Maine's
Public
Universities

UNIVERSITY OF MAINE SYSTEM

<div style="border:1px solid red; color:red;">
REVISED
3-13-2018
</div>

March 13, 2018

TO: Members of the Board of Trustees
       Faculty and Student Representatives

FR: Ellen N. Doughty, Interim Clerk of the Board   *Ellen Doughty*

RE: **March Board Meeting**

Enclosed are the materials for the **Board of Trustees Meeting** on **Sunday and Monday, March 18-19, 2018,** hosted by the University of Southern Maine. Directions are included in the Board meeting materials.   Parking is available in the parking garage.

> *The Board Meeting materials are available on the Diligent portal, for those who have access, and in PDF format on the Board of Trustees website at:*
> *www.maine.edu/UMStrusteesmeetings*

> *Live audio streaming will be available for the Board meeting on Sunday and Monday. The links to the live streaming and the captioning are on the Board of Trustees website at: www.maine.edu/board.*

On Sunday, March 18th, the Board meeting will be called to order at 3:00 pm in Room 423 on the 4th floor of Glickman Library. The Board will go directly into an Executive Session until 4:45 pm. At 5:00 pm the Board meeting will reconvene in the University Events Room on the 7th floor of Glickman Library with a meeting with the USM Board of Visitors. A reception in the Abromson Center is scheduled for 6:00 pm, followed by dinner.

On Monday, March 19th, the Board meeting will be called to order at 8:30 am with an opportunity for continental breakfast and networking starting at 8:00 am. The Board meeting on Monday will be in the University Events Room on the 7th floor of Glickman Library.

Meeting rooms have been reserved for the Faculty & Student Representatives if they would like to meet in their respective groups. The Faculty Representatives can meet in Cohen Room, 1st floor of the Glickman Library. The Student Representatives can meet in Room 714 on the 7th floor of the Glickman Library. These rooms are available starting at 12:00 pm on 3/18/18.

Overnight accommodations for those that have requested, have been made at the Hampton Inn, 171 Philbrook Avenue in South Portland – 773-4400.

Incoming messages can be left with the USM President's Office at 780-4480 or with Heather Massey at 991-4724 or Ellen Doughty at 949-4905.

In the event of a postponement, cancellation, or changes in the Board of Trustees meeting, a message will be recorded on the Board Office telephone (581-5844). In addition, every effort will be made to personally contact the Board of Trustees, the Presidents, and the Faculty and Student Representatives.

Encl.

cc: Chancellor James H. Page
     University Presidents
     System Staff

Directions to USM

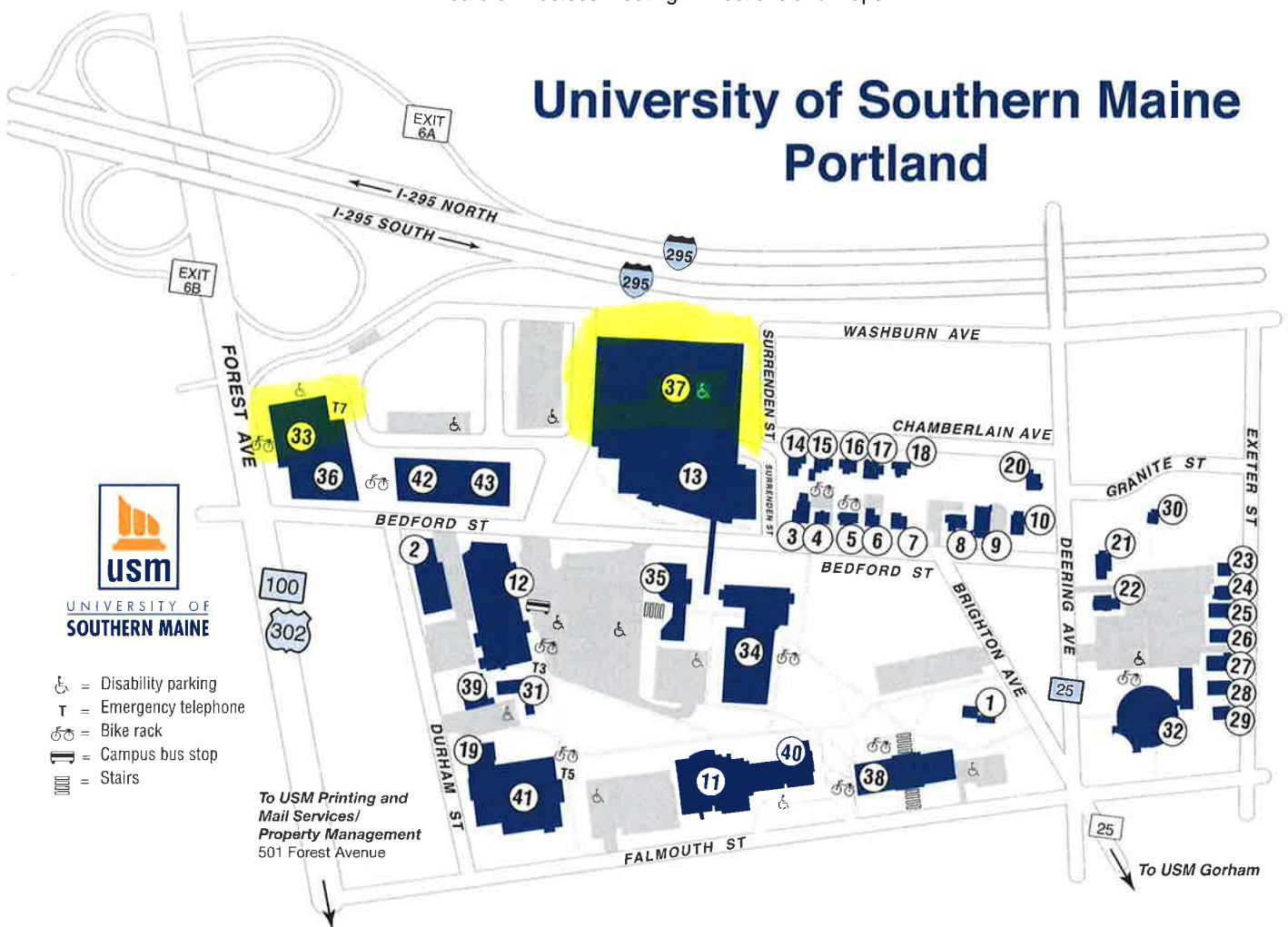## University of Southern Maine

96 Falmouth Street, Portland, Maine

207-780-4480

From I-295 (north or south bound):

Take Exit 6B (Forest Avenue North). Turn left at the first light onto to Bedford Street and proceed until you see the skywalk over the street. Drive under the skywalk and turn left onto Surrenden Street to enter the parking garage. The Glickman Library is a short walk from the parking garage. The meetings will be on the 7th Floor of the Glickman Library.

.

University of Southern Maine
Portland

- Disability parking
- T = Emergency telephone
- Bike rack
- Campus bus stop
- Stairs

To USM Printing and Mail Services/Property Management
501 Forest Avenue

To USM Gorham

1. **23 Brighton Avenue** - Community Service/Civic Engagement, Interfaith Chaplain
2. **25 Bedford Street** - Facilities Management
3. **92 Bedford Street** - WMPG, Free Press
4. **94 Bedford Street** - Women and Gender Studies Department
5. **98 Bedford Street** - History Department
6. **102 Bedford Street** - Honors Program
7. **106 Bedford Street** - Alumni Relations/Development
8. **118 Bedford Street** - Center for Business and Economic Research
9. **120 Bedford Street** - Sociology Department, Center for Teaching
10. **126 Bedford Street** - Political Science Department
11. **Bioscience Research Wing**
12. **Campus Center, Woodbury** - Dining Hall, Bookstore, Area Gallery, Dean of Student Life, Commuter Student Services, Women's Center, Multicultural Resource Center, Board of Student Organizations, Center for Sexualities and Gender Diversity
13. **Community Education Center, Joel and Linda Abromson** - Division of Community Outreach, Hannaford Lecture Hall, Undergraduate Admission Extension Office
14. **1 Chamberlain Avenue** - Criminology Department
15. **7 Chamberlain Avenue**
16. **11 Chamberlain Avenue** - Economics Department
17. **15 Chamberlain Avenue**
18. **19 Chamberlain Avenue** - Communication and Media Studies Department
19. **21 Falmouth Street**
20. **209 Deering Avenue**
21. **222 Deering Avenue** - Campus Diversity and Equity, Stonecoast M.F.A. Program
22. **228 Deering Avenue** - College of Arts and Sciences, Self-Designed Major Program
23. **39 Exeter Street** - Graduate Admission
24. **45 Exeter Street** - Graduate Studies, Undergraduate Education, Institute for Family-Owned Business
25. **47 Exeter Street** - Philosophy Department
26. **49/51 Exeter Street**
27. **55/57 Exeter Street** - Modern and Classical Languages and Literatures Department
28. **59/61 Exeter Street** - University of Maine School of Law Cumberland Legal Aid Clinic
29. **65 Exeter Street** - Linguistics Department
30. **11 Granite Street** - American and New England Studies Department
31. **Health Services**
32. **Law Building** - University of Maine School of Law, USM Administration: Offices of the President, Provost, and Vice Presidents
33. **Library, Albert Brenner Glickman Family** - Portland Library
34. **Luther Bonney Hall** - Academic Assessment, School of Business, English Department, Portland Learning Center, Support for Students with Disabilities, Portland Computing Center, Media Services, Prior Learning Assessment
35. **Masterton Hall** - College of Nursing and Health Professions; Social Work Department, Recreation and Leisure Studies Department
36. **Osher Map Library and Smith Center for Cartographic Education**
37. **Parking Garage** - 1,200-space garage
38. **Payson Smith Hall** - Mathematics and Statistics Department, International and National Student Exchange, English as a Second Language Program, Financial Aid, Student Billing, Registrar, Veterans Services, University Counseling Services, Weekend College, Telecommunications, Campus Card Office, Summer Session/Winter Session, Student Success Center
39. **Central Heating Plant**
40. **Science Building** - Southworth Planetarium; Departments of Biological Sciences (pre-med, pre-vet, pre-dental, pre-pharmacy, pre-optometry), Chemistry, Physics, Computer Science, Psychology
41. **Sullivan Recreation and Fitness Complex** - Portland Recreation and Fitness Office, USM Police Department
42. **The Wishcamper Center** - Muskie School of Public Service
43. **The Wishcamper Center** - Osher Lifelong Learning Institute

UMS Board of Trustees Meeting

University of Southern Maine
7th Floor Glickman Library, University Events Room

<div style="border: 1px solid black; color: red; font-weight: bold;">REVISED 3/17/18</div>

March 18-19, 2018

AGENDA

Meeting Room for Faculty Representatives – Cohen Center, Room 103, 1st floor, Glickman Library
> 1:00 pm - Faculty Representatives meeting with James Thelen - Cohen Room
> 2:00 pm - Faculty Representatives meeting with Dr. Neely - Cohen Room

Meeting Room for the Student Representatives – Room 714, 7th Floor, Glickman Library
(These rooms are available starting at 12:00 pm on 3/18/18.)

<u>Sunday, March 18, 2018</u>

Call to Order @ 3:00 pm - Room 423/424, 4th Floor Glickman Library

The Board will go directly into executive session.

Executive Session from 3:05 pm to 4:45 pm - Room 423/424, 4th Floor Glickman Library

BOT/BOV Meeting @ 5:00 pm - 7th Floor Glickman Library
Tab 1 - Meeting with the USM Board of Visitors

Reception @ 6:00 pm **-** Abromson Center, 1st floor **(Cash Bar)**
Dinner @ 7:00 pm - Abromson Center, 2nd floor - lobby

<u>Monday, March 19, 2018</u> - 7th Floor Glickman Library

Coffee & Networking @ 8:00 am

Call to Order/Reconvene @ 8:30 am

Citizen Comment
The Board of Trustees provides time for citizen comment prior to the business agenda at each meeting. The Chair of the Board will establish time limits (usually three minutes per person) and determine any questions of appropriateness and relevancy. Personnel decisions, collective bargaining issues, grievances, litigation and other areas excludable from public discussion under the Maine Freedom of Access Law shall not constitute appropriate matters for such input. A person who wishes to speak during the citizen comment period should arrive prior to the meeting start time and sign up on a sheet provided, indicating name and topic of remarks.

