Trustees voted to amend the distribution policy to allow spending from a portion of the historic book value on underwater funds provided there are no donor-imposed restrictions that prohibit such spending. No more than 20% of the historic book value may be distributed, except in cases where the donor directs otherwise.

Dartmouth employs a total return endowment utilization policy that establishes the amount of investment return made available for spending each fiscal year. The amount appropriated for expenditure each year is independent of the actual return for the year. The Board approves the formula that determines the amount appropriated from endowment each year. The resulting fiscal year 2018 endowment distribution of \$236,534,000 represents a 4.8% distribution rate when measured against the previous year's June 30<sup>th</sup> endowment value. Investment return earned in excess of the amount appropriated annually is reinvested in the funds, but can be appropriated in future years in accordance with the utilization policy. The net appreciation on most of the permanently and temporarily restricted endowment funds is reported together with temporarily restricted net assets until such time as all or a portion of the appreciation is appropriated for spending in accordance with the utilization policy and applicable state law.

The overall investment performance objective for the endowment is to generate real (inflation-adjusted) returns net of investment expenses sufficient to support Dartmouth's current operating needs while maintaining the long-term purchasing power of the endowment. The Investment Committee of the Board of Trustees has determined that a well-diversified mix of assets offers the best opportunity for maximum return with acceptable risk over time. Dartmouth relies on a total return strategy in which investment returns are achieved through both capital appreciation (both realized and unrealized) and current yield (interest and dividends). Investment decisions are made with a view toward maximizing long-term return opportunities while maintaining an acceptable level of investment risk and liquidity.

**F. Land, Buildings, Equipment, and Construction in Progress**

Land, buildings, equipment, and construction in progress balances at June 30 were as follows (in thousands):

	2018	2017
Land	\$ 20,481	\$ 19,651
Buildings	1,350,716	1,318,032
Land improvements	121,706	119,286
Equipment and software	366,166	352,416
Land, buildings, and equipment	\$ 1,859,069	\$ 1,809,385
Less: accumulated depreciation	(962,891)	(898,130)
Construction in progress	71,508	56,384
<b>Total net book value</b>	<b>\$ 967,686</b>	<b>\$ 967,639</b>

Dartmouth has conditional asset retirement obligations arising from legal obligations to perform certain activities in connection with the retirement, disposal, or abandonment of assets, including asbestos abatement, leasehold improvements, hazardous materials, and equipment disposal and cleanup. The liability was initially recorded at fair value, and is adjusted for accretion expense, and changes in the amount or timing of cash flows. The corresponding asset retirement costs are capitalized as part of the carrying values of the related long-lived assets and depreciated over the useful lives of the assets.

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**G. Bonds, Mortgages, and Notes Payable**

Indebtedness at June 30 consisted of the following (in thousands):

	Fiscal Year Maturity	2018 Interest Rate	2018	2017
New Hampshire Health and Education Facilities Authority (NHHEFA):				
Tax-Exempt Fixed Rate:				
Series 2009	2019	5.00%	\$ 7,920	\$ 52,800
Tax-Exempt Variable Rate:				
Series 2003	2023	.75% - 1.83%	45,500	53,700
Series 2007B	2041	.54% - 1.80%	75,000	75,000
Series 2015AB	2040	1.26% - 2.31%	101,000	101,000
Series 2015CD	2038	1.26% - 2.31%	89,665	89,665
Series 2016A	2043	1.14%	165,000	165,000
Series 2017	2028	5.00%	37,660	-
<b>Subtotal tax-exempt bonds</b>			<b>\$ 521,745</b>	<b>\$ 537,165</b>
Taxable Bonds:				
Fixed Rate				
Series 2009	2019		-	150,000
Series 2012A	2042	4.00%	70,000	70,000
Series 2012B	2043	3.76%	150,000	150,000
Series 2016A	2046	3.47%	250,000	250,000
<b>Subtotal taxable bonds</b>			<b>\$ 470,000</b>	<b>\$ 620,000</b>
<b>Subtotal bonds</b>			<b>\$ 991,745</b>	<b>\$ 1,157,165</b>
Mortgages on real estate investments:				
Fixed Rate	2024 - 2037	4.34% - 5.61%	24,732	26,387
Taxable commercial paper note:				
Variable Rate		1.15% - 2.05%	30,000	30,000
<b>Subtotal bonds, mortgages and notes payable</b>			<b>\$ 1,046,477</b>	<b>\$ 1,213,552</b>
Original issue premium, net			9,167	597
Unamortized debt issuance costs			(2,862)	(3,025)
<b>Total bonds, mortgages, and notes payable, net</b>			<b>\$ 1,052,782</b>	<b>\$ 1,211,124</b>

In fiscal year 2018, Dartmouth issued New Hampshire Health and Education Facilities Authority (NHHEFA) Revenue Bonds Dartmouth College Issue, Series 2017 (the "Series 2017 Bonds") in the amount of \$37,660,000 with an original issue premium of \$9,631,000 which will be amortized over the life of the bond. The primary purpose of this issue was to advance refund \$44,880,000 of the NHHEFA Series 2009 Bonds. The loss of \$2,060,000 on this advance refunding is included in Other non-operating changes, net in the Consolidated Statement of Activities.

In fiscal year 2018, Dartmouth redeemed \$150,000,000 of the Series 2009 taxable bonds. Dartmouth incurred a \$6,304,000 make-whole call premium on the early redemption, which is included in Other non-operating changes, net in the Consolidated Statement of Activities.

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Interest expense for the years ended June 30 consists of (in thousands):

	2018	2017
<u>Consolidated Statement of Activities:</u>		
Endowment Activities		
Interest expense on mortgage and debt used to finance endowment-related real estate projects, presented as a reduction in net investment return	\$ 2,232	\$ 2,499
Operating Activities (amounts included in Interest on the Consolidated Statement of Operating Expenses)		
Interest expense of debt (including payments on interest rate swap agreements) used to finance facilities projects	26,386	27,142
Interest expense on other operating indebtedness	496	344
Non-Operating Activities (amounts included in Other non-operating changes, net)		
Interest expense on debt used to finance student loans	1,406	1,406
Interest expense on other non-operating indebtedness	14,106	18,312
Total interest expense on the Consolidated Statement of Activities	\$ 44,626	\$ 49,703
<u>Consolidated Statement of Financial Position:</u>		
Interest paid on debt used to finance facilities projects capitalized in connection with various construction projects	\$ 107	\$ 44

Scheduled principal payments due for each of the next five years ending June 30 and thereafter are as follows, excluding maturity of commercial paper and unamortized discounts and premiums are (in thousands):

June 30	Principal Due
2019	18,154
2020	10,616
2021	11,005
2022	11,412
2023	11,629
Thereafter	953,661
Total	\$ 1,016,477

Principal due after June 30, 2023, includes the following "balloon" payments due on Dartmouth's indebtedness (in thousands):

June 30	Indebtedness	Payment
2028	NHHEFA 2017	\$ 37,660
2036	NHHEFA Series 2007B bonds	18,000
2038	2015 Series C&D bonds	89,665
2040	2015 Series A&B bonds	101,000
2041	NHHEFA Series 2007B bonds	57,000
2042	2012 Series A bonds	70,000
2043	2012 Series B bonds	150,000
2043	NHHEFA Series 2016A bonds	165,000
2046	2016 Series A bonds	250,000

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The NHHEFA bonds are a general obligation collateralized only by Dartmouth's pledge of full faith and credit and by funds held from time to time by the trustee for the benefit of the holders of the bonds under the respective bond resolutions. Dartmouth has agreed to certain covenants with respect to encumbrance or disposition of its core campus.

Dartmouth is party to six interest rate swap agreements. Information related to these interest rate swap agreements as of June 30, 2018, including the fixed interest rate paid by Dartmouth and percent of LIBOR BBA (1 month) received on the notional principal, is presented in the table below:

Expiration Date	Notional Amount (in thousands)	Fixed Interest Rate %	% of LIBOR BBA
06/01/2027	\$ 31,885	3.77	72
06/01/2028	52,505	3.78	72
06/01/2032	100,000	3.75	67
06/01/2041	100,000	3.73	70
06/01/2042	100,000	3.73	70
06/01/2043	165,000	3.74	70

The fair value of these agreements at June 30, 2018 and 2017 based on various factors contained in the interest rate swap agreements and certain interest rate assumptions, was approximately \$135,102,000 and \$175,646,000, respectively, and is considered a Level 2 measurement. The decrease in the liability of \$40,544,000 for the year ended June 30, 2018 is presented as a change in unrealized gain and the decrease in the liability of \$74,675,000 for the year ended June 30, 2017 is presented as a change in unrealized gain in the non-operating section of the Consolidated Statement of Activities. Net payments or receipts under the swap agreements associated with facilities debt are reflected as interest expense. These financial instruments involve counter-party credit exposure.

Commercial paper consists of notes issued in the short-term taxable market, and is sold at a discount from par. The maturities of individual notes are issued in ranges from one day to no more than 270 days, and fall on average in a range of thirty to ninety days. Dartmouth reports commercial paper at carrying value, which closely approximates fair value for those liabilities.

Dartmouth maintains stand-by bond purchase agreements with financial institutions totaling approximately \$120,500,000 to provide alternative liquidity to support its variable rate demand bonds in the event that the bonds cannot be remarketed. Financing obtained through these stand-by credit agreements to fund the repurchase of such bonds would bear interest rates different from those associated with the original bond issues, and mature over a three or a five-year period following repurchase. The agreements have various maturity dates between June 2019 and December 2019. There were no amounts outstanding at June 30, 2018 and 2017 under these agreements.

Dartmouth has two lines of credit totaling \$250,000,000. The maturity dates are June 30, 2019 and June 30, 2020. There was no outstanding borrowing on either line of credit as of June 30, 2018 and 2017.

**H. Pension and Other Employment Related Obligations**

Liabilities for retirement and postretirement medical benefits, salaries, wages, and other benefits under employment agreements consisted of the following at June 30 (in thousands):

	2018	2017
Retirement and postretirement benefits	\$ 315,550	\$ 360,114
Compensated absences, severance plans, and other commitments	26,112	25,833
Self-insured benefits	11,944	14,925
<b>Total employment related obligations</b>	<b>\$ 353,606</b>	<b>\$ 400,872</b>

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In fiscal year 1998, Dartmouth revised its pension benefit for staff and non-union service employees, giving each participant a one-time option to either remain in the defined benefit plan or enroll in the defined contribution plan effective January 1, 1998. Staff and non-union service employees hired since that date receive retirement benefits under the defined contribution plan. Effective January 1, 2006, all union employees are enrolled in the defined contribution plan.

Dartmouth's postretirement medical benefits consist of medical insurance coverage for retirees. Employees hired prior to July 1, 2009 that are 55 or older and have at least ten continuous years of service in a benefits-eligible position immediately prior to retirement are currently eligible for a subsidy toward the purchase of Retiree Medical Benefits. The subsidy amount was based on the employee's annual salary, age, and years of service as of June 30, 2009. For retirees under the age of 65, the medical insurance options are the same as for active employees. At age 65, the retiree would enroll in the Dartmouth College Medicare Supplement (DCMS) plan. New employees hired on or after July 1, 2009 are eligible to participate in a Retirement Savings Match and are eligible to purchase the retiree group medical insurance at full cost if they qualify at retirement.

Information pertaining to the pension and postretirement benefits at June 30 include (in thousands):

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
<b>Change in benefit obligation:</b>				
Beginning of year	\$ 138,898	\$ 143,699	\$ 329,040	\$ 352,931
Service cost	2,404	2,621	5,068	6,214
Interest cost	4,786	4,505	12,007	12,193
Benefits paid	(10,816)	(8,732)	(9,030)	(7,775)
Actuarial (gain)/loss	(9,347)	(3,195)	(58,411)	(34,523)
End of year	<u>\$ 125,925</u>	<u>\$ 138,898</u>	<u>\$ 278,674</u>	<u>\$ 329,040</u>
<b>Change in estimated fair value of plan assets:</b>				
Beginning of year	\$ 139,636	\$ 141,535	\$ -	\$ -
Actual return on plan assets	5,268	6,833	-	-
Employer contributions	-	-	9,030	7,775
Benefits paid	(10,816)	(8,732)	(9,030)	(7,775)
End of year	<u>\$ 134,088</u>	<u>\$ 139,636</u>	<u>\$ -</u>	<u>\$ -</u>
<b>Funded status (plan assets more (less) than benefits obligation)</b>	<u>\$ 8,163</u>	<u>\$ 738</u>	<u>\$ (278,674)</u>	<u>\$ (329,040)</u>
<b>Net periodic benefit (income) cost included the following:</b>				
Operating - Service cost	\$ 2,404	\$ 2,621	\$ 5,068	\$ 6,214
Nonoperating:				
Interest cost	4,786	4,505	12,007	12,193
Expected return on assets	(7,641)	(6,967)	-	-
Amortization of prior service cost (credit)	-	-	(1,464)	(3,487)
Recognized net actuarial loss	279	1,252	-	2,073
Total nonoperating	<u>(2,576)</u>	<u>(1,210)</u>	<u>10,543</u>	<u>10,779</u>
Net periodic benefit cost (income)	<u>\$ (172)</u>	<u>\$ 1,411</u>	<u>\$ 15,611</u>	<u>\$ 16,993</u>

In accordance with the requirements of ASU 2017-07, the adoption of the new standard has been applied retrospectively in the 2017 Consolidated Statement of Activities and Consolidated Statement of Operating Expenses. Dartmouth has elected the practical expedient for retrospective application. This resulted in a reclassification of \$9,570,000 of non-service related components of net periodic benefit cost from Expenses from Operating activities to Non-operating activities in the 2017 Consolidated Statement of Activities. This also resulted in a reduction of Employee benefits of \$9,570,000 in the 2017 Consolidated Statement of Operating Expenses.

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
<b>Weighted-average assumptions for determining net periodic benefit cost:</b>				
Discount Rate – Benefit Obligation	3.84%	3.68%	4.15%	4.15%
Discount Rate – Service Cost	3.97%	3.93%	4.38%	4.47%
Discount Rate – Interest Cost	3.61%	3.18%	3.70%	3.50%
Expected return on plan assets	6.00%	5.55%		
<b>Weighted-average assumptions for determining benefit obligations:</b>				
Rate of compensation increase	2.50%	2.50%		
Discount rate used to determine benefit obligations	4.26%	3.84%	4.42%	4.15%

The decrease in the postretirement benefit obligation is primarily due to actual 2017 claims experience, adjusted trend assumptions and a reduction in excise tax liability, which are reflected in the 2018 actuarial gain of \$58,411,000.

The increase (decrease) in unrestricted net assets resulting from the change in pension and postretirement benefit obligations consisted of the following (in thousands):

	Pension Benefits	Postretirement Benefits	Total 2018	Total 2017
<b>Amounts recognized in non-operating activities:</b>				
Net actuarial gain	\$ 6,974	\$ 58,411	\$ 65,385	\$ 37,584
Amortization of gain	279	-	279	3,325
Amortization of prior service cost (credit)	-	(1,464)	(1,464)	(3,487)
Net periodic benefit cost other than service cost	2,576	(10,543)	(7,967)	(9,569)
Total non-operating gain	9,829	46,404	56,233	27,853
<b>Amounts recognized in operating activities:</b>				
Service cost	(2,404)	(5,068)	(7,472)	(8,835)
Total gain	\$ 7,425	\$ 41,336	\$ 48,761	\$ 19,018

The cumulative amounts in unrestricted net assets that have not yet been recognized as components of net periodic benefit cost are as follows (in thousands):

	Pension Benefits		Postretirement Benefits	
	2018	2017	2018	2017
Prior service cost	\$ -	\$ -	\$ -	\$ (1,464)
Net (gain)/loss	2,582	9,834	34,959	23,451
Total	\$ 2,582	\$ 9,834	\$ 34,959	\$ 21,987

The estimated costs that will be amortized into net periodic benefit costs in fiscal 2019 are as follows (in thousands):

	Pension Benefits	Postretirement Benefits
Prior service cost	\$ -	\$ -
Net (gain)/loss	-	(597)
Total	\$ -	\$ (597)

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

The following table lists specified investment terms by asset category for defined benefit pension plan (the Plan) investments in certain commingled funds and private partnership interests that are reported using NAV as the practical expedient as of June 30, 2018 (in thousands):

	Amount	Redemption Terms	Days Notice	Remaining Unfunded Commitment	Remaining Life
Fixed income	\$ 64,110	Daily	2	\$ -	Not applicable
Global equity	66,094	Daily	2	-	Not applicable
Private equity / Venture capital	1,865	Illiquid	Not applicable	297	1 – 5 years
<b>Total</b>	<b>\$ 132,069</b>			<b>\$ 297</b>	

In addition to the investments disclosed above, the Plan also holds \$2,019,000 in cash and cash equivalents at June 30, 2018, which is classified as a Level 1 investment in the fair value hierarchy.

The following table lists specified investment terms by asset category for the Plan investments in certain commingled funds and private partnership interests that are reported using NAV as the practical expedient as of June 30, 2017 (in thousands):

	Amount	Redemption Terms	Days Notice	Remaining Unfunded Commitment	Remaining Life
Fixed income	\$ 65,680	Daily	2	\$ -	Not applicable
Global equity	69,402	Daily	2	-	Not applicable
Private equity / Venture capital	2,146	Illiquid	Not applicable	318	1 – 5 years
<b>Total</b>	<b>\$ 137,228</b>			<b>\$ 318</b>	

In addition to the investments disclosed above, the Plan also holds \$2,408,000 in cash and cash equivalents at June 30, 2017, which is classified as a Level 1 investment in the fair value hierarchy.

The overall investment strategy of the Plan is to utilize an asset mix that is designed to meet the near and longer term benefit payment obligations of the Plan. Over time, the asset mix may include global equity and fixed income exposures. Global equity exposure is designed to capture the equity market performance of developed markets while fixed income exposure provides a predictable yield as well as a hedge against changing interest rates by holding corporate bonds and other financial instruments. Other types of investments may include private equity, venture capital, and other private real asset partnerships that employ different underlying strategies. Outside investment advisors are utilized to manage the Plan assets and are selected based on their investment style, philosophy, and past performance. Dartmouth's investment office is responsible for managing the asset allocation and investment risk management of the Plan.

Dartmouth may make annual contributions to maintain funding for the defined benefit plan, taking into account investment and actuarial information, including minimum funding requirements. Dartmouth currently does not expect to contribute to the Plan in fiscal year 2019.

Benefit payments, which reflect expected future service, as appropriate, are expected to be paid in each of the next five years ending June 30 and thereafter as follows (in thousands):

	Pension Benefits	Postretirement Benefits
2019	\$ 10,700	\$ 9,200
2020	9,700	9,800
2021	9,700	10,300
2022	9,900	10,900
2023	9,600	11,600
Years 2024 – 2028	43,900	67,000



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Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

The accumulated benefit obligation (ABO) of the defined benefit plan was \$121,040,000 and \$131,099,000 as of June 30, 2018 and 2017, respectively.

Assumed health care cost trend rates have a significant effect on the estimated amounts reported for the postretirement benefit plan. The medical cost trend rates for pre-age 65 and post-age 65 retirees, respectively, are assumed to be 7.75% and 8.4% in year 2018, decrease gradually to 4.5% and 4.5% in fiscal year 2027, respectively, and remain level thereafter. Dartmouth's estimate of postretirement benefit expense and obligations also reflects the impact of the Medicare Prescription Drug Improvement and Modernization Act, which provides for tax-free subsidies to employers that offer retiree medical benefit plans with qualifying drug coverage.

A one percentage point increase (decrease) in assumed health care cost trend rates would have the following effect (in thousands):

Increase (decrease) in total of service and interest cost components	\$ 3,365	\$ (2,593)
Increase (decrease) in postretirement benefit obligation	\$ 50,429	\$ (40,113)

Dartmouth estimates the costs of the service and interest components through a full yield curve approach by applying the specific spot rates along the yield curve used in the determination of the net periodic expense to the relevant present value of projected cash flows.

Dartmouth also maintains defined contribution retirement plans for its employees. These benefits are individually funded and are subject to various vesting requirements. Under these arrangements, Dartmouth makes contributions to individual self-directed retirement investment accounts for the participants. These contributions for the years ended June 30, 2018 and 2017 were \$26,002,000 and \$24,953,000, respectively. Dartmouth also maintains deferred compensation plans. The liabilities for the plans are included in pension and other employment related obligations in the Consolidated Statement of Financial Position.

**I. Other Operating Income**

The major components of other operating income for the years ended June 30 were as follows (in thousands):

	2018	2017
Medical School clinical services and other support	\$ 14,342	\$ 15,256
Foreign study and continuing education programs	11,451	12,127
Student activities and other program revenues	11,325	13,936
Athletics revenues	4,765	5,039
Hopkins Center and Hood Museum revenues	1,407	1,241
Other revenues	24,666	27,960
Investment income	32,459	48,096
<b>Total other operating income</b>	<b>\$ 100,415</b>	<b>\$ 123,655</b>

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

**J. Net Assets**

Additional information pertaining to Dartmouth's net assets at June 30 is presented below (in thousands):

	2018			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>Detail of net assets:</b>				
Operating funds	\$ 291,690	\$ 85,179	\$ -	\$ 376,869
Pledges	-	276,121	75,958	352,079
Postretirement and pension benefit obligations	(270,514)	-	-	(270,514)
Third-party charitable trusts	-	6,567	3,171	9,738
Facilities and capital	354,027	96,770	-	450,797
Interest rate swap agreements	(135,102)	-	-	(135,102)
Student loan funds	23,651	18,768	-	42,419
Other non-operating activities	11,149	27,122	-	38,271
Life income, annuity, and similar funds	-	68,853	30,469	99,322
Endowment funds	1,249,243	2,805,331	1,439,630	5,494,204
<b>Total net assets</b>	<b>\$ 1,524,144</b>	<b>\$ 3,384,711</b>	<b>\$ 1,549,228</b>	<b>\$ 6,458,083</b>

	2017			
	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
<b>Detail of net assets:</b>				
Operating funds	\$ 282,061	\$ 73,029	\$ -	\$ 355,090
Pledges	-	208,305	36,409	244,714
Postretirement and pension benefit obligations,	(328,302)	-	-	(328,302)
Third-party charitable trusts	-	7,214	3,044	10,258
Facilities and capital	353,662	74,290	-	427,952
Interest rate swap agreements	(175,646)	-	-	(175,646)
Student loan funds	23,057	18,565	-	41,622
Other non-operating activities	73,825	21,176	-	95,001
Life income, annuity, and similar funds	-	60,810	30,377	91,187
Endowment funds	1,100,449	2,523,545	1,332,500	4,956,494
<b>Total net assets</b>	<b>\$ 1,329,106</b>	<b>\$ 2,986,934</b>	<b>\$ 1,402,330</b>	<b>\$ 5,718,370</b>

**K. Commitments and Contingencies**

Outstanding commitments on uncompleted construction contracts total \$32,412,000 at June 30, 2018.

Investment related commitments as of June 30, 2018 and 2017 are disclosed in the Fair Value NAV tables in Note D, Investments.

All funds expended by Dartmouth in connection with government sponsored grants and contracts are subject to audit by governmental agencies. The ultimate liability, if any, from such audits, is not expected to have a material adverse effect on Dartmouth's financial position.

In conducting its activities, Dartmouth from time to time is the subject of various claims and also has claims against others. The ultimate resolution of such claims is not expected to have either a material adverse or favorable effect on Dartmouth's financial position.

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

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**L. Related Party Transactions**

Members of Dartmouth's Board of Trustees and senior management may, from time to time, be associated, either directly or indirectly, with companies doing business with Dartmouth. Dartmouth has a written conflict of interest policy that requires annual reporting by each Trustee, as well as senior management. Additionally, Dartmouth has a policy on Pecuniary Benefit Transactions and Related Party Investments. This policy supplements the Dartmouth College Conflict of Interest Policy with regard to pecuniary benefit transactions, as defined by New Hampshire law, including but not limited to Dartmouth's investment in investment vehicles in which Trustees have a financial interest. These policies include, among other things, that no member of the Board of Trustees can participate in any decision in which he or she (or an immediate family member) has a material financial interest. When such relationships exist, measures are taken to mitigate any actual or perceived conflict, including requiring that such transactions be for goods or services purchased or benefits provided in the ordinary course of the business of Dartmouth, for the actual or reasonable value of the goods or services or for a discounted value, based on terms that are fair and reasonable to and in the best interest of Dartmouth, and in accordance with applicable conflict of interest laws.

**M. Restructuring Costs and Liability**

During the year ended June 30, 2016, Dartmouth restructured a number of activities at the Geisel School of Medicine (Geisel) to address increasing financial constraints, to improve Geisel's education and research programs, and to align resources and support for these activities. These changes include: creation of a new department of Medical Education, reorganization of the Basic Science departments, and migration of the operations and fiscal responsibility for clinical academic activities from Dartmouth to Dartmouth-Hitchcock Clinic and Mary Hitchcock Memorial Hospital (operating jointly as "Dartmouth-Hitchcock"). Responsibility for the employment, finances, and operational support for clinical research programs, as well as the clinical practice of psychiatry, transferred from Geisel to Dartmouth-Hitchcock on July 1, 2016.

Accrued liabilities for estimated restructuring costs totaled \$9,490,000 and \$18,440,000 as of June 30, 2018 and 2017, respectively. Of these amounts \$6,915,000 and \$13,478,000 are reported in Accounts payable and other liabilities line and \$2,575,000 and \$4,962,000 are reported in the Pension and other employment related obligations line on the Consolidated Statement of Financial Position as of June 30, 2018 and 2017, respectively.

**N. Environmental Remediation and Related Costs**

From the mid-1960s until 1978, Dartmouth used a quarter-acre portion of a 223-acre piece of property it owns in Hanover, NH (known as "Rennie Farm") as a licensed burial site for animal carcasses used in medical and other research. Site remediation was approved by the New Hampshire Department of Health and Human Services, Radiological Health Section (RHS) and began in late October 2011. In November 2011, unexpected hazardous chemical waste was encountered. Dartmouth has continued to monitor groundwater quality and has conducted a phased investigation consistent with state environmental requirements. During fiscal year 2017 Dartmouth completed the installation of a pump and treat system to treat and remove contaminated groundwater from the source area. Dartmouth will remediate the site and continue monitoring groundwater wells and selected drinking water supply wells with oversight from New Hampshire Department of Environmental Services.

In February 2017, Dartmouth College established a Value Assurance Program ("VAP") to protect the value of eligible properties located in the Rennie Farm neighborhood. The VAP, which is a voluntary program, will run until February 1, 2022. Under the terms of the VAP, owners of eligible properties who meet certain requirements will be compensated if they are unable to sell their home at market value due to the Rennie Farm remediation. If an owner of an eligible property is unable to sell his/her home after meeting certain requirements, Dartmouth College will purchase the property.

During fiscal year 2017, Dartmouth incurred \$5,140,000 in costs related to the environmental remediation of Rennie Farm and establishment of the VAP and accrued \$21,810,000 for estimated future costs of all remediation activities as well as an estimate of expenses of the VAP. Total environmental remediation and related expenses are reported as a separate line in the operating section of the Consolidated Statement of Activities and the accrued liabilities are reported in the accounts payable and other liabilities line in the Consolidated Statement of Financial Position. As of June 30, 2018, the accrual for estimated future remediation and VAP expenses was \$20,718,000. Actual future remediation and VAP expenses could differ from this amount.

Dartmouth College  
Notes to Consolidated Financial Statements  
For the years ended June 30, 2018 and 2017

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**O. Subsequent Events**

For purposes of determining the effects of other subsequent events on these consolidated financial statements, management has evaluated events subsequent to June 30, 2018 and through October 24, 2018, the date on which the consolidated financial statements were issued, and has concluded that there were no other subsequent events requiring adjustment or disclosure.

# Dartmouth College

## Schedule of Expenditures and Federal Awards

### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>Research and Development Cluster</b>							
<b>DEPARTMENT OF AGRICULTURE</b>							
<b>National Institute of Food and Agriculture</b>							
Agriculture and Food Research Initiative (AFRI)	10.310	\$	\$ 49,398	Michigan State University	RC140891A	49,398	
Agriculture and Food Research Initiative (AFRI)	10.310		11,113	Michigan State University	RC140830AM	11,113	
Agriculture and Food Research Initiative (AFRI)	10.310	297,358				297,358	28,117
Biomass Research and Development Initiative							
Competitive Grants Program (BCDF)	10.312	619,543				619,543	284,131
Sun Grant Program	10.320		43,877	Pennsylvania State University	5498-DC-SDSU-G640	43,877	
<b>Forest Service</b>							
Forestry Research	10.652		11,094	Northeastern States Research Cooperative	14-085	11,094	9,775
Forest Health Protection	10.680	39,957				39,957	
International Forestry Programs	10.684	35,052				35,052	
Natural Resources Conservation Service	10.RD	81,172				81,172	
Forest Service	10.RD	1,490				1,490	
		<u>1,074,771</u>	<u>117,683</u>			<u>1,192,454</u>	<u>302,023</u>
<b>DEPARTMENT OF COMMERCE</b>							
<b>National Oceanic and Atmospheric Administration (NOAA)</b>							
National Oceanic and Atmospheric Administration							
(NOAA) Cooperative Institutes	12.432		6,277	University of New Hampshire	17-041	6,277	
			<u>6,277</u>			<u>6,277</u>	
<b>DEPARTMENT OF DEFENSE</b>							
<b>Department of the Navy, Office of the Chief of Naval Research</b>							
Basic and Applied Scientific Research	12.300	1,706,625				1,706,625	453,132
Basic and Applied Scientific Research	12.300		1,084	Creare, LLC	5399/POW93542	1,084	
Basic and Applied Scientific Research	12.300		274,801	George Mason University	E203444-2/NO001A-15-1-3007	274,801	
Basic and Applied Scientific Research	12.300		157,967	George Mason University	E203908-2	157,967	
Basic and Applied Scientific Research	12.300		84,896	Securabot.com, Inc.	N/A	84,896	50,000
Basic and Applied Scientific Research	12.300		82,321	University of Maryland	52678-Z8819001 / NO00141612735	82,321	
Basic and Applied Scientific Research	12.300		49,297	University of Maryland	53174-Z8841002	49,297	
Basic and Applied Scientific Research	12.300		113,640	University of Maryland	53891-Q1910302	113,640	
Basic and Applied Scientific Research	12.300		49,059	Virginia Polytechnic Institute & State University	430543-19715	49,059	13,425
<b>U.S. Army Medical Command</b>							
Military Medical Research and Development	12.420	1,310,717				1,310,717	7,728
Military Medical Research and Development	12.420		81,194	Creare, LLC	80231	81,194	
<b>U.S. Army Materiel Command</b>							
Basic Scientific Research	12.431	342,541				342,541	
Basic Scientific Research	12.431		114,630	George Mason University	E2030472	114,630	
Basic Scientific Research	12.431		90,315	University of Maryland	54844-Z8424105	90,315	
Basic Scientific Research	12.431		177,491	University of Sydney	G174325	177,491	
<b>Department of the Air Force, Materiel Command</b>							
Air Force Defense Research Sciences Program	12.800	422,210				422,210	
<b>Advanced Research Projects Agency</b>							
Research and Technology Development	12.910	271,744				271,744	186,210
Research and Technology Development	12.910		173,655	California Institute of Technology	675A-1086830	173,655	
Research and Technology Development	12.910		72,949	Johns Hopkins University	2009638881	72,949	
Research and Technology Development	12.910		70,613	University of Pennsylvania	548456	70,613	
Research and Technology Development	12.910		108,046	University of Pennsylvania	548456/PP5872856	108,046	
Research and Technology Development	12.910		74,223	University of Pennsylvania	548456/PO 59951771	74,223	
<b>Department of Defense</b>							
Department of Defense	12.RD	318,436				318,436	
Department of Defense	12.RD		38,151	Creare, LLC	74367	38,151	
Department of Defense	12.RD		55,673	Creare, LLC	83990	55,673	
Department of Defense	12.RD		2,561	Creare, LLC	5603/POW93289	2,561	
Department of Defense	12.RD		8,438	Gallop, Inc.	D179C0003-002	8,438	
Department of Defense	12.RD		278,553	Kiward, Inc.	K001892-00-501	278,553	
Department of Defense	12.RD		489,672	University of Notre Dame	20810700	489,672	
		<u>4,430,274</u>	<u>2,508,671</u>			<u>6,938,944</u>	<u>690,552</u>

**Dartmouth College**  
**Schedule of Expenditures and Federal Awards**  
**Year Ended June 30, 2018**

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>DEPARTMENT OF ENERGY</b>							
Department of Energy							
Office of Science Financial Assistance Program	81.049	907,463				907,463	
Conservation Research and Development	81.086		5,422	Oak Ridge Institute for Science and Education (ORNL)	N/A	5,422	
Renewable Energy Research and Development	81.087	268,179				268,179	64,884
Electricity Delivery and Energy Reliability, Research, Development and Analysis	81.121		274,084	University of Illinois	078820-13704	274,084	
Advanced Research Projects Agency - Energy	81.133		87,891	Massachusetts Institute of Technology	104857	87,891	
Advanced Research Projects Agency - Energy	81.135		30,347	Ocean Renewable Power Company, LLC	SUB-18014	30,347	
Department of Energy	81.RD	33,000				33,000	
Department of Energy	81.RD		438,415	Battelle	4000015284	438,415	10,000
Department of Energy	81.RD		839,670	Battelle	4000158749	839,670	
		810,642	1,676,028			2,286,670	78,884
<b>DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>							
<b>Food and Drug Administration</b>							
Food and Drug Administration Research	93.103	71,999				71,999	
Food and Drug Administration Research	93.103		32,219	New England Pediatric Device Consortium	NEPOC-002	32,219	
		71,999	32,219			104,218	
<b>National Institutes of Health</b>							
Environmental Health	93.113	1,397,241				1,397,241	163,424
Environmental Health	93.113		1,394	Brown University	00001008	1,394	
Environmental Health	93.113		86,045	Emory University	1701316	86,045	
Environmental Health	93.113		84,221	Emory University	1720029	84,221	
Environmental Health	93.113		89,282	University of Chicago	PP053328-A	89,282	
Environmental Health	93.113		25,548	University of Southern California	91798079/PO05189513	25,548	
Oral Diseases and Disorders Research	93.121	437,894				437,894	41,393
NIEHS Superfund Hazardous Substances, Basic Research and Education	93.143	2,889,788				2,889,788	250,136
Research Related to Deafness and Communication Disorders	93.173	904,301				904,301	417,853
Research Related to Deafness and Communication Disorders	93.173		725	University of Utah	10041913-005/POH000121801	725	
Research and Training in Complementary and Integrative Health	93.213		19,369	Palmer College Foundation	12272	19,369	
Research and Training in Complementary and Integrative Health	93.213		10,100	University of Michigan	13005872908	10,100	
Mental Health Research Grants	93.242	6,952,964				6,952,964	1,789,338
Mental Health Research Grants	93.242		25,657	Boston University	4300001758	25,657	
Mental Health Research Grants	93.242		3,348	Boston University	4300001978	3,348	
Mental Health Research Grants	93.242		30,494	Boston University	4300002483	30,494	
Mental Health Research Grants	93.242		9,498	Boston University	4300002468	9,498	
Mental Health Research Grants	93.242		7,393	Center for Social Innovation	N/A	7,393	
Mental Health Research Grants	93.242		131	Cornell University	84084-11048	131	
Mental Health Research Grants	93.242		252,056	Princeton University	SU00000209	252,056	
Mental Health Research Grants	93.242		32,993	University of Washington	UWSC8822	32,993	
Mental Health Research Grants	93.242		57,412	University of Washington	UWSC8864	57,412	
Mental Health Research Grants	93.242		31,095	Yale University	M16412444(A10642)	31,095	
Alcohol Research Programs	93.273	1,300,673				1,300,673	37,275
Alcohol Research Programs	93.273		649	Stanford University	61328905-127851	649	
Drug Abuse and Addiction Research Programs	93.279	7,116,465				7,116,465	2,119,985
Drug Abuse and Addiction Research Programs	93.279		107,833	Baystate Medical Center	17-158	107,833	
Drug Abuse and Addiction Research Programs	93.279		41,954	HealthScan	N/A	41,954	
Drug Abuse and Addiction Research Programs	93.279		9,967	Johns Hopkins University	2003026709	9,967	
Drug Abuse and Addiction Research Programs	93.279		32,349	La Salle University	20180719	32,349	
Drug Abuse and Addiction Research Programs	93.279		217,305	New York University	15-AC-56-005971-01	217,305	
Drug Abuse and Addiction Research Programs	93.279		29,014	New York University	N/A	29,014	
Drug Abuse and Addiction Research Programs	93.279		31,396	Regents of the University of Minnesota	0005743901	31,396	
Drug Abuse and Addiction Research Programs	93.279		28,000	Westat, Inc.	8954	28,000	
Drug Abuse and Addiction Research Programs	93.279		4,465	Westat, Inc.	82954	4,465	
Drug Abuse and Addiction Research Programs	93.279		37,633	Yale University	GR100725[CON-80000984]	37,633	

# Dartmouth College

## Schedule of Expenditures and Federal Awards

### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228	2,177,285				2,177,285	88,814
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228		6,731	Massachusetts General Hospital	228196	6,731	
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228		67,819	University of Massachusetts Memorial Medical Ctr	OSP2018199	67,819	
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228		7,184	University of Massachusetts Memorial Medical Ctr	OSP2018200	7,184	
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228		9,845	University of Massachusetts Memorial Medical Ctr	WAO0528352/OSP2018200	9,845	
Discovery and Applied Research for Technological Innovations to Improve Human Health	93.228		55,199	University of Massachusetts Memorial Medical Ctr	WAO0528353/OSP2018199	55,199	
Trans-NIH Research Support	93.510	2,718,620				2,718,620	41,158
Trans-NIH Research Support	93.510		6,243	Duke University	203 7777	6,243	
Trans-NIH Research Support	93.510		20,296	University of Pittsburgh	0048932 (128884-5)	20,296	
Trans-NIH Research Support	93.510		9,431	University of Washington	UWSC8732/POWSP012206	9,431	
National Center for Advancing Translational Sciences	93.350	2,218,134				2,218,134	142,780
National Center for Advancing Translational Sciences	93.350		19,862	Harvard University	149749-5100778-5565	68,737	
Research Infrastructure Programs	93.351	445,585				445,585	
21st Century Cures Act - Bevo Biden Cancer Moonshot	93.393		19,204	Memorial Sloan-Kettering Cancer Center (MSKCC)	60523479	19,204	
Cancer Cause and Prevention Research	93.393	2,070,368				2,070,368	321,571
Cancer Cause and Prevention Research	93.393		19,299	Albert Einstein College of Medicine	POW57E333	19,299	
Cancer Cause and Prevention Research	93.393		271,015	Brigham & Women's Hospital	111043	271,015	
Cancer Cause and Prevention Research	93.393		41,847	Cardinalis LLC	N/A	41,847	2,000
Cancer Cause and Prevention Research	93.393		55,836	Cedars-Sinai Medical Center	1400587	55,836	
Cancer Cause and Prevention Research	93.393		273,974	Doseoptics	N/A	273,974	
Cancer Cause and Prevention Research	93.393		21,482	Harvard University	150144.907961.0004	21,482	
Cancer Cause and Prevention Research	93.393		25,256	Kaiser Permanente Washington Health Research Institute	CA154293-05	25,256	25,256
Cancer Cause and Prevention Research	93.393		30	Kaiser Permanente Washington Health Research Institute	POW2015179054	30	
Cancer Cause and Prevention Research	93.393		157,442	Massachusetts General Hospital	125624	157,442	25,530
Cancer Cause and Prevention Research	93.393		31,209	Massachusetts General Hospital	125635	31,209	
Cancer Cause and Prevention Research	93.393		206,799	Regents of the University of New Mexico, HSC	SR004	206,799	
Cancer Cause and Prevention Research	93.393		280,825	University of California, Davis	201800898-01	280,825	
Cancer Cause and Prevention Research	93.393		5,946	University of California, Davis	201800898-01/A18-0177-5012	5,946	
Cancer Cause and Prevention Research	93.393		49,527	University of California, Davis	201800898-02	49,527	
Cancer Cause and Prevention Research	93.393		5,096	University of California, Davis	201800898-02/A18-0177-5011	5,096	
Cancer Cause and Prevention Research	93.393		34,386	University of California, San Francisco	100084c	34,386	
Cancer Cause and Prevention Research	93.393		23,492	University of North Carolina at Chapel Hill	3033328	23,492	
Cancer Cause and Prevention Research	93.393		113,537	University of Texas, M D Anderson Cancer Center	3000991353	113,537	
Cancer Cause and Prevention Research	93.394	5,432,576				5,432,576	1,186,711
Cancer Cause and Prevention Research	93.394		144,908	Baylor College of Medicine	7000000831	144,908	
Cancer Cause and Prevention Research	93.394		168,289	Baylor College of Medicine	7000000832	168,289	
Cancer Cause and Prevention Research	93.394		320,151	Case Western Reserve University	RES312388	320,151	
Cancer Cause and Prevention Research	93.394		12,005	Rytac Medical, Inc.	N/A	12,005	
Cancer Cause and Prevention Research	93.394		30,117	University of California, Irvine	2014-3022	30,117	
Cancer Cause and Prevention Research	93.394		62,905	University of Michigan	3004054934	62,905	
Cancer Cause and Prevention Research	93.394		20,845	University of Michigan	POW3005071343	20,845	
Cancer Cause and Prevention Research	93.394		79,136	University of Texas, San Antonio	182105/182104	79,136	
Cancer Treatment Research	93.395	1,780,247				1,780,247	
Cancer Treatment Research	93.395		36,196	Auburn University	17-PHAP-201519-0C	36,196	
Cancer Treatment Research	93.395		41,238	Brigham & Women's Hospital	110408	41,238	
Cancer Treatment Research	93.395		7,358	Brigham & Women's Hospital	PH012	7,358	
Cancer Treatment Research	93.395		82,914	Case Western Reserve University	RES311291	82,914	
Cancer Treatment Research	93.395		43,582	Children's Hospital of Philadelphia (CHOP)	COG PCR	43,582	
Cancer Treatment Research	93.395		30,518	ECOG-ACRIN Cancer Research Group	N/A	30,518	
Cancer Treatment Research	93.395		1,547	Fred Hutchinson Cancer Research Center	917515	1,547	

**Dartmouth College**  
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Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Cancer Treatment Research	93.395		(3,446)	John Wayne Cancer Institute	MCLT-11	(3,446)	
Cancer Treatment Research	93.395		(49)	Massachusetts General Hospital	225634	(49)	
Cancer Treatment Research	93.395		51,517	Mayo Clinic	64029258	51,517	1,000
Cancer Treatment Research	93.395		28,830	Mayo Clinic	DAC-184321/PO#6352043	28,830	
Cancer Treatment Research	93.395		275,327	Mayo Clinic	DAR-222511	275,327	40,000
Cancer Treatment Research	93.395		195	National Childhood Cancer Foundation	15134	195	
Cancer Treatment Research	93.395		6,851	RT Scientific LLC Corporation	N/A	6,851	
Cancer Treatment Research	93.395		21,846	Ohio State University Research Foundation	80039916	21,846	
Cancer Treatment Research	93.395		25,189	Physical Sciences, Inc.	N/A	25,189	
Cancer Treatment Research	93.395		2,489	University of North Carolina at Chapel Hill	27489-34	2,489	
Cancer Biology Research	93.396	1,302,952				1,302,952	
Cancer Biology Research	93.396		51,154	Harvard University	113096-5093073	51,154	
Cancer Centers Support Grants	93.397	4,153,547				4,153,547	
Cancer Centers Support Grants	93.397		13,728	Health Research, Inc.-Newell Park Division	244-01	13,728	
Cancer Centers Support Grants	93.397		9,891	University of Michigan	3002191972	9,891	
Cancer Research Manpower	93.398	632,280				632,280	
Cancer Control	93.399		6,363	Southwest Oncology Group	CA57429	6,363	
Cardiovascular Diseases Research	93.837	2,714,777				2,714,777	901,447
Cardiovascular Diseases Research	93.837		9,527	Brigham & Women's Hospital	1143174	9,527	
Cardiovascular Diseases Research	93.837		47,440	Duke University	179453	47,440	
Cardiovascular Diseases Research	93.837		14,848	Duke University	SPS #193928	14,848	
Cardiovascular Diseases Research	93.837		13,470	ICahn School of Medicine at Mount Sinai	8255-3100-4005	13,470	
Cardiovascular Diseases Research	93.837		30,703	New York University	SITE NO 001052	30,703	
Cardiovascular Diseases Research	93.837		17,336	Northeast Ohio Medical University, Seattle Children's Hospital Research	34520-A	17,336	
Cardiovascular Diseases Research	93.837		11,897	Foundation	1330058	11,897	
Cardiovascular Diseases Research	93.837		57,070	Vanderbilt University Medical Center	VUMC37248	57,070	
Lung Diseases Research	93.838	893,888				893,888	
Lung Diseases Research	93.838		965	University of Pittsburgh	9012549 (130129-44)	965	
Blood Diseases and Resources Research	93.839		9,640	Zeta Pharmaceuticals, Inc.	N/A	9,640	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846	1,485,215				1,485,215	118,802
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		26,185	Boston University	4900001443	26,185	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		1,345	Boston University	4900001924	1,345	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		7,084	Boston University	4900001926	7,084	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		2,034	Brigham & Women's Hospital	PS#113296	2,034	
Arthritis, Musculoskeletal and Skin Diseases Research	93.846		61,385	Celtra Medical, LLC	N/A	61,385	
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847	968,865				968,865	428,389
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		59,355	Beith Israel Deaconess Medical Center	01027777	59,355	
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		108,532	Brigham & Women's Hospital	114825	108,532	
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		5,875	Brigham & Women's Hospital	N/A	5,875	
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		23	Children's Hospital of Philadelphia (CHOP)	DK066174	23	
Diabetes, Digestive, and Kidney Diseases Extramural Research	93.847		119,847	Regents of the University of Minnesota	Regents of the University of Minnesota	119,847	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853	2,786,551				2,786,551	524,782
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		8,217	EMMES Corporation	N/A	8,217	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		4,052	Mayo Clinic	DAR-187276	4,052	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		2,290	Mayo Clinic	DAR-224063	2,290	
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		59,351	RyTel Medical, Inc.	N/A	59,351	



# Dartmouth College

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### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Extramural Research Programs in the Neurosciences and Neurological Disorders	93.853		44,788	Worcester Polytechnic Institute	16-210950-01	44,788	
Allergy and Infectious Diseases Research	93.855	9,029,304				9,029,304	631,973
Allergy and Infectious Diseases Research	93.855		4,900	Johns Hopkins University	1DR 01 1406 02	4,900	
Allergy and Infectious Diseases Research	93.855		1,298	Les Centres Ghesbrie	N/A	1,298	
Allergy and Infectious Diseases Research	93.855		41,090	Avacor Medical, LLC	N/A	41,090	
Allergy and Infectious Diseases Research	93.855		122	BIOMERE	N/A	122	
Allergy and Infectious Diseases Research	93.855		15,669	Case Western Reserve University	RE5512301	15,669	
Allergy and Infectious Diseases Research	93.855		94,883	Childrens Hospital Boston	GENFD00012112211	94,883	
Allergy and Infectious Diseases Research	93.855		41,472	Childrens Hospital Boston	GENFD0001389984	41,472	
Allergy and Infectious Diseases Research	93.855		24,579	Children's Hospital Medical Center	R5TFD0000679396	24,579	
Allergy and Infectious Diseases Research	93.855		408,308	Duke University	2055330	408,308	
Allergy and Infectious Diseases Research	93.855		35,363	Georgetown University	432832_GRA12960-DC	35,363	
Allergy and Infectious Diseases Research	93.855		7,641	Georgetown University	412970_GRA12954-DC	7,641	
Allergy and Infectious Diseases Research	93.855		363,937	Harvard University	152319_3064964_0408	363,937	
Allergy and Infectious Diseases Research	93.855		24,298	Harvard University	152319_3085244_0409	24,298	
Allergy and Infectious Diseases Research	93.855		15,064	Les Centres Ghesbrie	N/A	15,064	
Allergy and Infectious Diseases Research	93.855		104,790	Lyticon, LLC	N/A	104,790	
Allergy and Infectious Diseases Research	93.855		43,270	Massachusetts General Hospital	229186	43,270	
Allergy and Infectious Diseases Research	93.855		107,539	Oregon Health & Science University (ORHSU)	1021324-DARTMOUTH1	107,539	
Allergy and Infectious Diseases Research	93.855		7,526	Profectus Biosciences, Inc.	18-172	7,526	
Allergy and Infectious Diseases Research	93.855		66,489	Tufts University	101507-00001	66,489	
Allergy and Infectious Diseases Research	93.855		151,490	University of California, San Francisco	8972K	151,490	
Allergy and Infectious Diseases Research	93.855		1,444	University of Pittsburgh	0042268 [127887-2]	1,444	
Allergy and Infectious Diseases Research	93.855		36,422	Wasatch Microfluidics, Inc.	N/A	36,422	
Biomedical Research and Research Training	93.859	18,829,633				18,829,633	2,361,218
Biomedical Research and Research Training	93.859		179,333	Cornell University	83288-10943	179,333	
Biomedical Research and Research Training	93.859		93,104	Johns Hopkins University	2002226702	93,104	
Biomedical Research and Research Training	93.859		199,801	University of Washington	UWSC10108	199,801	
Child Health and Human Development Extramural Research	93.865	1,372,412				1,372,412	1,661,124
Child Health and Human Development Extramural Research	93.865		79	Boston Medical Center	5286	79	
Child Health and Human Development Extramural Research	93.865		553,286	Harvard University	152765_5084095_1405	553,286	
Child Health and Human Development Extramural Research	93.865		154,946	Simbet	SMEDY-002	154,946	
Child Health and Human Development Extramural Research	93.865		71,971	Simbet	Simbet-003	71,971	
Child Health and Human Development Extramural Research	93.865		2,777	University of Arkansas for Medical Sciences	51460/POWG180120056	2,777	
Child Health and Human Development Extramural Research	93.865		30,708	University of Arkansas for Medical Sciences	51460/POWG180120069	30,708	
Child Health and Human Development Extramural Research	93.865		0	University of Texas, Dallas	1301522	0	
Aging Research	93.866	3,474,285				3,474,285	513,306
Aging Research	93.866		98,809	Brighton & Women's Hospital	115359	98,809	

# Dartmouth College

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### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Aging Research	93.866		19,928	Brigham & Women's Hospital	117989	19,928	
Aging Research	93.866		15,633	Brown University	0000996	15,633	
Aging Research	93.866		8,379	University of California, San Diego	96482360/59001873	8,379	
Aging Research	93.866		23,962	University of Maryland	5800002920/101855A	23,962	
Aging Research	93.866		43,897	University of Michigan	3003578791	43,897	
Aging Research	93.866		41,453	Yale University	C16A12852/A10712/COH-80000911	41,453	
Vision Research	93.867	632,810				632,810	
Vision Research	93.867		8,195	New York University	1061171	8,195	
Vision Research	93.867		12,862	University of Rochester	4172319/URFAO GRS10717	12,862	
Medical Library Assistance	93.879	1,176,005				1,176,005	
Medical Library Assistance	93.879		27,228	Harvard University	133063.5102790.0002	27,228	
International Research and Research Training	93.929	802,519				802,519	326,763
		87,977,624	8,237,152			96,214,776	12,943,124
<b>Department of Health and Human Services</b>							
Department of Health and Human Services	93.RD	288,835				288,835	
Department of Health and Human Services	93.RD		35,714	American College of Radiology	N/A	35,714	
Department of Health and Human Services	93.RD		9,158	Brigham & Women's Hospital	N/A	9,158	
Department of Health and Human Services	93.RD		707	Clinipace, Inc.	#2017-1/Project ID: CEP17171	707	
Department of Health and Human Services	93.RD		135,124	Cyren, LLC	83866	135,124	
Department of Health and Human Services	93.RD		6,808	Gina Parler Cancer Institute	UNIV OF CHICAGO	6,808	
Department of Health and Human Services	93.RD		31,178	Harvard University	N/A	31,178	
Department of Health and Human Services	93.RD		10,584	ICP Macro	13CD580109	10,584	
Department of Health and Human Services	93.RD		408,915	Laido Biomedical Research, Inc.	180233	408,915	
Department of Health and Human Services	93.RD		20,000	New England Research Institutes, Inc.	STUDY #PED14217	20,000	
Department of Health and Human Services	93.RD		(615)	MH Dept of Health & Human Services	1021329	(615)	
Department of Health and Human Services	93.RD		78,321	MH Div of Public Health Services	STNHV18	78,321	
Department of Health and Human Services	93.RD		20,965	Northwestern University	80036745DC	20,965	
Department of Health and Human Services	93.RD		130,164	Pacific Northwest National Laboratory	130142	130,164	
Department of Health and Human Services	93.RD		15,000	Universidad Central del Caribe	N/A	15,000	
Department of Health and Human Services	93.RD		93,733	University of Florida	UFOSPO0010863	93,733	
Department of Health and Human Services	93.RD		83,249	University of Pittsburgh	0035852 (150841-1)	83,249	
Department of Health and Human Services	93.RD		37,811	University of South Florida	PO 000223148	37,811	
Department of Health and Human Services	93.RD		148,011	Westat, Inc.	6410	148,011	
		288,835	1,278,645			1,567,500	
<b>Office of the Secretary</b>							
National Bioterrorism Hospital Preparedness Program	93.829		185,827	Bureau of Safety and Environmental Enforcement (BSEE)	E16P000005	185,827	
National Bioterrorism Hospital Preparedness Program	93.829		18,562	MH Div of Public Health Services	STNHV18	18,562	
			184,389			184,389	
<b>Administration for Community Living</b>							
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433	533,254				533,254	
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		6,335	Boston University	4300002776	6,335	
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		57,188	Brandeis University	403315	57,188	
ACL National Institute on Disability, Independent Living, and Rehabilitation Research	93.433		14,230	Howard University	0008312-1000054351	14,230	
Evidence-Based Falls Prevention Programs Financed Solely by Prevention and Public Health Funds (PPHF)	93.761	12,667				12,667	(234)
		545,722	77,753			623,474	(234)
<b>Centers for Medicare and Medicaid Services</b>							
ACA-Transforming Clinical Practice Initiatives: Practice Transformation Networks (PTNs)	93.638		29,748	Mayo Clinic	DAR-224244/PO #S423181	29,748	
Centers for Medicare and Medicaid Services (CMS) Research, Demonstrations and Evaluations	93.779	4,547				4,547	
Centers for Medicare and Medicaid Services (CMS) Research, Demonstrations and Evaluations	93.779		20,056	Harvard University	130172.5065435.0311	20,056	
		4,547	49,804			54,349	

# Dartmouth College

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### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>Centers for Disease Control and Prevention</b>							
Centers for Research and Demonstration for Health Promotion and Disease	93.135	968,107				968,107	20,700
Centers for Disease Control and Prevention, Investigations and Technical Assistance	93.283		12,582	NH Div of Public Health Services	PO#1054230	12,582	
National Breast and Cervical Cancer Early Detection Program (NBCCEDP) - PPHF	93.252		686,495	NH Div of Public Health Services	PO#137442	686,495	
Assistance Programs for Chronic Disease Prevention and Control	93.943		31,153	University of California, Berkeley	00009000	31,153	
		968,107	710,030			1,678,137	20,700
<b>Agency for Toxic Substances and Disease Registry</b>							
Health Program for Toxic Substances and Disease Registry	93.181	371,819				371,819	143,330
		371,819				371,819	143,330
<b>Agency for Healthcare Research and Quality</b>							
Research on Healthcare Costs, Quality and Outcomes	93.226	4,355,207				4,355,207	783,574
Research on Healthcare Costs, Quality and Outcomes	93.226		123,040	Brigham & Women's Hospital	117961	123,040	
Research on Healthcare Costs, Quality and Outcomes	93.226		42,112	Harvard University	115390-5089016	42,112	
Research on Healthcare Costs, Quality and Outcomes	93.226		8,104	Harvard University	153161-51030300003	8,104	
Research on Healthcare Costs, Quality and Outcomes	93.226		10,480	University of Michigan	300409454	10,480	
Research on Healthcare Costs, Quality and Outcomes	93.226		34,902	University of Michigan	3006171737	34,902	
Research on Healthcare Costs, Quality and Outcomes	93.226		14,242	University of Michigan	3004263157	14,242	
Research on Healthcare Costs, Quality and Outcomes	93.226		33,828	University of Pennsylvania	570280/PO 3090429	33,828	
Research on Healthcare Costs, Quality and Outcomes	93.226		34,116	University of Utah	10045701-01	34,116	
Research on Healthcare Costs, Quality and Outcomes	93.226		5,125	University of Utah	10045701-01 PO U000132181	5,125	
		4,355,207	305,930			4,661,136	783,574
<b>DEPARTMENT OF JUSTICE</b>							
<b>National Institute of Justice</b>							
National Institute of Justice Research, Evaluation, and Development	18.560		37,300	University of New Hampshire	15-019	37,300	
			37,300			37,300	
<b>DEPARTMENT OF THE INTERIOR</b>							
<b>U.S. Geological Survey</b>							
Assistance to State Water Resources Research Institutes	15.805		74,362	University of New Hampshire	117-020	74,362	
<b>National Park Service</b>							
National Center for Preservation Technology and Training	15.923	18,933				18,933	
		18,933	74,362			93,315	
<b>ENVIRONMENTAL PROTECTION AGENCY</b>							
<b>Environmental Protection Agency</b>							
Great Lakes Program	66.489		23,647	Loyola University Chicago	518995-Dartmouth College	23,647	
Office of Research and Development (ORD)							
Science To Achieve Results (STAR) Research Program	66.509	973,195				973,195	331,664
Science To Achieve Results (STAR) Research Program	66.509		1,307	University of Vermont	312205UR32358	1,307	
		973,195	24,955			998,150	331,664
<b>INSTITUTE OF MUSEUM AND LIBRARY SERVICES</b>							
<b>Institute of Museum and Library Services</b>							
National Leadership Grants	45.312	3,068				3,068	
		3,068				3,068	
<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b>							
<b>National Aeronautics and Space Administration</b>							
National Aeronautics and Space Administration	43.000		(1,143)	University of New Hampshire	13-049	(1,143)	
Science	43.001	1,448,620				1,448,620	617,146
Science	43.001		19,484	Boston University	4300001613	19,484	
Science	43.001		77,079	California Institute of Technology	444-1094997	77,079	
Science	43.001		37,900	Creare, LLC	63863	37,900	
Science	43.001		37,738	Massachusetts Institute of Technology	5710003372	37,738	
Science	43.001		17,375	Regents of the University of Minnesota	4004527201	17,375	
Science	43.001		36,216	Regents of the University of Minnesota	4005821703	36,216	

**Dartmouth College**  
**Schedule of Expenditures and Federal Awards**  
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Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
Science	43.001		40,156	Smithsonian Astrophysical Observatory (SAO)	G07-18095X	40,156	
Science	43.001		58,513	Smithsonian Astrophysical Observatory (SAO)	G07-18130X	58,513	
Science	43.001		20,618	University of Alaska, Fairbanks	UAF 18-0027/PO #POS18694	20,618	
Science	43.001		26,061	University of Colorado-Boulder	1532473	26,061	
Science	43.001		24,874	University of Colorado-Boulder	1558053/PO #1000916866	24,874	
Science	43.001		32,288	University of Connecticut	91593	32,288	
Science	43.001		107,964	University of Iowa	W000726438	107,964	
Science	43.001		2,664	University of New Hampshire	14-085	2,664	
Aeronautics	43.002		1,964	National Space Biomedical Research Institute	CA03401	1,964	
Aeronautics	43.002		(13,168)	National Space Biomedical Research Institute	NSPP03801	(13,168)	
Space Operations	43.007	14,989				14,989	
Space Operations	43.007		376,074	University of New Hampshire	18-003	376,074	
Education	43.008		195,050	University of New Hampshire	18-015	195,050	
Education	43.008		54,627	University of New Hampshire	18-024	54,627	
Education	43.008		26,304	University of New Hampshire	18-039	26,304	
Education	43.008		83,292	University of Vermont	90373	83,292	
Space Telescope Science Institute	43.80		51,978			51,978	
			1,715,567	1,271,594		2,987,161	617,148
<b>NATIONAL ENDOWMENT FOR THE HUMANITIES</b>							
National Endowment for the Humanities							
Promotion of the Humanities, Division of Preservation and Access	45.149		7,734			7,734	
			7,734			7,734	
<b>NATIONAL SCIENCE FOUNDATION</b>							
National Science Foundation							
Engineering Grants	47.041	1,030,818				1,030,818	93,185
Engineering Grants	47.041		23,590	Carbond, Inc.	N/A	23,590	
Mathematical and Physical Sciences	47.049	2,045,614				2,045,614	
Geosciences	47.050	6,504,099				6,504,099	3,145,281
Geosciences	47.050		27,718	University of Louisiana at Lafayette	330091-01	27,718	
Computer and Information Science and Engineering	47.070	2,465,388				2,465,388	139,992
Biological Sciences	47.074	2,053,853				2,053,853	138,893
Biological Sciences	47.074		92,864	Cary Institute of Ecosystem Studies	3340/200201889	92,864	
Biological Sciences	47.074		76,259	University of Maryland, Baltimore County	18783	76,259	
Biological Sciences	47.074		(801)	University of North Carolina at Chapel Hill	9037375	(801)	
Biological Sciences	47.074		16,734	University of North Carolina at Chapel Hill	5106361	16,734	
Biological Sciences	47.074		148,572	University of Pennsylvania	967347/10052391/15276	148,572	
Biological Sciences	47.074		211,159	University of Wyoming	1003280A-0C	211,159	
Social, Behavioral, and Economic Sciences	47.075	514,005				514,005	17,100
Social, Behavioral, and Economic Sciences	47.075		20,490	University of Arkansas	541812194	20,490	
Social, Behavioral, and Economic Sciences	47.075		3,015	University of Texas, Austin	UTA15-001207	3,015	
Education and Human Resources	47.078	1,249,180				1,249,180	(120,894)
Education and Human Resources	47.078		21,879	Carthage College	90130-531-1	21,879	
Polar Programs	47.078	66,291				66,291	(12)
Office of International Science and Engineering	47.079		99,812	Oregon State University	513154-F	99,812	
Office of Integrative Activities	47.083	1,159,900				1,159,900	555,672
National Science Foundation	47.80		32,996	University of New Hampshire	12-044	32,996	
		17,049,128	714,389			17,763,517	3,269,415

# Dartmouth College

## Schedule of Expenditures and Federal Awards

### Year Ended June 30, 2018

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>OFFICE OF PERSONNEL MANAGEMENT</b>							
Intergovernmental Personnel Act (IPA) Mobility Program	27.011	32,429				32,429	
Office of Personnel Management	27.RD	33,652				33,652	
		66,511				66,511	
<b>Total Research and Development Cluster</b>		<b>120,533,520</b>	<b>17,307,578</b>			<b>137,840,896</b>	<b>18,777,998</b>
<b>Other Sponsored Programs:</b>							
<b>AGENCY FOR INTERNATIONAL DEVELOPMENT</b>							
<b>Agency for International Development</b>							
USAID Foreign Assistance for Programs Overseas	98.001		1,703	World Learning for International Development	S04-AID-187-A-16-00001	1,703	
USAID Foreign Assistance for Programs Overseas	98.001		63,634	University Research Co., LLC	PT11-A08-7300	63,634	
			65,337			65,337	
<b>DEPARTMENT OF AGRICULTURE</b>							
<b>Natural Resources Conservation Service</b>							
Wildlife Habitat Incentive Program	10.914	71,473				71,473	
		71,473				71,473	
<b>DEPARTMENT OF DEFENSE</b>							
<b>National Security Agency</b>							
Mathematical Sciences Grants Program	12.901	3,946				3,946	
GenCyber Grants Program	12.903	47,800				47,800	
Advanced Research Projects Agency Research and Technology Development	12.910	135,651				135,651	
		187,398				187,398	
<b>DEPARTMENT OF HEALTH AND HUMAN SERVICES</b>							
<b>Centers for Disease Control and Prevention</b>							
Global AIDS	93.067		31,256	Mehembi University of Health & Allied Sciences (M.U.H.A.S.)	N/A	31,256	
Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) Aligned Cooperative Agreements	93.074		30,346	NH Dept of Health & Human Services	1032588	30,346	
Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) Aligned Cooperative Agreements	93.074		206,277	NH Dept of Health & Human Services	N/A	206,277	
Centers for Disease Control and Prevention, Investigations and Technical Assistance	93.283		(83)	NH Div of Public Health Services	1031537	(83)	
Centers for Disease Control and Prevention, Investigations and Technical Assistance	93.283		(627)	NH Div of Public Health Services	PT13	(627)	(627)
Centers for Disease Control and Prevention, Investigations and Technical Assistance	93.283		18,902	NH Div of Public Health Services	N/A	18,902	7,307
Division of Blood Disorders - Prevention, Surveillance and Research	93.000		3,674	Childrens Hospital Boston	GENP00001454847	3,674	
Food and Drug Administration							
Food and Drug Administration, Research	93.103		133,614	Society for Vascular Surgery	15111823-05	133,614	
Health Education Assistance Loans							
Health Education Assistance Loans outstanding at July 1, 2017	93.108	57,117				57,117	
<b>Health Resources and Services Administration</b>							
Area Health Education Centers	93.107	240,347				240,347	185,223
Maternal and Child Health Federal Consolidated Programs	93.110	770,002				770,002	680,059
Emergency Medical Services for Children	93.127	171,449				171,449	
HIV-Related Training and Technical Assistance	93.145		(52)	University of Massachusetts, Worcester	OSP2018087	(52)	
HIV-Related Training and Technical Assistance	93.145		47,930	University of Massachusetts, Worcester	WAO0640608/OSP2018011	47,930	
Coordinated Services and Access to Research for Women, Infants, Children, and Youth	93.153	159,772				159,772	131,241
Disabilities Prevention	93.184		(801)	University of Massachusetts, Worcester	WAO052602/OSP2018138	(801)	