Acceptance of Minutes
Committee Reports/Actions (40 minutes)
Academic & Student Affairs Committee Meeting *(3/5/18)* (5 minutes)
Academic & Student Affairs and Human Resources & Labor Relations Joint Session *(3/5/18)* (5 minutes)
Audit Committee Meeting *(2/9/18)* (5 minutes)
Finance/Facilities/Technology Committee Meeting *(3/1/18)* (5 minutes)
Human Resource & Labor Relations Committee Meeting *(3/5/18)* (5 minutes)
Special Board of Trustees Meeting *(3/5/18)* (5 minutes)
UM Presidential Search Committee Update (10 minutes)

Chair's Report (10 minutes)
Tab 2 - Establishment of the Trustee Nominating Committee

Chancellor's Report (20 minutes)

Vice Chancellor for Finance and Administration & Treasurer's Report (30 minutes)
Tab 3 - Financial Update

Vice Chancellor for Academic Affairs' Report (15 minutes)
Tab 4 - Course Cross-Listing Strategy to Support Multi-Campus Programs

Updates
Tab 5 - Maine Center for Graduate Professional Studies (10 minutes)
Tab 6 - UM Comprehensive Campaign (5 minutes)
Tab 7 - Small Campus Advancement Initiative (15 minutes)

Action Items
Tab 8 - Appointment of the Clerk of the Board of Trustees (5 minutes)
Tab 9 - Approval of Appointment to the UM Board of Agriculture (5 minutes)
Tab 10 - Approval of the Board Meeting Calendar 2018-2019 & 2019-2020 (10 minutes)
Tab 11 - Approval of the BOT/BOV Executive Committee Charter and Calendar of
        Collaboration (5 minutes)
Tab 20 - Proposed New Board Policy 214 – Institutional Authority on Political Matters (30 minutes)

Discussion Items
Tab 12 - Comprehensive Enrollment Management Review Team Final Report (45 minutes)

Consent Agenda (10 minutes)
Action items from the March 1, 2018 Finance, Facilities & Technology Committee Meeting:
        Tab 13 - Square Footage Increase and Donation Authorization, UM
        Tab 14 - Marine Sampling Processing Shed, UMM
        Tab 15 - Gorham Athletic Fields LED Lighting Project - Hannaford, Baseball &
                Softball Fields, USM

Action items from the March 5, 2018 Academic & Student Affairs Committee Meeting:
        Tab 16 - UMS Student Conduct Code

Date of the Next Meeting: May 20 & 21, 2018 at the University of Maine at Fort Kent

Lunch Break (20 minutes) (Timing of the lunch break will be at the discretion of the Chair.)

Executive Session (3 hours) – **7th Floor Glickman Library**

Following the Executive Session, the public meeting will be reconvened to vote on the following item:

Action Item
Tab 17 - Tenure Nominations for 2018
Tab 18 - Tenure at the time of hire: USM Associate Dean of Nursing
Tab 19 - Appointment of President at the University of Maine

Attachments
Financial Update
        - Managed Investment Pool
        - Pension Fund
        - Operating Fund

- Current Fiscal Year-to-Date Forecast to Budget
UM Board of Agriculture Appointment
Comprehensive Enrollment Management Review Team Final Report
Student Conduct Code
- Draft Student Conduct Code - Annotated Version
- Draft Student Conduct Code - Clean Version
Tenure Information
- Board of Trustees Policy 310 Tenure
- Tenure Table 1
- Tenure Table 2
- Report of Tenure Statistics
- UMS Faculty Peer Tenure Comparison - 2015
- UMS Instructional Faculty Peer Tenure Comparison - 2015
Tenure at the time of hire - background information
Proposed New Board Policy 214 – Institutional Authority on Political Matters
Small Campus Advancement Report

Reports:
Agenda Calendar
Capital Projects Status Report
- Executive Summary
- Report
Educate Maine Annual Report - 2017 Year in Review
Management Group Appointments Report
Sightlines Annual State of Facilities Report, UMS
- Executive Summary
- Report
Spring 2018 Enrollment Report
State of IT Report
UMS Research Reinvestment Fund Annual Report
UMS Workforce Development Infrastructure Bond (LD 836)
UMS Workforce Development Infrastructure Bond Talking Points

Presentations:
Cross Listing

Tabs noted in red text are action items.

Note: Times are estimated based upon the anticipated length for presentations or discussion of a particular topic. An item may be brought up earlier or the order of items changed for effective deliberation of matters before the Board.

Directions to Hampton Inn

Hampton Inn
171 Philbrook Avenue
South Portland, Maine
207-773-4400

Approximately 5 miles or 6 minutes from USM to the Hampton Inn.

- Take a right onto Forest Avenue/US-302

- Merge onto I-295 South toward South Portland

- Take exit 1 toward 1-95 N/Maine Mall Road

- Merge onto Maine Turnpike App.

- Take the exit toward Maine Mall Road – ME 114/Jetport

- Keep right to take the Philbrook Road ramp toward Maine Mall

- Turn right onto Philbrook Avenue

- The Hampton Inn Portland-Airport is on the corner

Acceptance of Minutes

The following minutes will be presented to the Board of Trustees for approval at the March 19, 2018 Board meeting:

January 28-29, 2018 Board of Trustees Meeting
February 9, 2018 - Audit Committee
March 1, 2018 - Finance, Facilities, Technology Committee
March 5, 2018 - Special Board of Trustees Meeting
March 5, 2018 - Academic & Student Affairs Committee
March 5, 2018 - Joint Session with Academic & Student Affairs
Committee and Human Resources/Labor Relations Committee
March 5, 2018 - Human Resources/Labor Relations Committee

Board of Trustees website link to the minutes:
http://www.maine.edu/about-the-system/board-of-trustees/meeting-minutes/

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Meeting with USM Board of Visitors

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: X   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
                                                        102 Charter, Section 4B.5

5. **BACKGROUND:**

The Board of Trustees (BOT) and the Boards of Visitors (BOV) for the universities are collaborating to increase engagement. The BOT/BOV partnership increases advocacy and adds value for UMS, our students and the State.

One aspect of this engagement is a regularly scheduled meeting of the BOT with the local BOV when the BOT meets on a campus. Members of the USM BOV will meet with the BOT for a discussion of campus BOV strategic goals and concerns.

3/8/18

2

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Establishment of the Trustee Nominating Committee

2. **INITIATED BY**:   James Erwin, Chair

3. **BOARD INFORMATION**: X   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
                              Bylaws, Section 3.2

4. **BACKGROUND:**

The Board of Trustees annually in May approves officers to serve one year terms. The Chair of the Board shall appoint three Trustees, one who shall be designated as Chair. Per Bylaw Section 3.2, the Board is not required to approve the appointment of members to the Committee for the Nomination of Officers. The Committee for Nomination of Officers shall nominate, from members of the Board, a Chair and Vice Chair.

03/8/18

3

Maine's
Public
Universities

UNIVERSITY OF MAINE SYSTEM

_____

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Financial Update

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: X   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
    Enhance fiscal positioning

5. **BACKGROUND:**

    Vice Chancellor for Finance and Administration and Treasurer Ryan Low will provide a
    brief financial update at the March 18-19, 2018 Board of Trustees meeting.

Attachments:

Managed Investment Pool Flash Reports
Pension Fund Flash Reports
Operating Fund Flash Reports
Current Fiscal Year-to-Date Forecast to Budget

3/8/2018

4

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Course Cross-listing Strategy to Support Multi-Campus Programs

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: **X**   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
    Increase enrollment
    Improve student success and completion
    Relevant academic programming

5. **BACKGROUND:**

    One strategy that has emerged to resolve some of the barriers to multi-campus programming is the use of course <u>cross-listing</u> in the catalogs of campus partners. Such models are not uncommon and are being studied for applicability in Maine. Although the UMS is in the early stages of attempting to pilot course cross-listing, we imagine that collaborative agreements among institutions could include sharing an entire program, a collection of courses, or a single course section, all of which follow the same process. A central premise to the UMS approach to course cross-listing is identification of a **Host** institution that provides instruction for another university representing a student's **Home** institution. At the institutional level, cross-listing provides institutions with a mechanism to create innovative new programs that the Home institution could not create individually and to deploy faculty and other resources more efficiently. For students, cross-listing provides a seamless student experience for registration, financial aid, billing, and degree planning. Course cross-listing can also enrich a student's academic program by making available courses not taught by the Home institution, or perhaps help resolve course scheduling issues that could potentially impact timely graduation.

    In summary, however, cross-listing essentially involves the following steps:

    1. Cross-listing is initiated by faculty from the participating academic units/programs approving, through normal curricular approval processes, those courses appropriate for cross-listing in a shared program. Such approval would be subjected to subsequent evaluation by academic administrators and faculty groups (e.g., Faculty Senate or University Curriculum Committees),

4

including review by the UMS Chief Academic Officers Council and UMS administrative officers.

2. Upon academic approval (which could include approval at System and Board of Trustees level for any new or newly delivered multi-campus programs), all other appropriate administrative offices would be notified in writing of courses approved for cross–listing. Course catalog and enrollment processes would be updated as appropriate.

3. Courses would be tagged in the UMS information systems as cross-listed, which ultimately would automate the distribution of a tuition revenue sharing model. The UMS has developed a model for distribution of tuition differentiated on campuses delivering courses to other campuses, tracked by student enrollment by course from each campus. As a pilot project, course cross-listing and the accompanying financial model are being investigated for an existing, long-standing program in which a course is already required by one UMS campus, but delivered by another UMS campus.

For a student in a multi-campus program, cross-listing essentially treats any course in a collaborative program as "native" credit on a student's home campus because the course, although delivered from another campus, is in the home campus catalog for that student. The net result is that a student does not have to be admitted at more than one campus, they do not need to transfer a completed course, and the details of financial aid are simplified for the student.

From the perspective of a campus, administrative obligations of participating in a multi-campus program are also lightened because the courses for cross-listing have been approved through existing governance processes, the courses have been appropriately tagged in UMS enterprise resource planning management systems, and financial processes related revenue distribution have been automated.

Given the advantages of cross-listing from a student and institutional perspective, we see the cross-listing strategy as a viable and easily-managed approach that could be considered from the following two perspectives. Of course, technological and functional processes will need to be addressed to the satisfaction of all academic and support units. As cross-listing is incrementally piloted within the UMS, and if this strategy proves successful, full documentation will be developed that should ultimately be codified in BOT policies and procedures.

Presentation:
Cross-Listing

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

5

AGENDA ITEM SUMMARY

1.   **NAME OF ITEM**:   Maine Center for Graduate Professional Studies

2.   **INITIATED BY**:   James H. Page, Chancellor

3.   **BOARD INFORMATION**: X   **BOARD ACTION:**

4.   **OUTCOME:**   **BOARD POLICY:**
     Increase Enrollment
     Improve Student Success & Completion
     Relevant Academic Programming

5.   **BACKGROUND:**

     USM President Glenn Cummings and Mr. George Campbell, Interim CEO of Maine Center
     Ventures and President and CEO of the USM Foundation, will provide an update on Maine
     Center for Graduate Professional Studies.

3/8/18

6

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   UM Comprehensive Campaign Update

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: **X**   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
    All Primary Outcomes

5. **BACKGROUND:**

    University of Maine and University of Maine at Machias President Susan Hunter will
    provide an update on the comprehensive campaign.

3/8/18

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

7

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Small Campus Advancement Initiative

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: X   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
   Increase Enrollment
   Improve Student Success & Completion
   Enhance Fiscal Positioning

5. **BACKGROUND:**

Chancellor James Page established the Small Campus Advancement Team in late September 2017 to explore the realities and potential for small campuses in the University of Maine System, namely University of Maine at Augusta, University of Maine at Farmington, University of Maine at Fort Kent, University of Maine at Machias, and University of Maine at Presque Isle, to produce positive outcomes in fundraising and development. The team includes: Kate Foster, UMF (co-chair); John Short, UMFK (co-chair); Joyce Blanchard, UMA; Dan Qualls, UMM; and Deborah Roark, UMPI.

The Team charter calls for the group to develop:
   (1) an inventory of current advancement resources by campus;
   (2) a set of recommended guidelines for what small campus advancement should achieve on a regular and sustained basis;
   (3) an inventory of human and financial resources necessary to achieve the guidelines set out in (2);
   (4) a gap analysis of where each campus stands relative to (2);
   (5) a set of recommendations as to how best to achieve (2).

UMF President Kate Foster and UMFK President John Short will provide an update on the Small Campus Advancement Initiative.