**Dartmouth College**  
**Schedule of Expenditures and Federal Awards**  
**Year Ended June 30, 2018**

Federal Program	CPDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>Regional Research Service Award in Primary Care Medicine</b>	93.186	196,274				196,274	
<b>Grants to Provide Outpatient Early Intervention Services with Respect to HIV Disease</b>	93.918	237,648				237,648	235,342
<b>PNH Geriatric Education Centers</b>	93.969	856,296				856,296	
		<u>2,832,903</u>	<u>482,145</u>			<u>3,157,030</u>	<u>1,218,546</u>
<b>Substance Abuse and Mental Health Services Administration</b>							
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243	292,425				292,425	95,235
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243		218,583	VT Dept of Health	03420-A183085	218,583	
Substance Abuse and Mental Health Services Projects of Regional and National Significance	93.243		171,175	VT Dept of Health	03420-A181113	171,175	
		<u>292,425</u>	<u>389,757</u>			<u>682,183</u>	<u>95,235</u>
<b>Centers for Medicare and Medicaid Services</b>							
The Affordable Care Act Medicaid Incentives for Prevention of Chronic Disease Demonstration Project Administration for Community Living	93.536		6,834	University of Rochester	9-23462 418343	6,834	
University Centers for Excellence in Developmental Disabilities Education, Research, and Service	93.632		947	University of New Hampshire	13-0530	947	
University Centers for Excellence in Developmental Disabilities Education, Research, and Service	93.632		3,461	University of New Hampshire	18-022	3,461	
Evidence-Based Falls Prevention Programs Financed Solely by Prevention and Public Health Funds (PPHF)	93.761	173,239				173,239	
		<u>173,239</u>	<u>11,042</u>			<u>184,301</u>	
<b>Administration for Children and Families</b>							
Adoption Opportunities	93.632	(942)				(942)	
Adoption Opportunities	93.632	323,322				323,322	
Adoption Opportunities	93.632		362,146	RI Dept of Health & Human Services	42100300	362,146	
		<u>322,381</u>	<u>362,146</u>			<u>684,527</u>	
<b>DEPARTMENT OF JUSTICE</b>							
<b>National Institute of Justice</b>							
Criminal Justice Research and Development Graduate Research Fellowships	18.562	28,106				28,106	
		<u>28,106</u>				<u>28,106</u>	
<b>DEPARTMENT OF STATE</b>							
<b>Bureau of Educational and Cultural Affairs</b>							
Academic Exchange Programs - Undergraduate Programs	19.009		11,983	IREX	PY18-YALI-02-Dartmouth-05	11,983	
Academic Exchange Programs - Undergraduate Programs	19.009		115,359	IREX	3-DCAGD-16-CA-1146	115,359	
			<u>127,342</u>			<u>127,342</u>	
<b>INSTITUTE OF MUSEUM AND LIBRARY SERVICES</b>							
<b>Institute of Museum and Library Services</b>							
Museums for America	45.301	21,681				21,681	
		<u>21,681</u>				<u>21,681</u>	
<b>NATIONAL AERONAUTICS AND SPACE ADMINISTRATION</b>							
<b>National Aeronautics and Space Administration</b>							
Education	43.008	54,903				54,903	
		<u>54,903</u>				<u>54,903</u>	
<b>NATIONAL ENDOWMENT FOR THE ARTS</b>							
<b>National Endowment for the Arts</b>							
Promotion of the Arts Grants to Organizations and Individuals	45.024	45,286				45,286	
Promotion of the Arts Partnership Agreements	45.025		2,500	New England Foundation for the Arts	N/A	2,500	
		<u>45,286</u>	<u>2,500</u>			<u>47,786</u>	
<b>NATIONAL ENDOWMENT FOR THE HUMANITIES</b>							
<b>National Endowment for the Humanities</b>							
Promotion of the Humanities Office of Digital Humanities	45.189	91,643				91,643	
		<u>91,643</u>				<u>91,643</u>	

**Dartmouth College**  
**Schedule of Expenditures and Federal Awards**  
**Year Ended June 30, 2018**

Federal Program	CFDA	Direct	Pass-Through	Pass-Through Entity	Pass-Through Entity Sponsor Number	Total Expenditures	Passed to Sub-Recipients
<b>OFFICE OF PERSONNEL MANAGEMENT</b>							
<b>Office of Personnel Management</b>							
Intergovernmental Personnel Act (IPA) Mobility Program	27.011	497,418				497,418	
Intergovernmental Personnel Act (IPA) Mobility Program	27.011		33,412	Veterans Educ & Resrch Assoc of New England (VERANE)	N/A	33,412	
Intergovernmental Personnel Act (IPA) Mobility Program	27.011		23,023	Veterans Medical Research Foundation (VMRF)	#05084001/VA241-17-D-0044	23,023	
		497,418	56,435			553,853	
<b>Total Other Sponsored Programs</b>		<b>4,470,879</b>	<b>1,502,905</b>			<b>5,973,783</b>	<b>1,513,801</b>
<b>Student Financial Assistance Program Cluster</b>							
<b>DEPARTMENT OF EDUCATION</b>							
Federal Pell Grant Program	84.063	3,044,063				3,044,063	
Federal Supplemental Educational Opportunity Grants	84.007	799,833				799,833	
Federal Work Study Programs	84.033	1,017,408				1,017,408	
Federal Perkins Loan							
Outstanding loans as of July 1, 2017	84.038	20,927,375				20,927,375	
New loans issued during 2018	84.038	638,457				638,457	
Administrative cost allowance	84.038	146,975				146,975	
Federal Direct Student Loans	84.268	34,887,597				34,887,597	
<b>Total Student Financial Assistance Program Cluster</b>		<b>61,481,738</b>				<b>61,481,738</b>	
<b>Highway Safety Cluster</b>							
<b>DEPARTMENT OF TRANSPORTATION</b>							
<b>National Highway Traffic Safety Administration (NHTSA)</b>							
State and Community Highway Safety	20.800		72,291	NH Highway Safety Agency	304-175-001	72,291	
State and Community Highway Safety	20.800		45,728	NH Highway Safety Agency	304-175-002	45,728	
State and Community Highway Safety	20.800		64,868	NH Highway Safety Agency	304-175-005	64,868	
State and Community Highway Safety	20.800		112,862	NH Highway Safety Agency	304-185-001	112,862	
State and Community Highway Safety	20.800		85,992	NH Highway Safety Agency	304-185-003	85,992	
National Priority Safety Programs	20.618		51,013	NH Highway Safety Agency	304-185-002	51,013	
<b>Total Highway Safety Cluster</b>			<b>412,553</b>			<b>412,553</b>	
<b>Total Federal Award Expenditures</b>		<b>\$ 186,466,156</b>	<b>\$ 19,222,833</b>			<b>\$ 205,688,990</b>	<b>\$ 20,081,799</b>

**Dartmouth College**  
**Notes to Schedule of Expenditures of Federal Awards**  
**Year Ended June 30, 2018**

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**1. Basis of Presentation**

The accompanying schedule of expenditures of federal awards (the "Schedule") summarizes the expenditures of Dartmouth College and subsidiaries ("Dartmouth College") under federal government programs for the year ended June 30, 2018. The information in this Schedule is presented in accordance with the requirements of U.S. Office of Management and Budget (OMB) Uniform Guidance, *Audits of States, Local Governments and Nonprofit Organizations*. Negative amounts on the Schedule represent adjustments to expenditures reported in the prior year. The Schedule includes Catalog of Federal Domestic Assistance (CFDA) and pass-through award numbers when available.

For purposes of the Schedule, federal awards include all grants, contracts, and similar agreements entered into directly between Dartmouth College and agencies and departments of the federal government and all subawards to Dartmouth College by nonfederal organizations pursuant to federal grants, contracts, and similar agreements.

**2. Summary of Significant Accounting Policies for Federal Award Expenditures**

Expenditures for direct and indirect costs are recognized as incurred using the accrual method of accounting and the cost accounting principles contained in the OMB Uniform Guidance, *Cost Principles for Educational Institutions*, and the regulations of the specific programs. Under those cost principles, certain types of expenditures are not allowable or are limited as to reimbursement.

**3. Facilities and Administrative Costs**

Dartmouth College recovers facilities and administrative (F&A) costs associated with research and development pursuant to arrangements negotiated with the Department of Health and Human Services (DHHS). Dartmouth College submitted an indirect cost proposal in the fall of 2015 for negotiated rates that became effective on April 5, 2016. Dartmouth College applies its predetermined approved facilities & administrative rate when charging indirect costs to federal awards rather than the 10% de minimis cost rate as described in Section 200.414 of the Uniform Guidance. Dartmouth's F&A cost rate for fiscal year 2018 is 62% for on-campus research.

**4. Federal Student Loan Programs**

Federal direct loans are issued by the U.S. Department of Education directly to students and their parents. The balances and transactions related to these loans are not included in financial statements. Loans made to eligible students and parents under federal student loan programs during the year ended June 30, 2018 are included in the Schedule of Federal Expenditures above.

The Federal Perkins loans (Perkins) are administered and serviced directly by Dartmouth College. In addition, Dartmouth College continues to service Health Education Assistance Loans (HEAL), which were issued in previous years. Balances and transactions relating to these loans are included in the financial statements.

The balances outstanding on these loans at June 30, 2018 are as follows:

Perkins - 84.038	\$17,732,432
HEAL - 93.108	39,298
	<u>\$17,771,730</u>





**Report of Independent Auditors on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards***

To the Board of Trustees of Dartmouth College:

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 consolidated financial statements of Dartmouth College and its subsidiaries ("Dartmouth College"), which comprise the consolidated statement of financial position as of June 30, 2018, and the related consolidated statement of activities, statement of operating expenses and statement of cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 24, 2018.

**Internal Control Over Financial Reporting**

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



### **Purpose of this Report**

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 entity'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 entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

*Bicowatahase Corpers LLP*

Boston, MA  
October 24, 2018



**Report of Independent Auditors on Compliance with Requirements  
That Could Have a Direct and Material Effect on Each Major Program and on Internal  
Control Over Compliance in Accordance with the Uniform Guidance**

To the Board of Trustees at Dartmouth College:

**Report on Compliance for Each Major Federal Program**

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

***Management's Responsibility***

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

***Auditors' Responsibility***

Our responsibility is to express an opinion on compliance for each of Dartmouth College'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 Dartmouth College'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 Dartmouth College's compliance.

***Opinion on Each Major Federal Program***

In our opinion, Dartmouth College and its subsidiaries 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 Dartmouth College 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 Dartmouth College's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing 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 Dartmouth College's internal control over compliance.

*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 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. We did not identify any deficiencies in 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.

*PricewaterhouseCoopers LLP*

Boston, MA  
January 11, 2019

**Dartmouth College**  
**Schedule of Findings and Questioned Costs**  
**Year Ended June 30, 2018**

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**Section I – Summary of Auditor’s Results**

*Financial Statements*

Type of auditor’s report issued: Unmodified

Internal control over financial reporting:

- Material weakness(es) identified?  yes  no
- Significant deficiency(ies) identified that are not considered to be material weaknesses?  yes  none reported
- Noncompliance material to financial statements noted?  yes  no

*Federal Awards*

Internal control over major programs:

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

Type of auditor’s report issued on compliance for major 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 programs:**  
**CFDA Number(s)**

**Name of Federal Program or Cluster**

Various  
 Various

Research and Development Cluster  
 Student Financial Assistance Program  
 Cluster

Dollar threshold used to distinguish between Type A and Type B programs: \$3,000,000

Auditee qualified as low-risk auditee?  yes  no

**Section II – Financial Statement Findings**

None noted.

**Section III – Federal Award Findings and Questioned Costs**

None noted.

**Dartmouth College**  
**Summary Schedule of Prior Audit Findings**  
**June 30, 2018**

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There are no findings from prior years that require an update in this report.

## **Dartmouth College Board of Trustees 2018-2019**

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New Haven, CT

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Seattle, WA

Gail Koziara Boudreaux '82  
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Indianapolis, IN

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Partner, North Bridge Venture Partners  
Weston, MA

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Founding Partner, TPG Capital  
San Francisco, CA

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Managing Partner  
Norwest Venture Partners  
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Center for Democracy, Development and the Rule of Law Stanford University  
Palo Alto, CA

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Founding Partner  
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New York, NY

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Washington, DC

Philip J. Hanlon, Ph.D.  
President  
Dartmouth College  
Hanover, NH

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Managing Director  
General Atlantic, LLC  
New York, NY

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Daniel Katz Distinguished University Professor of Psychology  
University of Michigan  
Ann Arbor, MI

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Cambridge, Massachusetts

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President, Chief Executive Officer, and Director  
Liberty Media/Liberty Interactive  
Englewood, CO

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Chairman of the Board  
Intercorp  
Lima, Peru

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New Relic  
San Francisco, CA

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Governor, State of New Hampshire  
Concord, NH

Benjamin F. Wilson '73  
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Beveridge & Diamond, P.C.  
Washington, DC

## CURRICULUM VITAE

Date prepared: April 15, 2019

NAME: Dr. Judith Rees

ADDRESS:	Home	Office
	[REDACTED]	1 Medical Center Drive 7927 Rubin Building Lebanon, NH 03756

### I. EDUCATION

DATES	INSTITUTION	DEGREE
1997-2001	University of California, Berkeley, School of Public Health	Ph.D. (Epidemiology)
1995-1996	University of California, Berkeley, School of Public Health	M.P.H. (Epidemiology)
1985-1988	Oxford University Medical School, England	B.M., B.Ch. (equivalent to M.D.)
1982-1985	Oxford University, England	B.A. (Physiological Sciences)

### II. POSTDOCTORAL TRAINING

DATES	INSTITUTION	SPECIALTY
1991-1994	Northampton General Hospital, Northampton, England	General Practice Resident: Pediatrics (6 months) Obstetrics/Gynecology (6 months) Psychiatry (4 months) Palliative Care (4 months) Rheumatology (4 months) General Practice (12 months)
1990	St. Helier Hospital, Surrey, England	Resident, Emergency Department
1989-1990	Welsh Health Common Services Authority	Intern, Computer Programming
1989	Churchill Hospital, Oxford, England	Intern, General Surgery / Urology
1988-1989	Northampton General Hospital, Northampton, England	Intern, General Medicine / Gastroenterology

### III. PROFESSIONAL DEVELOPMENT ACTIVITIES: NA

### IV. ACADEMIC APPOINTMENTS

DATES	INSTITUTION	TITLE
2015 - Present	Geisel School of Medicine at Dartmouth	Assistant Professor, Epidemiology

Name: Dr. Judith Rees

2002 - Present	Geisel School of Medicine at Dartmouth	Assistant Professor, Community & Family Medicine
2006 - Present	Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center	Cancer Epidemiology Program Member

**V. INSTITUTIONAL LEADERSHIP ROLES**

DATES	INSTITUTION	TITLE
2016 - 2018	Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center	Cancer Epidemiology Research Program, Co-Director
2013 - Present	Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center	Co-Director, Registry Shared Resource
2004-Present	New Hampshire State Cancer Registry	Director

**VI. LICENSURE AND CERTIFICATION**

DATE	LICENSURE/CERTIFICATION
1993	Member of the Royal College of General Practitioners, United Kingdom (equivalent to Board Certification)
1993	Diploma of the Royal College of Obstetricians and Gynecologists, United Kingdom
1988	Medical licensure (United Kingdom)

**VII. HOSPITAL APPOINTMENTS**

DATES	INSTITUTION	POSITION/TITLE
1994	Short term locum, various general practice offices, South Wales, United Kingdom	Family Practitioner

**VIII. OTHER PROFESSIONAL POSITIONS (NON-DARTMOUTH):**

DATES	INSTITUTION	POSITION/TITLE
1997-2000	California Emerging Infections Program Berkeley, CA	Project Director, Drinking Water Evaluation Trial
1996-1997	California Emerging Infections Program, San Francisco, CA	Surveillance Officer (Cryptosporidiosis)
1995	California Emerging Infections Program, San Francisco, CA	Surveillance Officer

**IX. TEACHING ACTIVITIES**

**A. UNDERGRADUATE (COLLEGE) EDUCATION: NA****B. GRADUATE EDUCATION****CLASSROOM TEACHING**

<b>DATES</b>	<b>INSTITUTION</b>	<b>COURSE TITLE</b>	<b>ROLE</b>	<b>HOURS / YEAR</b>
2016-	Geisel School of Medicine at Dartmouth	Quantitative Biomedical Sciences (QBS 271 Epidemiology seminar)	Guest seminar leader	1 Hour
2012-15	Geisel School of Medicine at Dartmouth	Quantitative Biomedical Sciences, "Study Design"	Lecturer	1.5 hours
2006	Geisel School of Medicine at Dartmouth, Center for the Evaluative Clinical Sciences (CECS)	"Waterborne Infectious Diseases" ECS 151, Environmental & Occupational Health:	Lecture, supervisor of outbreak investigation exercise	2 hours
2004	Geisel School of Medicine at Dartmouth	"Randomized Controlled Trials: statistical and scientific issues", Core Modules in the Evaluative Clinical Sciences: Advanced Seminar Series	Lecture,	2 hours
2003	Center for the Evaluative Clinical Sciences. Dartmouth Medical School	ECS 151, Environmental & Occupational Health	Project advisor	4 hours
1998	University of California, Berkeley, CA	Epidemiology 250B (Core course)	Graduate Student Instructor	20 hours

**C. UNDERGRADUATE MEDICAL EDUCATION (Medical School)****i. CLASSROOM TEACHING**

<b>DATES</b>	<b>INSTITUTION</b>	<b>COURSE TITLE</b>	<b>ROLE</b>	<b>HOURS / YEAR</b>
2015-	Geisel School of Medicine at Dartmouth	Patients and Populations: Improving Health and Healthcare	Co-Director and course developer, small group leader and lecturer (Biostatistics and Epidemiology)	250
2008-2015	Geisel School of Medicine at Dartmouth	"Biostatistics and Epidemiology" (CFM 104)	Course Director and lecturer	200

Name: Dr. Judith Rees

2008-2015	Geisel School of Medicine at Dartmouth	"Biostatistics and Epidemiology" (CFM 104)	Small Group Leader	18
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**ii. CLERKSHIP TEACHING: NA**

**D. GRADUATE MEDICAL EDUCATION**

**E. OTHER CLINICAL EDUCATION (e.g., PA programs)**

DATES	INSTITUTION	COURSE TITLE	ROLE	HOURS / YEAR
2012	Geisel School of Medicine at Dartmouth:	SYNERGY Certificate Program	Lecturer	0.5

**X. ADVISING/MENTORING**

**A. UNDERGRADUATE STUDENTS: NA**

**B. GRADUATE STUDENTS (Masters & PhD Students)**

DATES	STUDENT'S NAME	PROGRAM NAME	DEGREE
2004	Maria Celaya	University of New Hampshire, Independent Study	MPH

**C. MEDICAL STUDENTS:**

DATES	STUDENT'S NAME	PROGRAM
2018	Alexandra Morgan	
2018	Shaun Cooper	
2018	Stephanie Castillo	
2018	Radelys German	
2017	Jacob Wasag	
2016	Delaney Osborne	
2015	Nu R Na	
2016	Delaney Osborne	Year 1 medical student
2016	Jacob Wasag	Year 1-2 medical student
2015-16	Nuree Na	Year 1 medical student

**D. RESIDENTS/FELLOWS**

DATES	MENTEE'S NAME	SPECIALTY
2016	Anh Khoa Pham	Dermatology

**E. FACULTY**

Name: Dr. Judith Rees

<b>DATES</b>	<b>MENTEE'S NAME</b>	<b>SPECIALTY</b>
2018-	Andrew Loehrer	Surgical Oncology
2018-	Erika Moen	Biomedical Data Science
2014-15	Mamsau Ngoma, MD Ocean Road Cancer Institute Dar es Salaam, Tanzania	Clinical Oncology
2014-15	Nazima Dharsee, MD Ocean Road Cancer Institute Dar es Salaam, Tanzania	Clinical Oncology
2014-15	Salum Lidenge, MD Ocean Road Cancer Institute Dar es Salaam, Tanzania	Clinical Oncology

**XI. RESEARCH TEACHING/MENTORING: NA**

**XII. COMMUNITY SERVICE, EDUCATION, AND ENGAGEMENT**

List activities relevant to your professional roles

<b>DATES</b>	<b>INSTITUTION</b>	<b>COURSE TITLE/ACTIVITY</b>	<b>ROLE</b>	<b>HOURS / YEAR</b>
2017-	Norris Cotton Cancer Center	Squash Cancer Tournament	Organizing committee member	50
2011	American Cancer Society	"Making Strides Against Breast Cancer Summit": a breast cancer awareness event for the community. "Multiple Cancers and the New Hampshire State Cancer Registry"	Guest speaker	1.0
10/2009	Hanover High School	"Dig Pink" Varsity Volleyball fundraiser for breast cancer	Master of Ceremonies	1.0

**XIII. RESEARCH FUNDING****A. Current**

<b>DATES (start &amp; stop)</b>	<b>PROJECT (title/award #)</b>	<b>ROLE*</b>	<b>% EFFORT</b>	<b>SPONSOR</b>	<b>ANNUAL DIRECT COSTS</b>
06/01/18- 05/31/18	Geospatial "Big Data" Approaches to Cancer Clusters and Environmental Risk	PI	10%	Munck- Pfefferkorn grant, Dartmouth College	\$80,000
11/18/2016- 06/30/2018	PO#1024261 NH State Cancer Registry	PI	50%	NH Cancer Registry	\$666,260
10/01/2016- 09/30/2020	Geographic Distribution of Health Care (PI, K Telle) Regional differences in demand and supply, costs and quality (GeoHealth) project 256678 awarded to Forskningsavdelingen	Visiting Faculty	None (grant funds travel expenses)	Research Council of Norway	\$588,900
06/01/16- 11/30/19	P30 CA023108 (PI, M. Israel) Cancer Center Support Grant	Cancer Epidemiology Program Co- Director	10%	NCI	\$993, 985
06/01/17 – 05/31/19	P01CA206980 (Berwick and Thomas)		5%	NCI	\$37,137 (Rees funds only)

**B. Past**

<b>DATES (start &amp; stop)</b>	<b>PROJECT (title/award #)</b>	<b>ROLE*</b>	<b>% EFFORT</b>	<b>SPONSOR</b>	<b>ANNUAL DIRECT COSTS</b>
8/1/2015- 10/31/2016 NCE to 10/31/2017	5022528 (PI, E. Barry) Colorectal Chemo- prevention with Calcium and Vitamin D	Role: Co- Investigator	2.5%	NCI	\$529,008
4/1/2015 – 3/31/2017	R01CA057494 (PI, M. Karagas) Non- Melanoma Skin Cancer in New Hampshire	Role: Co- Investigator	10%	NCI	\$362,404
07/01/2014- 10/31/2016	NH Cancer Registry	PI	60%	CDC	\$636,646
7/1/2014 –	RO3CA178272	PI	10%	NCI	\$32,803

Name: Dr. Judith Rees

6/30/2016	Participant Beliefs and Bias in a Randomized Controlled Trial				
04/16/2014-08/28/2015	Patient Centered Outcomes Research	PI	2.5%	CDC	\$181,454
3/20/14-9/25/15	14X063 (PI, M Ernstoff) Planning Research Training Program in HIV-related Malignancies in Tanzania-DarDarCan	Co-Investigator	5%	NCI	\$81,192
7/1/2012-6/30/2014	NH Cancer Registry	PI	60%	CDC	\$545,905
7/1/2011-6/30/2012	NH Cancer Registry	PI	60%	CDC	\$527,596
2/15/10-2/14/13	RD-83459901-0 (PI, M Karagas) Children's Environmental Health & Disease Prevention Research Center at Dartmouth	Co-Investigator	2.5%	EPA	\$189,340
2/15/10-11/30/13	1P20ES018175-01 (PI, M Karagas) Children's Environmental Health & Disease Prevention Research Center at Dartmouth	Co-Investigator	2.5%	NIH	\$155,137
7/1/2010-6/30/2011	NH Cancer Registry	PI	60%	CDC	\$527,596
10/01/2010-09/30/2013	Enhancing Cancer Registry Data for Comparative Effectiveness. Subcontract # 635243-10S-1567	PI	10%	CDC	\$297,178
9/30/09-9/30/11	3R01CA098286-07S1 (PI, J Baron) Subcontract from University of North Carolina. Vitamin D and the risk of upper respiratory and GI infections	Co-Investigator	5%	NIH/NCI	\$312,777



01/01/04 - 08/31/08	1 R01 CA98286- (PI, J Baron) Colorectal Chemoprevention with Calcium and Vitamin D	Co-Investigator	5%	NCI/NIH	\$529,008
09/30/13-06/31/14	R01CA059005 (PI, J Baron) Aspirin/Folate Prevention of Large Bowel Polyps	Co-Investigator	5%	NCI/NIH	\$418,540
3/1/2010-8/31/2012	Assessment of Central Cancer Registry Linkage	PI	10%	Westat	\$86,994
09/30/2009 - 08/31/2013	UC2CA148259 (PI A Tosteson, W Black, B Hillner) Comparative Effectiveness of Advanced Imaging in Cancer	Co-Investigator	10%	National Cancer Institute (NCI)	\$741,636
12/01/2008 - 11/30/2013	2 P30 CA023108 (PI, M Israel) Cancer Center Support (CORE) Grant, Office of Comparative Effectiveness Research	Co-Investigator	5%	National Cancer Institute	\$2,513,292
7/1/2008 - 6/30/2010	NH Cancer Registry	PI	60%	CDC	\$527,596
1/1/2008-12/31/2011	Subsequent Malignancy After Non Melanoma Skin Cancer	PI	30%	ACS	\$112,215
3/1/07 - 2/28/12	R01 NS055875 (PI, S Supattapone) Biochemistry of Infectious Prions	Co-Investigator	10%	NIH/NINDS	\$200,000
7/1/2006-6/30/2008	NH Cancer Registry	PI	60%	CDC	\$609,036
7/1/2005-6/30/2006	NH Cancer Registry	PI	60%	CDC	\$501,493
04/01/1997 - 03/31/2013	5 P42 ES007373-14 (PI, B Stanton) Toxic Metals in the Northeast: From Biological to Environmental Implications	Co-Investigator	10%	NIH/NIEHS	\$360,721
9/15/2004-9/14/2005	Indian Health Service Contract/NH State Registry	PI	N/A	Indian Health Service	\$2,500

Name: Dr. Judith Rees

7/1/2004-6/30/2005	NH Cancer Registry	PI	60%	CDC	\$459,714
3/1/04-2/28/10	U50/CCU121143-03 (PI, J Moeschler) The New Hampshire Birth Defects Monitoring and Prevention Program	Epidemiologist	1%	CDC	\$183,636
8/28/03-7/31/08	115911/ RO1 CA054419 (PI, D Cramer) Subcontract from Brigham & Women's Hospital. Genes, hormones, and environment in an ovarian cancer model	Epidemiologist	11%	NIH/NCI	\$91,024

**C. Pending**

<b>DATES (start &amp; stop)</b>	<b>PROJECT (title/award #)</b>	<b>ROLE*</b>	<b>% EFFORT</b>	<b>SPONSOR</b>	<b>ANNUAL DIRECT COSTS</b>
7/1/19-6/30/23	U24: Development of ArcHealth software package for geospatial analyses in cancer studies	Co-Investigator	15%	NIH/NCI	\$481,071
9/1/19-8/31/21	R21: Evaluating osteoradionecrosis outcomes using a hyperbaric registry	Co-PI	10%	NIH/NCI	\$150,000

#### **XIV. PROGRAM DEVELOPMENT**

List any educational, clinical or research entities at Dartmouth that were created or notably advanced by your efforts

##### **1. New Hampshire State Cancer Registry (NHSCR).**

Maintaining a high quality state cancer registry at Dartmouth has provided numerous benefits to the medical school.

- North American Association of Central Cancer Registries certification, based on data quality: 13 gold, 2 silver awards over 15 years.
- One of 10 state Specialized Registries for Comparative Effectiveness Research (CER) (2011-13)
- One of 6 state Specialized Registries participating in Patient Centered Outcomes project (2013-present)
- A bibliography of well over 200 papers published by Dartmouth faculty based on NHSCR data.
- Millions of dollars in Dartmouth grants have used NHSCR data e.g. New England Bladder Study, Ovarian Cancer Study, Melanoma Study, Familial Colorectal Cancer Study, NH Mammography Network, NH Colonoscopy Registry.