 Attachment:
 Small Campus Advancement Report

3/8/18

Maine's
Public
Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Appointment of the Clerk of the Board of Trustees

2. **INITIATED BY**:   James R. Erwin, Chair of the Board

3. **BOARD INFORMATION**:   **BOARD ACTION**:   X

4. **OUTCOME:**   **BOARD POLICY:**
                                          Bylaws – Section 2.2

5. **BACKGROUND:**

    Section 2.2 of the Bylaws of the Board of Trustees provides that the Board will appoint a Clerk who
    serves at the pleasure of the Trustees. Bylaw Section 2.6 describes the Clerk's duties as follows:
    > The Clerk shall prepare the agenda of all meetings of the Board and its committees. The Clerk, or
    > someone the Clerk shall designate, shall attend the meetings, prepare the minutes of such
    > meetings, and forward copies of the minutes to the members of the Board and to such other
    > persons or agencies as the Board may determine. The Clerk shall have charge of all Board
    > records, files, minutes, and official documents, notify appropriate persons and agencies of the
    > Board's actions, and copies of Board records certified by the Clerk shall be evidence in all cases
    > in which the originals might be used. The Clerk shall send notices of Board and committee
    > meetings to members of the Board, maintain a central calendar for meetings and shall perform
    > related duties assigned by the Chair of the Board.

    Ellen Doughty has worked with the Board of Trustees office since September 2002, assuming
    progressively greater responsibilities over time, including her role as Interim Clerk of the Board since
    July 1, 2017. Before working for the Board Ellen held positions in Development at the University of
    Maine and in the System Office of Human Resources. Ellen is a graduate of the University of Maine at
    Augusta.

    The Interim Clerk appointment was for a nine-month period, which expires March 31, 2018. The Board
    now wishes, on the recommendation of Chief of Staff and General Counsel James Thelen and UMS
    Chancellor James H. Page, to appoint Ms. Doughty to the regular Clerk role, effective April 1, 2018 and
    subject to the normal UMS Management Group terms and conditions of employment, including as set
    forth in the UMS *Handbook for Non-Represented Faculty and Salaried Staff*.

5. **TEXT OF PROPOSED RESOLUTION:**

    That the Board of Trustees appoints and directs that Ellen Doughty be sworn in as Clerk of the University
    of Maine System Board of Trustees effective April 1, 2018 and to serve at the pleasure of the Trustees.

03/8/18

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Approval of Appointment to the University of Maine Board of Agriculture

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION:**   X

4. **OUTCOME:**   **BOARD POLICY:**

9

5. **BACKGROUND:**

In 1998 the Maine Legislature formed the Board of Agriculture to advise the Chancellor and the University of Maine President on matters concerning agricultural research and extension. The legislation forming the board stipulates that members of the board serve five-year terms. They may be reappointed or replaced at the end of that five-year period.

The legislation also stipulates that two research faculty members associated with agricultural research at the University of Maine serve on the Board of Agriculture, with the approval of the Board of Trustees of the University of Maine System. Last year the Board of Trustees approved Dr. Ellen Mallory to succeed Dr. Lois Berg Stack, who retired at the end of 2016. There was an oversight in the fact that Dr. Stack was appointed to complete the five-year term of Dr. Vivian Wu, the preceding appointee, whose term began March 20, 2013. That term ends March 19, 2018. Therefore, it is recommended that Dr. Ellen Mallory, Associate Professor of Sustainable Agriculture and Extension Sustainable Agriculture Specialist, be approved to a new five-year term beginning March 20, 2018 and ending March 19, 2023.

Dr. Mallory develops and conducts educational programs in sustainable and integrated farming systems for agricultural producers, agricultural educators and citizens throughout the state. She manages an active, externally funded research program that compliments those programs. Her primary interests are focused on local production of food and feed grains, and on soil quality, soil fertility and nutrient cycling.

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the following research faculty appointment to the UMaine Board of Agriculture: Dr. Ellen Mallory for a five-year term beginning March 20, 2018 and ending March 19, 2023

Attachment:
UM Board of Agriculture - Mallory Appointment - background information

3/8/18

Maine's
Public
Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Approval of the Board of Trustees Meeting Calendar
                               for 2018-2019 and 2019-2020

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION:**   X

4. **BACKGROUND:**

In accordance with the University System's Charter and the Board's By-laws, the proposed calendar is submitted for approval. In order to allow as much flexibility as possible in planning schedules, the proposed calendar has been developed on a 2-year cycle.

The Board of Trustees Retreat and BOT/BOV Summits have been added to the Board Calendar.

2018-2019	**2019-2020 (proposed)**
July 16, 2018 hosted by UMS @ UM	July 15, 2019 hosted by UMS @ UM
September 16-17, 2018 @ UMPI	September 15-16, 2019 @ TBA
October 21-22, 2018 – BOT Retreat	October 20-21, 2019 – BOT Retreat
November 5, 2018 – BOT/BOV Summit	November 4, 2019 – BOT/BOV Summit
November 18-19, 2018 @ UMS @ UM	November 17-18, 2019 @ TBA
January 27-28, 2019 @ UM	January 26-27, 2020 @ UM (tentative)
March 24-25, 2019 @ UMM	March 15-16, 2020 @ TBA
May 19-20, 2019 @ UMA	May 17-18, 2020 @ TBA
June 3, 2019 – BOT/BOV Summit	June 1, 2020 – BOT/BOV Summit

The Board of Trustees Office in consultation with the Chancellor and the Board Chair can modify the Board calendar as necessary to accommodate the needs of the Board.

5. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the Board of Trustees meeting calendar for 2018-2019 and 2019-2020, as presented.

3/8/18

UNIVERSITY OF MAINE SYSTEM
Board of Trustees Meeting Calendar

2018 – 2019

July 16, 2018 – Board of Trustees Meeting **hosted by UMS @ UM**

September 16 & 17, 2018 – Board of Trustees Meeting @ **UMPI**
Agenda Focus: Appropriations Request & Bond Proposals

October 21-22, 2018 – BOT Retreat @ **TBA**

November 5, 2018- BOT/BOV Summit @ **TBA**

November 18 & 19, 2018 – Board of Trustee Meeting @ **UMS @ UM**
Agenda Focus: Fiscal Matters

January 27 & 28, 2019 – Board of Trustees Meeting @ **UM**
Agenda Focus: Honorary Degree Nominations

March 24 & 25, 2019 – Board of Trustees Meeting @ **UMM**
Agenda Focus: Tenure

May 19 & 20, 2019 – Board of Trustees Meeting @ **UMA**
Agenda Focus: Annual Meeting & Operating Budgets

June 3, 2019 – BOT/BOV Summit **@ TBA**

10.1

2019 – 2020

July 15, 2019 – Board of Trustees Meeting **hosted by UMS @ UM**

September 15 & 16, 2019 – Board of Trustees Meeting @ **TBA**
Agenda Focus: Appropriations Request & Bond Proposals

October 20-21, 2019 – BOT Retreat @ **TBA**

November 4, 2019- BOT/BOV Summit @ **TBA**

November 17 & 18, 2019 – Board of Trustee Meeting @ **TBA**
Agenda Focus: Fiscal Matters

January 26 & 27, 2020 – Board of Trustees Meeting @ **UM (tentative)**
Agenda Focus: Honorary Degree Nominations

March 15 & 16, 2020 – Board of Trustees Meeting @ **TBA**
Agenda Focus: Tenure

May 17 & 18, 2020 – Board of Trustees Meeting @ **TBA**
Agenda Focus: Annual Meeting & Operating Budgets

June 1, 2020 – BOT/BOV Summit **@ TBA**

The Board of Trustees Office in consultation with the Chancellor and the Board Chair can modify the Board calendar as necessary to accommodate the needs of the Board.

* Meeting location has not been confirmed.

These dates were approved by the Board of Trustees on March 19, 2018   2/15/18

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Board of Trustees/Boards of Visitors Executive Committee Charter

2. **INITIATED BY**:   Chancellor Page

3. **BOARD INFORMATION**:   **BOARD ACTION:**   X

4. **OUTCOME:**   **BOARD POLICY**

5. **BACKGROUND:**

The Board of Trustees and the Boards of Visitor of the seven universities have been actively engaged in collaboration since 2013. In November of 2014 the Board of Trustees approved the Board of Trustees/Boards of Visitors Executive Committee Charter and an associated annual calendar of collaborative efforts.

Over the last several years the BOT/BOV collaboration has grown to include monthly meetings of the executive committee, one or two Summits each year, legislative advocacy, BOV orientation and development, and partnerships between individual Boards of Visitors.

The BOT/BOV Executive Committee recently reviewed the charter and the calendar of collaboration and recommends approval of the attached revised document. There are no major substantive changes to the charter, but it will better reflect the mission focus of the work and current practices. The revised calendar of collaboration reflects the increased activity of collaboration.

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the revised Board of Trustees/Boards of Visitors Executive Committee Charter and Calendar of Collaboration.

3/8/18

University of Maine System
Board of Trustees/Board of Visitors Executive Committee
Charter and Calendar of Collaboration
Endorsed by the UMS Board of Trustees 11/17/2014
Proposed Revisions 3/9/18

The University of Maine System (UMS) Board of Trustees (BOT) and Boards of Visitors (BOVs) seek to enhance collaboration of the groups to strengthen the impact of their joint advocacy for public higher education in Maine. The collaboration and advocacy are focused on increasing support for the UMS missions of education, research, and public service, and enhancing student success.

The BOT and BOVs have set up a collaborative relationship that includes joint meetings when the BOT meets at a campus location and an annual summit. The BOT/BOV collaboration operates around an annual calendar of joint efforts and events (attached). The BOT/BOV Executive Committee (EC) serves as an additional link between the BOT and the BOVs.

Purpose

The BOT/BOV Executive Committee serves as a two-way conduit for collaboration and communication between the BOT and the BOVs and among the seven BOVs. The EC engages with all aspects of the BOT/BOV collaboration, including strategic discussions and planning for the annual summit. The EC also serves as a forum for discussion of shared practices to strengthen all BOVs. The EC members will relay information to all BOV members about issues that impact the entire University of Maine System, such as legislative issues and bond referenda. The EC will also forward information and perspectives to the BOT from the BOVs.

The EC has no authority to take actions on behalf of the individual Boards of Visitors or the Board of Trustees. The EC does not alter or replace any of the work of each Board of Visitors with the university with whom it is affiliated. The primary home university contact for each Board of Visitors continues to be the university president.

Membership
The BOT/BOV EC will be comprised of one representative from each BOV; the Chancellor; two Trustees appointed by the Chair; and one president selected by the Presidents Council. Members should be prepared to participate in EC calls and meetings regularly.

Meetings
The EC will meet monthly by conference call or video conference in addition to the annual BOT/BOV Summit. In the spring, normally in April or May, there will be an in-person meeting of the EC replacing one monthly call, or a second Summit, at the discretion of the EC.

This charter will be submitted for approval to the Board of Trustees and each Board of Visitors.

1

Annual Calendar of BOV-BOT Collaboration
and Key Budget and Planning Events

September
- o Beginning of academic year
- o BOV reports submitted to BOT –by September 1
- o ~~BOV chairs meet with BOT to discuss BOV strategies and priorities –September BOT meeting~~
- o September BOT meeting at a campus location; local BOV invited to meet with BOT on Sunday
- o Appropriations request to state –September prior to first session of biennium
- o BOT/BOV Executive Committee (EC) conference call

October
- o Annual BOV/BOT ~~conference~~ Summit, including discussion of BOV strategies and priorities
- o BOT/BOV EC conference call

October-November

- o Chancellor's fall campus visits, including meeting with BOV

November
- o November BOT meeting at a campus location; local BOV invited to meet with BOT on Sunday
- o Bond issue requests submitted to state November/December prior to first year of legislative session
- o BOT/BOV EC conference call

December
- o BOT/BOV EC conference call

January
- o BOV reports submitted by UMS to Legislature –January
- o BOT meets
- o BOT/BOV EC conference call

February
- o ~~Campus budget development – February - March~~
- o BOT/BOV EC conference call

11.1

2

February-March
- o Campus budgets presented to Finance/Facilities/Technology Committee and Board of Trustees
- o Chancellor's spring campus visits, including meeting with BOV

March
- o March BOT meeting at a campus location; local BOV invited to meet with BOT on Sunday
- o BOT/BOV EC conference call

April
- o BOT/BOV EC conference call

April-May

- o In person meeting of BOT/BOV EC or second Summit of the fiscal year at discretion of EC (normally before the end of the legislative session).

11.1

May
- o BOT adopts budget for following fiscal year
- o BOT annual meeting
- o BOT approves BOV appointments

June, July, August
- o July 1 beginning of fiscal year
- o BOT meets in July
- o BOT retreat –late summer/fall
- o Campus budget discussions begin for the following fiscal year
- o Review BOT/BOV EC Charter
- o New members join BOT/BOV EC as turnover occurs on BOV
- o BOT/BOV EC monthly conference call unless EC decides to suspend for 1 – 2 months in summer

3/31/14

3/9/18

3

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

_____

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Comprehensive Enrollment Management Review
     Team Final Report

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**: X   **BOARD ACTION:**

4. **OUTCOME:**   **BOARD POLICY:**
     Increase Enrollment
     Enhance fiscal positioning

12

5. **BACKGROUND:**

    At the March 18-19, 2018 Board of Trustees meeting, Vice Chancellor for Finance and
    Administration and Treasurer Ryan Low will provide an overview of the final report from
    the Comprehensive Enrollment Management Review Team.