##### **2. Norris Cotton Cancer Center Registry Shared Resource (RSR).**

- Founder and Co-Director of NCCC Registry Shared Resource
- Initiation of registries for clinical research and quality improvement (e.g. Hyperbaric Oxygen Registry [PI Buskey], Pediatric Cancer Registry [PI Chaffee])
- Enhancement of DHMC Tumor Registry reporting:
  - Via a contract awarded to the NH State Cancer Registry, I obtained \$100,000 direct costs from the CDC to successfully install electronic case-finding ("AIM") software at DHMC, replacing manual review of pathology paper reports that required 0.5 FTE.
  - Advocated for DH Tumor Registry collection of follow-up data (discussions pending)
  - Conducted validation exercise showing that DH Tumor Registry vital status process misses ~20% of deaths; and identified a solution via linkage with National Death Index (in process)

##### **3. Hyperbaric Oxygen Treatment Registry (HBOT).**

- Working with hyperbaric program to develop international HBOT registry and research consortium
- Designed and improved registry using REDCap, now being tested by multiple potential partners worldwide (Australia, United Kingdom, United States).
- Working with HBOT team to write internal and external grant proposals for future funding (pending)

##### **4. Medical student education.**

- Core course development and implementation (Biostatistics & Epidemiology CFM 104, 2009-2015). The course consistently received excellent reviews and earned the best Step 1 results of Geisel Year 1 courses.
- Curriculum expansion during transition of CFM 104 to "Patients and Populations" 2-year course

#### **XV. ENTREPRENEURIAL ACTIVITIES: NA**

List any patents, licenses or other entrepreneurial activities

**XVI. MAJOR COMMITTEE ASSIGNMENTS:****National/international**

<b>DATES</b>	<b>COMMITTEE</b>	<b>ROLE</b>	<b>INSTITUTION</b>
2013	Comparative Effectiveness Research Analysis Group	Participant	National Program of Cancer Registries, Centers for Disease Control & Prevention
2010	Prevention Translation Supplement Awards Review Committee	Reviewer	Canadian Cancer Society Research Institute
2003	Institutional Review Board	External reviewer	US Environmental Protection Agency

**Regional**

<b>DATES</b>	<b>COMMITTEE</b>	<b>ROLE</b>	<b>INSTITUTION</b>
2011-Present	NH Colorectal Cancer Screening Program Medical Advisory Board	Committee Member	NH Colorectal Cancer Screening Program
2008-Present	NH State Cancer Registry Advisory Panel	Chair	NH State Cancer Registry
2006-2009	NH Comprehensive Cancer Collaboration Emerging Issues Committee	Committee Member	NH Department of Health and Human Services
2006-Present	NH Comprehensive Cancer Collaboration Data Use Committee	Committee Member	NH Department of Health and Human Services
2006	NH Comprehensive Cancer Collaboration: Management RFP review panel	Committee Member	NH Department of Health and Human Services
2006	NH Comprehensive Cancer Control Plan: Evaluation Design RFP review panel	Committee Member	NH Department of Health and Human Services
2005-2007	NH Advisory Panel on Cancer and Chronic Disease	Committee Member	NH Department of Health and Human Services
2005-2008	NH Comprehensive Cancer Control Plan: Steering Committee	Committee Member	NH Department of Health and Human Services

Name: Dr. Judith Rees

2005	NH Chronic Disease Conference Planning Committee	Committee Member	NH Department of Health & Human Services
2003	Mercury subcommittee responding successfully to PA 03034 (Centers for Disease Control & Prevention)	Committee Member	NH Department of Health and Human Services Public Health Laboratory

**Institutional**

<b>DATES</b>	<b>COMMITTEE</b>	<b>ROLE</b>	<b>INSTITUTION</b>
2016-	Medical Education Committee	Voting Member	Geisel School of Medicine at Dartmouth
2015- present	Patients & Populations workgroup	Committee member, course development	Geisel School of Medicine at Dartmouth
2012-2014	Masters Curriculum development workgroup	Committee member, co-director of workgroup on Measurement, Analysis & Critical Appraisal	Geisel School of Medicine at Dartmouth
2012	Educational program working group	Workgroup member, LCME self-study document	Geisel School of Medicine at Dartmouth
2012-present	Cancer Center developmental funds review committee	Reviewer	Norris Cotton Cancer Center, Dartmouth-Hitchcock Medical Center
2012	Year 1-2 Curriculum review working group	Committee member	Geisel School of Medicine at Dartmouth
2010	Pilot Application review committee	Reviewer	Dartmouth Center for Clinical & Translational Science, Geisel School of Medicine
2009-2012	Medical Education Committee	Voting Member	Geisel School of Medicine at Dartmouth
2008-	American Cancer Society Institutional Research Grants	Reviewer	Geisel School of Medicine at Dartmouth
2007	Administrative Officer, Search Committee, Biostatistics/Epidemiology	Committee Member	Geisel School of Medicine at Dartmouth

Name: Dr. Judith Rees

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**XVII. MEMBERSHIPS, OFFICE AND COMMITTEE ASSIGNMENTS IN PROFESSIONAL SOCIETIES: NA**

**XVIII. EDITORIAL BOARDS:**

DATES	SOCIETY	ROLE
2013-Present	PLOS ONE	Academic Editor

**XIX. JOURNAL REFEREE ACTIVITY:**

DATES (year of first review)	JOURNAL NAME
2018	<i>Journal of the European Academy of Dermatology and Venereology: Reviewer</i> <i>International Journal of Dermatology: Reviewer</i>
2016	<i>British Journal of Dermatology: Reviewer</i>
2015	<i>Clinical Nutrition: Reviewer</i> <i>Italian Journal of Pediatrics: Reviewer</i>
2014	<i>Cancer Epidemiology, Biomarkers and Prevention: Reviewer</i> <i>International Journal of Cancer: Reviewer</i>
2013	<i>PLOS ONE: Academic Editor</i>
2010	<i>Clinical Rehabilitation: Reviewer</i>
2009	<i>British Journal of Cancer: Reviewer</i>
2008	<i>Cancer Biomarkers, Epidemiology and Prevention: Reviewer</i>
2007	<i>Journal of Exposure Science and Environmental Epidemiology: Reviewer</i>
2005	<i>Medical Science Mentor: Reviewer</i>
2004	<i>Advanced Studies in Medicine: Reviewer</i>

**XX. AWARDS AND HONORS:**

DATE	AWARD
1998-1999	University Fellowship for Graduate Study in Public Health (U.C. Berkeley)
1997-1998	Non-Resident Tuition Scholarship (U.C. Berkeley)
1994	George Herbert Hunt Traveling Scholarship (Oxford University, England)

**XXI. INVITED PRESENTATIONS:**

Indicate with an asterisk (\*) those presentations to which you, individually, were extended an invitation to present

Name: Dr. Judith Rees

Indicate with a hashtag (#) those presentations that were meetings where you may have presented a poster/talk, but not following a personalized invitation (i.e., at a large society meeting).

Indicate with a carat (^) if the talk/presentation was applicable as a CME activity.

**International (location of the meeting):**

DATE	TOPIC/TITLE	ORGANIZATION	LOCATION
2015	Randomized Controlled Trials: Who Fails Run-in?#	International Clinical Trials Methodology Conference	Glasgow, Scotland
2012	Registry Methods and Cancer Registries*	Ocean Road Cancer Institute	Dar es Salaam, Tanzania
1985	Rubella, Congenital Malformations and the Development of Immunization*	Annual meeting of the Wellcome Unit for the History of Medicine	Oxford, England

**National:**

DATE	TOPIC/TITLE	ORGANIZATION	LOCATION
2018	The Role of Registries in Medicine*^	Undersea and Hyperbaric Medicine Society	Orlando, Florida
2011	Cancer in the Oldest Old: a New Hampshire-Norway comparison#	North American Association of Central Cancer Registries	Louisville, KY
2010	Vitamin D and common infectious syndromes*	Polyp Prevention Study Group	Chicago, IL
2007	Serum vitamin D response to supplementation*	Polyp Prevention Study Group	Chicago, IL
2006	Serum vitamin D response to supplementation*	Polyp Prevention Study Group	Las Vegas, NV
2000	Measurement of blinding effectiveness in randomized, placebo-controlled trial*	U.C, Berkeley	Berkeley, CA

**Regional/Local:**

DATE	TOPIC/TITLE	ORGANIZATION	LOCATION
2015	Risk factors for late	New Hampshire State Cancer	Nashua, NH

	stage colorectal cancer in New Hampshire*	Registry Annual Training Meeting	
2013	Enhancing cancer registry data for comparative effectiveness research*	Cancer Registrars Association of New England (CRANE)	Concord, NH
2011	Comparative effectiveness research data: a tool for New Hampshire hospitals*	New Hampshire State Cancer Registry Annual Training Meeting	Concord Hospital, NH
2010	Comparative effectiveness research data collection in New Hampshire: a new initiative*	New Hampshire State Cancer Registry Annual Training Meeting	Portland, ME
2009	Oncology Care in Rural Northern New England*	Northern New England Clinical Oncology Society Annual Meeting	Rockport, ME
2008	Occupation and industry in cancer registry data collection*	New Hampshire State Cancer Registry Annual Training Meeting at Cheshire Hospital	Keene, NH
2007	Colorectal cancer: data use*	Tri-state Hospital Cancer Registrars Training Meeting (ME, NH, VT)	Portsmouth, NH
2006	Multiple malignancies and non-melanoma skin cancer*	Norris Cotton Cancer Center Epidemiology/Chemoprevention Seminar	Lebanon, NH
2005	Factors influencing treatment choices of New Hampshire women with early stage breast cancer*	Norris Cotton Cancer Center Epidemiology-Chemoprevention Seminar	Lebanon, NH
2004	Fish consumption and toenail mercury*	Norris Cotton Cancer Center Epidemiology-Chemoprevention Seminar	Lebanon, NH
2004	Cutaneous melanoma*	New Hampshire State Cancer Registry, Annual Fall Training Meeting	Concord, NH
2003	Measuring the effectiveness of blinding in randomized controlled trials*	Norris Cotton Cancer Center Cancer Chemoprevention Seminar	Lebanon, NH



## XXII. BIBLIOGRAPHY:

1. MN Passarelli, EL Barry, JR Rees, LA Mott, JA Baron. Body composition and aspirin dose for colorectal adenoma prevention in a randomized clinical trial
2. MN Passarelli, MR Karagas, LA Mott, JR Rees, EL Barry, JA Baron. Risk of keratinocyte carcinomas in a randomized clinical trial of vitamin D and calcium for the prevention of colorectal adenomas.
3. MN Passarelli, EL Barry, JR Rees, LA Mott, JA Baron. No Evidence for Post-Treatment Effects of Vitamin D and Calcium Supplementation on Risk of Colorectal Adenomas in a Randomized Trial
4. AH Calderwood, JA Baron, LA Mott, DJ Ahnen, RM Bostick, JC Figueiredo, M Passarelli, JR Rees, DJ Robertson, EL Barry. No Evidence for Vitamin D and Calcium Supplementation Late Effects on Risk of Colorectal Adenomas in a Randomized Trial
5. T Thompson, C Johnson, M Hsieh, X Wu, JR Rees, R Rycroft, MB Freeman, R Wilson, K, Zhang, V Benard, L Pollack. PCOR Recurrence paper (In preparation)
6. MN Passarelli, EL Barry, JR Rees, LA Mott, D Zhang, DJ Ahnen, RS Bresalier, RW Haile, Gail McKeown-Eyssen, DC Snover, BF Cole, JA Baron. Folic Acid and Colorectal Adenomas During the Intervention Extension and Post-Intervention Follow-up: A Randomized Clinical Trial (Submitted)
7. SN Robinson, MS Zens, JR Rees, DT Barton, MR Karagas. Risk of Melanoma Following Keratinocyte Malignancies (Submitted)
8. Andrew AS, Parker S, Anderson JC, Rees JR, Robinson C, Riddle B, Butterly LF. Risk factors for diagnosis of colorectal cancer at a late-stage: a population-based study. *J. Gen Int Med* 2018 Dec;33(12):2100-2105.
9. EL. Barry, JL. Lund, D Westreich, LA. Mott, DJ. Ahnen, GJ. Beck, RM. Bostick, RS. Bresalier, CA. Burke, TR. Church, JR Rees; DJ. Robertson, JA. Baron. Body Mass Index, Calcium Supplementation and Risk of Colorectal Adenomas. 2019. *Int. J Cancer* doi: 10.1002/ijc.31803.
10. Stenehjem JS, Veierød MB, Nilsen LT, Ghiasvand R, Johnsen B, Grimsrud TK, Babigumira R, Rees JR, Robsahm TE. Anthropometric factors and cutaneous melanoma: Prospective data from the population-based Janus Cohort. *Int J Cancer*. 2018 Feb 15;142(4):681-690. doi: 10.1002/ijc.31086. Epub 2017 Oct 17. Erratum in: *Int J Cancer*. 2018 Apr 1;142(7):E3. PubMed PMID: 28983909.
11. Siegel DA, Henley SJ, Wike JM, Ryerson AB, Johnson CJ, Rees JR, Pollack LA; Enhancement of NPCR for Comparative Effectiveness Research, Team. Capture of tobacco use among population-based registries: Findings from 10 National Program of Cancer Registries states. *Cancer*. 2018 Mar 26. doi: 10.1002/cncr.31326. [Epub ahead of print] PubMed PMID: 29579317.
12. Passarelli MN, Barry EL, Zhang D, Gangar P, Rees JR, Bresalier RS, McKeown-Eyssen G, Karagas MR, Baron JA. Risk of basal cell carcinoma in a randomized clinical trial of aspirin and folic acid for the prevention of colorectal adenomas. *Br J Dermatol*. 2018 Mar 23. doi: 10.1111/bjd.16571. [Epub ahead of print] PubMed PMID: 29570772.

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13. Rees JR, Morris CB, Peacock JL, Ueland PM, Barry EL, McKeown-Eyssen GE, Figueiredo JC, Snover DC, Baron JA. Unmetabolized Folic Acid, Tetrahydrofolate, and Colorectal Adenoma Risk. *Cancer Prev Res (Phila)*. 2017 Aug;10(8):451-458. doi: 10.1158/1940-6207.CAPR-16-0278. Epub 2017 Jun 9. PubMed PMID: 28600398; PubMed Central PMCID: PMC5544920.
14. Freeman MB, Pollack LA, Rees JR, Johnson CJ, Rycroft RK, Rousseau DL, Hsieh MC; enhancement of NPCR for comparative effectiveness research team.. Capture and coding of industry and occupation measures: Findings from eight National Program of Cancer Registries states. *Am J Ind Med*. 2017 Aug;60(8):689-695. doi: 10.1002/ajim.22739. PubMed PMID: 28692191; PubMed Central PMCID: PMC5769461.
15. Stenehjem JS, Grimsrud TK, Rees JR, Vos L, Babigumira R, Veierød MB, Robsahm TE. A protocol for prospective studies of 25-hydroxyvitamin D, leptin and body mass index in relation to cutaneous melanoma incidence and survival. *BMJ Open*. 2017 Jun 21;7(6):e014829. doi: 10.1136/bmjopen-2016-014829. PubMed PMID: 28637727; PubMed Central PMCID: PMC5623373.
16. AR Martineau, DA Jolliffe, RL Hooper, L Greenberg, JF Aloia, P Bergman, G Dubnov-Raz, S Esposito, D Ganmaa, AA Ginde, EC Goodall, C Grant, CJ Griffiths, W Janssens, I Laaksi, S Manaseki-Holland, D Mauger, DR Murdoch, R Neale, JR Rees, S Simpson Jr, I Stelmach, GT Kumar, M Urashima, CA Camargo Jr. Vitamin D supplementation to prevent acute respiratory infections *BMJ*. 2017 Feb 15;356:i6583. doi: 10.1136/bmj.i6583. Review. PubMed PMID: 28202713; PubMed Central PMCID: PMC5310969.
17. Barry EL, Peacock JL, Rees JR, Bostick RM, Robertson DJ, Bresalier RS, Baron JA. Vitamin D Receptor Genotype, Vitamin D3 Supplementation, and Risk of Colorectal Adenomas: A Randomized Clinical Trial. *JAMA Oncol*. 2017 May 1;3(5):628-635. doi: 10.1001/jamaoncol.2016.5917. PubMed PMID: 27978548; PubMed Central PMCID: PMC5580351.
18. F Ghali, M Celaya, M Laviolette, J Ingimarsson, H Carlos, J Rees, E Hyams. Does Travel Time to a Radiation Facility Impact Patient Decision-Making Regarding Treatment for Prostate Cancer? A Study of the New Hampshire State Cancer Registry. 2016, *J Rural Health*. Nov 11, DOI: 10.1111/jrh.12224
19. JR Rees, LA Mott, EL Barry, JA Baron, RM Bostick, JC Figueiredo, RS Bresalier, DJ. Robertson, JL Peacock. Lifestyle and Other Factors Explain One-Half of the Variability in the Serum 25-Hydroxyvitamin D Response to Cholecalciferol Supplementation in Healthy Adults. *J Nutrition*, 2016; 146(11):2131-2324.
20. JR Rees, LA Mott, EL Barry, JA Baron, JC Figueiredo, DJ Robertson, RS Bresalier, JL Peacock. Randomized controlled trials: who fails run-in? *Trials* 2016; 17:374.
21. J Baron, E Barry, L Mott, J Rees, R Sandler, D Snover, R Bostick, A Ivanova, D Ahnen, G Beck, R Bresalier, C Burke, T Church, M Cruz-Correa, J Figueiredo, M Goodman, A Kim, D Robertson, R Rothstein, A Shaikat, M Seabrook, R Summers, A Clinical Trial of Calcium and Vitamin D for the Prevention of Colorectal Adenomas. *New Engl J Med* 2015; 373(16):1519-30.
22. SF Farzan, Y Chen, JR Rees, MS Zens, MR Karagas. Risk of death from cardiovascular disease associated with low-level arsenic exposure among long-term smokers in a US population-based study. *Toxicol Appl Pharmacol* 2015 Sep 1;287(2):93-7.

Name: Dr. Judith Rees

23. JR Rees, MS Zens, MO Celaya, BL Riddle, MR Karagas, JL Peacock. Survival after squamous cell and basal cell carcinoma of the skin: A retrospective cohort analysis. *Int J Cancer*. 2015 Aug 15;137(4):878-84
24. JP Ingimarsson, MO. Celaya, M Laviolette, JR Rees, ES Hyams. Trends in initial management of prostate cancer in New Hampshire – Reasons for optimism? *Cancer Causes and Control* 2015; 26(6):923-9.
25. X Shi, JD Ayotte, A Onda, S Miller, J Rees, D Gilbert-Diamond, T Onega, J Gui, M Karagas, J Moeschler. Geospatial Association between Low Birth Weight and Arsenic in Groundwater in New Hampshire, USA. *Environ Geochem Health*. 2015 Apr;37(2):333-51.
26. EL Barry, JR Rees, JL Peacock, LA Mott, CI Amos, RM Bostick, JC Figueiredo, DJ Ahnen, RS Bresalier, CA Burke, JA Baron. Genetic Variants in CYP2R1, CYP24A1 and VDR Modify the Efficacy of Vitamin D3 Supplementation for Increasing Serum 25-Hydroxyvitamin D in a Randomized Trial. *J Clin Endocrinol Metab*. 2014 Oct;99(10):E2133-7.
27. TE Robsahm, MR Karagas, JR Rees, A Syse. New malignancies after squamous cell carcinoma and melanomas: a population-based study from Norway. *BMC Cancer* 2014, 14:210
28. A Wyszynski, SA Tanyos, JR Rees, CJ Marsit, KT Kelsey, AR Schned, EM Pendleton, MO Celaya, MS Zens, MR Karagas, AS Andrew. Cancer. Body mass and smoking are modifiable risk factors for recurrent bladder cancer. *Cancer* 2014, 120(3):408-14
29. JR Rees, MS Zens, J Gui, MO Celaya, BL Riddle, MR Karagas. Non melanoma skin cancer and subsequent cancer risk. *PLoS ONE* 2014 Jun 17;9(6):e99674
30. EL Barry, LA Mott, ML Melamed, JR Rees, A Ivanova, RS Sandler, DJ Ahnen, RS Bresalier, RW Summers, RM Bostick, JA Baron. Calcium supplementation increases blood creatinine concentration in a randomized controlled trial. *PLoS One*. 2014 Oct 15;9(10):e108094.
31. X Shi, S Miller, K Mwenda, A Onda, J Rees, T Onega, J Gui, M Karagas, E Demidenko, J Moeschler. Mapping Disease at an Approximated Individual Level Using Aggregate Data: A Case Study of Mapping New Hampshire Birth Defects. *Int. J. Environ. Res. Public Health* 2013, 10, 4161-4174.
32. JR Rees, K Hendricks, EL Barry, JL Peacock, LA Mott, RS Sandler, RS Bresalier, M Goodman, RM Bostick, JA Baron (2013) Vitamin D3 Supplementation and Upper Respiratory Tract Infections in a Randomized, Controlled Trial. *Clin Infect Dis*. Advance Access Sept 6, 2013.  
  
Featured in: New York Times, Dec 2, 2013. "Vitamin D fails to ease coughs and colds".  
[http://well.blogs.nytimes.com/2013/12/02/vitamin-d-fails-to-ease-winter-coughs-and-colds/?\\_php=true&\\_type=blogs&\\_r=0](http://well.blogs.nytimes.com/2013/12/02/vitamin-d-fails-to-ease-winter-coughs-and-colds/?_php=true&_type=blogs&_r=0)
33. NR Deleault, DJ Walsh, JR Piro, F Wang, X Wang, J Ma, JR Rees, S Supattapone. Cofactor molecules maintain infectious conformation and restrict strain properties in purified prions. *PNAS* 2012; 109(28):E1938-46, 2012 Jul 10.
34. A Balamurugan, JR Rees, C Kosary, SH Rim, J Li, SL Stewart, Subsequent primary cancers among men and women with in situ and invasive melanoma of the skin. *J Am Acad Dermatol* 2011;65:S69-77.

Name: Dr. Judith Rees

35. JR Piro, F Wang, Walsh DJ, JR Rees, J Ma, S Supattapone. Seeding specificity and ultrastructural characteristics of infectious recombinant prions. *Biochemistry*. 2011 Aug 23;50(33):7111-6.
36. MO Celaya, BL Riddle, S Cherala, K Armenti, JR Rees. Reliability of rapid reporting of cancers in New Hampshire. *Journal of Registry Management*. 2010 Fall;37(3):107-111.
37. KR Armenti; MO Celaya; S Cherala; B Riddle; PK Schumacher; JR Rees. Improving the quality of industry and occupation data at a central cancer registry. *American Journal of Industrial Medicine*, 2010 Oct;5(10):995-1001
38. Celaya MO, Berke EM, Onega TL, Gui J, Riddle BL, Cherala SS, Rees JR. Breast cancer stage at diagnosis and geographic access to mammography screening (New Hampshire, 1998-2004). *Rural Remote Health*. 2010 Apr-Jun;10(2):1361.
39. A Johnson, JR Rees, M Schwenn, BL Riddle, C Verrill, MO Celaya, DA Nicolaidis, S Cherala, Feinberg M, Gray A, Rutstein L, Katz MS, Nunnink JC. Oncology Care in Rural Northern New England, *Journal of Oncology Practice* March 2010, Vol 6 (2): 1-9.
40. L Titus-Ernstoff, JR Rees, KL Terry, DW Cramer. Breast-feeding the last born child and risk of ovarian cancer. *Cancer Causes and Control* 2010 Feb;21(2):201-7.
41. S Supattapone, JR Piro, JR Rees. Complex Polyamines: Unique Prion Disaggregating Compounds. *CNS & Neurological Disorders - Drug Targets*, 2009, 8, 323-328 323
42. JR Piro, BT Harris, K Nishina, C Soto, R Morales, JR Rees, S Supattapone, Prion protein glycosylation is not required for strain-specific neurotropism. *J Virol* 2009 , 83(11):5321-5328.
43. AM Deleault, NR Deleault, BT Harris, JR Rees, S Supattapone. The effects of prion protein proteolysis and disaggregation on the strain properties of hamster scrapie. *J General Virol* 2008, 89, 2642-2650.
44. H Bischoff-Ferrari, JR Rees, MV Grau, E Barry, J Gui, JA Baron. "Effect of calcium supplementation on fracture risk: a double-blind randomized controlled trial": *Am J Clin Nutr* 2008;87:1945-51.
45. S Supattapone, NR Deleault, JR Rees. Amplification of purified prions in vitro. *Methods Mol Biol*. 2008;459:117-30. doi: 10.1007/978-1-59745-234-2\_9.
46. BF Cole, JA Baron, RS Sandler, RW Haile, DJ Ahnen, RS Bresalier, G McKeown-Eyssen, RW Summers, RI Rothstein, CA Burke, DC Snover, TR Church, JI Allen, DJ Robertson, GJ Beck, JH Bond, T Byers, JS Mandel, LA Mott, LH Pearson, EL Barry, JR Rees, N Marcon, F Saibil, PM Ueland and ER Greenberg, for the Polyp Prevention Study Group. "A Randomized Trial of Folic Acid for the Prevention of Colorectal Adenomas" *Journal of the American Medical Association*, 2007; 297: 2351-2359
47. NR Deleault, BT Harris, JR Rees, S Supattapone. "Formation of Native Prions from Minimal Components In Vitro" *Proceedings of the National Academy of Sciences* 2007; 104; 23; 9741-9746.
48. JR Rees, SK Spencer, TA Stukel, A Perry, MS Zens, A Andrew, MR Karagas. "Tea consumption and basal cell and squamous cell skin cancer: results of a case control study", *Journal of the American Academy Dermatology* 2007;56:781-5.

Featured in:

Reuters: "Tea drinkers may have lower skin cancer risk". May 4, 2007.  
<http://www.reuters.com/article/us-tea-cancer-idUSCOL46325320070504>

BBC News: "Tea 'could cut skin cancer risk' " Apr 19, 2007  
<http://news.bbc.co.uk/2/hi/health/6571147.stm>

49. JR Rees, S Sturup, C Chen, C Folt, MR Karagas. " Toenail mercury and dietary fish consumption", *Journal of Exposure Science and Environmental Epidemiology*, (2007) 17, 25–30
50. MO Celaya, JR Rees, JJ Gibson, BL Riddle, ER Greenberg. Travel distance and season of diagnosis affect treatment choices for women with early-stage breast cancer in a predominantly rural population (United States). *Cancer Causes Control*. 2006 Aug;17(6):851-6.
51. S Supattapone, JR Rees. Which criteria best support the diagnosis of VV1 sporadic Creutzfeldt-Jakob disease? *Nat Clin Pract Neurol*. 2006 Jun;2(6):296-7.
52. S Supattapone, JC Geoghegan, JR Rees (2006). On the horizon: blood test for prions? (Commentary). *Trends Microbiol* 14:149-151.
53. M Karagas, H Nelson, P Sehr, T Waterboer, T Stukel, A Andrew, A Green, JNB Bavinck, AQ Perry, S Spencer, JR Rees, L Mott, M Pawlita. "Serologic evidence of human papillomavirus infection and the incidence of squamous cell and basal cell carcinoma of the skin" *Journal of the National Cancer Institute* 2006; 98(6):389-395.
54. MV Grau, JR Rees, JA Baron. Chemoprevention in gastrointestinal cancers: current status. *Basic Clin Pharmacol Toxicol*. 2006 Mar;98(3):281-7.
55. JR Rees, TJ Wade, DA Levy, JM Colford, JH Hilton. "Changes in beliefs identify unblinding in randomized controlled trials: A method to meet CONSORT guidelines" *Contemporary Clinical Trials* 2005; 26(1):25-37.
56. JR Rees, MA Pannier, A McNees, S Shallow, FJ Angulo, DJ Vugia. "Persistent diarrhea, arthritis, and other complications of enteric infections: a pilot survey based on California Foodnet surveillance, 1998-1999." *Clinical Infectious Diseases* 2004;38 (Suppl 3): S311-317.
57. S Supattapone, K Nishina, JR Rees. "Pharmacological approaches to prion research." (Commentary) *Biochemical Pharmacology* 2002; 63:1383-88.
58. JM Colford, JR Rees, TJ Wade, A Khalakdina, JF Hilton, IJ Ergas, S Burns, A Benker, C Ma, C Bowen, DC Mills, DJ Vugia, DD Juranek, DA Levy. "Participant blinding and gastrointestinal illness in a randomized, controlled trial of an in-home drinking water intervention." *Emerging Infectious Diseases* 2002; 8(1):29-36.
59. JR Rees, RW Pinner, RA Hajjeh, ME Brandt, AL Reingold. "The epidemiologic features of invasive mycotic infections in the San Francisco Bay Area 1992-1993: results of population-based laboratory active surveillance". *Clinical Infectious Diseases* 1998; 27:1138-47.
60. ME Brandt, MA Pfaller, RA Hajjeh, EA Graviss, JR Rees, ED Spitzer, RW Pinner, LW Mayer and the Cryptococcal Disease Active Surveillance Group. "Molecular subtypes and antifungal susceptibilities of serial *Cryptococcus neoformans* isolates in Human Immunodeficiency Virus-associated cryptococcosis". *Journal of Infectious Diseases* 1996;174:812-20.

**Reviews:**

Name: Dr. Judith Rees

1. S Supattapone, K Nishina, JR Rees. "Pharmacological approaches to prion research." (Commentary) *Biochemical Pharmacology* 2002; 63:1383-88.
2. MV Grau, JR Rees, JA Baron. "Chemoprevention in gastrointestinal cancers: current status." *Basic & Clinical Pharmacology & Toxicology* 2006; 98:281-287.

**Book chapters:**

1. BF Cole, B Sprague, T Ahern, JR Rees. "Cancer Epidemiology--Identifying Cancer Risk"
2. A Gossai, DT Barton, JR Rees, HH Nelson, MR Karagas. "Keratinocyte Cancers". Book chapter in "Cancer Epidemiology and Prevention" D Schottenfeld and JF Fraumeni, Editors, Oxford University Press. In press
3. JR Rees. Enteric pathogenic bacteria. Chapter 4 in Post-Infectious Sequelae and Long-Term Consequences of Infectious Diseases, Editors Fratamico PM, Smith JL, Brogden KA, American Society for Microbiology Press, Washington, DC, 2009
4. S Supattapone, JR Rees. "Transmissible spongiform encephalopathies". Book chapter in "Neurotropic Virus Infections", Editor Carol Reiss, Cambridge University Press, 2008
5. S Supattapone, NR Deleault, JR Rees. "Amplification of purified prions in vitro". Book chapter in "Methods in Molecular Biology". Editor Andrew Hill, Humana Press, 2008
6. S Supattapone and JR Rees. "PrP deletion mutants." Book chapter in "Prions: Molecular and Cellular Biology" Horizon Press, 2004. G Telling, editor.

B. Other scholarly work in print or other media including editorially-reviewed publications (e.g., Op-Ed pieces, Letters to the Editor), print resources (e.g., workshops) and electronic resources (e.g., MOOCs, educational websites, modules, videos, virtual patients). Include all pertinent information for each (e.g., all authors, your contribution; dates and sites) and for educational media provide names of schools/institutions in which they are utilized as well usage numbers (e.g. downloads, 'hits') if available.

1. Studio guest for 1 hour radio broadcast on cancer trends in New Hampshire, for New Hampshire Public Radio's "The Exchange", July 6, 2016  
<http://nhpr.org/post/mapping-cancer-new-hampshire-part-i>
2. August 2014: National Cancer Institute Behavioral Research, Cancer Control & Population Sciences; featured grantee profile and grant RO3 (Participant beliefs and bias in a randomized controlled trial, Rees et al)  
<http://staffprofiles.cancer.gov/brp/granteeProfile.do?contactId=22545693&grpid=52812>

C. Abstracts: Include both oral, exhibit and poster presentations. Indicate with (#) abstracts that were reviewed (e.g., by a professional society) prior to being accepted for presentation.

1. JS Stenehjem, TK Grimsrud, MB Veierød, JR Rees, L Vos, R Babigumira, TE Robsahm, Vitamin D, obesity and melanoma: a study protocol for prospective cohort and nested case-control studies. Nordic Melanoma Meeting, 7 – 9 September 2016, Bergen, Norway.
2. BL Riddle, A Andrew, MS Zens, MO Celaya, JR Rees. Understanding Theories of Cancer in

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- Population Cancer Surveillance# North American Association of Central Cancer Registries Annual Meeting, June 2016, St Louis, Missouri [Won first place in Data Use category].
3. BL Riddle, JR Rees, MO Celaya, MS Zens. Using NAACCR Survival Tables to Look at Deaths# North American Association of Central Cancer Registries Annual Meeting, June 2016, St Louis, Missouri
  4. Celaya MO, Armenti, K, Calvert G, Rees JR. Industry and Occupation Data from Registry and Death Certificates. North American Association of Central Cancer Registries Annual Meeting, June 2016, St Louis, Missouri. #
  5. Martineau AR, Jolliffe DA, Hooper RL, Greenberg L, Aloia JF, Bergman P, Dubnov-Raz G, Esposito S, Ganmaa D, Goodall E, Grant C, Griffiths CJ, Janssens W, Khan KS, Laaksi I, Manaseki-Holland S, Murdoch D, Neale R, Rees JR, Simpson S, Stelmach I, Trilok Kumar G, Urashima M, Camargo CA "Protective effects of vitamin D against acute respiratory infection are greatest in those with the lowest baseline vitamin D status. European Respiratory Society 2016 International Congress, London, England, September 2016. #
  6. Ghali FM, Laviolette M, Celaya MO, Rees JR, Hyams ES. Does distance from a radiation facility impact patient decision-making regarding treatment for prostate cancer? North American Association of Central Cancer Registries Annual Meeting, Charlotte, North Carolina; June 2015. #
  7. MO Celaya, JP Ingimarsson, M Laviolette, JR Rees, ES Hyams. Does distance from a radiation facility impact patient decision-making regarding treatment for prostate cancer? A study of the New Hampshire State Cancer Registry (NHSCR) North American Association of Central Cancer Registries Annual Meeting, Charlotte, North Carolina; June 2015. #
  8. Ayres CM, Celaya MO, Rees JR. Increasing Non-Hospital Reporting: the NH Experience. North American Association of Central Cancer Registries Annual Meeting, Charlotte, North Carolina; June 2015. #
  9. Riddle B, Fuld AD, Ernstoff MS, Andrew A, Celaya MO, Hosain GM, Rees JR, A New Model for Cancer Incidence Reporting, North American Association of Central Cancer Registries Annual Meeting, Ottawa, Canada; June 2014. #
  10. Ingimarsson JP, Laviolette M, Celaya MO, Rees JR, Hyams JR. Trends in initial management of prostate cancer in New Hampshire - Reasons for optimism? North American Association of Central Cancer Registries Annual Conference. Ottawa, Canada; June 2014. #
  11. Celaya MO, Gershman ST, Andrew AS, Riddle B, Cherala S, Davis CE, Rees JR. Expanding cancer registry data collection for Comparative Effectiveness Research: Logistical issues. North American Association of Central Cancer Registries Annual Conference. Portland, Oregon; June 2012. #
  12. Riddle BL, Nyman S, Rees JR. Estimating the Costs of a Data Breach: An Exercise at the New Hampshire State Cancer Registry. 2011 National Program of Cancer Registries (NPCR) Program Director's Meeting. Atlanta, Georgia; April 2011. #
  13. MO Celaya, JR Rees, BL Riddle, K Armenti, S Cherala, Evaluation of occupation and industry reporting in the NH State Cancer Registry - North American Association of Central Cancer Registries Annual Conference – 2007. #
  14. MO Celaya, BL Riddle, JR Rees, Rapid Case Reporting in New Hampshire. North American Association of Central Cancer Registries Annual Conference – Cambridge, MA, 2005 #
  15. MO Celaya, BL Riddle, JR Rees, Assessing the Reliability of Rapid Case Reporting in a Central Cancer Registry. (Abstract) North American Association of Central Cancer Registries Annual Meeting – Salt Lake City, UT, 2004. #
  16. JR Rees, MA Davis, A McNees, S Shallow, FJ Angulo, DJ Vugia. "Complications of enteric infections." (Abstract) International Conference on Emerging Infectious Diseases, Atlanta, Jul 2000. #
  17. RH Sakaji, JR Rees, CL Bowen, AR Jensen, S Leonard, DJ Vugia. "An active laboratory-based surveillance system for cryptosporidiosis." (Abstract) Presented at the Meeting of the Northern California Division of the American Water Works Association, 1997. #

**Presented at International Meetings :**

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1. JR Rees, TJ Wade, DC Mills, DL Levy, JM Colford. "Approaches to the analysis of the health effects of HPC bacteria: Results from a randomized controlled trial of home drinking water treatment". (Poster) NSF International/World Health Organization Symposium on HPC Bacteria in Drinking Water, April 2002, Geneva, Switzerland. #
2. JR Rees, MA Davis, A McNees, S Shallow, FJ Angulo, DJ Vugia. "Complications of enteric infections." International Conference on Emerging Infectious Diseases, Atlanta, July 2000. #

### **XXIII. Personal Statement:**

Please highlight in ~1-3 pages those accomplishments that best define your contributions to the academic mission of Geisel. Include your educational, clinical and research activities, as well as your goals. Use this space to describe activities that may benefit from a more substantive description than the entries listed in your CV.