Attachment:
Comprehensive Enrollment Management Review Team Final Report

3/8/2018

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**: Square Footage Increase and Donation Authorization, Cooperative Forestry Research Unit (CFRU), UM

2. **INITIATED BY**: James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION**:   X

4. **OUTCOME:**   **BOARD POLICY:**
Support Maine through research and   Increase in Space
economic development

5. **BACKGROUND:**

The University of Maine System acting through the University of Maine (UM) requests authorization to accept the donation of a camp building from Baxter State Park's Scientific Forest Management Area (SFMA), to be located on land leased by the university's Cooperative Forest Research Unit (CFRU) at Telos Camp located on T5R11 WELS, Maine. This request is pursuant to Trustee policy prohibiting net increases in space without Trustee authorization.

Baxter State Park Scientific Forest Management Area (SFMA) has a camp building that they no longer need due to upgrades in the park. The building is a wood structure with vinyl siding and a metal roof and is approximately 750 gross square feet. No third party evaluation of the building has been completed, but upon review by the UM facilities staff the estimated value is well below the $50,000 threshold requiring Board approval. Baxter SFMA is a member of the CFRU and has offered to donate the building to the CFRU at no cost. The CFRU intends to locate the building on a parcel of land currently leased by the CFRU from the landowner, Katahdin Forest Management and has approval from the landowner to do so. The CFRU will use the building as a camp for the staff and students who currently utilize tents when staying overnight at the camp.

The Cooperative Forestry Research Unit (CFRU) is part of the Center for Research on Sustainable Forestry (CRSF) at the University of Maine. The CFRU was formed in 1975 as a research cooperative between the University of Maine and Maine's forest landowners/managers. There are currently 35 members of the CFRU who annually contribute over $500,000 to research the most important problems they face in managing over 8.2 million acres of commercial forestlands in Maine. The applied nature of this forestry research involves extensive field work on research installations that are spread across the Maine Northwoods. The CFRU employs field crews made up of UMaine summer students, staff, faculty and visiting scientists, and works closely with faculty and students at UMFK, including the new JD Irving Professorship, who has a half time research appointment connected to the CFRU.

The CFRU will cover all costs associated with the move, site preparation, setup and ongoing maintenance of the building through non E&G funds. The facility will be added

13

to the inventory provided to Sightlines but as with other buildings of this size, type, and remote status, Sightlines will determine in what manner the data is used in their tracking and reporting. Changes at this site are not expected to impact the key performance indicators which are reported to Trustees.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the March 18-19, 2018 Board meeting.

6. **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the recommendation of the Finance, Facilities and Technology Committee to authorize the acceptance of the donation of a camp building increasing building square footage at the University of Maine by up to 750 square feet.

13

3/08/2018

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1.   **NAME OF ITEM**:   Marine Sample Processing Shed, UMM

2.   **INITIATED BY**:   James H. Page, Chancellor

3.   **BOARD INFORMATION**:   **BOARD ACTION:**   **X**

4.   **OUTCOME:**   **BOARD POLICY:**
     Support Maine through research and   Increase in Space
     economic development
     Relevant academic programming

5.   **BACKGROUND:**

The University of Maine System acting through the University of Maine at Machias requests authorization to build a Marine Sample Processing Shed on the Machias campus. The proposed shed will support both research and teaching curriculum.

The request is pursuant to Trustee policy prohibiting net increases in space without Trustee authorization. The proposed space is a heated greenhouse of up to 400 square feet located adjacent to existing facilities on campus and with adequate utilities to allow the sample processing to take place.

The purpose of the space is to provide a safe and warm environment out of the elements for processing marine benthic samples. Each fall, courses in Oceanography (ENV 103), Marine Biology (BIO 206), and Marine Ecology (BIO 360) are taught at UMM with students participating both in field sampling and their own research projects requiring sample processing. Intertidal field research commenced at UMM in the late 1970's including a number of research efforts focused on intertidal soft-shell clam ecology and/or aquaculture. Sampling occurs throughout the year, independent of season, outside temperature, or weather and all samples taken for those studies and courses are processed by washing marine intertidal sediments through sieves, outdoors on campus. This space will be used by marine biology faculty and students as well as students and faculty in the two other science-based programs at UMM – Biology and Environmental Studies.

The cost of the project (currently estimated at $65,000) will be funded by a grant (response pending) or funds yet to be identified. The current request is intended to expedite the construction process should the grant proposal be approved as scheduled in March. The operating costs of the new structure will be funded as determined by the UMM Chief Business Officer. The net change in square footage will be tracked in the campus' list of assets.

14

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the March 18-19, 2018 Board meeting.

6.   TEXT OF PROPOSED RESOLUTION:

That the Board of Trustees approves the recommendation of the Finance, Facilities and Technology Committee to authorize the increased footprint at the University of Maine at Machias of up to 400 square feet for a sample processing shed.

14

3/08/2018

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Gorham Athletic Fields LED Lighting Project (Hannaford, Baseball, Softball Fields), USM

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION:**   X

4. **OUTCOME:**   **BOARD POLICY:**
   Enhance fiscal positioning   Policy 701 – Capital Budgets
   Increase enrolment
   Improve student success and completion

5. **BACKGROUND:**

The University of Maine System acting through the University of Southern Maine requests authorization to expend up to $1,780,000 for installation of LED lighting on three athletic fields on the Gorham Campus. The funding will come from a combination of private giving and institutional funds. USM has already identified $650,000 for the project. $160,000 in private gifts has been raised, and the USM Foundation is currently actively seeking the remaining $970,000. This request is pursuant to Board Policy 701 Operating and Capital Budgets, requiring advance approval of projects with a total cost of $500,000 or more.

The scope of the project includes installation of state of the art LED lighting for the Hannaford Field, Baseball and Softball fields. None of these fields currently have any lighting for nighttime games. The lack of lighting on these fields reduces the time available for the use of these fields by University athletic teams as well as outside entities that may otherwise rent the fields. With the new lighting in place, the University will be able to host NCAA tournaments as well as State High School tournaments. Renting of the fields to other organizations can happen once the lights are installed bringing in an additional stream of revenue and providing recruitment opportunities. Lights will add scheduling flexibility and reduce missed class time by student-athletes. Additionally, having lights will enhance our recreational opportunities for all students.

The project may be phased to accommodate the availability of funding and lead time for ordering the lighting. A vendor has been identified through the National Joint Powers Alliance (NJPA) purchasing consortium. USM currently has completed design for the lighting on all three fields. The funding is identified for the first project (Hannaford Field) but is still actively being raised for the Softball and Baseball fields. The timeline for construction for the Hannaford Field project is Summer 2019, the other two fields will be scheduled once fundraising is complete with a current expectation of Fall 2019.

15

The operating costs are expected to be contained to the electricity cost as the lighting system purchase includes a 20 year maintenance agreement covering everything on the pole including light bulbs and electronics. The energy use of these lights is expected to be 25% less than other lighting options. The operating costs associated with the lights will be covered centrally and offset by rental fees collected from external entities using the fields. USM expects the initial operating costs to be cost neutral and, as activity develops, for it to become a positive revenue stream.

The Finance, Facilities and Technology Committee approved this recommendation to be forwarded to the Consent Agenda for Board of Trustee approval at the March 18-19, 2018 Board meeting.

6.   **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves the recommendation of the Finance, Facilities and Technology committee to authorize the University of Southern Maine to expend up to $1,780,000 from a combination of private giving and institutional funds for the Gorham campus athletic fields LED lighting project.

15

3/08/2018

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

_____

AGENDA ITEM SUMMARY

1.   **NAME OF ITEM**:   Student Conduct Code: Three Year Review and Update

2.   **INITIATED BY**:   James H. Page

3.   **BOARD INFORMATION**:   **BOARD ACTION:**   X

4.   **OUTCOME:**   **BOARD POLICY:**
                                     501 – Student Conduct Code

5.   **BACKGROUND:**

The UMS Student Conduct Code applies to the entire University of Maine System. As mandated by Board policy, the Code is reviewed and updated every three years, and is ultimately approved by the Board of Trustees. The last regular review occurred during the Spring of 2015; Board approval occurred at the May 2015 Board meeting.

The Conduct Code Review Board, comprised of the conduct officer and two members from each campus, legal counsel, a representative from the Board of Trustees, and a System representative met over the course of several meetings to finalize the updating of the Student Conduct Code.

The Academic and Student Affairs Committee of the Board reviewed these changes at their meeting of March 5, 2018, and recommended that the Code be forwarded to the consent agenda for approval at the March 18-19, 2015 Board of Trustees meeting.

16

6.   **TEXT OF PROPOSED RESOLUTION:**

That the Board of Trustees approves and ratifies the updated "University of Maine System Student Conduct Code," to go into effect July 1, 2018.

Attachments::

Draft Student Conduct Code - Annotated Version
Draft Student Conduct Code - Clean Version

3/8/18

_____

AGENDA ITEM SUMMARY

1.   **NAME OF ITEM:**   Tenure Nominations 2018

2.   **INITIATED BY**:   James H. Page, Chancellor

3.   **BOARD INFORMATION:**   **BOARD ACTION:**   X

4.   **OUTCOME:**   **BOARD POLICY:**
     All Primary Outcomes

5.   **BACKGROUND:**
     Candidates recommended for tenure in the University of Maine System are brought forward for
     approval by the Board of Trustees in March with action to take effect September 1, 2018.
     Following material and information relevant to the tenure approval process:

     Items in italics are for Board of Trustees only.

     - Description of the tenure review process
     - *Names of candidates for tenure for 2018, listed by institution*
     - *Brief abstracts of candidates*
     - Table 1: Tabular analysis of 2018 candidates
     - Table 2: Summary of campus tenure promotions for 2018 and the previous five years
     - Report on Tenure Statistics
     - UMS Faculty Peer Tenure Comparison 2015
     - UMS Instructional Faculty Peer Tenure Comparison 2015

     That the Academic and Student Affairs Committee forward this item to the March 18-19, 2018
     meeting of the Board of Trustees for approval of the following resolution:

17

6.   **TEXT OF PROPOSED RESOLUTION**

     That the Board of Trustees approves the recommendations for tenure submitted by the
     universities of the University of Maine System. Approvals will take effect September 1, 2018 for
     faculty with academic-year appointments and July 1, 2018 for faculty with fiscal-year
     appointments.

3/8/18

![Maine's Public Universities - University of Maine System logo]

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**:   Tenure: USM Associate Dean of Nursing

2. **INITIATED BY**:   James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION:** X

4. **OUTCOME:**   **BOARD POLICY:**
                                             Section 310

5. **BACKGROUND:**

Dr. Sarah Wills has been offered the position of Associate Dean of Nursing in the College of Science, Technology, and Health. Dr. Sarah Wills' appointment is a full time, 11-month position (August-June with July off contract). The initial appointment is for three years, effective August 1, 2018. Tenure would become effective on the date Dr. Wills assumes a full time faculty position after leaving the position of Associate Dean of Nursing. The School of Nursing peer committee vote was unanimous for tenure at the rank of associate professor.

Dr. Wills' teaching evaluations are strong and reflect her preparation and engagement with students. She is known as a mentor both in and out of the classroom. Dr. Wills is a Certified Nurse Educator (CNE) which indicates a national standard of excellence in nursing education. In 2017 Dr. Wills received the Palmetto Gold Award for Nursing Excellence and in 2014 won the University of Hawaii Applied Learning Excellence in Teaching Award.

Dr. Wills is an active university and community citizen. She served as chair of the undergraduate curriculum committee at South University and on several community and professional organizations such as the National League of Nursing and the American Nursing Association.

Dr. Wills' research is multifaceted: she publishes on topics such as the "freshman fifteen," communication and performance on nursing student teams, mortality rates, and, most recently, how magnet hospital status impacts patient satisfaction. Dr. Wills is also an experienced grant writer, and the School of Nursing feels that

18

3/8/18

her unique combination of broad research interests, grant writing experience, and leadership in the field make her the perfect candidate to help the School meet Maine's steadily rising demand for well qualified nurses and nurse leaders.