I am a physician-epidemiologist in the Departments of Epidemiology, and Community and Family Medicine at the Geisel School of Medicine, Dartmouth College. My interest in public health in epidemiology began as a medical student, writing my Bachelor of Arts thesis on Norman Gregg's discovery in the 1940s that rubella infection during pregnancy could harm the developing fetus. I continued my clinical training with a career in public health in mind. After graduating as a physician, I completed internships in medicine and surgery, and spent six months as a programmer at the Welsh Health Common Services Authority, which provided informatics services to the National Health Service. I completed a three-year training in general practice in England, which included a total of two years of residencies in pediatrics and obstetrics/gynecology, internal medicine/rheumatology, palliative care, and psychiatry, and a year in general practice. During this time I achieved (through written examination) Membership of the Royal College of General Practitioners, equivalent to Board Certification, and the Diploma of the Royal College of Obstetricians and Gynaecology. My experiences in informatics and medicine have influenced much of my subsequent teaching and research in epidemiology, by bringing a depth of knowledge from these fields together. After moving to the United States, I completed an MPH in Epidemiology at the University of California, Berkeley, and then a PhD with Jack Colford, MD, PhD in infectious disease epidemiology. Meanwhile, I worked at the California Emerging Infections Program (CEIP), a project of the Centers for Disease Control and Prevention (CDC) and learned the principles and practice of disease surveillance, public health outbreak investigation and control, and randomized controlled trials. I completed my PhD in three and a half years, and did not do any postdoctoral training but was appointed directly to a research track faculty position at Dartmouth, starting after one year off during my family's transition.

**Disease surveillance methodology and the New Hampshire State Cancer Registry:** A primary focus in my career is disease surveillance. At CEIP, I developed, from scratch, a successful population-based, laboratory, active surveillance program for cryptosporidiosis covering all laboratories, local and national, serving a population of 6.9 million in nine California counties. After moving to Dartmouth, I spent two years helping Dr. John Moeschler begin the New Hampshire Birth Conditions Registry, a population-based surveillance program for birth defects which ultimately obtained CDC-funding and a legal mandate. In 2004, I became the Director of the New Hampshire State Cancer Registry, and have since continued to bid successfully for this contract, currently operating on a budget of ~\$700,000 annually. I competed for and led several supplemental projects including a state-wide effort linking the registry to all payer insurance claims. In 2011, NHSCR was funded to become one of only ten Specialized Registries for Comparative Effectiveness Research (CER), with the task of collecting very detailed data that can be used for CER studies by approved researchers. We continue this work as one of six state registries collecting follow-up data in the Patient Centered Outcomes (PCO) project. My other duties for NHSCR include consultation on cancer clusters, attendance at community meetings, and fielding media questions as necessary. In 2015-16, I have spent substantial time supporting a cluster investigation of pediatric rhabdomyosarcoma in the NH seacoast region that has attracted considerable media attention.

As Director of the New Hampshire State Cancer Registry, I led and participated in publications



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on various findings relating to cancer in New Hampshire: travel distance to mammography centers does not influence breast cancer stage at diagnosis, but travel distance for radiation significantly affects treatment choices in early stage breast cancer, especially during cold winter months. In a tri-state registry collaboration with Maine and Vermont, we described differences between rural and urban patients in terms of age and stage at diagnosis of colorectal and breast cancer, and in patterns of care such as lymph node sampling during surgery. With Dr. Eli Hyams, we examined trends in low risk prostate cancer treatment, and found that conservative management has increased appropriately in recent years following changes in national guidelines. We have published on registry data quality relating to rapid reporting and industry/occupation data. We also try to think creatively to influence the national registry community. With Dartmouth's Chief Information Security Officer, Steve Nyman, we presented a poster describing the financial consequences of a registry data breach; with oncologist Alex Fuld, we proposed a new model for cancer reports; and most recently won first prize for a NAACCR poster on how competing theories of cancer may be illustrated using registry data.

My future plans for NHSCR are, first, to continue the successfully renewed the NHSCR contract. I am also seeking opportunities to expand my cancer registry activities. I recently responded to the NCI's SEER program's request for information and there is a possibility that this may be followed by a request for proposals to join the SEER registry program; if an RFP is released, I will respond. A SEER registry not only collects cancer registry data, but facilitates laboratory research via a virtual tumor repository; this would fit well with my work as the Co-Director (with Tracy Onega, PhD) of the Norris Cotton Cancer Center's (NCCC) Registry Shared Resource described below. I am also part of a \$2M grant by the Norwegian Research Council (PI Kjetil Telle), as a visiting researcher in 2017 to study "Geographic Distribution of Health Care - Regional differences in demand and supply, costs and quality". I will build on this collaboration to write research grants using the rich population cancer and other linked datasets available in Norway.

**The Norris Cotton Cancer Center's Registry Shared Resource (RSR):** In 2009, I first submitted a proposal to NCCC for a new shared resource. I saw advantages to bringing together the many registry-based research projects at NCCC because they share common themes, and staffing requirements. In 2011, NCCC offered support for a programmer to develop customized databases for research, and I worked with Tracy Onega to promote this service. We developed several new databases as a result, including the Hyperbaric Oxygen Registry (PI Buckey); the Pediatric Cancer Registry (PI Chaffee) and a new database for radiology (Unexpected Findings, PI Bill Black) to replace its spreadsheet approach to patient follow-up of incidental findings. The program evolved into what is now known as the Registry Shared Resource (RSR), whose current goals are to provide services and data streams for clinical operations, quality improvement, and research. We hired a full time programmer and worked with Amar Das to set up a cohort discovery tool, i2b2, through which investigators can search the hospital's tumor registry database, and ultimately also data from other sources such as radiology and pathology. The RSR provides cancer data to CPHS-approved researchers, and we consult with cancer researchers and help them set up new registries using REDCap or other software. There was early success with a grant charge-back from the Pediatric Cancer Registry funded through the St Baldrick's Foundation, and a model is being developed for future support as new grants are written. The RSR's short term goal is to put i2b2 into production (summer 2016), demonstrate it to faculty, and add new resources to it (e.g. eDH, pathology, radiation oncology). In the longer term, we will continue to advise researchers, promote REDCap data use, provide data to approved faculty, and give presentations to promote the use of the RSR. We plan to facilitate grant writing efforts based on the RSR, bringing grant funds to cover costs.

**Hyperbaric Oxygen Treatment Registry:** A new interest that arose from the RSR is Dr. Jay Buckey's International Hyperbaric Registry and Research Consortium. Dr. Buckey began the registry at DHMC in order to study his patients' outcomes, but with a larger goal of pooling data contributed by single hyperbaric programs to provide the basis for trials and outcomes studies. The field is understudied because no large databases for research exist, and I believe this project has great potential; therefore I have invested time to develop the group's database, CPHS protocol, and a Data Use Agreement for collaboration with other institutions. I recently converted their Oracle database to REDCap and helped the team refine and expand their data collection instrument. I brought in a statistician, Janet Peacock, and the group now has interest from several potential partners

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internationally including the US, the UK and Australia. Our short term goal is to establish a small collaboration of several centers (one has already signed the DUA), and then to write grants to support its growth. A registry consortium will generate enough patients for observational studies and trials, and accrue a cohort of control subjects referred for treatment but not actually treated for logistical and/or medical reasons.

**Multiple malignancies:** As a co-investigator on the Non-Melanoma Skin Cancer in New Hampshire study (PI Margaret Karagas), which examines the risk factors for keratinocyte cancers (KC), I have participated in several publications including one that identified an association between tea consumption and KC risk. I received an American Cancer Society Scholar grant to conduct a linkage study assessing the risk of second cancer and death after keratinocyte cancer. These studies confirmed an elevated risk of cancer after KC, and an increased mortality after KC even with adjustment for the time-dependent occurrence of intervening major cancers. They also highlight important differences between basal and squamous cell carcinoma and argue for caution when pooling these two very different cancers during epidemiologic studies. I collaborated with the Norwegian Cancer Registry to investigate multiple cancer risk after primary squamous cell carcinoma and melanoma of the skin; and worked with a national group led by the CDC to report on multiple cancer risk after melanoma using US registry data.

**Randomized controlled trial methodology.** Since 2002 I have worked as part of the Polyp Prevention Study group, which conducts randomized controlled trials of colorectal adenoma chemoprevention. This platform has enabled me to conduct sub-studies in other fields of interest. I obtained an RO3 to study participants' beliefs about treatment assignment during a randomized, controlled trial. This interest began during my PhD work, when we asked participants to guess whether they had been given the active or placebo intervention. Whereas a single assessment at the end of the trial showed no significant evidence of "unblinding", longitudinal assessments at intervals during the trial showed changes in belief in a substantial subset that may represent unblinding or related beliefs that might lead to bias. For the RO3, I am drilling deeper into understanding participants' beliefs by examining possible reasons given for beliefs about treatment allocation, and investigating the associations between beliefs about treatment assignment and both outcomes and adherence. Our first publication describes the characteristics of individuals who fail the run-in period that was designed to eliminate poor adherers. A researcher profile and my funded RO3 grant proposal are featured on the website of the National Cancer Institute Behavioral Research, Cancer Control & Population Sciences program, as an example for other grant writers.

**Vitamin D epidemiology.** A second avenue of my research arising from the PPS studies is the role of vitamin D in disease. In addition to the parent trial, I have worked on characterizing the factors that influence 25-hydroxyvitamin D (25OHD) levels in the blood. We published a paper describing the genetic factors associated with serum vitamin D levels using limited multivariable models. More recently, I characterized an extremely wide range of lifestyle, medical and other factors that affect 25OHD levels. I also introduced an infectious disease study into the parent trial. My background in infectious disease epidemiology includes study of invasive fungal infections; infectious prions; cryptosporidiosis; and infectious gastroenteritis. Within PPS, I conducted a secondary trial (through American Recovery and Reinvestment Act [ARRA] funding) showing that 1000 IU vitamin D<sub>3</sub> daily supplementation during the H1N1 influenza pandemic of 2009-10 did not reduce the incidence or duration of colds or flu. This paper was featured in a New York Times report. I am currently collaborating with Dr. Adrian Martineau of the Queen Mary University, London, on an individual patient data meta-analysis testing the same hypothesis; this paper is in press at the British Medical Journal.

**Global Health.** In 2012, I made an exploratory visit to the Ocean Road Cancer Institute (ORCI) in Dar es Salaam, Tanzania, with Dr. Marc Ernstoff. This opportunity arose because of the successful DarDar infectious disease collaboration led by Dr. Ford von Reyn. Our visit led to an NCI training grant for Global Health Research, and three Tanzanian trainees (oncology junior faculty) spent a month at Dartmouth, developing research projects.

**Teaching.** From 2008 through 2015, I served as Director of the Biostatistics and Epidemiology core course (CFM 104) for medical students at the Geisel School of Medicine. This course consistently earned exceptional student reviews and the best Step 1 exam results of all of the first year courses.

Name: Dr. Judith Rees

The Bio-Epi course, as it was, has now been merged into a new, year long course ("Patients and Populations") which started in September 2015; I am a Content Co-Director.

**Updated by: Dr. Judith Rees**

**Date: December 14, 2016**

**Maria O. Celaya, MPH, CTR**

**EDUCATION**

<u>Date</u>	<u>Degree</u>	<u>Institution</u>	<u>Field of Study</u>
2004	MPH	University of New Hampshire Dept of Health Management & Policy Manchester, NH	Public Health Policy & Mgt.
2002	BS	University System of New Hampshire Granite State College Lebanon, NH	Management/Info. Technology
1995	AAS	Phoenix College Phoenix, AZ	Health Information Technology

**ADDITIONAL COURSEWORK**

2010-2011		Professional Development Human Resources, Dartmouth College Hanover, NH	Management Essentials at Dartmouth
Spring 2010		Dartmouth Medical School	DMS Biostatistics & Epidemiology (audit)
1997		State of Arizona Dept. of Administration Phoenix, AZ	Leadership Foundations
1996-1999		Glendale Community College Glendale, AZ	Business/Accounting

**PROFESSIONAL EXPERIENCE**

2004-present	Assistant Director, Field Operations (Research Scientist)
2000-2004	Senior Registrar New Hampshire State Cancer Registry – Dartmouth Medical School, Community and Family Medicine, Section of Biostatistics & Epidemiology Hanover, NH
2013-present	QA Technical Specialist (part-time, remote) Westat Rockville, MD
1999-2000	Data Collections/Editing Section Manager
1997-1999	Administrative Support Supervisor
1995-1997	Cancer Registrar Arizona Cancer Registry - AZ Dept. of Health and Human Services, Division of Public Health Services, Bureau of Public Health Statistics, Office of Health Registries Phoenix, AZ

## **CANCER REGISTRATION CONSULTING SERVICES**

2010 ICF Macro – Bethesda, MD  
1999-2000 Valley Lutheran Hospital – Mesa, AZ  
1999 Columbia Northwest Medical Center – Tucson, AZ  
1998 Tempe St. Luke's Hospital – Tempe, AZ  
1997 Flagstaff Medical Center – Flagstaff, AZ  
1997 Boswell Medical Center – Sun City, AZ  
1996 Flagstaff Medical Center – Flagstaff, AZ  
1994-1996 Columbia Medical Center Phoenix – Phoenix, AZ

## **PROFESSIONAL CREDENTIALS**

1997-present Certified Tumor Registrar (CTR) – National Cancer Registry Association  
1995-2010 Registered Health Information Technician (RHIT) – American Health Information Management Association

## **AFFILIATIONS**

2014-present Member, Nominating Committee – Cancer Registrars Association of New England  
2012-2013 Vice-President – Cancer Registrars Association of New England  
2012-2013 Member, Nominating Committee – North American Association of Central Cancer Registries  
2005-present Member, Emerging Issues Committee – New Hampshire Comprehensive Cancer Control Initiative  
2002-present Member, Registry Operations Committee – North American Association of Central Cancer Registries  
1997-present NCRA Member – National Cancer Registry Association  
2008-2010 Member, Board of Directors – NH Comprehensive Cancer Collaboration  
2007-2009 Chair, By-Laws Committee – Cancer Registrars Association of New England  
2007-2008 Member, By-Laws Committee – Cancer Registrars Association of New England  
2006-2008 Chair, Nominating Committee – Cancer Registrars Association of New England  
2001-2004 Treasurer – North Eastern States Cancer Registry Association

## **PROFESSIONAL AWARDS**

2014 NAACCR Achievement Award  
2010 NAACCR Merit Award

## **OTHER**

Fluent in Spanish, oral and written

## **PEER-REVIEWED PUBLICATIONS**

Ingimarsson JP, Celaya MO, Laviolette M, Rees JR, Hyams ES. Trends in initial management of prostate cancer in New Hampshire. *Cancer Causes Control*. 2015 Apr 4. [Epub ahead of print]

Rees JR, Zens MS, Celaya MO, Riddle BL, Karagas MR, Peacock JL. Survival after squamous cell and basal cell carcinoma of the skin: A retrospective cohort analysis. *Int J Cancer*. 2015 Jan 16. doi: 10.1002/ijc.29436. [Epub ahead of print].

Chen VW, Ehemann CR, Johnson CJ, Hernandez MN, Rousseau D, Styles TS, West DW, Hsieh M, Hakenwerth AM, Celaya MO, Rycroft RK, Wike JM, Pearson M, Brockhouse J, Mulvihill LG, Zhang KB. Enhancing Cancer Registry Data for Comparative Effectiveness Research (CER) Project: Overview and Methodology. *J Registry Manag*. 2014 Fall;41(3):103-12.

JR Rees, MS Zens, J Gui, MO Celaya, BL Riddle, MR Karagas. Non melanoma skin cancer and subsequent cancer risk. *PLoS One*. 2014 Jun 17;9(6):e99674.

Wyszynski A, Tanyos SA, Rees JR, Marsit CJ, Kelsey KT, Schned AR, Pendleton EM, Celaya MO, Zens MS, Karagas M, Andrew AS. Body mass and smoking are modifiable risk factors for recurrent bladder cancer. *Cancer*. 2014 Feb 1;120(3):408-14.

Celaya MO, Riddle BL, Cherala S, Armenti K, Rees JR. Reliability of rapid reporting of cancers in New Hampshire. *J Registry Manag*. 2010 Fall;37(3):107-111.

Armenti KR, Celaya MO, Cherala S, Riddle BL, Schumacher PK, Rees JR. Improving the quality of industry and occupation data at a central cancer registry. *Am J of Ind Med*. 2010 Oct;5(10):995-1001.

Celaya MO, Berke EM, Onega TL, Gui J, Riddle BL, Cherala SS, Rees JR. Breast cancer stage at diagnosis and geographic access to mammography screening (New Hampshire, 1998-2004). *Rural Remote Health*. 2010 Apr-Jun;10(2)1361. Epub 2010 Apr 23.

Johnson A, Rees JR, Schwenn M, Riddle B, Verrill C, Celaya MO, Nicolaidis DA, Cherala S, Feinberg M, Gray A, Rutstein L, Katz MS, Nunnink JC. Oncology care in rural northern New England. *J Oncol Pract*. 2010 Mar;6(2):81-89.

Celaya MO, Rees JR, Gibson JJ, Riddle BL, Greenberg ER. Travel distance and season of diagnosis affect treatment choices for women with early-stage breast cancer in a predominantly rural population. *Cancer Causes Control*. 2006 Aug; 17(6): 851-6.

#### **MANUSCRIPT IN PREPARATION**

Ghali FM, Ingimarsson JP, Celaya MO, Laviolette M, Rees JR, Hyams JR. "Does travel time to a radiation facility impact patient decision-making regarding treatment for prostate cancer? A study of the New Hampshire State Cancer Registry".

#### **PRESENTATIONS**

Celaya MO. NHSCR Update. Cancer Registrars' Association of New England Annual Conference. Framingham, MA; Oct 2015.

Celaya MO. NHSCR Update. Cancer Registrars' Association of New England Annual Conference. Warwick, Rhode Island; Oct 2014.

Celaya MO. Enhancing cancer registry data for Comparative Effectiveness Research. Massachusetts Cancer Registry Annual Meeting. Boston, Massachusetts; December 2011.

Celaya Mo. NHSCR Update. Cancer Registrars' Association of New England Annual Conference. Springfield, Massachusetts; Oct 2011.

Celaya MO. Enhancing cancer registry data for Comparative Effectiveness Research. Cancer Registrars Association of New England 36<sup>th</sup> Annual Meeting. Springfield, Massachusetts; October 2011.

Celaya MO. Collection of New non-Standard Data Items. New Hampshire State Cancer Registry Annual Meeting. Concord, New Hampshire; June 2011.

Rees JR (presenter), Syse A, Riddle BL, Celaya MO, Cherala SS. Cancer trends in the oldest old: a comparative study in New Hampshire and Norway. North American Association of Central Cancer Registries Annual Conference. Louisville, Kentucky; June 2011.

Celaya MO. NHSCR Update. Cancer Registrars' Association of New England Annual Conference. Nashua, New Hampshire; Oct 2010.

Celaya MO, Johnson A, Schwenn M, Rees JR (authors); and Riddle BL, Kachajian J, Schwenn M (presenters). Access to care in rural northern New England. North American Association of Central Cancer Registries Annual Conference. Quebec City, Quebec, Canada; June 2010

Celaya MO, Braden P. New Hampshire State Cancer Registry. New Hampshire Health Information Management Association Winter Meeting. Concord, New Hampshire; March 2009.

Celaya MO. Collaborative staging and Multiple Primary/Histology Rules for GI tract. Cancer Registrars' Association of New England 33rd Annual Meeting. Burlington, Vermont; Nov 2008.  
Celaya MO. Multiple Primary and Histology Rules: General instructions and format of rules and materials. New Hampshire State Cancer Registry Fall Meeting. Manchester, New Hampshire; Sept 2006.

Celaya MO (presenter), Rees JR, Riddle BL. Rapid case reporting in New Hampshire. North American Association of Central Cancer Registries Annual Conference. Cambridge, Massachusetts; June 2005.

Celaya MO (presenter), Rees JR, Riddle BL. Rapid case reporting in New Hampshire. New Hampshire State Cancer Registry Spring Meeting. Bedford, New Hampshire; April 2005.

Celaya MO. Non-malignant brain and CNS Tumors. New Hampshire State Cancer Registry Spring Meeting. Bedford, New Hampshire; April 2004.

Celaya MO. Data collection of primary central nervous system (CNS) tumors. Cancer Registrars' Association of New England Annual Conference. Portsmouth, New Hampshire; Nov 2003.

Celaya MO. NHSCR new and updated cancer reporting requirements. New Hampshire State Cancer Registry Spring Meeting. Concord, New Hampshire; April 2003.

Celaya MO. Evaluation of the timeliness and completeness of cancer reporting. New Hampshire State Cancer Registry Spring Meeting. Bedford, New Hampshire; April 2001.

Celaya MO. Processing cancer data submissions at the NHSCR. New England States Cancer Registry Association Annual Conference. Sunapee, New Hampshire; 2001.

## **POSTERS**

Celaya MO, Armenti K, Calvert G, Hosain GM, Rees JR. Industry and occupation data from registry and death certificates. North American Association of Central Cancer Registries Annual Conference. St. Louis, MO; June 2016.

Riddle BL, Rees JR, Celaya MO, Andrew AA, Zens MS. Understanding theories of cancer population cancer surveillance: genetic and 'epi-genetic' pathways to colorectal carcinogenesis. (1<sup>st</sup> Place Award) North American Association of Central Cancer Registries Annual Conference. St. Louis, MO; June 2016.

Riddle BL, Rees JR, Celaya MO, Zens MS. Using NAACCR survival table to look at deaths. North American Association of Central Cancer Registries Annual Conference. St. Louis, MO; June 2016.

Ingimarsson JP, Laviolette M, Celaya MO, Rees JR, Hyams ES. Does distance from a radiation facility impact patient decision-making regarding treatment for prostate cancer? A study of the New Hampshire State Cancer Registry (NHSCR). North American Association of Central Cancer Registries Annual Conference. Charlotte, NC; June 2015.

Ayres CM, Celaya MO, Rees JR. Increasing Non-Hospital Cancer Reporting: The NH Experience. North American Association of Central Cancer Registries Annual Conference. Charlotte, NC; June 2015.

Ingimarsson JP, Laviolette M, Celaya MO, Rees JR, Hyams JR. Trends in initial management of prostate cancer in New Hampshire - Reasons for optimism? North American Association of Central Cancer Registries Annual Conference. Ottawa, Canada; June 2014.

Celaya MO, Gershman ST, Andrew AS, Riddle B, Cherala S, Davis CE, Rees JR. Expanding cancer registry data collection for Comparative Effectiveness Research: Logistical issues. North American Association of Central Cancer Registries Annual Conference. Portland, Oregon; June 2012.

Riddle BL, Celaya MO. Death certificates and estimates of cancer mortality. (1<sup>st</sup> Place Award) North American Association of Central Cancer Registries Annual Conference. Denver, Colorado; June 2008.

Celaya MO, Rees J, Riddle BL, Armenti K, Cherala S. Evaluation of occupation and industry in the NH State Cancer Registry. (2<sup>nd</sup> Place Award) North American Association of Central Cancer Registries. 2007 Annual Meeting. Detroit, Michigan; June 2007.

Celaya MO, Colby JP. Radon exposure potential and lung cancer in New Hampshire. North American Association of Central Cancer Registries 2006 Annual Meeting. Regina, Saskatchewan, Canada; June 2006.

Celaya MO, Rees J, Riddle BL. Assessing the reliability of rapid case reporting in a central cancer registry. North American Association of Central Cancer Registries Annual 2004 Meeting. Salt Lake City, Utah; June 2004.



**Bruce L. Riddle**

Registry Manager

New Hampshire State Cancer Registry

[Bruce.L.Riddle@Dartmouth.Edu](mailto:Bruce.L.Riddle@Dartmouth.Edu) / 603-653-6620

A Joint Program of Geisel School of Medicine at Dartmouth and the New Hampshire Department of Health and Human Services

**Education:**

M.A., Economics, Syracuse University, 1985.

Ph.D., International Relations, Syracuse University, 1977.

M.A., International Relations, Syracuse University, 1975.

B.A., Political Science, The Defiance College, 1972.

**Honors:** Chancellor's Citation for Distinguished Service, Syracuse University, 1992

**Professional Experience:**

*Registry Manager, New Hampshire State Cancer Registry, Dartmouth Medical School, November 1999-Present*

- Network and Computing Administration, November 1999-present.
- Registry manager, January 2002-present.

*Director, Computing & Technology Group, Maxwell School, Syracuse University, Jan 1994-May 1999.*

- Supervised and managed Maxwell School's Computing & Technology Group, 6 professionals providing services to 130 faculty, 90 support staff, 600 graduate students, and 6,000 undergraduates.

*Principal staff assistant for the building of Eggers Hall, Syracuse University, 1989-93.*

- Created a vision for a new social science building, a \$20 million, 5-year project.

*Designated computer staff person for the Maxwell School, Syracuse University, 1991-94*

- Designed, implemented and administered a School-based local area network.

*Senior Research Associate, Academic Computing Specialist, Metropolitan Studies Program, Maxwell School, Syracuse University, 1984-1992*

- Conducted data analysis on public finance and health care in developed and developing countries in support of sponsored research. These projects included:
  - James Alm and Roy Bahl, "Evaluations of the Structure of the Jamaica Individual Income Tax," Jamaica Tax Structure Examination Project, Staff Paper No. 15, Metropolitan Studies Program, Syracuse University, Dec 1984, Revised Mar 1985.
  - Richard M. Bird and Barbara D. Miller, "The Incidence of Indirect Taxes on Low-Income Households in Jamaica," Jamaica Tax Structure Examination Project, Staff Paper No. 26, Metropolitan Studies Program, Syracuse University, Apr 1986.
  - Jorge Martinez, "Sensitivity Analysis and Evaluation of the Ecuadorian Personal Income Tax," Ecuador Fiscal Administrative Studies, Staff Paper No. 1, Local Revenue Administration Project, Maxwell School, Syracuse University, May 1986.
  - Barbara D. Miller and Carl Stone, "Household Expenditures Effects of The Jamaica Food Stamp Programme," Jamaica Tax Structure Examination Project, Staff Paper No. 36, Metropolitan Studies Program, Maxwell School, Syracuse University, Aug 1987.

- Harvard Medical Practice Study, *Patients, Doctors, and Lawyers: Medical Injury, Malpractice Litigation, and Patient Compensation in New York*. The Report and the Harvard Medical Practice Study to the State of New York, 1990.

*Research and Data Analyst, Department of Surgery, State University of New York Upstate Medical Center, 1976-1980.*

- Provided computing and data analysis support for a study of burn mortality at the regional burn unit. Results of the work were published in:
  - William R. Clark, M.D., and Barbara S. Fromm, "Burn Mortality: Experience of a Regional Burn Unit and Literature Review," *ACTA Chirurgica Scandinavica Supplementum 537*, Stockholm, 1987.

*Professional Consulting, data analysis and statistical programming, 1978-1991*

- On a contractual basis performed data analysis for researchers from accounting, finance, human development, political science, law, sociology, and physical, special, and higher education. Representative Projects Included:

"The Effects of Repatriation on Chronic Psychiatric Patients," Hutching Psychiatric Center, Syracuse, New York.

- "Determinants of Lay and Lawyer Judicial Behavior," a NSF Grant to D. Marie Provine, Department of Political Science, Maxwell School; Syracuse University.
- "Disproportionality and Disparity in the Charging and Sentencing of Criminal Defendants for Homicide in Georgia," Center for Interdisciplinary Legal Studies, College of Law, Syracuse University.
- "Campus Wide Hazardous Material Inventory," Environmental Health Office, Syracuse University.
- "Study of Adjustments of New York State School Aid Formula to Take Account of Municipal Overburden (Final Report)," a sponsored project to Jerry Miner and Seymour Sacks, Metropolitan Studies Program, Maxwell School, Syracuse University, May 1980.
- "Econometric Analysis of Education Expenditures in Each State and Their Projections to 1990," for the School Finance Project, National Institute of Education, Jerry Miner and Seymour Sacks, Metropolitan Studies Program, Maxwell School, Syracuse University, Mar 1983.

*Computing Consultant and Help Desk Supervisor, 1976-1979.*

- Supervised approximately 10 undergraduates and graduate computing consultants, including recruitment and training.

*Graduate Assistant and Teaching Assistant, International Relations Program, 1972-1975.*

- Development of course materials and teaching of international relations and economics courses.
- Quantitative political and social research including the politics of oil and uses of the sea.

#### **Publications and Papers:**

"A Report on 3 State/3 Province Combined Cancer Incidence Rate Study: A Descriptive Epidemiology Study." Dec 2011.

"Reliability of rapid reporting of cancers in New Hampshire." Celaya MO, Riddle BL, Cherala S, Armenti K, Rees JR. *J Registry Management*. 2010 Fall;37(3):107-111.

"Improving the quality of industry and occupation data at a central cancer registry." Armenti KR, Celaya MO, Cherala S, Riddle BL, Schumacher PK, Rees JR. *Am J of Ind Med.* 2010;5(10):995-1001.

"Breast cancer stage at diagnosis and geographic access to mammography screening (New Hampshire, 1998-2004)." Celaya MO, Berke EM, Onega TL, Gui J, Riddle BL, Cherala SS, Rees JR *Rural Remote Health.* 2010;10(2):1361.

"Oncology care in rural northern New England." Johnson A, Rees JR, Schwenn M, Riddle B, Verrill C, Celaya MO, Nicolaides DA, Cherala S, Feinberg M, Gray A, Rutstein L, Katz MS, Nunnink JC. *J Oncol Pract.* 2010;6(2):81-89.

"Travel Distance and Season of Diagnosis Affect Treatment Choices for Women with Early-stage Breast Cancer in a Predominantly Rural Population." Celaya MO, Rees JR, Gibson JJ, Riddle BL, Greenberg ER. *Cancer Causes Control;* 17(6): 851-6.

"Event Driven Data Set for Cancer Surveillance." B. Riddle and DK Boeshaar. *Journal of Registry Management,* 33(2) Summer 2006: 57-63.

"On the Coding and Reporting of Race and Ethnicity in New Hampshire for Purposes of Cancer Reporting," B Riddle. *Ethnicity and Disease.* 2005;15: 324-331.

"A Review of Death Clearance in Central Cancer Registries and Proposal for a New Regime." B. Riddle. *Journal of Registry Management,* Vol. 31 (2). Summer 2004: 67-73.

"The Fiscal Condition of School Districts in Nebraska: Is Small Beautiful?" K Ratcliffe, B Riddle, J Yinger. *Economics of Education Review,* (1990): 9: 1; 81-99.

"Passwords in Use in a University Timesharing Environment." B Riddle, M Miron, J Semo. *Computers & Security,* Vol. 8 (1989): 569-579.

"Who Pays the Nebraska State Personal Income Tax Before and After State Reform?" Nebraska Comprehensive Tax Study Staff Paper No. 4, B Riddle and S Wallace-Moore. Metropolitan Studies Program, Maxwell School, Syracuse University, Nov 1987.