That the Academic and Student Affairs Committee forwards this item to the March 18 & 19, 2018 Board of Trustees meeting for approval of the following resolution:

6. TEXT OF PROPOSED RESOLUTION:

That the Board of Trustees approves tenure at the rank of Associate Professor in the College of Science, Technology and Health at the University of Southern Maine to Dr. Sarah Wills, with tenure to be effective if/when the administrative position ends and she assumes a full-time faculty position at USM, in accordance with Board Policy.

Attachments:
Tenure at time of hire - background information

18

3/8/18

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**: Authorizing Chancellor to Execute Contract for President, University of Maine

2. **INITIATED BY**: James Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION: X**

4. **BACKGROUND:**

    The University of Maine President Search Committee, chaired by Trustee Gregory Johnson, has conducted a comprehensive national search. Four highly qualified finalist candidates visited the University of Maine and University of Maine at Machias campuses and met with many campus and community constituents. Chancellor Page is reviewing the committee and community input and pursuing discussions with a candidate.

5. **TEXT OF PROPOSED RESOLUTION:**

    That the Board of Trustees authorizes Chancellor Page to conclude negotiations and execute a contract with the selected candidate.

19

3/8/18

**Maine's
Public
Universities**

UNIVERSITY OF MAINE SYSTEM

AGENDA ITEM SUMMARY

1. **NAME OF ITEM**: Proposed New Board Policy 214 – Institutional Authority on Political Matters

2. **INITIATED BY**: James H. Page, Chancellor

3. **BOARD INFORMATION**:   **BOARD ACTION:** X

4. **OUTCOME:**   **BOARD POLICY: New Policy 214**
   Increase Enrollment
   Improve Student Success & Completion
   Enhance Fiscal Positioning

5. **BACKGROUND:**

In December 2016, the University of Maine System Board of Trustee Executive Committee charged an ad hoc committee to review and recommend, as it deemed necessary, changes to Board and System policies on freedom of speech, civility, and political impartiality. The committee, consisting then of Trustees Erwin and Johnson, Presidents Cummings and Huseman (then President of the University of Maine at Machias), and the Chancellor and Chief of Staff (COS) and General Counsel Thelen, proposed and the Board adopted, at its March 2017 meeting, changes to Board Policy 212 to address freedom of speech, academic freedom, and civility issues.

The ad hoc committee, with President Foster replacing former President Huseman in July 2017, continued its work to develop appropriate guidelines for institutional political activity and impartiality. The committee convened via conference call in May, August, and October 2017 to discuss the developing draft policy, which Chancellor Page and Chief of Staff and General Counsel Thelen reviewed on a monthly basis, beginning in February 2017, with the Presidents' Council.

Based on the above-described policy development work, COS and General Counsel Thelen presented at the November 2017 Board meeting a draft proposed new Board policy, "Institutional Authority on Political Matters." COS and General Counsel Thelen also met in advance with the Board's Student and Faculty Representatives to discuss the proposed policy and answer questions. Board of Trustee Faculty Representatives requested that the Board permit further discussion of the policy at the January 2018 Academic and Student Affairs Committee meeting; COS and General Counsel Thelen led discussion of a second draft of the policy there, with changes to the original November 2017 policy draft made based on input from campus faculty bodies through the Board Faculty Representatives in the time between the November 2017 Board meeting and the January 2018 ASA meeting.

20

Though the policy was again briefly discussed at the January 2018 Board meeting, faculty representatives to the Board asked for more opportunity for input and additional changes. To accommodate the faculty's concerns, from mid January through late February COS and General Counsel Thelen met personally with faculty (and faculty senates) from the University of Maine, the University of Maine at Augusta, the University of Southern Maine, the University of Maine School of Law, the University of Maine at Farmington, and the University of Maine at Machias to listen to faculty concerns, answer questions, and consider proposed additional changes and clarifications to the policy. Two additional discussions with all System presidents occurred, considering changes to the policy based on faculty input and further meetings with the Board's ad hoc policy development committee.

The policy proposal now before the Board for consideration for adoption includes substantial revisions suggested by COS and General Counsel Thelen based on substantial faculty input and reviewed and further revised based on the consensus consideration of the Board's ad hoc policy committee between March 4 – 13 and final review with System university presidents on March 14.

Attachments & Reports
Proposed New Board Policy 214 – Institutional Authority on Political Matters

20

University of Maine System Managed Investment Pool

TOTAL PLAN PERFORMANCE DETAIL

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
MIP Composite	327,297,105	100.0	100.0	3.1	10.0	16.7	14.0	6.9	6.8	6.7	5.6
Allocation Index				3.4	11.4	18.1	14.6	7.9	7.5	7.0	5.5
Policy Index				3.5	11.8	18.9	15.6	8.5	7.8	7.2	6.1
Total Domestic Large Cap	63,922,164	19.5	16.0	5.7	17.8	26.3	23.1	14.6	15.4	13.9	10.3
S&P 500				5.7	17.8	26.4	23.2	14.7	15.9	14.3	9.8
SSgA S&P 500	63,922,164	19.5	16.0	5.7	17.8	26.3	23.1	14.6	15.8	14.2	9.7
S&P 500				5.7	17.8	26.4	23.2	14.7	15.9	14.3	9.8
Total Domestic Small/Mid Cap	20,492,548	6.3	6.0	4.8	17.7	23.2	27.0	13.2	14.2	13.1	10.8
Russell 2500				3.0	13.6	18.7	24.0	12.0	13.5	12.5	10.2
Westfield Capital	11,582,402	3.5	3.0	7.1	22.4	33.9	28.9	13.3	14.2	13.6	11.3
Russell 2500 Growth				5.0	18.1	27.6	26.1	13.3	15.1	13.6	11.1
DFA	8,910,146	2.7	3.0	2.0	12.2	11.6	23.4	11.9	13.0	11.8	--
Russell 2000 Value				1.2	8.6	10.0	24.2	11.6	12.0	11.0	8.8
Total International Equity (including emerging markets)	76,978,241	23.5	23.0	4.8	14.8	28.7	18.9	8.7	6.4	6.2	3.7
MSCI EAFE				5.0	15.4	27.6	19.6	9.4	7.8	6.4	3.4
Morgan Stanley	20,489,503	6.3	6.3	3.7	11.2	26.4	15.1	7.7	6.7	6.7	4.0
Globeflex	21,147,330	6.5	6.3	5.1	17.8	31.1	20.8	11.4	9.5	7.6	3.2
MSCI EAFE				5.0	15.4	27.6	19.6	9.4	7.8	6.4	3.4
Kabouter International Opportunities Offshore Fund II	12,095,261	3.7		5.8	--	--	--	--	--	--	--
MSCI EAFE Small Cap				5.1	19.8	35.0	24.5	16.1	12.8	9.8	7.4
Emerging Markets Equity	23,246,147	7.1	7.0	5.2	14.2	27.1	20.2	6.0	2.1	4.0	--
MSCI Emerging Markets				8.3	25.6	41.0	33.0	11.8	5.7	4.1	3.9
Aberdeen Emerging Mrkts	11,735,972	3.6	3.5	7.5	17.6	33.1	27.6	9.8	4.0	5.3	--
MSCI Emerging Markets				8.3	25.6	41.0	33.0	11.8	5.7	4.1	3.9
Mondrian EM Small Cap	11,510,175	3.5	3.5	2.9	10.7	21.1	13.0	2.2	--	--	--
MSCI Emerging Markets Small Cap				5.8	22.1	35.3	25.4	10.0	6.0	3.4	5.0
Total Fixed Income	55,749,613	17.0	18.0	-0.3	1.6	3.7	5.3	2.4	3.0	4.5	4.5
BBgBarc US Aggregate TR				-1.2	0.1	2.1	1.8	1.1	2.0	3.0	3.7
Commonfund	15,496,660	4.7	5.0	-0.4	1.2	4.0	3.9	2.1	2.8	4.0	4.3
BBgBarc US Aggregate TR				-1.2	0.1	2.1	1.8	1.1	2.0	3.0	3.7
Vanguard Inflation-Protected Securities	24,561,641	7.5	8.0	-1.0	1.1	1.0	--	--	--	--	--
BBgBarc US TIPS TR				-0.9	1.3	1.3	2.6	0.7	0.1	2.8	3.0
Guggenheim US Bank Loans	15,691,312	4.8	5.0	0.7	2.8	--	--	--	--	--	--
Credit Suisse Leveraged Loans				1.1	3.3	4.8	8.0	4.8	4.3	4.5	5.0

January 31, 2018

University of Maine System Managed Investment Pool

TOTAL PLAN PERFORMANCE DETAIL

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	**75,269,312**	**23.0**	**23.0**	**1.9**	**6.2**	**12.3**	**10.7**	**4.1**	**3.9**	**3.9**	**--**
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				*4.1*	*12.7*	*20.1*	*16.2*	*8.7*	*7.6*	*6.9*	*5.3*
GMO Global Absolute Return	25,433,375	7.8	7.7	3.6	9.1	15.3	12.3	5.0	5.1	5.9	5.3
Blended Index				*-0.1*	*2.3*	*4.7*	*5.6*	*3.4*	*3.3*	*4.5*	*4.8*
Wellington	25,636,204	7.8	7.7	2.6	9.4	17.5	15.6	8.2	6.7	4.5	--
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				*4.1*	*12.7*	*20.1*	*16.2*	*8.7*	*7.6*	*6.9*	*5.3*
Newton Global Real Return	24,199,733	7.4	7.7	-0.4	0.2	4.2	--	--	--	--	--
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				*3.9*	*12.0*	*19.1*	*15.3*	*8.2*	*7.1*	*6.6*	*5.1*
Total Hedge Funds	**27,474,697**	**8.4**	**9.0**	**2.0**	**6.1**	**7.1**	**7.0**	**2.4**	**2.8**	**1.8**	**2.0**
HFRI Fund of Funds Composite Index				*2.4*	*6.9*	*9.2*	*6.7*	*3.4*	*4.1*	*3.0*	*1.6*
EntrustPermal	8,734,136	2.7	3.0	0.4	2.7	3.9	5.5	1.2	2.8	2.9	3.8
HFRI Fund of Funds Composite Index				*2.4*	*6.9*	*9.2*	*6.7*	*3.4*	*4.1*	*3.0*	*1.6*
Lighthouse	18,740,561	5.7	6.0	2.7	7.8	8.6	7.1	--	--	--	--
Credit Suisse Long Shrt Eqt USD				*3.1*	*9.7*	*15.6*	*7.8*	*5.3*	*7.0*	*5.5*	*4.8*
Total Real Assets	**5,135,385**	**1.6**	**3.0**	**0.0**	**2.1**	**1.8**	**-2.0**	**-0.1**	**2.7**	**3.7**	**--**
NCREIF Timberland Index				*0.0*	*2.1*	*3.6*	*3.2*	*3.8*	*6.2*	*5.8*	*4.4*
John Hancock Timber Fund	5,135,385	1.6	3.0	0.0	2.1	1.8	-2.0	-0.1	2.7	3.8	-0.1
NCREIF Timberland Index				*0.0*	*2.1*	*3.6*	*3.2*	*3.8*	*6.2*	*5.8*	*4.4*
Private Equity	**1,808,173**	**0.6**	**2.0**	**0.0**	**4.1**	**7.7**	**11.0**	**8.4**	**--**	**--**	**--**
Landmark Equity Partners XV	1,808,173	0.6	2.0	0.0	4.1	7.7	11.0	8.4	--	--	--
Cambridge Associates US All PE (1 Qtr Lag)				*0.0*	*7.6*	*16.8*	*12.7*	*10.4*	*13.3*	*13.8*	*9.6*
Total Cash	**466,972**	**0.1**	**0.0**								
Distribution Account	466,972	0.1	0.0	0.1	0.5	0.6	0.3	0.2	0.1	0.2	0.4
91 Day T-Bills				*0.1*	*0.7*	*1.0*	*0.7*	*0.5*	*0.3*	*0.2*	*0.3*

Notes:
Fiscal YTD begins 7/1
Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&P 500, 10% BC High Yield, 10% JPM EMBI+
Returns are net of manager fees
John Hancock Timber market value as of 12/31/17
Landmark market value estimated as of 01/31/18
Cash account includes $944 currently being held in the MetWest account and $1,105 being held in the TCW account.

January 31, 2018

Information Disclaimer

- Past performance is no guarantee of future results.

- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.

- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.

- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.

- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.

- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.

- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

University of Maine System Pension Plan

TOTAL PLAN PERFORMANCE DETAIL

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Pension Composite	**31,015,378**	**100.0**	**100.0**	**1.2**	**5.5**	**1.2**	**10.3**	**9.2**	**4.8**	**5.3**	**5.5**	**4.4**
Allocation Index				2.3	8.5	2.3	13.7	11.0	6.5	6.8	6.7	5.1
Policy Index				2.2	8.3	2.2	13.4	11.3	6.7	7.0	6.9	5.8
Total Domestic Large Cap	**2,530,237**	**8.2**	**8.0**	**5.7**	**17.8**	**5.7**	**26.4**	**23.2**	**14.6**	**15.5**	**13.3**	**8.3**
S&P 500				5.7	17.8	5.7	26.4	23.2	14.7	15.9	14.3	9.8
Vanguard S&P 500 Index	2,530,237	8.2	8.0	5.7	17.8	5.7	26.4	23.2	14.6	--	--	--
S&P 500				5.7	17.8	5.7	26.4	23.2	14.7	15.9	14.3	9.8
Total Small Cap Composite	**1,313,397**	**4.2**	**4.0**	**2.6**	**12.0**	**2.6**	**17.1**	**25.1**	**12.1**	**13.1**	**11.8**	**--**
Russell 2000				2.6	12.1	2.6	17.2	25.1	12.1	13.3	12.1	9.8
SSgA R2000 Index Fund Non Lending	1,313,397	4.2	4.0	2.6	12.0	2.6	17.1	25.1	12.1	13.1	11.9	--
Russell 2000				2.6	12.1	2.6	17.2	25.1	12.1	13.3	12.1	9.8
Total International Equity (including emerging markets)	**3,464,026**	**11.2**	**10.0**	**3.4**	**11.0**	**3.4**	**24.6**	**14.4**	**6.1**	**4.8**	**5.3**	**3.0**
MSCI EAFE				5.0	15.4	5.0	27.6	19.6	9.4	7.8	6.4	3.4
Morgan Stanley Int'l	2,400,736	7.7	7.0	3.7	11.2	3.7	26.4	15.1	7.8	6.8	6.8	4.0
MSCI EAFE				5.0	15.4	5.0	27.6	19.6	9.4	7.8	6.4	3.4
Emerging Markets Equity	**1,063,290**	**3.4**	**3.0**	**2.9**	**10.7**	**2.9**	**21.1**	**13.0**	**2.2**	**0.2**	**--**	**--**
MSCI Emerging Markets				8.3	25.6	8.3	41.0	33.0	11.8	5.7	4.1	3.9
Mondrian EM Small Cap	1,063,290	3.4	3.0	2.9	10.7	2.9	21.1	13.0	2.2	--	--	--
MSCI Emerging Markets Small Cap				5.8	22.1	5.8	35.3	25.4	10.0	6.0	3.4	5.0
Total Fixed Income	**9,722,943**	**31.3**	**32.0**	**-0.8**	**0.7**	**-0.8**	**2.7**	**3.1**	**1.6**	**2.1**	**3.5**	**4.7**
BBgBarc US Aggregate TR				-1.2	0.1	-1.2	2.1	1.8	1.1	2.0	3.0	3.7
Vanguard Total Bond Market Index	6,196,467	20.0	20.0	-1.1	0.0	-1.1	2.1	1.8	1.0	--	--	--
BBgBarc US Aggregate TR				-1.2	0.1	-1.2	2.1	1.8	1.1	2.0	3.0	3.7
Vanguard Inflation-Protected Securities	2,002,385	6.5	7.0	-1.0	1.0	-1.0	--	--	--	--	--	--
BBgBarc US TIPS TR				-0.9	1.3	-0.9	1.3	2.6	0.7	0.1	2.8	3.0
Guggenheim US Bank Loans	1,524,091	4.9	5.0	0.7	2.8	0.7	--	--	--	--	--	--
Credit Suisse Leveraged Loans				1.1	3.3	1.1	4.8	8.0	4.8	4.3	4.5	5.0

NEPC

January 31, 2018

University of Maine System Pension Plan

TOTAL PLAN PERFORMANCE DETAIL

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total GAA	**8,545,479**	**27.6**	**27.5**	**1.1**	**4.7**	**1.1**	**10.8**	**10.1**	**3.8**	**3.2**	**3.4**	**--**
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				4.1	12.7	4.1	20.1	16.2	8.7	7.6	6.9	5.3
Wellington	4,404,952	14.2	13.8	2.6	9.3	2.6	17.5	15.7	8.3	6.7	4.6	--
65% MSCI ACWI (Net) / 35% BBgBarc Global Agg				4.1	12.7	4.1	20.1	16.2	8.7	7.6	6.9	5.3
Newton Global Real Return	4,140,527	13.3	13.8	-0.4	0.2	-0.4	4.3	--	--	--	--	--
60% MSCI ACWI (Net) / 40% CITI WGBI				4.0	12.2	4.0	19.4	15.2	8.2	6.9	6.3	5.0
Total Alternative Investments	**2,545,498**	**8.2**	**7.5**	**2.0**	**6.2**	**2.0**	**7.1**	**6.7**	**2.8**	**3.3**	**2.2**	**--**
HFRI Fund of Funds Composite Index				2.4	6.9	2.4	9.2	6.7	3.4	4.1	3.0	1.6
EntrustPermal	779,414	2.5	2.5	0.4	2.7	0.4	4.0	5.6	1.2	2.8	2.9	3.8
HFRI Fund of Funds Composite Index				2.4	6.9	2.4	9.2	6.7	3.4	4.1	3.0	1.6
Lighthouse	1,766,084	5.7	5.0	2.7	7.8	2.7	8.6	7.1	--	--	--	--
Credit Suisse Long Shrt Eqt USD				3.1	9.7	3.1	15.6	7.8	5.3	7.0	5.5	4.8
Total Real Assets	**2,506,079**	**8.1**	**8.0**									
Principal	2,506,079	8.1	8.0	0.8	4.7	0.8	8.4	8.7	10.3	11.3	11.9	4.2
NCREIF ODCE				0.0	4.0	0.0	7.6	8.2	10.4	11.5	12.1	5.0
Total Cash	**387,718**	**1.3**	**3.0**									
Distribution Account	387,718	1.3	3.0	0.1	0.5	0.1	0.7	0.3	0.2	0.2	0.1	0.4
91 Day T-Bills				0.1	0.7	0.1	1.0	0.7	0.5	0.3	0.2	0.3

Notes:

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate, 30% BC U.S. TIPS 1-10YR, 10% S&P 500, 10% BC High Yield, 10% JPM EMBI+

Returns are net of manager fees

NEPC

January 31, 2018

Information Disclaimer

- Past performance is no guarantee of future results.

- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.

- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.

- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.

- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.

- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.

- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

University of Maine System Operating Fund

TOTAL PLAN PERFORMANCE DETAIL

	Market Value ($)	% of Portfolio	Policy %	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Operating Funds Composite	334,496,246	100.0	100.0	0.7	2.7	4.5	4.6	2.4	2.2	2.5	2.5
Allocation Index				0.8	3.1	5.0	4.4	2.7	2.5	2.6	--
Liquidity Pool Composite	100,422,931	30.0	25.0	0.1	0.6	0.9	0.7	0.5	0.4	0.3	0.6
State Pool	60,132,859	18.0		0.1	0.7	1.1	0.8	0.6	0.5	0.4	0.6
BOA General Fund	912,017	0.3		0.0	0.0	0.0	0.0	0.0	0.0	--	--
Federated Gov't Obligations	10,495,276	3.1		0.1	0.6	0.8	--	--	--	--	--
JP Morgan US Gov't Money Market Fund	28,882,779	8.6		0.1	0.5	0.8	--	--	--	--	--
Citi 3mth Treasury Bill				0.1	0.6	0.9	0.6	0.4	0.3	0.2	0.3
Income Pool Composite	152,553,865	45.6	50.0	-0.1	0.8	1.8	2.7	1.9	1.7	2.3	3.0
Income Research + Management	80,970,302	24.2	26.7	-0.3	-0.1	0.5	0.8	0.8	0.9	--	--
BBgBarc US Govt/Credit 1-3 Yr. TR				-0.3	-0.1	0.4	0.7	0.7	0.8	0.9	1.7
BlackRock Strategic Income Opportunities	20,708,877	6.2	6.7	1.3	3.7	5.6	5.2	--	--	--	--
3-Month Libor Total Return USD				0.2	0.9	1.4	1.1	0.8	0.6	0.5	0.8
Loomis Sayles Bank Loans	20,535,534	6.1	6.7	0.8	2.5	3.8	6.0	4.0	3.3	3.8	4.2
Loomis Bank Loans Custom Index				0.7	2.8	4.1	5.9	4.4	4.1	4.4	5.3
Vanguard Total Bond Market Instl' Fund	14,795,913	4.4	5.0	-1.1	0.0	2.1	1.8	1.0	2.0	3.0	--
BBgBarc US Aggregate TR				-1.2	0.1	2.1	1.8	1.1	2.0	3.0	3.7
Vanguard Inflation-Protected Securities	15,543,239	4.6	5.0	-1.0	1.0	--	--	--	--	--	--
BBgBarc US TIPS TR				-0.9	1.3	1.3	2.6	0.7	0.1	2.8	3.0
Total Return Pool Composite	81,519,451	24.4	25.0	2.7	8.8	14.1	12.9	6.1	5.3	5.5	5.0
Lighthouse	14,486,843	4.3	5.0	2.7	7.8	8.6	7.1	--	--	--	--
Credit Suisse Long Shrt Eqt USD				3.1	9.7	15.6	7.8	5.3	7.0	5.5	4.8
Newton Global Real Return	19,945,421	6.0	6.3	-0.4	0.1	4.3	--	--	--	--	--
60% MSCI ACWI (Net)/ 40% BBgBarc Global Agg				3.9	12.0	19.1	15.3	8.2	7.1	6.6	5.1
PIMCO All Asset	21,037,416	6.3	6.3	2.4	9.0	14.1	15.8	6.3	4.0	5.4	5.4
Blended Index				-0.1	2.3	4.7	5.6	3.4	3.3	4.5	4.8
Vanguard Total World Stock Index	26,049,771	7.8	7.5	5.5	17.3	27.3	22.9	12.3	--	--	--
FTSE Global All Cap Index				5.4	17.5	27.5	23.2	12.4	11.5	9.4	5.8

Notes:

Returns are net of manager fees.

The inception date for the allocation index is 07/01/2009

Fiscal YTD begins 7/1

Blended Index: 40% BC Aggregate / 30% BC U.S. TIPS 1-10YR / 10% S&P 500 / 10% BC High Yield / 10% JPM EMBI+

Loomis Bank Loans Custom Index blends performance of "S&P/LSTA Leveraged Loan Index" before 9/1/2014 and "S&P/LSTA Leveraged BB Loan Index" after 9/1/2014.

Composite excludes external loans.

January 31, 2018

UNIVERSITY OF MAINE SYSTEM
FY2018 E&G and AUXILIARY FORECAST #2
As of 2/28/2018

The FY18 forecasted operating results are $5.0 million – an improvement of $3.1 million since the previous forecast and $5.7 million compared to the budget.

E &G and AUXILIARY						
	Operations			Transfers From/(To)		
Institution	Budget	Forecast	Variance	Administrative Savings	Budget Stabilization	Net
UMAINE	$ -	$ 2,252,498	$ 2,252,498	$ -	$ -	$ 2,252,498
UMA	(1,036,789)	(2,279,076)	(1,242,287)	-	-	(2,279,076)
UMF	47,835	(163,984)	(211,819)	-	-	(163,984)
UMFK	308,936	185,455	(123,481)	-	-	-
UMM	-	(32,570)	(32,570)	-	-	(32,570)
UMPI	-	216,233	216,233	-	-	216,233
Maine Law	(688,119)	(904,924)	(216,805)	-	275,320	(629,604)
USM	(2,683,511)	829,508	3,513,019	-	-	829,508
Campus Total	**(4,051,648)**	**103,140**	**4,154,788**	**-**	**275,320**	**193,005**
Governance	(500,000)	(500,000)	-	-	-	(500,000)
University Services	-	500,000	500,000	-	-	500,000
Early College	500,000	500,000	-	-	-	500,000
Admin. Savings	3,301,740	3,301,740	-	(3,301,740)	-	-
Addt'l Unrestricted Investment Income	-	1,068,000	1,068,000	-	-	1,068,000
Business Insurance	-	-	-	-	-	-
Employee Benefits	-	-	-	-	-	-
TOTAL	**$ (749,908)**	**$ 4,972,880**	**$ 5,722,788**	**$ (3,301,740)**	**$ 275,320**	**$ 1,761,005**

Major factors impacting FY2018 forecast

➢ Unrestricted investment income is budgeted at $3.8 million; the current return on unrestricted investments is $4.9 million for a positive budget-to-actual variance of $1.1 million. No projections of future investment gains or losses are included in the forecast.