"Payroll Tax Reform in Jamaica," Jamaica Tax Structure Examination Project, Staff Paper No. 35, B Riddle, M Wasylenko. Metropolitan Studies Program, Maxwell School, Syracuse University, Jul 1987.

"Final Report: Fire Department Participation in the Identification and Transportation of Victims of Thermal Injury," A Report to the United States Fire Administration, Federal Emergency Management Agency, B Riddle and D Learner, 1981.

**Presentations:**

"Cancer Surveillance in the Era of Molecular Markers." North American Association of Central Cancer Registries 2013 Annual Meeting, Austin, TX with A Andrew, M Zens, J Rees.

"Security Issues: A Problem Statement." National Program of Cancer Registries Program Directors Conference. May 2008. Atlanta, Georgia. Invited Presentation.

"Electronic Medical Information and Its Impact on Registries." Cancer Registrars Association of New England Annual Meeting, Nov 2005, Westboro, Massachusetts.

"An Events Driven Data Set for Cancer Surveillance." Rocky Mountain Cancer Data Systems Annual Meeting, Sept 2005, Arlington, Virginia.

"Cancer Incidence Rates for New Hampshire." NHSCR Spring Education Meeting, Apr 2005, Concord, New Hampshire.

"Patterns of Morphology Reporting," North American Association of Central Cancer Registries 2004 Annual Meeting, Salt Lake City Utah, Jun 2004.

"On the Coding and Reporting of Race and Ethnicity in New Hampshire," Presented to North American Association of Central Cancer Registries 2003 Annual Meeting, Honolulu, Hawaii, Jun 2003.

"Using Out of the Box Software to Protect and Secure Registry Data." Presented at the North American Association of Central Cancer Registries Annual Meeting, Jun 3-9, 2001, Miami Beach, Florida.

"Supporting the Campus Technology Explosion: Bricks without Straw." Presented to the Eastern Sociology Society, Boston, Massachusetts, Mar 4, 1999.

**Poster Presentations:**

"Using NAACCR Survival Tables to Look at Deaths." B. Riddle, J. Rees, M. Celaya, S. Zens. North American Association of Central Cancer Registries 2016 Annual Meeting, St. Louis, MO.

"Understanding Theories of Cancer in Population Cancer Surveillance." B. Riddle, J. Rees, M. Celaya, A. Andrew, S. Zens. North American Association of Central Cancer Registries 2016 Annual Meetings, St. Louis, MO.

"A New Model for Annual Cancer Incidence Reporting." B. Riddle, A. D. Fuld, MD, MS., M. S. Ernstoff, MD, A. Andrew, PhD., M. O. Celaya, MPH., CTR., GM M. Hosain, MB., BS, PhD., J. R. Rees, BM, BCh, PhD. North American Association of Central Cancer Registries 2014 Annual Meeting, Ottawa, Canada.

"Findings From the 2011-2012 NAACCR Death Clearance Evaluation Workgroup Issues Survey." M. Williams, B. Riddle R. Otto, C. Sherman, L. Dickie. North American Association of Central Cancer Registries 2013 Annual Meeting, Austin, TX.

"Estimating the Costs of a Data Breach: An Exercise at the New Hampshire State Cancer Registry." B. Riddle, S. Nyman, J. Rees. North American Association of Central Cancer Registries 2012 Annual Meeting, Portland, Oregon.

"The Impact of Veterans Affairs Cancer Reporting in New Hampshire." B. Riddle, J. Rees, M. Celaya, S. Cherala. North American Association of Central Cancer Registries 2012 Annual Meeting, Portland, OR.

"Cancer and Place of Death: A micro-study about death in New Hampshire." B. Riddle. North American Association of Central Cancer Registries 2010 Annual Meeting, Quebec City, Quebec, Canada, June 2010. Poster won a 3rd Place award.

"Death Certificates and Estimates of Cancer Mortality." B. Riddle and M Celaya. North American Association of Central Cancer Registries 2008 Annual Meeting, Denver, CO, Jun 2008. Poster won a 1<sup>st</sup> Prize award.

"Event Level Architecture for an Event Driven Data Set for Electronic Cancer Surveillance" B. Riddle. North American Association of Central Cancer Registries 2005 Annual Meeting, Detroit, MI, June 2007.

"Event Driven Data Set for Cancer Surveillance." B. Riddle and D.K. Boeshaar, North American Association of Central Cancer Registries 2005 Annual Meeting, Cambridge, MA, June 2005.

"Questions about Sensitivity and Specificity of NAACCR Hispanic Identification Algorithm in a State with Small Non-White Population." B Riddle, JR Rees. North American Association of Central Cancer Registries 2004 Annual Meeting, Salt Lake City UT, Jun 2004.

"Using Windows XP to Secure Laptop Computers to Hold Confidential Information," B. Riddle. North American Association of Central Cancer Registries 2002 Annual Meeting, Toronto, Ontario, Canada, Jun 2002.

"Looking at Central Sequence Number to Access the Reliability of a Central Registry Data Set," B Riddle. North American Association of Central Cancer Registries 2002 Annual Meeting, Toronto, Ontario, Canada, Jun 2002.

**Professional Courses:**

Principles and Practice of Cancer Registration, Surveillance, and Control, Rollins School of Public Health, Emory University, Atlanta, Georgia (Mar 2001)

Advanced Cancer Registry Training Program, Rollins School of Public Health at Emory University, Atlanta, Georgia (Feb 2001)

**Special Projects:**

Consultant to Washington and Lee University, Lexington, Virginia, under a National Science Foundation CAUSE Grant. Conducted a six week workshop for the faculty on social science computing and SPSS. Prepared an introductory manual on job control language for students. Summer 1978.

**Trustees of Dartmouth College**

**Key Personnel**

Name	Job Title	Salary	% Paid from this Contract	Amount Paid from this Contract
Rees, Judy	Director	\$150,558	50%	\$75,279
Celaya, Maria	Assistant Director	\$91,891	100%	\$91,891
Riddle, Bruce	Registry Manager	\$95,466	100%	\$95,466



Jeffrey A. Meyers  
Commissioner

Lisa M. Morris  
Director

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

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April 20, 2018

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

**REQUESTED ACTION**

Authorize the Department of Health and Human Services, Division of Public Health Services, to exercise a renewal option and amend an existing agreement with Trustees of Dartmouth College, Vendor # 177157-B013, 11 Rope Ferry Road 6210, Box 186, Hanover, NH 03755, to operate a cancer registry system as required by RSA 141-B, by increasing the price limitation by \$1,332,300 from \$1,190,940 to \$2,523,240 and extending the contract completion date from June 30, 2018 to June 30, 2020 to be effective upon Governor and Executive Council approval. 77% Federal Funds and 23% General Funds

The Governor and Executive Council approved the original contract on November 18, 2016, Item #21.

Funds are available in the following accounts for State Fiscal Year 2018 and State Fiscal Year 2019 and 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 encumbrances between State Fiscal Years through the Budget Office without further approval from the Governor and Executive Council, if needed and justified.

**See Attached Fiscal Details**

**EXPLANATION**

The purpose of this amendment is to readjust the funding for State Fiscal Year 2018 to continue operating an incidence-based statewide cancer registry system for State Fiscal Year 2019 and State Fiscal Year 2020 in New Hampshire as required by RSA 141-B.

The Contractor will continue conducting data collection, data processing, quality assurance and database management activities for the collection of cancer information for the New Hampshire State Cancer Registry in accordance with the New Hampshire Department of Health and Human Services guidelines and standards established by the National Program of Cancer Registries and the North American Association of Central Cancer Registries.

The primary purpose of the New Hampshire State Cancer Registry is to identify all reportable cases of cancer in New Hampshire in order to provide information on the overall burden, types, and changing patterns of cancer among residents of the state. New Hampshire RSA 141-B obligates the Department to collect information regarding the majority forms of cancers diagnosed in New

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Hampshire. New Hampshire RSA 141-B and New Hampshire Administrative Code He-P 304 established reporting requirements for cancer case reporting in New Hampshire.

The cancer registry is one of the public health surveillance tools used to monitor and investigate trends in cancer diagnosis and treatment in every state in the U.S. The cancer registry through this contract generates critical data for public health investigations, for public health prevention programs, and for academic researchers who work to identify causes of cancer, and prevention and treatment strategies. This realignment and amendment will allow the contractor to continue to capture essential data on people who are newly diagnosed with cancer. These data are used to inform DHHS cancer cluster investigations and to help guide the prevention and control program planning and evaluation. The Trustees of Dartmouth consistently collect high quality data and exceed performance expectations for the National Program of Cancer Registries National Quality Standards.

The Exhibit C-1 of the original contract contained language providing the Department the option to renew for up to two (2) additional years, subject to the continued availability of funds, satisfactory performance of contracted services and Governor and Executive Council approval. The Department is exercising this option. This two year amendment would allow the contractor to continue to generate high quality cancer registry data for public health investigations, for public health prevention programs, and for academic researchers who work to identify causes of cancer, and prevention and treatment strategies.

The request to renew with the Trustees of Dartmouth College is based on their ability and capability to follow the standards required for the National Program of Cancer Registries National Data Quality and Completeness Program and the United States Cancer Statistics Publication Standard. The Trustees of Dartmouth College has obtained the status as a National Program of Cancer Registries Registry of Excellence. The vendor has consistently collected high quality data and has exceeded performance expectations for the National Program of Cancer Registries National Quality Standards.

The amendment and readjustment of funds will enable the reporting of cancer data from mandated cancer reporters in New Hampshire who are described in the administrative rules (He-P 304.01) for the purpose of monitoring cancer incidence, planning cancer prevention and control activities, evaluating the impact of public health strategies and helping to facilitate cancer research. This agreement will remain consistent with the statewide and agency information technology plans, policies and standards.

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

- For each incident cancer case, collect all the data variables listed in New Hampshire Administrative Rule He-P 304.2.
- The database shall be, at a minimum, in accordance with accepted Centers for Disease Control's National Program of Cancer Registries and North American Association of Cancer Registry standards.
- The data collected is 95% complete within twelve (12) months of date of diagnosis for cases seen in any New Hampshire hospital.
- The data collected is 90% complete within fifteen (15) months of the date of diagnosis for all cases among New Hampshire residents, regardless of where they received the cancer care.



- The data collected is 95% complete within twenty-four (24) months of date of diagnosis for all cases among New Hampshire residents, with cases identified from death certificate review and follow-up, from physician practices, from non-hospital facilities, and from out-of-state sources.

Should the Governor and Executive Council not authorize this Request, the Department may not have a quality cancer registry and may lose the ability to monitor and identify community cancer concerns; diagnose and investigate cancer-related hazards in the community; inform and educate communities about the risk of cancer; develop policies and plans that address the risks of cancer in communities; and evaluate the effectiveness, accessibility, and quality of cancer prevention and control strategies.

Area served: Statewide

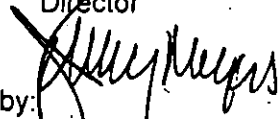
Source of Funds: 77% Federal Funds, Catalog of Federal and Domestic Assistance (CFDA) #93.752, United States Department of Health and Human Services, Centers for Disease Control and Prevention, Cancer Prevention and Control Programs for State, Territorial and Tribal Organizations financed in part by Prevention and Public Health Funds, Federal Award Identification Number (FAIN) # 58DP003930, and 23% General Funds.

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

Respectfully submitted,



Lisa M. Morris  
Director



Approved by:

Jeffrey A. Meyers  
Commissioner

## Fiscal Details

**05-95-90-900510-86660000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF INFORMATICS, CANCER REGISTRY**  
 100% Federal Funds CDC, Comprehensive Cancer Control Program & Cancer Registry

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	102-500731	Contracts for Prog Svc	90080080	\$251,736	\$0	\$251,736
			<i>Sub Total</i>	\$251,736	\$0	\$251,736

**05-95-90-900510-86660000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF INFORMATICS, CANCER REGISTRY**  
 100% General Funds

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	601-500931	State Fund Match	90056005	\$100,045	\$0	\$100,045
			<i>Sub Total</i>	\$100,045	\$0	\$100,045

**05-95-90-902010-22150000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, CDC ORAL HEALTH GRANT**  
 100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2017	102-500731	Contracts for Prog Svc	90080080	\$173,000	\$0	\$173,000
			<i>Sub Total</i>	\$173,000	\$0	\$173,000

**05-95-90-902010-33970000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, COMMUNITY HEALTH SERVICES, CANCER REGISTRY**

100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	102-500731	Contracts for Prog Svc	90080080	\$516,159	(\$69,617)	\$446,542
SFY 2019	102-500731	Contracts for Prog Svc	90080080	\$0	\$435,217	\$435,217
SFY 2020	102-500731	Contracts for Prog Svc	90080080	\$0	\$446,542	\$446,542
			<i>Sub Total</i>	\$516,159	\$812,142	\$1,328,301

**05-95-90-902010-33970000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, COMMUNITY HEALTH SERVICES, CANCER REGISTRY**

100% General Funds

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	601-500931	State Fund Match	90056005	\$150,000	\$0	\$150,000
SFY 2019	601-500931	State Fund Match	90056005	\$0	\$150,000	\$150,000
SFY 2020	601-500931	State Fund Match	90056005	\$0	\$150,000	\$150,000
			<i>Sub Total</i>	\$150,000	\$300,000	\$450,000

**05-95-90-901010-53620000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POLICY & PERFORMANCE, PUBLIC HEALTH SYSTEMS, POLICY AND PERFORMANCE**

100% Federal Funds CDC Preventative Health and Health Service Block Grant (PHHSBG)

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2018	102-500731	Contracts for Prog Svc	90001037	\$0	\$69,611	\$69,611
SFY 2019	102-500731	Contracts for Prog Svc	90001037	\$0	\$69,611	\$69,611
SFY 2020	102-500731	Contracts for Prog Svc	90001037	\$0	\$69,611	\$69,611
			<i>Sub Total</i>	\$0	\$208,833	\$208,833

**05-95-90-902010-56590000 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, COMMUNITY HEALTH SERVICES, COMPREHENSIVE CANCER**

100% Federal Funds CDC NH Breast & Cervical Cancer, Comp. Cancer & Cancer Registry Programs

Fiscal Year	Class/ Account	Class Title	Job Number	Current Modified Budget	Increase (Decrease) Amount	Revised Modified Budget
SFY 2019	102-500731	Contracts for Prog Svc	90080080	\$0	\$11,325	\$11,325
			<i>Sub Total</i>	\$0	\$11,325	\$11,325
			<b>TOTAL:</b>	<b>\$1,190,940</b>	<b>\$1,332,300</b>	<b>\$2,523,240</b>



**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](http://www.nh.gov/doit)

**Denis Goulet**  
*Commissioner*

April 2, 2018

Jeffrey A. Meyers, Commissioner  
Department of Health and Human Services  
State of New Hampshire  
129 Pleasant Street  
Concord, NH 03301-3857

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 Trustees of Dartmouth College (Vendor #177157-B013), as described below and referenced as DoIT No. 2016-081A.

This contract amendment exercises a renewal option with Trustees of Dartmouth College to continue to operate an incidence-based statewide cancer registry system in New Hampshire as required by RSA 141-B. The primary purpose of the Cancer Registry is to identify all reportable cases of cancer in NH to provide information on the overall burden, types and changing patterns of cancer among residents of the state.

This amendment will increase the contract price by \$1,332,300 from \$1,190,940 to \$2,523,240 and extend the contract end date from June 30, 2018 to June 30, 2020 effective upon the date of Governor and Executive Council approval.

A copy of this letter should accompany the submission to the Governor and Executive Council for approval.

Sincerely,

Denis Goulet

DG/ik  
DoIT No. 2016-081A

cc: Bruce Smith



**New Hampshire Department of Health and Human Services  
Cancer Registry Operations**

**State of New Hampshire  
Department of Health and Human Services  
Amendment #1 to the  
Cancer Registry Operations**

This 1<sup>st</sup> Amendment to the New Hampshire State Cancer Registry (NHSCR) contract (hereinafter referred to as "Amendment One") dated this 19<sup>th</sup> day of March, 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 Trustees of Dartmouth College, (hereinafter referred to as "the Contractor"), a corporation with a place of business at 11 Rope Ferry Road #6210, Hanover, NH 03755.

WHEREAS, pursuant to an agreement (the "Contract") approved by the Governor and Executive Council on November 18, 2016, ITEM #21 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 the General Provisions, Paragraph 18, the State may modify the scope of work and the payment schedule of the contract by written agreement of the parties;

WHEREAS, the parties agree to extend the term of the agreement and decrease the price limitation; 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 as follows:

1. Amend Form P-37, Block 1.6, to add Account Number: 05-095-090-902010-3397-0000-102-500731-90080080.
2. Amend Form P-37, Block 1.6, to add Account Number: 05-095-090-902010-3397-0000-601-500931-90056005.
3. Amend Form P-37, Block 1.6, to add Account Number: 05-095-090-902010-5659-0000-102-500731-90080080.
4. Amend Form P-37, Block 1.6, to add Account Number: 05-095-090-901010-5362-0000-102-500731-90001037.
5. Delete and replace Form P-37, Block 1.7, to read June 30, 2020.
6. Delete and replace Form P-37, Block 1.8, to increase Price Limitation by \$1,332,300 from \$1,190,940 to read: \$2,523,240.
7. Delete and replace Form P-37, Block 1.9, to read E. Maria Reinemann, Esq., Director of Contracts and Procurement.
8. Delete and replace Form P-37, Block 1.10 to read 603-271-9330.
9. Delete in its entirety Exhibit B and replace with Exhibit B, Amendment #1.
10. Delete in its entirety Exhibit B-2 Budget and replace with Exhibit B – 3, Amendment #1 Budget.
11. Add Exhibit B – 4 Amendment #1 Budget.
12. Add Exhibit B – 5, Amendment #1 Budget.



**New Hampshire Department of Health and Human Services  
Cancer Registry Operations**

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

4/27/18  
Date

*Lisa Morris*  
Name: Lisa Morris  
Title: Director

Trustees of Dartmouth College

3/23/18  
Date

*Heather A. Arnold*  
Name: Heather A. Arnold, M.Ed.  
Title: Associate Director

Acknowledgement of Contractor's signature:

State of New Hampshire, County of Grafton on 3/23/18, 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.

*Janene M. Robie*  
Signature of Notary Public or Justice of the Peace

Janene M. Robie, Office Manager  
Name and Title of Notary or Justice of the Peace



My Commission Expires: 4/20/21



**New Hampshire Department of Health and Human Services  
Cancer Registry Operations**

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

OFFICE OF THE ATTORNEY GENERAL

Date 5/9/18

Name: Megan A. [Signature]  
Title: [Signature]

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

OFFICE OF THE SECRETARY OF STATE

Date \_\_\_\_\_

Name: \_\_\_\_\_  
Title: \_\_\_\_\_



## Exhibit B, Amendment #1

### Method and Conditions Precedent to Payment

1. The State shall pay the contractor an amount not to exceed the Form P-37, Block 1.8, Price Limitation for the services provided by the Contractor pursuant to Exhibit A, Scope of Services.
2. This contract is funded with funds from the following Catalog of Federal Domestic Assistance (CFDA) numbers:
  - CFDA #93.898, US Centers for Disease Control & Prevention, NH Comprehensive Cancer Control Program & Cancer Registry Programs.
  - CFDA #93.758, Centers for Disease Control and Prevention, Preventative Health and Health Services Block Grant.
3. The Contractor agrees to provide the services in Exhibit A, Scope of Service and Exhibit A-1 Additional Cancer Data Registry Technical Requirements, in compliance with funding requirements. Failure to meet the scope of services may jeopardize the funded contractor's current and/or future funding.
4. Payment for said services shall be made monthly as follows:
  - 2.1. Payment shall be on a cost reimbursement basis for actual expenditures incurred in the fulfillment of this agreement, and shall be in accordance with the approved line item.
  - 2.2. The Contractor will submit an invoice in a form satisfactory to the State by the twentieth working day of each month, which identifies and requests reimbursement for authorized expenses incurred in the prior month. The invoice must be completed, signed, dated and returned to the Department in order to initiate payment.
  - 2.3. The State shall make payment to the Contractor within thirty (30) days of receipt of each invoice, subsequent to approval of the submitted invoice and if sufficient funds are available. Contractors will keep detailed records of their activities related to DHHS-funded programs and services.
  - 2.4. The final invoice shall be due to the State no later than forty (40) days after the contract Form P-37, Block 1.7 Completion Date.
  - 2.5. In lieu of hard copies, all invoices may be assigned an electronic signature and emailed. Hard copies shall be mailed to:

Department of Health and Human Services  
Division of Public Health Services  
29 Hazen Drive  
Concord, NH 03301  
Email address: DPHScontractbilling@dhhs.nh.gov
5. Notwithstanding paragraph 18 of the General Provisions P-37, an amendment limited to adjustments to amounts between budget line items, related items, amendments of related budget exhibits within the price limitation, and to adjust encumbrances between State Fiscal Years through the Budget Office if needed and justified, may be made by written agreement of both parties and may be made without obtaining approval of the Governor and Executive Council.



Exhibit B-3, Amendment #1

New Hampshire Department of Health and Human Services

Bidder/Program Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations  
(None of RFP)

Budget Period: July 1, 2017 to June 30, 2018 (SFY'18)

Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 414,433.00	\$ 41,443.00	\$ 455,876.00	\$ -	\$ -	\$ -	\$ 414,433.00	\$ 41,443.00	\$ 455,876.00
2. Employee Benefits	\$ 140,907.00	\$ 14,091.00	\$ 154,998.00	\$ -	\$ -	\$ -	\$ 140,907.00	\$ 14,091.00	\$ 154,998.00
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,254.00	\$ 325.00	\$ 3,579.00	\$ -	\$ -	\$ -	\$ 3,254.00	\$ 325.00	\$ 3,579.00
6. Travel	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00	\$ -	\$ -	\$ -	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 17,500.00	\$ 1,750.00	\$ 19,250.00	\$ -	\$ -	\$ -	\$ 17,500.00	\$ 1,750.00	\$ 19,250.00
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13. Other (specific details mandatory):	\$ 1,600.00	\$ 150.00	\$ 1,850.00	\$ -	\$ -	\$ -	\$ 1,600.00	\$ 150.00	\$ 1,850.00
14. Registrar effort (hospital level) contributed	\$ 89,104.00	\$ 8,910.40	\$ 98,014.40	\$ 89,104.00	\$ 8,910.40	\$ 98,014.40	\$ -	\$ -	\$ -
15. Indirect cost waiver, contributed	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 110,313.00	\$ -	\$ -	\$ -
<b>TOTAL</b>	\$ 694,698.00	\$ 69,469.40	\$ 764,167.40	\$ 89,104.00	\$ 8,910.40	\$ 208,327.40	\$ 605,594.00	\$ 60,559.00	\$ 666,153.00

Indirect As A Percent of Direct

10.0%

HA

**Exhibit B-4, Amendment #1**

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

Bidder/Program Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations  
(Name of RFP)

Budget Period: July 1, 2018 to June 30, 2019 (SFY'19)

Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 405,180.00	\$ 40,516.00	\$ 445,678.00	\$ -	\$ -	\$ -	\$ 405,180.00	\$ 40,516.00	\$ 445,678.00
2. Employee Benefits	\$ 149,909.00	\$ 14,991.00	\$ 164,900.00	\$ -	\$ -	\$ -	\$ 149,909.00	\$ 14,991.00	\$ 164,900.00
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00	\$ -	\$ -	\$ -	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,025.00	\$ 1,802.00	\$ 19,827.00	\$ -	\$ -	\$ -	\$ 18,025.00	\$ 1,802.00	\$ 19,827.00
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13. Other (specific details mandatory):	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital level), contributed	\$ 93,812.00	\$ 9,381.20	\$ 102,973.20	\$ 93,812.00	\$ 9,381.20	\$ 102,973.20	\$ -	\$ -	\$ -
15. Indirect cost waiver, contributed	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL	\$ 698,206.00	\$ 69,820.20	\$ 769,126.20	\$ 83,812.00	\$ 8,381.20	\$ 213,268.20	\$ 605,594.00	\$ 60,559.00	\$ 666,153.00

Indirect As A Percent of Direct

10.0%

**Exhibit B - 5, Amendment #1**

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

Bidder/Program Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations  
(Name of RFP)

Budget Period: July 1, 2019 to June 30, 2020 (SFY'20)

Line Item	Total Program Cost			Contractor Share / Match			Funded by DHHS contract share		
	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total	Direct Incremental	Indirect Fixed	Total
1. Total Salary/Wages	\$ 401,832.00	\$ 40,183.00	\$ 442,015.00	\$ -	\$ -	\$ -	\$ 401,832.00	\$ 40,183.00	\$ 442,015.00
2. Employee Benefits	\$ 152,696.00	\$ 15,270.00	\$ 167,966.00	\$ -	\$ -	\$ -	\$ 152,696.00	\$ 15,270.00	\$ 167,966.00
3. Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4. Equipment:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Rental	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Purchase/Depreciation	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
5. Supplies:	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Educational	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Pharmacy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Medical	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Office	\$ 3,000.00	\$ 300.00	\$ 3,300.00	\$ -	\$ -	\$ -	\$ 3,000.00	\$ 300.00	\$ 3,300.00
6. Travel	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00	\$ -	\$ -	\$ -	\$ 18,000.00	\$ 1,800.00	\$ 19,800.00
7. Occupancy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Postage	\$ 4,000.00	\$ 400.00	\$ 4,400.00	\$ -	\$ -	\$ -	\$ 4,000.00	\$ 400.00	\$ 4,400.00
Subscriptions	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Audit and Legal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Board Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9. Software	\$ 18,566.00	\$ 1,856.00	\$ 20,422.00	\$ -	\$ -	\$ -	\$ 18,566.00	\$ 1,856.00	\$ 20,422.00
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	\$ -	\$ -	\$ 2,000.00	\$ 200.00	\$ 2,200.00
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13. Other (specific details man)	\$ 1,500.00	\$ 150.00	\$ 1,650.00	\$ -	\$ -	\$ -	\$ 1,500.00	\$ 150.00	\$ 1,650.00
14. Registrar effort (hospital lev	\$ 98,349.00	\$ 9,834.90	\$ 108,183.90	\$ 98,349.00	\$ 9,834.90	\$ 108,183.90	\$ -	\$ -	\$ -
15. Indirect cost waiver, contrib	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 703,943.00</b>	<b>\$ 70,393.90</b>	<b>\$ 774,336.90</b>	<b>\$ 98,349.00</b>	<b>\$ 9,834.90</b>	<b>\$ 218,498.90</b>	<b>\$ 605,594.00</b>	<b>\$ 60,599.00</b>	<b>\$ 668,153.00</b>

Indirect As A Percent of Direct

10.0%

Trustees of Dartmouth College

Exhibit B - 5, Amendment #1

Contractor's Initials HA

RFP-2017-DPHS-03-CANCE

Page 1 of 1

Date 3/23/18



STATE OF NEW HAMPSHIRE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6527
603-271-9563 1-800-852-3345 Ext. 9563
Fax: 603-271-8431 TDD Access: 1-800-735-2964



Jeffrey A. Meyers
Commissioner

Marcella Bobinsky
Acting Director

21 mac

October 31, 2016

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

REQUESTED ACTION

Authorize the Department of Health and Human Services, Division of Public Health Services, to enter into an agreement with Trustees of Dartmouth College, Vendor # 177157-B013, 11 Rope Ferry Road 6210, Box 186, Hanover, NH 03755, in an amount not to exceed \$1,190,940, to operate an incidence-based statewide cancer registry system as required by RSA 141-B, to be effective the date of Governor and Council approval through June 30, 2018. Funds are 79% federal and 21% general.

Funds are available in the following accounts for SFY 2017, and are anticipated to be available in SFY 2018, 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 the Governor and Executive Council.

05-95-90-900510-8666 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF INFORMATICS, CANCER REGISTRY

Table with 5 columns: Fiscal Year, Class / Account, Class Title, Job Number, Total Amount. Rows include SFY 2017 data for Contracts for Prog Svc and State Fund Match, and a Sub Total of \$351,781.

05-95-90-902010-2215 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU OF POPULATION HEALTH AND COMMUNITY SERVICES, CDC ORAL HEALTH GRANT

Table with 5 columns: Fiscal Year, Class / Account, Class Title, Job Number, Total Amount. Rows include SFY 2017 data for Contracts for Prog Svc and a Sub Total of \$173,000.

05-95-90-902010-3397 HEALTH AND SOCIAL SERVICES, DEPT OF HEALTH AND HUMAN SVS, HHS: DIVISION OF PUBLIC HEALTH, BUREAU COMMUNITY HEALTH SERVICES, CANCER REGISTRY

Table with 5 columns: Fiscal Year, Class / Account, Class Title, Job Number, Total Amount. Rows include SFY 2018 data for Contracts for Prog Svc and State Fund Match, a Sub Total of \$666,159, and a TOTAL of \$1,190,940.

### EXPLANATION

Funds in this agreement will be used to enter into an agreement with Trustees of Dartmouth College to operate an incidence-based statewide cancer registry system in New Hampshire as required by RSA 141-B. Certain tasks require computer related information to be received and accessed in this contract, specifically, technical services to conduct data collection, data processing, quality assurance, and database management activities for the collection of cancer data. The Department of Information Technology has reviewed and approved this contract. The approval letter is attached.

The primary purpose of the New Hampshire State Cancer Registry is to identify all reportable cases of cancer in New Hampshire to provide information on the over-all burden, types, and changing patterns of cancer among residents of the state. New Hampshire RSA 141-B and New Hampshire Administrative Code He-P 304 established reporting requirements for cancer case reporting in New Hampshire. The New Hampshire State Cancer Registry's overall measure of success is to meet the standards for quality, completeness and timeliness of data as defined by the nation's standard setting organization, the North American Association of Central Cancer Registries. The purpose of this agreement is to conduct data collection, data processing, quality assurance and database management activities for the collection of cancer information for the New Hampshire State Cancer Registry in accordance with the New Hampshire Department of Health and Human Services guidelines and standards set by the National Program of Cancer Registries and the North American Association of Central Cancer Registries.

The Department is tasked under RSA 141-B to collect information about almost all cancers diagnosed in New Hampshire. This information furthers our understanding of cancer and is used to develop strategies and policies for its prevention, treatment, and control. The data also help determine where early detection, educational, and other cancer-related programs should be directed. Lastly, cancer registry data are essential to respond to public concerns regarding potential cancer clusters and to conducting investigations into health risks and environmental exposure. Understanding the causes of disease clusters will allow us to prevent future deaths and illness from similar exposures. The availability of data on cancer in the state allows health researchers to analyze demographic and geographic factors that affect cancer risk, early detection, and effective treatment of cancer patients.

The New Hampshire State Cancer Registry is recognized as one of the leading cancer registries in the nation, and has been the cornerstone of a substantial amount of research on cancer in the New Hampshire population. Information held in the cancer registry is strictly confidential, and is protected from unauthorized access by state of the art security systems. To date, the New Hampshire State Cancer Registry has collected detailed information on over 1.3 million cases of cancer among New Hampshire residents diagnosed from 1990 forward, and more than 8,000 new cases are added annually. Every day in New Hampshire, twenty-two (22) of our residents are diagnosed with cancer and seven (7) of our residents die due to cancer. Based on New Hampshire Department of Health and Human Services estimates, the overall cost of cancer in New Hampshire in 2008 was \$1.1 billion. Cancer surveillance helps us understand the magnitude of the cancer problem in New Hampshire, and provides us with critical data to assess the health of our New Hampshire residents and to make informed decisions about how to best direct our health-related resources and activities. This data gives us the fundamental knowledge to guide the assessment, development, and evaluation of health policy, and inform and evaluate the impact of population health programs and interventions as well as personal health decisions. Cancer registries provide a basis for public and private decisions at local, state, and national levels.

Should the Governor and Executive Council not authorize this request, we would not have a high quality cancer registry, and may not have the information necessary to protect and promote the health of New Hampshire's residents, whether it is a cancer cluster response, public education, screening, treatment or policy change. In addition, we may not have the information necessary to inform policy makers and the public to assist with setting health program priorities or the ability to confirm cancer cases through the support of cancer experts to inform the investigation process and provide review and approval related to protecting the privacy and rights of individuals.

Trustees of Dartmouth College were selected for this project through a competitive bid process. A Request for Proposals was posted on the Department of Health and Human Services' web site from July 15, 2016 through September 2, 2016. A bidder's conference was held on August 18, 2016.

The Department received one proposal. The proposal was reviewed and scored by a team of six (6) individuals with program specific knowledge. Their decision followed a thorough discussion of the strengths and weaknesses of the proposal. The final decision was made through consensus scoring. The Bid Summary is attached.