➢ Although UMaine's total credit hours were below budget, the out-of-state credit hours exceeded budget by 7.9% resulting in tuition & fee revenue exceeding budget. As a result of this change in enrollment mix and other cost saving efforts, UMaine is projecting to increase capital investments and end the year with positive operating results of $2.2 million.

➢ UMA is currently projecting a loss of $2.3 million as compared to the prior forecasted loss of $3.6 million as spring credit hours exceeded previous estimates. UMA projects some cost reductions and has sufficient reserves to offset this loss, if realized.

- Both the total credit hours and the number of out-of-state credit hours were below budget at UMF while the financial aid will exceeded budget and contributes to the projected loss of $164 thousand. UMF's combined E&G and Auxiliary reserves currently have a deficit balance of $186 thousand. If this loss is realized, the deficit balance would grow to $350 thousand.
- UMFK's actual credit hours were greater than the previous forecast, resulting in estimated operating results of $185 thousand. Though less than budget, this is an improvement over the prior forecast which reflected a potential loss.
- UMM forecasted a loss of $117 thousand in October. The projected loss has decreased to $33 thousand. UMM continues to hold vacant positions to help offset the loss of revenue resulting from lower enrollments. UMM does have sufficient reserves to offset this loss, if realized.
- UMPI continues to project a break-even year as budgeted. Increased revenues in other sales & services are mitigating the projected shortfall in student tuition and fees.
- Maine Law is projecting a loss of $905 thousand as revenues are 11.3% or $562 thousand below budget. Maine Law was approved to receive $275 thousand in Budget Stabilization Funds, if necessary, and USM will fund the remaining deficit from its reserves as the Law reserves have been depleted.
- USM is now projecting positive operating results of $830 thousand – up from the previous forecast of $78 thousand and greatly improved from the budgeted deficit of $2.7 million. Although USM's total credit hours were below budget, the out-of-state credit hours were 36% above budget. This change in enrollment mix combined with vacancy savings and other cost reductions results in the favorable forecast.

Travel & Memberships/Contributions Reporting

Public Law 2011, Chapter 616 requires periodic reporting of the actual travel & contribution costs to the Board of Trustees. The budget-to-actual comparisons through February 2018 are below.

Travel, Meals & Entertainment			
Funding Source	Annual Base Budget	YTD Actuals	Variance
E&G/Auxiliary	$ 6,142,138	$ 4,246,570	$ 1,895,568 30.9%
Restricted/Other	4,423,601	2,362,381	2,061,220 46.6%
Total	$ 10,565,739	$ 6,608,951	$ 3,956,788 37.4%

Memberships, Gifts, Donations & Sponsorships			
Funding Source	Annual Base Budget	YTD Actuals	Variance
E&G/Auxiliary	$ 1,619,196	$ 1,187,346	$ 431,850 26.7%
Restricted/Other	521,938	371,454	150,484 28.8%
Total	$ 2,141,134	$ 1,558,800	$ 582,334 27.2%

Office of the Dean and Director
College of Natural Sciences,
Forestry, and Agriculture
Maine Agricultural and Forest
Experiment Station

1865 THE UNIVERSITY OF
MAINE

5782 Winslow Hall
Orono, Maine 04469-5782
Tel: 207-581-3202
Fax: 207-581-3207
www.umaine.edu

February 7, 2018

James H. Page, Chancellor
University of Maine System
267 Estabrooke Hall
Orono, ME 04469

Dear Chancellor Page:

As you know, the Maine Legislature created the Board of Agriculture to advise the chancellor of the University of Maine System and president of the University of Maine on research and extension education needs related to Maine agriculture. The legislation (see attached) forming the Board of Agriculture stipulates that members of the Board serve five-year terms, and the members have to be reappointed or replaced at the end of their terms.

The legislation also stipulates that two research faculty members associated with agricultural research at the University of Maine serve on the Board of Agriculture, with the approval of the Board of Trustees of the University of Maine System. Last year the Board of Trustees approved Dr. Ellen Mallory to succeed Dr. Lois Berg Stack, who retired at the end of 2016. We overlooked the fact that Dr. Stack was appointed to complete the five-year term of Dr. Vivian Wu, the preceding appointee, whose term began March 20, 2013. That term ends March 19, 2018. We recommend Dr. Ellen Mallory, Associate Professor of Sustainable Agriculture and Extension Sustainable Agriculture Specialist, to a new five-year term beginning March 20, 2018 and ending March 19, 2023. Dr. Mallory's vita is enclosed.

Thank you for your assistance with facilitating the Board of Trustees' consideration of this appointment. If the Board of Trustees approves the appointment, please inform me and we will notify Dr. Mallory. If you have any questions, please do not hesitate to contact me.

Sincerely,

Frederick A. Servello
Dean and Director

Attachments (2)

C: President Susan Hunter
        Executive Vice President for Academic Affairs & Provost Jeffrey Hecker
        Executive Director John Rebar
        Interim Associate Dean Jessica Leahy
        Assistant Director of Research & Clerk to the Board of Agriculture
        John Dieffenbacher-Krall
        Dr. Ellen Mallory

MAINE'S LAND GRANT AND SEA GRANT UNIVERSITY
A Member of the University of Maine System

CURRICULUM VITAE

ELLEN B. MALLORY

**Sustainable Agriculture Extension Specialist and
Associate Professor of Sustainable Agriculture**

CONTACT INFORMATION

University of Maine Cooperative Extension and School of Food and Agriculture
495 College Avenue, Orono, ME 04473
phone: 207-581-2942
e-mail: emallory@umext.maine.edu

EDUCATION

Swarthmore College	Biology	B.S.	1987
University of Wisconsin-Madison	Agronomy	M.S.	1994
University of Wisconsin-Madison	Land Resources	M.S.	1994
University of Maine	Ecology and Environmental Science	Ph.D.	2007

PROFESSIONAL EXPERIENCE AND EMPLOYMENT

Associate Professor University of Maine Cooperative Extension (80%) and School of Food and Agriculture (20% - research), Orono. I develop and conduct educational programs in sustainable agriculture and integrated farming systems for agricultural producers, agricultural educators, and citizens throughout the state; and manage an active, externally funded research program that complements these efforts. My main research and education programs focus on local production of food and feed grains, and on soil quality, soil fertility, and nutrient cycling. July 2014 to present.

Assistant Professor University of Maine, Orono. March 2008 to July 2014.

Ph.D. Graduate Student Ecology and Environmental Sciences Program, University of Maine, Orono. January 2003 to December 2007.

Visiting Scientist Department of Agricultural Sciences, Royal Veterinary and Agricultural University (now University of Copenhagen), Denmark. August 2006 to June 2007.

Biological Science Technician USDA-ARS New England Plant, Soil and Water Laboratory, Orono, Maine. February 2001 to September 2005.

Associate in Research and Extension Department of Crop and Soil Sciences, Washington State University, Pullman. January 1998 to March 2000.

Associate in Research and Extension Cooperative Extension and Department of Applied Ecology and Environmental Sciences, University of Maine, Orono. March 1995 to April 1997.

Agricultural Consultant Unidad Ecológica Salvadoreña, El Salvador via USAID-VOCA. August to October 1994.

M.S. Agronomy Research Assistant Department of Agronomy, University of Wisconsin-Madison. January 1992 to August 1994.

Agriculture Teacher Trainer Peace Corps, Togo, West Africa. May 1990 to January 1992.

Agronomy Research Technician The Rodale Institute Research Center, Kutztown, Pennsylvania. September 1987 to December 1987; May 1988 to February 1989.

Ellen B. Mallory, C.V.

TEACHING AND ADVISING EXPERIENCE

Graduate Student Advisor – 4 M.S. (2 completed)

Graduate Student Thesis Committee Member – 5 M.S. (3 completed) and 2 Ph.D. (1 completed)

Guest Lecturing – PSE 430-Environmental Horticulture Capstone; PSE 440-Environmental Soil Science and Plant Nutrition; PSE 469-Soil Microbiology; and PSE 100-Plant Science.

PUBLICATIONS

Peer-reviewed Journal Articles (18)

Roche[1], E., **E. Mallory**, T. Molloy, and R. Kersbergen. 2017. Evaluating organic bread wheat as a rotation crop for organic dairy farms. Renewable Agriculture and Farm Systems pp. 1–16. doi: 10.1017/S1742170517000035.

Roche[1], E., **E. Mallory**, and H. Darby. 2017. Evaluating split nitrogen applications and in-season tests for organic winter bread wheat. Organic Farming 3(1):3-15.

Abreu[1], D. C., A.K. Hoshide, **E.B. Mallory**, E.H. Roche, A.S. Oliveira, R.J. Kersbergen, R.P. Lana, M.A. Fonseca. 2016. Economic and environmental implications of wheat-crop sequences on organic dairy-farm simulations. Crop and Pasture Science 67, 1127-1138.

Marshall[1], K., S. Erich, M. Hutton, M. Hutchinson, and **E. Mallory**. 2016. Nitrogen availability from compost in high tunnel tomato production. Compost Science and Utilization. 24(3):147-158.

Englander[1], A.C., **E.B. Mallory**, and D.D. Douds. 2016. On-farm produced microbial soil inoculant effects on bread wheat (*Triticum aestivum*) production. Biological Agriculture and Horticulture. 32(2):85-97.

Mallory, E.B., N. Halberg, L. Andreasen, K. Delate, and M. Ngouagio. 2015. Innovations in organic food systems for sustainable production and ecosystem services: An introduction to the special issue of Sustainable Agriculture Research. Sustainable Agriculture Research 4(3):1-4.

Mallory, E.B. and J.M. Smagula. 2014. Effects of seafood-waste compost and mulch on soil health and soil nutrient dynamics in wild blueberry (*Vaccinium angustifolium* Ait). Acta Horticulturae (ISHS) 1017:461-468.

Mallory, E.B. and H. Darby. 2013. In-season nitrogen effects on organic hard red winter wheat yield and quality. Agronomy Journal 105:1167-1175.

Erich, M.S., A.F. Plante, J.M. Fernandez, **E.B. Mallory**, and T. Ohno. 2012. Effects of profile depth and management on the composition of labile and total soil organic matter. Soil Sci. Soc. Am. J. 76:408-419.

Kolb[1], L.N., E.R. Gallandt and **E.B. Mallory**. 2012. Impact of spring wheat planting density, row spacing, and mechanical weed control on yield, grain protein, and economic return in Maine. Weed Science 60:244-253.

Mallory, E.B., T. Morris, C. White, and N. Kiernan. 2011. Reading the Farm – Training agricultural professionals in whole farm analysis for sustainable agriculture. Journal of Extension (on-line), 49 (5), Article 5IAW4, available at: http://www.joe.org/joe/2011october/iw4.php

Mallory, E.B., T.S. Griffin and G.A. Porter. 2010. Seasonal nitrogen availability from current and past applications of manure and fertilizer. Nutrient Cycling in Agroecosystems 88(3):351-360.

Mallory, E.B. and T.S. Griffin. 2007. Impacts of soil amendment history on nitrogen availability from

---

[1] Graduate student

2

Ellen B. Mallory, C.V.

manure and fertilizer. Soil Science Society of America Journal 71:964-973.

Mallory, E.B. and G.A. Porter. 2007. Potato yield stability under contrasting soil management strategies. Agronomy Journal 99:501-510.

Ohno, T., P. Chen, S.S. Jefts, **E.B. Mallory**, and E.K. McCormick. 2004. Sorption of crop residue-derived dissolved organic matter by soils and its effect on allelopathic expression. Allelopathy Journal 14: 13-22.

Gallandt, E.R., **E.B. Mallory**, A.R. Alford, F.A. Drummond, E. Groden, M. Liebman, M.C. Marra, J.C. McBurnie, and G.A. Porter. 1998. Comparison of alternative pest and soil management strategies for Maine potato production systems. American J. of Alternative Agriculture 13:146-161.

Mallory, E.B., J.L. Posner and J.O. Baldock. 1998. Performance, economics and adoption of cover crops in Wisconsin cash grain rotations: On-farm trials. American J. of Alternative Agriculture 13:2-11.

Weiner, J., **E.B. Mallory** and C. Kennedy. 1990. Growth and variability in crowded and uncrowded populations of dwarf marigolds (*Tagetes patula*). Annals of Botany 65:513-524.

Abstracts (24 since 2008) *Examples:*

Mallory, E. and H. Darby. 2017. Assessing and adapting in-season diagnostic tests to guide winter grain nitrogen topdressing for the Northeast U.S. In Abstracts. ASA-CSSA-SSSA International Annual Meetings, November 22-25, 2017, Tampa, Florida. Poster Presentation.