As referenced in the Request for Proposals and in the contract Exhibit C-1, this agreement has the option to renew for two (2) additional years, contingent upon satisfactory delivery of services, available funding, agreement of the parties and approval of the Governor and Executive Council.

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


1. For each incident cancer case defined in Exhibit A, collect all the data variables listed in New Hampshire Administrative Rule He-P 304.2.
2. The database shall be, at a minimum, in accordance with accepted Centers for Disease Control's National Program of Cancer Registries and North American Association of Cancer Registry standards.
3. The data collected is 95% complete within 12 months of date of diagnosis for cases seen in any New Hampshire hospital.
4. The data collected is 90% complete within 15 months of date of diagnosis for all cases among New Hampshire residents, regardless of where they received the cancer care.
5. The data collected is 95% complete within 24 months of date of diagnosis for all cases among New Hampshire residents, with cases identified from death certificate review and follow-up, from physician practices, from non-hospital facilities, and from out-of-state sources.

Area served: Statewide.

Source of Funds: Source of Funds is 79% Federal Funds from the US Centers for Disease Control and Prevention, and 21% 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,

  
Marcella J. Bobinsky, MPH  
Acting 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/doi](http://www.nh.gov/doi)

**Denis Goulet**  
*Commissioner*

October 24, 2016

Jeffrey A. Meyers, Commissioner  
Department of Health and Human Services  
State of New Hampshire  
129 Pleasant Street  
Concord, NH 03301-3857

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 with Trustees of Dartmouth College (Vendor #177157-B013), as described below and referenced as DoIT No. 2016-081. This project is a result of an RFP also referenced as DoIT No. 2016-081.

This request is to enter into a contract with the Trustees of Dartmouth College to operate an incidence-based statewide cancer registry system as required by RSA 141-B. Certain tasks require computer related information to be received and accessed in this contract, specifically technical services to conduct data collection, data processing, quality assurance and database management activities for the collection of cancer information.

The amount of the contract is not to exceed \$1,190,940 effective upon the date of Governor and Executive Council approval through June 30, 2018.

A copy of this letter should accompany the submission to the Governor and Executive Council for approval.

Sincerely,

A handwritten signature in black ink, appearing to read "Denis Goulet", with a stylized flourish at the end.

Denis Goulet

DG/ik  
Contract #2016-081

cc: Bobbie Aversa



New Hampshire Department of Health and Human Services  
Office of Business Operations  
Contracts & Procurement Unit  
Summary Scoring Sheet

**CANCER REGISTRY OPERATIONS**

**RFP-2017-DPHS-03-CANCE**

RFP Name

RFP Number

Reviewer Names

Bidder Name

1. Trustees of Dartmouth College
2. 0
3. 0
4. 0

Percent	Maximum Points	Actual Points
88%	640	561
	640	0
	640	0
	640	0

1. Monawar Hosain, Program Planner (Tech)
2. Karen Paddleford, Program Planner (Tech)
3. Whitney Hammond, Administrator (Tech)
4. Ellen Chase-Lucard, Financial Administrator (Cost)
5. Shelley Swanson, Financial Administrator (Cost)
6. PJ Nadeau, Financial Administrator (Cost)



Subject: Cancer Registry Operations - rfp-2017-dphs-03-cance-01, Contract #2016-081


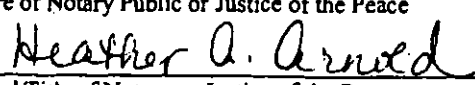
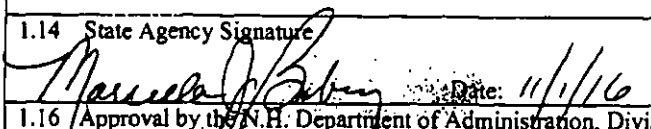

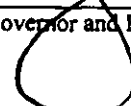
**Notice:** This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

**AGREEMENT**

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

**GENERAL PROVISIONS**

**1. IDENTIFICATION.**

1.1 State Agency Name NH Department of Health and Human Services		1.2 State Agency Address 129 Pleasant Street Concord, NH 03301-3857	
1.3 Contractor Name Trustees of Dartmouth College		1.4 Contractor Address 11 Rope Ferry Road 6210, Box 186 Hanover, NH 03755	
1.5 Contractor Phone Number 603-653-6620	1.6 Account Number 05-95-90-900510-8666-102-500731, 05-95-90-900510-8666-601-500931, 05-95-90-902010-3397-102-500731, 05-95-90-902010-3397-601-500931	1.7 Completion Date 6/30/2018	1.8 Price Limitation \$1,190,940
1.9 Contracting Officer for State Agency Eric Borrin, Director of Contracts and Procurement		1.10 State Agency Telephone Number 603-271-9558	
1.11 Contractor Signature 		1.12 Name and Title of Contractor Signatory Jill M. Mortali, Director Office of Sponsored Projects	
1.13 Acknowledgement: State of <del>New Hampshire</del> County of <del>Grafton</del> On <u>October 31, 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 [Seal] 			
1.13.2 Name and Title of Notary or Justice of the Peace HEATHER A. ARNOLD, Notary Public My Commission Expires August 24, 2021			
1.14 State Agency Signature 		1.15 Name and Title of State Agency Signatory Marcella J. Bobinsky, MPH Acting 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:  On: <u>11/1/14</u>			
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

Jmm  
10/31/10

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.



## Scope of Services

### 1. Provisions Applicable to All Services

- 1.1. 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.
- 1.2. All services to be performed under this contract shall be in accordance with New Hampshire Department of Health and Human Services (DHHS), New Hampshire law RSA 141-B, New Hampshire Administrative rules He-P 304, United States Public Law 102-515, and Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries (NPCR) and North American Association of Central Cancer Registries (NAACCR) standards and guidelines.

### 2. Required Activities

The Contractor shall:

- 2.1. Present for discussion and proposed modifications, a Work Plan, due within 30 days of the contract effective date. The timeline and work plan shall meet all due dates for deliverables noted in the Deliverables and Key Performance Indicators set forth in Section 14 of this document.
- 2.2. Have all fully qualified staff assigned in support of the New Hampshire State Cancer Registry (NHSCR) contract within 30 days of the contract effective date.
- 2.3. Maintain the NHSCR database from a physical location within a seventy-five (75) mile radius of the DHHS, located in Concord. The rationale for this requirement is that the DHHS provides technical and administrative oversight of the NHSCR operations, which includes on-site visits to the NHSCR contractor. In addition, appropriate contractor personnel are required to attend regular meetings with DHHS staff as well as other meetings as necessary.
- 2.4. Allow full participation of the DHHS in the ongoing, onsite operations of contract activities including interacting directly with contractor staff, viewing abstract processing, participating in customizing registry software selecting edits, aspects of database management, system security, and quality assurance that the DHHS deems necessary.
- 2.5. Provide the DHHS with technical assistance and expertise on matters within the scope of work of the contract.

### 3. Cancer Registry Operation

- 3.1. Operate an incidence-based statewide cancer registry reporting system in accordance with RSA 141-B and Part He-P 304 of the New Hampshire Administrative Rules, [http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html). Collect information and maintain an electronic database of all incident cancer cases occurring among the New Hampshire population according to the Administrative Rules.
- 3.2. Facilitate and encourage submission of reports for each incident case Facilitate and encourage submission of reports for each incident case defined in RSA 141-B:7 (<http://www.gencourt.state.nh.us/rsa/html/X/141-B/141-B-mrg.htm>), all the data variables listed in administrative rule He-P 304.02 by "health facilities" within an expected time frame as listed

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In Administrative Rule He-P 304.01(e) and He-P 304.01(l) ([http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html)). Facilitation and encouragement may include writing letters, calling by telephone and personal visits to health providers and/or health facility administrators or supervisors. ("Health Facilities" shall be defined according to the Administrative Rules.)

3.3. Inform the DHHS of facilities that remain out of compliance with reporting requirements despite Contractor notification in the following situations:

- 3.3.1. Denial or lack of access to pathology reports or medical records;
- 3.3.2. Lack of submission of reports within one month or expected date; and
- 3.3.3. Lack of response to letter or other formal inquiry within one month.

3.4. Collect additional follow-up data relating to treatment and disease status of Breast and Colorectal cancer cases diagnosed in 2011 for the patient centered outcomes (PCO).

3.5. Adhere to Timetable of Data Deliverables:

3.5.1. The NHSCR data shall meet the following five data quality criteria [National Data Quality Standard (formally known as the 24-Month Standard)]:

- i. Data are 95% complete based on observed-to-expected cases as computed by CDC;
- ii. There are 3% or fewer death-certificate-only cases;
- iii. There is a 1 per 1,000, or fewer, unresolved duplicate rate;
- iv. The maximum percent missing for critical data elements are:
  - i. 2% age
  - ii. 2% sex
  - iii. 3% race
  - iv. 2% county
- v. 99% pass a CDC-prescribed set of standard edits.

3.5.2. The NHSCR data shall meet the following data quality criteria [Advanced National Data Quality Standards (formally known as the 12-Month Standard)]:

- i. Data are 90% complete based on observed-to-expected cases as computed by CDC;
- ii. There is a 2 per 1,000 or fewer unresolved duplicate rate;
- iii. The maximum percent missing for critical data elements are:
  - i. 3% age
  - ii. 3% sex
  - iii. 5% race
  - iv. 3% county
- iv. 97% pass a CDC-prescribed set of standard edits.

#### 4. Case Ascertainment Activities

4.1. Establish and implement case reporting from any new or existing free-standing radiation oncology facility in the state.



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- 4.2. Establish and implement case reporting from any new or existing free-standing medical oncology facility in the state.
- 4.3. Establish and implement case reporting from any new or existing free-standing surgical oncology facility in the state.
- 4.4. Establish and implement electronic case finding from hospital or private pathology labs and from out-of-state pathology laboratories.
- 4.5. Perform death clearance at least annually. Death clearance should be performed by matching records in the NHSCR with New Hampshire mortality data provided by the DHHS and with National Death Index., to determine the level of the NHSCR's record completeness for in-state and out-of state deaths to New Hampshire residents where cancer is identified as a cause of death.
- 4.6. For in-state deaths, the Contractor shall make a determination as to the cause of and appropriate correction for cancer incidents not reported to the NHSCR. This should include contacting the certifier of the death for case follow back as necessary. For deaths of individuals in NHSCR database, the contractor shall electronically update the Vital Status, date of death and cause of death for matching cases.
- 4.7. Operate query systems that cross checks definitive reports, rapid reports, and non-reportable data sources using data linkage processes to ensure maximum case ascertainment.
- 4.8. Create or update the NHSCR operations manual within 30 days of the contract effective date. This manual on NHSCR procedures is for potential distribution to all reporting health providers and health facilities. The manual will provide documentation of the objectives, implementation and operation of the registry. All the contractor staff of the Cancer Registry Operations and DHHS shall be provided with a copy of the manual. This manual shall contain, at a minimum:
  - 4.8.1. Most current reporting laws/regulations;
  - 4.8.2. List of reportable diagnoses;
  - 4.8.3. List of required data items.
  - 4.8.4. Procedures for data processing operations including:
    - i. Procedures for monitoring timeliness of reporting;
    - ii. Procedures for receipt of data;
    - iii. Procedures for database management including a description of the Registry Operating System (software);
    - iv. Procedures for conducting death certificate clearance;
    - v. Procedures for implementing and maintaining the quality assurance/control program:
      - 4.8.4.v.1. Conducting follow-back to reporting facilities on quality issues. These procedures include rules for identifying when action or further investigation is needed;
      - 4.8.4.v.2. Conducting record consolidation;

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- 4.8.4.v.3. Maintaining detailed documentation of all quality assurance operations;
- 4.8.4.v.4. Procedures for education and training.
- 4.8.5. Procedures for conducting data exchange including a list of states with which case-sharing agreements are in place;
- 4.8.6. Procedures for conducting data linkages.
- 4.8.7. Procedures insuring confidentiality and data security including disaster planning;
- 4.8.8. Procedures for data release including access to and disclosure of information;
- 4.8.9. Procedures for maintaining and updating the operational manual.
- 4.9. Revise the NHSCR operations manual when any changes are made to policies and procedures relating to the NHSCR activities based on contractor need or as requested by the DHHS. The contractor will submit the changes to the DHHS, who will review and seek revision or approve within 30 days.
- 4.10. Review and update existing documents for reporting facilities, including letters, user application forms, reporting requirement document, Webplus user guides, etc., within 30 days of the contract effective date. Determine needed updates in consultation with the DHHS. When updates are needed, develop updated material, obtain approval of the DHHS, and provide to reporting facilities and post them on web for easier access.
- 4.11. Through site visits to New Hampshire hospitals conducted as needed, review discharge, laboratory and pathology reports as well as medical charts to ensure the completeness of case reporting and accuracy for completion.

## 5. Information Technology Activities

- 5.1. Establish operations within 30 days of the contract start date. This shall include, but not be limited to system set-up, testing, and deployment, as well as business operations to support the State's requirements defined in **Exhibit A-1 Additional Cancer Data Registry Technical Requirements**.
- 5.2. Within 30 days of the contract start date, provide and set up necessary computer hardware, including servers and computers for the NHSCR contractor staff, necessary to maintain the NHSCR database. All hardware and software shall be compatible with NPCR requirements.
- 5.3. Within 30 days of the contract start date, provide connectivity for all reporting facilities to transmit data to the NHCSR.
- 5.4. Maintain secure web access to the NHSCR seven days per week for Web Plus on-line data entry and data file uploading.
- 5.5. Within 30 days of the contract start date, install and utilize the current automated data management system, consistent with national standards and populated with NHSCR data. Train staff in operation of software systems. The contractor shall update all the components of the software, as required and shall participate in the relevant CDC software users group. (The DHHS maintains the discretion to utilize any kind of data management system. There shall be no modifications or upgrades to the software without the approval of the DHHS.)
- 5.6. Within 30 days of the contract execution, discuss with DHHS the feasibility of implementing a WebPlus User's Agreement, the language of such an agreement, and the protocol for phasing it into use. Implement protocol specified by the program team during a mutually agreed

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timeframe to restrict reporting via Web Plus data entry or file upload to those reporters who have submitted signed agreements to become Web Plus users.

- 5.7. Within 30 days of the contract start date, develop and implement procedures for the electronic submission and processing of laboratory pathology and cytology reports utilizing NAACCR standards.
- 5.8. Within 30 days of the contract start date, maintain a computerized log of facilities and personnel who report data to NHSCR (in excel or access or any other system) which includes at minimum; facility ID, name and demographic information; names and contact information of personnel (reporters and supervisors), and log of prior facility contacts.
- 5.9. Within 30 days of the contract start date, obtain from the prior NHSCR reports of technical assistance between NHSCR and reporters. Maintain these files or modify or upgrade them with approval of the DHHS.
- 5.10. Within 30 days of the contract start date, maintain a computerized log of all abstracts received from each reporting facility that includes facility ID, number of abstracts received, date received, format of data received and NAACCR version if electronic submission.
- 5.11. Within 30 days of the contract start date, obtain from the prior NHSCR vendor copies of hard copy logs and electronic logs of abstracts submitted to NHSCR. Maintain these files or modify or upgrade them with the approval of DHHS. The DHHS will provide necessary contact information and facilitate this transfer.
- 5.12. Upgrade or replace user software and or hardware and make necessary changes to customize software because of advancing technology and or modifications required by DHHS, NPCR or NAACCR standards. Make further upgrade(s) or replacements(s) during the life of this contract, at an additional negotiated price, if so requested by DHHS and subject to all necessary state approvals.
- 5.13. Within 30 days of the contract start date, provide means for DHHS staff approved by the DHHS to periodically receive data from NHSCR, while maintaining data security.
- 5.14. Develop and implement procedures for granting access to data to approved NHSCR staff.

## 6. Database Management Activities

- 6.1. Develop and implement procedures for the timely and accurate consolidation of cancer reports within 30 days of the contract effective date;
- 6.2. Consolidate tumor records and treatment information in accordance with standards set forth by NPCR, NAACCR or the SEER.
- 6.3. Perform routine, standard edit checks on all reports received in accordance with NPCR and NAACCR standards. The contractor shall be responsible for the accuracy of the data it codes, edits and consolidates and for maintaining the integrity of the data from year to year. At a minimum, the editing and review of data would include:
  - 6.3.1. Routine visual review of abstracts and error reports;
  - 6.3.2. Installation and use of the most recent standard edit set metafiles as chosen by the DHHS and the Contractor;
  - 6.3.3. Detection of errors during editing, documentation of errors found and corrections of errors detected;

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- 6.3.4. Detection and consolidation of multiple abstracts tumor records) received during the contract that match cases reviewed in current or prior years;
  - 6.3.5. Detection and removal of duplicate consolidated cases (that is two or more consolidated records for the same tumor in an individual);
  - 6.3.6. Describe strategy for the routine, continual detection and removal of the duplicates from the NHSCR database –even after current accession year has closed.
- 6.4 Assure that the individual case records in the NHSCR automated database are computer-edited for duplicate records, invalid coding, improbable values, and inconsistencies prior to statistical processing and data compilation for analytical purposes. Areas to be edited include, but are not limited to:
1. Data Range Checks;
  2. Geographic Coding Assignment;
  3. Duplicate Record Checks;;
  4. Invalid values
  5. Relational items as follows:
    - i. City at diagnosis field must only have values that exactly match legitimate New Hampshire City, town, or village names in list supplied by DHHS.
    - ii. City at diagnosis, the code for county and state of diagnosis must always agree and where city at diagnosis exists, a code for county at diagnosis must be provided.
    - iii. Vital status and cause of death fields must agree and cause of death must be a valid ICD-10 cause of death code or one of the special NAACCR codes.
    - iv. Records should be checked to make sure that the physician's name is correctly entered into first and last name fields.
    - v. Records should be checked to compare sex of patient and the first name of the patient as a guide for determining correct entry of the record.
    - vi. No logical conflicts shall exist between all the treatment diagnosis fields and the related reason for no treatment fields.
    - vii. Apply applicable NPCR and NAACCR Central Registry edits to data fields.
- 6.5 Geocode all cancer reports of New Hampshire residents for address and census tract, for a given year and accurately incorporate new and revised coding into NHSCR database.

## 7 Penetration Internal Security Testing

- 7.1 The State will perform Penetration Testing of the Internal Security of the Contractor's IT system as defined in the Exhibit A-1 Additional Cancer Data Registry Technical Requirements.
- 7.2 The State and Contractor shall determine a mutually agreed upon date for the Penetration Testing and perform the testing within 90-days of the effective date of the Contract.
- 7.3 The Contractor shall work with the State to negotiate a mutually agreeable remediation plan within 180-days of the Contract effective date.
- 7.4 The contractor shall, as a part of the remediation plan process, fully assess all vulnerabilities identified in the penetration test results. The contractor will acknowledge and accept all



vulnerabilities and findings of the penetration test and develop an assessment report that describes, for each vulnerability identified, the root cause, the risk level to the Department, the potential adverse impact to the Department, the level of effort required to remediate in man hours, the resource type or skillset required to remediate, and the cost to remediate. The contractor shall remediate all high risk findings as identified by the Department except where the remediation cost to the Contractor is unacceptable, in which case, the Contractor will work with the Department in good faith to identify appropriate means, alternatives, and or compensating controls to address the vulnerabilities identified.

## 8. Information and System Security Policies and Procedures

- 8.1. Maintain the confidentiality and integrity of information in accordance with the Health Insurance Portability and Accountability Act, Public Law 104-191 (<https://aspe.hhs.gov/report/health-insurance-portability-and-accountability-act-1996>) and with the Standards for Privacy and Security of Individually Identifiable Health Information, 45 CFR Parts 160 and 164 (<http://www.hipaasurvivalguide.com/hipaa-regulations/hipaa-regulations.php>) and those parts of the HITECH Act as applicable (<http://www.hipaasurvivalguide.com/hitech-act-summary.php>). The contractor shall also maintain and protect the confidentiality of the database and information obtained and maintained during this contract in accordance to NH RSA 141-B (<http://www.gencourt.state.nh.us/rsa/html/X/141-B/141-B-mrg.htm>) and NH Administrative Rules He-P 304 ([http://www.gencourt.state.nh.us/rules/state\\_agencies/he-p300.html](http://www.gencourt.state.nh.us/rules/state_agencies/he-p300.html)) and shall acknowledge agreement with the Data Use Policy of the DHHS, which views NHSCR database as DHHS-owned database, with data release subject to restrictions and conditions.
- 8.2. Preserve the confidentiality, integrity, and accessibility of State of New Hampshire data with administrative, technical and physical information security controls and measures that conform to all application, federal, state, and industry standards, such as NIST 800-53v4; which the Contractor applies to its own information processing environment, and ensures the same is applied to any other subcontractor(s) information processing environments utilized to process or store State of New Hampshire protected data.
- 8.3. Maintain the security of the system environment in accordance with the requirements of the Cancer Data Registry Technical Requirements in Appendix F, the United States Commerce Department's National Institute of Standards and Technology (NIST) Special Publication 800-53 and the Open Web Application Security Project (OWASP).
- 8.4. Maintain a system security and integrity manual which includes plans, procedures and protocols for ensuring that the contractor's NHSCR system will be properly secured, maintained and updated throughout the contract term.
- 8.5. Within 14 days after initial contract start date, implement a series of internal procedures to ensure that:
  1. Access to automated information is restricted to authorized persons, on a needed basis, and control is maintained over all the documents that contain sensitive information to ensure that these documents are available only to authorized persons.
  2. Implement full security measures to ensure the security and quality of all the elements in the NHSCR database through procedures that shall include the following:
    - i. Ensure that equipment is protected from theft and accidental or deliberate damage or misuse
    - ii. Ensure that once computer programs and data sets are completed and in routine use, they are protected against tampering. Carefully control access to and

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- maintenance of computer programs and NHSCR database.
- iii. Ensure that copies of original data submitted are maintained and never altered.
  - iv. Ensure that data are protected against inadvertent or deliberate destruction, modification, or dissemination.
  - v. Ensure procedures for backup, archiving, and disaster recovery for computer programs and NHSCR database.
  - vi. Ensure that password are changed, access denied and other security procedures are in place to protect against ongoing access and sabotage when staff resign, are terminated, or no longer assigned to NHSCR contract.
- 8.6. Maintain the security and integrity of the NHSCR data. Re-process data at no additional cost to the DHHS in accordance with DHHS instructions if the DHHS or contractor finds that contractor has corrupted, altered, tampered with, or improperly coded/processed any data sets during the duration of the Contract.
- 8.7. Immediately report to the DHHS all errors or anomalies in the NHSCR data which could reasonably believe to suggest that security or integrity of the NHSCR or its data may be compromised. The results of any analysis shall be reported to the DHHS and, in addition, the steps it has taken or intends to take to ensure security and integrity of the NHSCR and its data.
- 8.8. Implement appropriate policies, procedures and protocols to identify active breaches or threatened breaches of the NHSCR security integrity.
- 8.9. Report to DHHS any suspected breach to the NHSCR data in accordance with Table 1 - Cancer Data Registry Technical Requirements, A,-7.

## 9. Training and Education

- 9.1. Provide consultation, technical assistance, and training to assure accurate, timely and complete data from reporters (registrars, medical record personnel, providers and abstractors) at reporting facilities.
- 9.2. The contractor shall provide technical assistance by phone or in person to individual reporting facilities and providers during normal weekday business hours; response time for telephone consultation shall be no longer than one working day after request is received or for onsite consultation, no longer than 10 working days.
- 9.3. The contractor shall assess the training needs of various reporting facilities; develop written guidance, policies and procedures for reporting facilities; and provide technical assistance and training for reporting facilities
- 9.4. Annually, convene state cancer registrars meeting to include educational and technical sessions to cancer registrars of New Hampshire hospitals to foster compliance with reporting requirements as developed by the DHHS.
- 9.5. Provide twice annually, web-based training and education sessions to cancer registrars of New Hampshire hospitals on topics identified by the contractor in consultation with DHHS that will help improve cancer reporting. These may include instruction on proper cancer coding; use of edit sets; new software etc.

## 10. Quality Control and Assurance (QA/QC) Activities

- 10.1. Carry out quality assurance and control activities to assure appropriate data coding, consolidation and documentation, and assure complete case ascertainment and high quality data from all reporting sources in accordance with NH rules and regulations, NAACCR, and NPCR standards.

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- 10.2. Implement, within 30 days of the contract effective date, a QA/QC implementation plan (including timeline) which at minimum includes the following activities and routine operations:
  - 10.2.1. Assignment of qualified individuals to perform QA/QC activities;
  - 10.2.2. A routine schedule for edits and internal management reports;
  - 10.2.3. A routine schedule for internal audits for QA/QC and data security and provision of these reports to DHHS. The plan shall include written procedures for the internal monitoring of quality assurance procedures and written procedures /steps implemented if quality control goals are not met;
  - 10.2.4. Procedures for documenting edits/changes made to data during processing;
  - 10.2.5. Routine training, assessment and professional development of the contractors' staff.
- 10.3. Perform case finding activities utilizing traditional and non-traditional sources to assure timeliness and completeness of cancer reporting.
- 10.4. By October 31st of each year, obtain from each reporting hospital "diagnostic index" for case finding at all hospital reporting facilities. A diagnostic index is a detailed patient listing of all discharges meeting certain definitions in medical records coding. Encourage facilities to submit electronic diagnostic indices.
- 10.5. By October 31st of each year, the contractor shall complete Death Clearance.
- 10.6. For each hospital, as resources allow, the key variables specified by NAACCR and NPCR will be selected for visual editing of 25 cases at least every five (5) years for experienced registrars, but up to 100 annually for less experienced registrars or registrars who have not achieved an error rate of <2%. If, after review and discussion with the hospital registrar, the error rate identified in total from these fields is greater than 2%, then the NHSCR will continue to visually edit cases from that hospital and will work with the hospital registrar to improve abstracting.
- 10.7. Cleanliness of the database shall be, at a minimum, in accordance with accepted NAACCR standards. A 2% error rate threshold shall be the guide for visual editing of hospital registry accuracy.

## 11. Reporting Activities

- 11.1. Produce quarterly timeliness and completeness reports by hospital to monitor case reporting activities. Supply aggregate timeliness and completeness reports to DHHS on a quarterly basis, stating which hospitals are delinquent in their reporting and the steps taken to improve reporting from delinquent hospitals.
- 11.2. Provide the DHHS with a commentary relating to the annual reports provided by NPCR and NAACCR. Contingent upon receipt of complete death certificate data from New Hampshire Vital Records provide an annual report monitoring completeness estimating the percent of cases with histological verification (HV%). Submit a report to DHHS upon completion of the contract period or reasonable amount of time when the NAACCR and NPCR reports are available.
- 11.3. Prepare and submit to the DHHS staff a semi-annual review of contract progress by January 15 and August 15 of the contract period. Provide an update of progress on all contract items through the routine semi-annual NHSCR progress report or work plan.
- 11.4. Cooperate with any audit of NHSCR for data quality by NPCR or NPCR designated contractor. Submit to DHHS a summary of this audit upon completion.

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- 11.5. Provide by December 31 of each year of the contract, a finalized data set that has undergone complete QA/QC process. The extract of the data would cover from January 1, 1995 to date.
- 11.6. Provide the DHHS an extract of the complete NHSCR database from Jan 1, 1995 to date upon request.
- 11.7. Upon approval from the DHHS, submit finalized datasets to NAACCR and to NPCR as specified by the NAACCR and NPCR standards and Call for Data requirements. Submit copies of each of these submissions to DHHS.
- 11.8. Provide cancer case data to and receive data from states with which DHHS has a data exchange agreement, in accordance with the terms of the exchange agreement. The data shall be submitted using the agreed upon NAACCR format and will have been edited to the best extent possible. The DHHS currently has exchange agreements with 7 states and additional agreements may be executed by the DHHS during the life of this contract and shall be accommodated by the contractor.
- 11.9. Upon approval of the DHHS, provide selected health researchers, with electronic copies of NHSCR data for certain specific data elements requested and cleared by DHHS.
- 11.10. Upon approval from the DHHS, provide data to the Vermont Breast and Cervical Program for breast and cervical cancer cases among Vermont residents diagnosed in New Hampshire in accordance with the program's approved application for data release by DHHS.
- 11.11. Upon approval from the DHHS, provide colorectal cancer case data to the NH Colorectal Cancer Screening Program in accordance with the program's approved application for data release by DHHS.
- 11.12. Upon approval from the DHHS, provide breast cancer case data to the NH Mammography Network in accordance with the program's approved application for data release by DHHS; receive cancer case data from the NH Mammography Network.
- 11.13. Direct any requests for data or analysis of NHSCR data from researchers, the media or general public to the DHHS within 3 working days of receipt of the request.

## 12. Other Programmatic Activity

- 12.1. The Contractor shall make available key personnel to meet with appropriate DHHS personnel, as requested, to discuss policies and procedures, ongoing activities, contract deliverables, performance measures, review contract performance and transition to new contractor, etc.
- 12.2. The Contractor may include travel funds for appropriate staff to attend the National Cancer Registrars Association (NCRA) and NAACCR meetings annually for staff development.
- 12.3. Convene annually New Hampshire State Cancer Registry Advisory Panel to assist in building consensus, cooperation, and planning for the registry and to enhance chronic disease program coordination and collaboration. Representation should include key organizations and individuals both within (e.g. representatives from all cancer prevention and control components and chronic disease program) and outside the program (e.g. hospital cancer registrars, the American Cancer Society, American College of Surgeons liaison, clinical-laboratory personnel, pathologists, and clinicians).
- 12.4. Participate as an active member when needed in New Hampshire Comprehensive Cancer Collaboration.

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- 12.5. Participate as an active member with DHHS to collaborate in applying for grants that DHHS is interested, regardless as to who receives the actual funding. Both DHHS and contractor agree to consider the others' expenses and needs for operation and program growth when applying for grants and distribution of financial resources when funding is received.
- 12.6. Provide Ad-hoc services related to cancer epidemiology. Working with DHHS staff at DHHS offices, the time spent may be up to 12 hours per week on such tasks, as long as suitably qualified staff is available. These tasks will be mutually agreed upon by the contractor and the DHHS, and supervised by the DHHS staff. Tasks associated with these services may include:
  1. Assist in the preparation of data and narrative for the annual cancer report for New Hampshire;
  2. Assist in the investigation of cancer clusters and response to concerns about the occurrence of cancer clusters in New Hampshire;
  3. Assist with the preparation of manuscripts for publication and develop preparatory materials for professional meetings based on the DHHS needs.
  4. Provide Institutional Review Board (IRB review) for the DHHS cancer registry section (i.e. Cancer cluster investigations).
  5. Enter into agreements with other organizations as needed for processing data according to the NPCR standards, for example, with the National Death Index to obtain death data, and with the Veterans Administration (VA) to obtain VA cancer data.

### 13. Centers for Disease Control and Prevention (CDC) Cooperative Agreement Activities

- 13.1. Assist in drafting goals and program objectives, progress reports and NHSCR budgets as requested by DHHS for the purposes of the New Hampshire's application for the CDC Continuing Cooperative Agreement for Enhancement of State Cancer Registries.
  - 13.1.1. Provide all contractor-specific documentation and assurances necessary for the application.
  - 13.1.2. The contractor agrees that the application for the CDC Cooperative Agreement will be submitted for and all funding will be awarded to the DHHS;
  - 13.1.3. Identify contractor contributions to the NHSCR effort, not state general funds or federal funds that would be applied to a direct or in-kind match that may be required for application for the CDC cooperative agreement;
  - 13.1.4. Informs the DHHS within one (1) working day of any cooperative agreement related inquiries by CDC project or grants management staff;
  - 13.1.5. Appropriate representatives from the contractor staff shall represent the NHSCR on the NPCR and NAACCR- task force, users group and or committees to learn recent updates, issues and share NH experiences with all other states and will keep DHHS fully informed of all such activities;
  - 13.1.6. Where appropriate, NHSCR will communicate directly with NPCR and NAACCR on technical matters of cancer surveillance, standards and submissions to NPCR and NAACCR and will keep DHHS fully informed of all such activities.

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## 14. Transition Activities

- 14.1. If Contractor is not able to fulfill the terms of this contract and solicitation of a new vendor is necessary, the Contractor shall assist with the transition to a new vendor. Within two (2) months of the end of the contract term, the Contractor shall:
  - 14.1.1. Provide the new vendor with a copy of the latest version of the NHSCR database; the reporters' database; preregistration log; and the original copies of all the backups of the database.
  - 14.1.2. Write up procedures used to purge all NHSCR data from vendor's hardware and send the procedures to DHHS for review and approval. After approval of the procedures by the DHHS, purge all NHSCR data from the hardware of vendor.
  - 14.1.3. Within 30 days before the end of the contract period, train up to four people employed by the new vendor, by means of a reasonable exchange of information on administration of the NHSCR database, including an overview of reporters and data exchange processes with other states. The training is anticipated to involve at least the vendor's database manager and Quality Assurance supervisor for approximately two days.
  - 14.1.4. Provide the DHHS with any: hard copy of abstracts and pathology reports submitted by reporting facilities; electronic diskettes; and all documentation of interaction with reporting facilities.
  - 14.1.5. Provide DHHS with a hard and electronic copy of the latest version of the operation manual; system security and integrity manual; and all other materials developed for the work process of NHSCR during the contract process.
  - 14.1.6. Close the web access for reporting facilities so that facilities can no longer upload data of NHSCR data to the incumbent vendor.

## 15. Deliverables and Key Performance Indicators

- 15.1. The Contractor shall ensure that following performance indicators in Table 1 are annually achieved and monitored monthly to measure the effectiveness of the agreement.
  - 15.1.1. All date references in Table 1 shall be used for this contract unless otherwise specifically noted in the main body of this contract.
  - 15.1.2. All time periods are calendar days and not business days unless otherwise specifically noted in the main body of this contract.
- 15.2. Annually, the Contractor shall develop and submit to the DHHS, a corrective action plan for any deliverable and/or performance indicator that was not achieved.





Exhibit A

TABLE 1

Description of Key Variables	Section Number	Initial Term
Work Plan	2.1	30 days
Fully Qualified Staff	2.2	30 days
Allow DHHS Participation	2.4	Ongoing
Case Reporting	3 - 4	Ongoing
Create/Update operation manual	4.7	30 days & ongoing
IT Infrastructure/Webserver	5.6	30 Days
Install Registry Software and prior data	5.7 - 5.8	30 days
Processes for laboratory and pathology reports	4 - 5	30 days
Reporters database	5.9	30 days
Registration log	5.10	30 days
Upgrade/Replace software	5.11	ongoing
DHHS data access	5.12- 5.13	30 days & as needed
Procedures for Consolidation of cases and reports	6.1	30 days
Run edit checks	6.3	Ongoing
Geocoding	6.4.2	Ongoing
System security and policies and procedures	7.2-7.3	14-60 days
Responsibility for consultation/assessment	8.1-8.2	Ongoing
QA/QC Plan	9.2	30 Days
Case Finding and Diagnostic Indices	9.4	October 31 of each year
Death Clearance	9.5	October 31 of each year
Quarterly Facility Reports	10.1	Once in 4 months
Histological Verification Report	10.2	Yearly
Semi Annual progress Report	10.3	January 15 & August 15 of each year
Final Incidence dataset	10.5	January 30 of each year
Extract of Incidence dataset	10.6	Ongoing
NPCR and NAACCR Annual Report	10.7	Yearly
Submit data to NPCR	10.7	November 30 of each year
Submit data to NAACCR	10.7	November 30 of each year
Interstate Data Exchange	10.8	Ongoing
Release of Data to researchers	10.9	Ongoing
Patient Centered Outcomes data	10	With Final Incidence dataset in 2016 and 2017 only, subject to funding
Attend Meetings	11.2	Ongoing
CDC Cooperative Agreement Activities	12	Ongoing
Transition Activities	13	2 months

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10/31/16



Additional Cancer Data Registry Technical Requirements

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
<b>A GENERAL DATA SECURITY AND PRIVACY</b>		
A.1 The Vendor shall be strictly prohibited from releasing or using data or information obtained in its capacity as a collector and processor of the data for any purposes other than those specifically authorized by DHHS. Failure to comply could be a violation of NH laws and rules and may lead to voiding of the Contract.	Yes	
A.2 The Vendor shall conduct an annual security assessment, performed by an independent third-party security vendor, to verify that the Vendor's environment containing the projects data is secure. Broader Vendor-wide assessments that include the project's systems are acceptable. The Vendor shall provide certification of assessment to DHHS.	Yes	<p>The Contractor will conduct an external security assessment within the next 12 months and has agreed to arrange for NHSCR to be specifically examined.</p> <p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the external security audit and assessments, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
A.3 As the state's agent, the Vendor must provide certification of compliance with the requirements of the Health Insurance Portability & Accountability Act (HIPAA) and DHHS' standard business associate agreement.	Yes	

*JMM*

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
A.4 As the state's agent, the Vendor must provide certification of compliance with the requirements of the United States Commerce Department's National Institute of Standards and Technology (NIST) and the Open Web Application Security Project (OWASP).	Yes	Trustees of Dartmouth College's letter in the Proposal dated August 31, 2016 that covers their WebPlus application (Appendix 2), which is the only public facing component of NHSCR IT operations, is hereby incorporated by reference as fully set forth herein.
A.5 In carrying out the duties of this Contract, the Vendor shall be the agent and business associate of DHHS. As such, it is bound by applicable State and federal laws regarding health care information.	Yes	
A.6 The Vendor shall provide access to the State with a secure FTP or web site to be used by the State for uploading and downloading files.	Yes	
A.7 The Vendor shall notify the State's Project Manager of any security breaches within two (2) hours of the time that the Vendor learns of the occurrence.	Yes	
A.8 The Vendor shall ensure its complete cooperation with the State's Chief Information Officer in the detection of any security vulnerability of the Vendor' hosting infrastructure and/or the application.	Yes	
A.9 The Vendor shall be solely liable for costs associated with any breach of State data housed at their location(s) including but not limited to notification and any damages assessed by the courts.	Yes	As agreed in Exhibit C-1 of the Contract.
B APPLICATION SECURITY REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
B.1 Verify the identity or authenticate all of the system client applications before allowing use of the system to prevent access to inappropriate or confidential data or services.	Yes	
B.2 Verify the identity or authenticate all of the system's human users before allowing them to use its capabilities to prevent access to inappropriate or confidential data or services.	Yes	
B.3 Enforce unique user names.	Yes	
B.4 Enforce complex non-reusable passwords of ten (10) characters or more that contain at least one upper case, one lower case, one numeric, and one symbol.	Yes	

Trustees of Dartmouth College

RFP-2017-DPGS-03-CANCE-01  
Contract #2016-081

Exhibit A-1 Additional Cancer Data Registry Technical Requirements

Contractor Initials

*Jmm*

Date 10/31/16

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
B.5 Passwords should be forced to an Administrator reset after three (3) failed attempts.	Yes	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the password multifactor process, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
B.6 Encrypt passwords in transmission and at rest within the database.	Yes	
B.7 Expire passwords after ninety-days.	Yes	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the password expiration process, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
B.8 Authorize users and client applications to prevent access to inappropriate or confidential data or services.	Yes	
B.9 Provide the ability to limit the number of people that can grant or change authorizations	Yes	
B.10 Provide the ability to enforce session timeouts during State-defined periods of inactivity.	Yes	

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
<p>B.11 Ensure the application has been tested and hardened to prevent critical application security flaws. (At a minimum, the application shall be tested against all flaws outlined in the Open Web Application Security Project (OWASP) Top Ten (<a href="http://www.owasp.org/index.php/OWASP_Top_Ten_Project">http://www.owasp.org/index.php/OWASP_Top_Ten_Project</a>))</p>	<p>Yes</p>	<p>As described above in A2, we will test for security flaws and address them according to the findings of testing procedures.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
<p>B.12 The application shall not store authentication credentials or Sensitive Data in its code.</p>	<p>Yes</p>	
<p>B.13 Audit all attempted accesses that fail or succeed identification, authentication, and authorization requirements</p>	<p>Yes</p>	
<p>B.14 The application shall log all activities to a central server to prevent parties to application transactions from denying that they have taken place. The logs must be kept for six (6) months</p>	<p>Yes</p>	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the logging functionality process, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
<p>B.15 The application must allow a user to explicitly terminate a session. No remnants of the prior session should then remain.</p>	<p>Yes</p>	
<p>B.16 The Application Data shall be protected from unauthorized use when at rest</p>	<p>Yes</p>	
<p>B.17 Keep any Sensitive Data or communications private from unauthorized individuals and programs.</p>	<p>Yes</p>	
<p>B.18 Subsequent application enhancements or upgrades shall not remove or degrade security requirements.</p>	<p>Yes</p>	

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*10/31/18*

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
B.19 Conform to all State and Federal laws and regulations regarding data security	Yes	
B.20 Create change management documentation and procedures	No	NHSCR does not develop nor do software maintenance on user applications, so this item is not applicable.
C HOSTING REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
C.1 The Vendor shall maintain a secure hosting environment providing all necessary hardware, software, and Internet bandwidth to manage the system and data submitters and the State with permission based logins. • Access will be via Internet Explorer Version 11, or as otherwise agreed to by DHHS.	Yes	
C.2 The Vendor will not be responsible for network connection issues, problems or conditions arising from or related to circumstances outside the control of the Vendor, ex: bandwidth, network outages and /or any other conditions arising on the data submitters internal network or, more generally, outside the Vendor's firewall or any issues that are the responsibility of the data submitters Internet Service Provider.	Yes	
C.3 Vendor shall provide a secure Tier 3 or 4 Data Center providing equipment, an on-site 24/7 system operator, managed firewall services, and managed backup Services.	Yes, Tier 3	
C.4 The Vendor must monitor the application and all servers.	Yes	
C.5 The Vendor shall manage the databases and services on all servers located at the Vendor's facility.	Yes	
C.6 The Vendor shall install and update all server patches, updates, and other utilities within 60 days of release from the manufacturer.	Yes	
C.7 The Vendor shall monitor System, security, and application logs.	Yes	
C.8 The Vendor shall manage the sharing of data resources.	Yes	
C.9 The Vendor shall manage daily backups, off-site data storage, and restore operations.	Yes	
C.10 The Vendor shall monitor physical hardware.	Yes	
C.11 The Vendor shall provide validation that they have adequate disaster recovery procedures in place.	Yes	
C.12 The Vendor 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.	Yes	

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New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
C.13 The disaster recovery plan shall identify appropriate methods for procuring 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.	Yes	
C.14 The Vendor shall adhere to a defined and documented back-up schedule and procedure.	Yes	
C.15 Back-up copies of data are made for the purpose of facilitating a restore of the data in the event of data loss or System failure.	Yes	
C.16 Scheduled backups of all servers must be completed weekly.	Yes	
C.17 The minimum acceptable frequency is differential backup daily, and complete backup weekly.	Yes	
C.18 Tapes or other back-up media tapes must be securely transferred from the site to another secure location to avoid complete data loss with the loss of a facility.	Yes	
C.19 If State data is personally identifiable, data must be encrypted in the operation environment and on back up tapes.	Yes	
C.20 Data recovery – In the event that recovery back to the last backup is not sufficient to recover State Data, the Vendor shall employ the use of database logs in addition to backup media in the restoration of the database(s) to afford a much closer to real-time recovery. To do this, logs must be moved off the volume containing the database with a frequency to match the business needs.	Yes	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the data recovery process, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 180 days of the effective date of the Contract.</p>
<b>D HOSTING REQUIREMENTS – NETWORK ARCHITECTURE</b>	<b>VENDOR RESPONSE</b>	<b>VENDOR COMMENTS</b>
C.21 The Vendor must operate hosting Services on a network offering adequate performance to meet the business requirements for the State application. For the purpose of this RFP, adequate performance is defined as 99.5% uptime, exclusive of the regularly scheduled maintenance window.	Yes	

*JMM*

Date 10/31/16

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
C.22 The Vendor shall provide network redundancy deemed adequate by the State by assuring redundant connections provided by multiple Internet Vendors, so that a failure of one Internet connection will not interrupt access to the State application.	Yes	
C.23 The Vendor' network architecture must include redundancy of routers and switches in the Data Center.	Yes	
C.24 Remote access shall be customized to the State's business application. In instances where the State requires access to the application or server -resources not in the DMZ, the Vendor shall provide remote desktop connection to the server through secure protocols such as a Virtual Private Network (VPN).	No	This is not applicable because there is no relevant state business application.
E HOSTING REQUIREMENTS - SECURITY	VENDOR RESPONSE	VENDOR COMMENTS
C.25 The Vendor shall employ security measures that ensure the State's data is protected.	Yes	
C.26 If State data is hosted on multiple servers, data exchanges between and among servers must be encrypted.	No	This is not applicable as the data are hosted on a single server.
C.27 All servers and devices must have currently-supported and hardened operating systems, the latest anti-viral, anti-hacker, anti-spam, anti-spyware, and anti-malware utilities. The environment, as a whole, shall have aggressive intrusion-detection and firewall protection.	Yes	
C.28 All components of the infrastructure shall be reviewed and tested to ensure they protect the State's hardware, software, and its related data assets. 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.	Yes	
C.29 In the development or maintenance of any code, the Vendor 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.	No	This is not applicable as NHSCR does not develop any code that is used in production of an application such as WebPlus. NHSCR does make extensive use of programs written in SAS, SPSS or Excel.
C.30 The Vendor shall authorize the State to perform scheduled and random security audits, including vulnerability assessments, of the Vendor' hosting infrastructure and/or the application upon request.	Yes	

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10/31/14



New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
C.31 The Vendor shall provide fire detection and suppression system, physical security of and infrastructure security of the proposed hosting facility. The environmental support equipment of the Vendor website hosting facility: power conditioning; HVAC; UPS; generator must be acceptable to the State.	Yes	
F HOSTING REQUIREMENTS - SERVICE LEVEL AGREEMENT	VENDOR RESPONSE	VENDOR COMMENTS
C.32 The DHHS and Health Facilities shall have unlimited access, via phone or Email, to the Vendor Help Desk technical support staff between the hours of 8:30am to 5:00pm- Monday thru Friday EST.	Yes	
C.33 The Vendor telephone or e-mail response time for technical support shall be no more than twenty-four (24) hours.	Yes	NHSCR is prepared to respond during normal business hours, 8:00 AM to 4:30 PM, Monday through Friday EST. This has worked well with our reporters.
C.34 The Vendor shall guarantee 99.5% uptime, exclusive of the regularly scheduled maintenance window	Yes	The Applicant, an academic institution, is not in a position to guarantee uptime although in the normal course of business, it approaches 99.5%.
G. ADDITIONAL QUESTIONS	VENDOR RESPONSE	VENDOR COMMENTS
C.35 The Vendor shall provide a written description of the Registry Plus Suite options used by NHSCR.	Yes	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the Registry Plus Suite, is hereby incorporated by reference as fully set forth herein.</p> <p>The State and Contractor shall negotiate a mutually agreeable remediation plan within 90 days of the effective date of the Contract.</p>

*JMM*

Date *10/31/16*

New Hampshire Department of Health and Human Services  
Cancer Registry Operations



Exhibit A-1

CANCER DATA REGISTRY TECHNICAL REQUIREMENTS	VENDOR RESPONSE	VENDOR COMMENTS
<p>C.36 The technical information from the CDC on the Registry Plus suite indicates that customization to the code is allowed. Does Dartmouth intend to do that or are they providing an "out of box" install? That will impact whether application security is in scope for what Dartmouth provides to the State. The technical specifications for Registry Plus are six (6) years old (<a href="http://www.cdc.gov/cancer/npcr/pdf/registryplus/registry_plus_requirements.pdf">http://www.cdc.gov/cancer/npcr/pdf/registryplus/registry_plus_requirements.pdf</a>) so the chances are higher that there is some security concerns about this software. A quick read shows the .Net framework is .Net 1.1 which is obsolete. The Vendor shall provide updated technical specifications.</p>	<p>Yes</p>	<p>See C35.  The State and Contractor shall negotiate a mutually agreeable remediation plan within 90 days of the effective date of the Contract.</p>
<p>C.37 The CDC's documentation puts a high level of the security on the infrastructure that runs the system (from requirements, page 7) The security of Web Plus depends mostly on the security of the client computer, the communication channel between the client and the Web server, the Web server, the base operating system, and the configurations of the firewalls on either side of the Web server. It is very important that the hosting agency have a security policy in place and document the users (and their assigned roles) who have access to Web Plus. The hosting agency is responsible for encrypting the Web Plus database if required. Strong passwords are recommended, and account sharing should be prohibited. For further information, visit Web Plus Security Features (<a href="http://www.cdc.gov/cancer/npcr/tools/registryplus/wp_security.htm">http://www.cdc.gov/cancer/npcr/tools/registryplus/wp_security.htm</a>) and Maximizing Data Security in WebPlus (<a href="http://www.cdc.gov/cancer/npcr/tools/registryplus/wp_security2.htm">http://www.cdc.gov/cancer/npcr/tools/registryplus/wp_security2.htm</a>).</p>	<p>Yes</p>	<p>The Contractor's Proposal Response to Information Technology questions dated October 3, 2016, providing additional details and specifics of the Cancer Registry Operations security of Web Plus, is hereby incorporated by reference as fully set forth herein.  The State and Contractor shall negotiate a mutually agreeable remediation plan within 90 days of the effective date of the Contract.</p>
<p>C.38 Penetration Internal Security Testing. The State will perform Penetration testing, and based on results, work with the Contractor to negotiate a mutually agreeable remediation plan within 180 days of the Contract effective date</p>	<p>Yes</p>	<p>The State and Contractor shall determine a mutually agreed upon date for penetration testing and perform the penetration testing within 90 days of the effective date of the Contract.</p>

*JMM*

Date *10/31/14*



**Exhibit B**

**Method and Conditions Precedent to Payment**

1) The State shall pay the contractor an amount not to exceed the Form P-37, Block 1.8, Price Limitation for the services provided by the Contractor pursuant to Exhibit A, Scope of Services.

1.1. This contract is funded with funds from the following Catalog of Federal Domestic Assistance (CFDA) numbers:

- 79% federal funds from the US Centers for Disease Control & Prevention, NH Comprehensive Cancer Control Program & Cancer Registry Grant, CFDA #93.752, Federal Award Identification Number (FAIN), NU58DP003930.
- 21% general funds.

1.2. The Contractor agrees to provide the services in Exhibit A, Scope of Service and Exhibit A-1 Additional Cancer Data Registry Technical Requirements, in compliance with funding requirements. Failure to meet the scope of services may jeopardize the funded contractor's current and/or future funding.

2) Payment for said services shall be made monthly as follows:

2.1. Payment shall be on a cost reimbursement basis for actual expenditures incurred in the fulfillment of this agreement, and shall be in accordance with the approved line item.

2.2. The Contractor will submit an invoice in a form satisfactory to the State by the twentieth working day of each month, which identifies and requests reimbursement for authorized expenses incurred in the prior month. The invoice must be completed, signed, dated and returned to the Department in order to initiate payment.

2.3. The State shall make payment to the Contractor within thirty (30) days of receipt of each invoice, subsequent to approval of the submitted invoice and if sufficient funds are available. Contractors will keep detailed records of their activities related to DHHS-funded programs and services.

2.4. The final invoice shall be due to the State no later than forty (40) days after the contract Form P-37, Block 1.7 Completion Date.

2.5. In lieu of hard copies, all invoices may be assigned an electronic signature and emailed. Hard copies shall be mailed to:

Department of Health and Human Services  
Division of Public Health Services  
29 Hazen Drive  
Concord, NH 03301  
Email address: DPHScontractbilling@dhhs.nh.gov

3) Notwithstanding paragraph 18 of the General Provisions P-37, an amendment limited to adjustments to amounts between budget line items, related items, amendments of related budget exhibits within the price limitation, and to adjust encumbrances between State Fiscal Years through the Budget Office if needed and justified, may be made by written agreement of both parties and may be made without obtaining approval of the Governor and Executive Council.

**Exhibit B-1 Budget**

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

**Bidder/Contractor Name:** Trustees of Dartmouth College

**Budget Request for:** Cancer Registry Operations  
(Name of RFP)

**Budget Period:** SFY 2017 (11/1/16 through 6/30/17)

Line Item	Direct Incremental	Indirect Fixed	Total	Required Match	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$ 278,690.00	\$ 27,869.00	\$ 306,559.00	\$ -	Dartmouth College is allowing a substantially reduced 10% indirect cost rate from the usual rate of 62%. Geisel School of Medicine provides office space, communications, and
2. Employee Benefits	\$ 81,572.00	\$ 8,157.00	\$ 89,729.00	\$ -	
3. Consultants	\$ 73,471.00	\$ 7,347.00	\$ 80,818.00	\$ -	
4. Equipment:	\$ -	\$ -	\$ -	\$ -	
Rental	\$ -	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ 3,560.00	\$ 356.00	\$ 3,916.00	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	\$ -	
Office	\$ 3,960.00	\$ 396.00	\$ 4,356.00	\$ -	
6. Travel	\$ 21,948.00	\$ 2,195.00	\$ 24,143.00	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	\$ -	
Postage	\$ 3,680.00	\$ 368.00	\$ 4,048.00	\$ -	
Subscriptions	\$ -	\$ -	\$ -	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	\$ -	
9. Software	\$ 8,193.00	\$ 819.00	\$ 9,012.00	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ 2,000.00	\$ 200.00	\$ 2,200.00	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	\$ -	
Membership	\$ -	\$ -	\$ -	\$ -	
Tumor Registry Effort	\$ -	\$ -	\$ -	\$ -	
DC Contribution of Indirect Costs	\$ -	\$ -	\$ -	\$ 55,987.00	
	\$ -	\$ -	\$ -	\$ 106,257.00	
	\$ -	\$ -	\$ -	\$ -	
<b>TOTAL</b>	<b>\$ 477,074.00</b>	<b>\$ 47,707.00</b>	<b>\$ 524,781.00</b>	<b>\$ 162,244.00</b>	

Indirect As A Percent of Direct 10.0%

Contractor Initials:

*Jmm*  
10/31/16

Date:

### Exhibit B-2 Budget

New Hampshire Department of Health and Human Services

Bidder/Contractor Name: Trustees of Dartmouth College

Budget Request for: Cancer Registry Operations  
(Name of RFP)

Budget Period: SFY 2018 (7/1/17 through 6/30/18)

Line Item	Direct Incremental	Indirect Fixed	Total	Required Match	Allocation Method for Indirect/Fixed Cost
1. Total Salary/Wages	\$410,467	\$ 41,047.00	\$ 451,514.00	\$ -	Dartmouth College is allowing a substantially reduced 10% indirect cost rate from the usual rate of 62%. Geisel School of Medicine provides office space, communications, and administrative
2. Employee Benefits	\$123,141	\$ 12,314.00	\$ 135,455.00	\$ -	
3. Consultants	\$ 4,205.00	\$ 421.00	\$ 4,626.00	\$ -	
4. Equipment:	\$ 4,692.00	\$ 469.00	\$ 5,161.00	\$ -	
Rental	\$ -	\$ -	\$ -	\$ -	
Repair and Maintenance	\$ -	\$ -	\$ -	\$ -	
Purchase/Depreciation	\$ -	\$ -	\$ -	\$ -	
5. Supplies:	\$ -	\$ -	\$ -	\$ -	
Educational	\$ -	\$ -	\$ -	\$ -	
Lab	\$ -	\$ -	\$ -	\$ -	
Pharmacy	\$ -	\$ -	\$ -	\$ -	
Medical	\$ -	\$ -	\$ -	\$ -	
Office	\$ 5,439.00	\$ 544.00	\$ 5,983.00	\$ -	
6. Travel	\$ 30,900.00	\$ 3,090.00	\$ 33,990.00	\$ -	
7. Occupancy	\$ -	\$ -	\$ -	\$ -	
8. Current Expenses	\$ -	\$ -	\$ -	\$ -	
Telephone	\$ -	\$ -	\$ -	\$ -	
Postage	\$ 5,149.00	\$ 515.00	\$ 5,664.00	\$ -	
Subscriptions	\$ 840.00	\$ 84.00	\$ 924.00	\$ -	
Audit and Legal	\$ -	\$ -	\$ -	\$ -	
Insurance	\$ -	\$ -	\$ -	\$ -	
Board Expenses	\$ -	\$ -	\$ -	\$ -	
9. Software	\$ 16,465.00	\$ 1,647.00	\$ 18,112.00	\$ -	
10. Marketing/Communications	\$ -	\$ -	\$ -	\$ -	
11. Staff Education and Training	\$ 3,090.00	\$ 309.00	\$ 3,399.00	\$ -	
12. Subcontracts/Agreements	\$ -	\$ -	\$ -	\$ -	
13. Other (specific details mandatory):	\$ -	\$ -	\$ -	\$ -	
Membership	\$ 1,210.00	\$ 121.00	\$ 1,331.00	\$ -	
Tumor Registry Effort	\$ -	\$ -	\$ -	\$ 87,206.00	
DC Contribution of Indirect Costs	\$ -	\$ -	\$ -	\$ 148,372	
	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ -	
<b>TOTAL</b>	<b>\$ 605,598.00</b>	<b>\$ 60,561.00</b>	<b>\$ 666,159.00</b>	<b>\$ 235,578.00</b>	

Indirect As A Percent of Direct

10.0%

Contractor Initials:

*Jmm*

Date:

10/24/16



**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;

*JMM*  
Date 6/21/14



- 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.

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Date 10/31/16



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

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Date 10/30/14





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

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

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

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

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

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

19. **Subcontractors:** DHHS recognizes that the Contractor may choose to use subcontractors with greater expertise to perform certain health care services or functions for efficiency or convenience, but the Contractor shall retain the responsibility and accountability for the function(s). Prior to subcontracting, the Contractor shall evaluate the subcontractor's ability to perform the delegated function(s). This is accomplished through a written agreement that specifies activities and reporting responsibilities of the subcontractor and provides for revoking the delegation or imposing sanctions if the subcontractor's performance is not adequate. Subcontractors are subject to the same contractual conditions as the Contractor and the Contractor is responsible to ensure subcontractor compliance with those conditions.

When the Contractor delegates a function to a subcontractor, the Contractor shall do the following:

- 19.1. Evaluate the prospective subcontractor's ability to perform the activities, before delegating the function
- 19.2. Have a written agreement with the subcontractor that specifies activities and reporting responsibilities and how sanctions/revocation will be managed if the subcontractor's performance is not adequate
- 19.3. Monitor the subcontractor's performance on an ongoing basis



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

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

#### DEFINITIONS

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

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

**DEPARTMENT:** NH Department of Health and Human Services.

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

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

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

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

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

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

*Jmm*  
10/31/14



Exhibit C-1

**REVISIONS TO GENERAL 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 have the right to withhold payment until such funds become available, if ever. The State 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, 30 days after giving the Contractor written notice that the State is exercising its option to terminate the Agreement.
- 10.2 In the event of early termination, the Contractor shall, within 15 days of notice of early termination, develop and submit to the State a Transition Plan for services under the Agreement, including but not limited to, identifying the present and future needs of clients receiving services under the Agreement and establishes a process to meet those needs.
- 10.3 The Contractor shall fully cooperate with the State and shall promptly provide detailed information to support the Transition Plan including, but not limited to, any information or data requested by the State related to the termination of the Agreement and Transition Plan and shall provide ongoing communication and revisions of the Transition Plan to the State as requested.
- 10.4 In the event that services under the Agreement, including but not limited to clients receiving services under the Agreement are transitioned to having services delivered by another entity including contracted providers or the State, the Contractor shall provide a process for uninterrupted delivery of services in the Transition Plan.
- 10.5 The Contractor shall establish a method of notifying clients and other affected individuals about the transition. The Contractor shall include the proposed communications in its Transition Plan submitted to the State as described above.

**3. Extension:**

This agreement has the option for a potential extension of up to two (2) additional years, contingent upon satisfactory delivery of services, available funding, agreement of the parties and approval of the Governor and Council.

**4. Limitation of Liability**

**4.1. State**

Subject to applicable laws and regulations, in no event shall the State be liable for any consequential, special, indirect, incidental, punitive, or exemplary damages. Subject to applicable laws and regulations, the State's liability to Contractor shall not exceed the total Contract price set forth in Contract Agreement - General Provisions, Block 1.8.

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10/31/16



**Exhibit C-1**

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**4.2. Contractor**

Subject to applicable laws and regulations, in no event shall Contractor be liable for any consequential, special, indirect, incidental, punitive or exemplary damages and Contractor's liability to the State shall not exceed two times (2X) the total Contract price set forth in Contract Agreement – P-37, General Provisions, Block 1.8.

Notwithstanding the foregoing, this limitation of liability shall not apply to Contractor's indemnification obligations set forth in the Contract Agreement-General Provisions Section 13: *Indemnification*.

**4.3 State's Immunity**

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 shall survive termination or Contract conclusion.

*JMM*  
*10/24/16*



**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 GRANTEES OTHER THAN INDIVIDUALS**

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

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

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

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

*Jmm*  
Date 10/24/16

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)

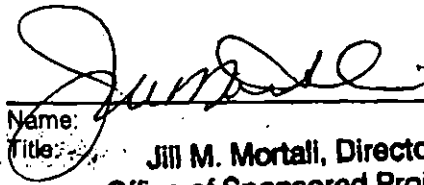
Check  if there are workplaces on file that are not identified here.

Contractor Name: Trustees of Dartmouth College

Date

10/31/16

Name:  
Title:



Jill M. Mortali, Director  
Office of Sponsored Projects



**CERTIFICATION REGARDING LOBBYING**

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

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

Programs (indicate applicable program covered):

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

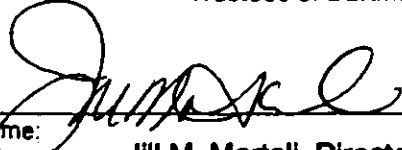
The undersigned certifies, to the best of his or her knowledge and belief, that:

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

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

Contractor Name: Trustees of Dartmouth College

10/31/14  
Date

  
Name: Jill M. Mortali  
Title: **Jill M. Mortali, Director  
Office of Sponsored Projects**



**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

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Date 10/31/16





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 (1)(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: Trustees of Dartmouth College

Date 10/21/10

  
Name: \_\_\_\_\_  
Title: **Jill M. Mortali, Director  
Office of Sponsored Projects**



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

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

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

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

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

Exhibit G

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

Contractor Initials

10/31/16

New Hampshire Department of Health and Human Services  
Exhibit G



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

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

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

Contractor Name: Trustees of Dartmouth College

10/31/14  
Date

Jill Mortali  
Name  
Title

Jill M. Mortali, Director  
Office of Sponsored Projects

Exhibit G

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

Contractor Initials

JMM

Date 10/31/14



**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: Trustees of Dartmouth College

Date: 10/31/10

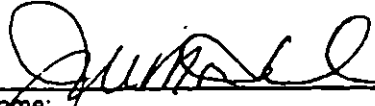
  
Name: \_\_\_\_\_  
Title: **Jill M. Mortali, Director  
Office of Sponsored Projects**



Exhibit I

**HEALTH INSURANCE PORTABILITY ACT**  
**BUSINESS ASSOCIATE AGREEMENT**

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

(1) **Definitions.**

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

*[Handwritten Signature]*  
Date 10/24/14



Exhibit I

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

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

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



Exhibit I

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

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

**(3) Obligations and Activities of Business Associate.**

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

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

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

*JMM*  
Date 10/31/14



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

3/2014

Contractor Initials

*JMM*  
Date 11/3/14





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.

*AMM*  
Date 10/31/14



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) I, the defense and indemnification provisions of section (3) e and Paragraph 13 of the standard terms and conditions (P-37), shall survive the termination of the Agreement.

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

Department of Health and Human Services

The State

*Marcella J. Bobinsky*  
Signature of Authorized Representative

Marcella J. Bobinsky, MPH

Name of Authorized Representative

Acting Director

Title of Authorized Representative

Date

*11/1/16*

Trustees of Dartmouth College

Name of the Contractor

*Jill M. Mortali*  
Signature of Authorized Representative

Jill M. Mortali, Director

Office of Sponsored Projects

Name of Authorized Representative

*Director*

Title of Authorized Representative

Date

*10/31/16*

*JMN*

*10/31/16*



**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.

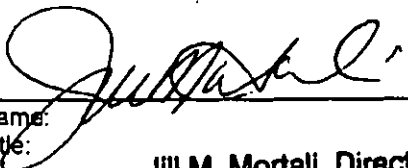
Prime grant recipients must submit FFATA required data by the end of the month, plus 30 days, in which the award or award amendment is made.

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:

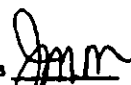
The below named Contractor agrees to provide needed information as outlined above to the NH Department of Health and Human Services and to comply with all applicable provisions of the Federal Financial Accountability and Transparency Act.

Contractor Name: Trustees of Dartmouth College

10/31/14  
Date

  
Name: \_\_\_\_\_  
Title:

Jill M. Mortali, Director  
Office of Sponsored Programs

  
10/31/14



**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: 34-102-7822
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?

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: _____

*JMM*  
10/31/10