Mallory, E. and P. Sandaña. 2016. Risk analysis of planting date under current and projected climate scenarios in Chile using SUBSTOR-Potato. In Abstracts. ASA-CSSA-SSSA International Annual Meetings, November 6-9, 2016, Phoenix, Arizona. Poster.

Mallory, E. and S. Snapp. 2015. Assessing yield stability in long-term trials. In Abstracts. ASA-CSSA-SSSA International Annual Meetings, November 16-18, 2015, Minneapolis, Minnesota. Poster.

Mallory, E.B. and H. Darby. 2013. Evaluating in-season tests to guide topdressing rates for organic winter bread wheat. In Abstracts. ASA-CSSA-SSSA International Annual Meetings, November 3-6, 2013, Tampa, Florida. Oral presentation.

Mallory, E.B., M.E. Camire, and B. St. Pierre. 2012. Soil management effects on nitrogen use, grain yield, grain quality and nutritional components of hard red spring wheat. In Abstracts. ASA-CSSA-SSSA International Annual Meetings, October 21-24, 2012, Cincinnati, Ohio. Poster.

Peer-reviewed Extension Bulletins

Mallory E. and R. Kersbergen. 2013. Growing organic barley in New England. Bulletin 1027. University of Maine Cooperative Extension, Orono.

Mallory, E. Topdressing organic hard winter wheat to enhance protein. eXtension. Available at http://www.extension.org/pages/68227/topdressing-organic-hard-winter-wheat-to-enhance-grain-protein.

Mallory, E., T. Bramble, M. Williams and J. Amaral. 2012. Understanding wheat quality: What bakers and millers need and what farmers can do. University of Maine Cooperative Extension, Orono, ME. Bulletin 1019. *Awarded a 2012 Certificate of Excellence in Extension Publications from the American Society of Agronomy.*

Kersbergen, R., **E. Mallory** and T. Molloy. 2010. Growing organic cereal grains in New England. University of Maine Cooperative Extension, Orono, Maine. Bulletin 2207.

Mallory, E.B., T. Fiez, R.J. Veseth, R.D. Roe, D.J. Wysocki. 2001. Direct seeding in the Inland Northwest – Farmer case study series. Washington State University Cooperative Extension, Pullman,

3

Ellen B. Mallory, C.V.

Washington. PNW514-516, 521-524, 526-531, 540-542. *This series of sixteen (16) 8-pg factsheets profiling innovative no-till farmers was awarded a <u>2001 Certificate of Excellence in Extension Publications</u> from the American Society of Agronomy.*

Research and Extension Reports (22 since 2008) *Examples:*

Molloy, T. and **Mallory, E.** 2017. Malting barley variety trial: 2016 results.

Traclet, L., **E. Mallory,** T. Molloy, H. Darby, and E. Cummings. 2015. Determining topdress nitrogen needs for winter grains.

Molloy, T. and **Mallory, E.** 2015. Field pea variety trial: 2014 results.

Mallory, E., K. McPhee and H. Griffin. 2014. Compost and mulch effects on soil health and soil nutrient dynamics in wild blueberry. Yarborough, D.E. and J.L.D. Cote (Eds.) 2013 Wild Blueberry Project Reports. The University of Maine, Orono, ME. 214 pp.

Mallory, E., H. Darby, T. Molloy, E. Cummings and H. Griffin. 2014. Maine and Vermont organic spring wheat variety trial results: 2010-2013.

Mallory, E., H. Darby, T. Molloy, E. Cummings and H. Griffin. 2014. Maine and Vermont organic winter wheat variety trial results: 2010-2013.

Kary, D., T. Molloy, A. Englander, and **E. Mallory**. 2011. 2011 Maine organic winter wheat and spring wheat returns over variable costs budget.

Mallory, E.B., T. Gleason, B. Gleason, J. Gerritsen and M. Gerritsen. 2011. Lessons from Denmark: Local organic wheat production, milling and use.

Educational Videos

Online views are as of 4/5/14

Merrill, T. and **E. Mallory**. 2011. Local Bread Wheat in Denmark Series – Parts 1-4.
Available at http://umaine.edu/localwheat/denmark-trip/videos/ (4,321 online views)

Merrill, T. and **E. Mallory**. 2011. SARE Farmer Grants in Maine: Establishing new honeybee colonies. Available at http://umaine.edu/sustainable-ag/sare-farmer-grants/profile-honeybees/ (699 online views)

Merrill, T. and **E. Mallory**. 2011. SARE Farmer Grants in Maine: Forages for pastured pork. Available at http://umaine.edu/sustainable-ag/sare-farmer-grants/profile-pasturing-hogs/ (1,607 online views)

Merrill, T. and **E. Mallory**. 2011. SARE Farmer Grants in Maine: Sunflowers for oil and feed. Available at http://umaine.edu/sustainable-ag/sare-farmer-grants/profile-sunflowers/ (398 online views)

Merrill, T. and **E. Mallory**. 2010. Local Bread Wheat in Quebec.
Available at http://umaine.edu/localwheat/quebec-trip/videos/ (930 online views)

Websites

University of Maine Cooperative Extension Sustainable Agriculture Program - http://umaine.edu/agriculture/programs/sustainable-agriculture/

University of Maine Cooperative Extension Grains and Oilseeds - http://umaine.edu/grains-oilseeds/

University of Maine Climate and Agriculture Network - https://umaine.edu/climate-ag/

4

Ellen B. Mallory, C.V.

INVITED PRESENTATIONS (since 2008)

Maine Invited Presentations (54 total)

Topics include organic small grain production; local wheat production, processing, and use; soil quality effects on crop production and soil management strategies; compost use for wild blueberries; and nitrogen fertility for corn and other field crops.

Regional Invited Presentations (22 total) *Examples:*

Mallory, E. 2018. Can we do better than Aroostook and Newdale? Rye and barley variety trial results. New England Agricultural Service Providers In-Service Training, January 24-25, Portsmouth, New Hampshire.

Mallory, E. 2017. Managing nitrogen for small grains. New England Agricultural Service Providers In-Service Training, February 1-2, Portsmouth, New Hampshire.

Mallory, E. and H. Darby. 2015. Managing annual forage and grain crops for organic dairy systems. Organic Valley/CROPP Regional Agronomy School. September 1-2, Bangor, Maine.

Mallory, E., T. Molloy, and E. Roche. 2015. Nitrogen fertility for wheat: Theory and practice. 11th Annual Grain Growers Conference, Northern Grain Growers Association, March 18, Essex Junction, Vermont.

Mallory, E. 2015. Adaptive Management – How we can use this in our work. New England Agricultural Service Providers In-Service Training, February 3-4, Portsmouth, New Hampshire.

Mallory, E. 2012. Reweaving our bread basket: Current efforts to build a local bread wheat economy in New England. March 23, University of New Hampshire, Durham, New Hampshire.

Mallory, E. 2012. Nitrogen fertility strategies for organic bread wheat yield and quality. Northeast Organic Research Symposium. January 19-20, Saratoga Springs, New York.

National and International Invited Presentations (9 total) *Examples:*

Mallory, E. 2018. Cereal production in Northern New England: Adding value and managing fertility. Transatlantic Workshop on Conservation and Organic Agriculture, John Innes Centre, January 31, Norwich, England.

Mallory, E. 2016. Nitrogen fertility for organic small grains. Atlantic Canadian Organic Regional Network Conference and Trade Show, November 28-30, Moncton, New Brunswick, Canada. 45 attendees.

Mallory, E., H. Darby, and E. Gallandt. 2016. Innovative sowing, cultivation, and rotation strategies for organic grains. Organic Agriculture Research and Education Initiative Project Directors Meeting. October 17-18, Washington, D.C.

Mallory, E. 2013. Soil management effects on soil quality, crop production, and yield stability. V Brazilian Symposium on Sustainable Agriculture (SIMBRAS) and II International Symposium of Sustainable Agriculture, October 18-20, Viçosa-MG, Brazil.

Mallory, E. 2011. U.S. organic grains research. As part of the panel: Closing the loop—Stakeholder driven research benefits consumers. USDA Organic Farming Systems Research Conference, March 16-18, Washington, D.C.

Mallory, E. 2010. Bringing out the best in your soil—Organic soil and fertility management. Atlantic Canadian Organic Regional Network 10th Anniversary Conference and Trade Show, March 5, Charlottetown, Prince Edward Island, Canada.

5

Ellen B. Mallory, C.V.

EXTERNAL GRANT AND GIFT ACTIVITY

Career Total $4,212,016 (11 grants, $2,994,795 as lead PI; 10 grants, $1,226,202 as co-PI)

Recent External Awards

Horsley, R., et al. Identifying Spring Malting Barley Varieties Adapted to the Eastern US. Brewers Association. ($8981 to UMaine; 1/1/2018–12/31/18) Co-PI.

Mallory, E. Investigating Diversity as a Climate Resilience Strategy for Potato-Grain Systems using DSSAT and Collaborative Modeling. USDA-ARFI Agriculture and Natural Resources Science for Climate Variability and Change Challenge Area (ANRCVC). ($11,902; 12/1/2015–11/30/2016) Lead.

Mallory, E., H. Darby, and E. Gallandt. Innovative Sowing, Cultivation, and Rotation Strategies to Address Weed, Fertility, and Disease Challenges in Organic Food and Feed Grains. USDA-NIFA Organic Research and Extension Initiative (OREI). ($999,120; 9/1/2015–8/31/2019) Lead.

Mallory, E.B. Building Knowledge, Skills and Networks for Soil Security in Maine. Northeast Region USDA-Sustainable Agriculture Research and Education Program (SARE). ($138,768; 9/1/2014 – 10/31/2017) Lead.

Ngouajio, M., L. Andreasen, K. Delate, J. Heckman, N. Halberg, **E. Mallory**, P. Carr, and M. Smith. International Conference - Innovations in Organic Food Systems for Sustainable Production and Enhanced Ecosystem Services. Organisation for Economic Co-operation and Development Co-operative Research Programme Conference Sponsorship. (€29,000; 1/1/2014 – 12/31/2014) Co-PI.

Mallory, E., J. Spargo, and H. Darby. Improving Winter Grain Yields, Grain Quality, and Nitrogen Use Efficiency in New England Using Adaptive Management. Northeast Region USDA-Sustainable Agriculture Research and Education (SARE) Program. ($243,845; 9/1/2013 – 8/31/2016) Lead.

Moebius-Clune, B. et al. New Technologies for Improving Sustainability of Corn N Management. Northeast Region USDA-SARE Program. ($220,000; 9/1/2013 – 8/31/2016) Co-PI.

M. Sorrels, J. Dawson, E. Dyck, H. Darby, **E. Mallory**, M. Davis and A. Westra. Farm-based Selection and Seed Production of Varieties of Bread Wheat, Spelt, Emmer and Einkorn Adapted to Organic Systems in the Northeast. Northeast Region USDA-SARE Program. ($195,239 total; $26,872 to UMaine; 9/1/2012 – 8/31/2015) Co-PI.

Mallory, E., H. Darby, E. Gallandt, R. Kersbergen, M. Camire, S. Bosworth, J. Halloran, S. Smith, A. Hazelrigg, and D. Lambert. Enhancing Farmers' Capacity to Produce High Quality Organic Bread Wheat. USDA-NIFA Organic Agriculture Research and Extension Initiative. ($1,320,378 received, $1,389,871 requested; 9/1/2009 – 8/31/2013) Lead.

SELECTED HONORS AND AWARDS

Certificate of Excellence in Extension Publications (3 awards)	2001, 2012 & 2012
American Society of Agronomy Educational Materials Awards Program	
Agriculture Award, University of Maine College of Natural Science, Forestry and Agriculture	2012
Switzer Environmental Fellowship	2005

MEMBERSHIPS AND SERVICE

Member: American Society of Agronomy and Soil Science Society of America, since 2003
Chair: ASA Organic Management Systems Community, 2014
Chair: Northeast Sustainable Agric. Research and Extension Professional Development Program, 2013
Ad-hoc manuscript review: Agronomy Journal; European Journal of Agronomy; Journal of Sustainable Agriculture; Organic Agriculture; Renewable Agriculture and Food Systems; Soil and Tillage Research; Soil Science Society of America Journal.
Founding Coordinator: Maine Beginning Farmers Resources Network, 2012 to 2016

6

7 §125. BOARD OF AGRICULTURE

1. **Establishment; duties.** The Board of Agriculture, referred to in this section as the "board," as established in Title 5, section 12004-G, subsection 4-A, is created within the University of Maine System. The board shall advise the Chancellor of the University of Maine System and the President of the University of Maine at Orono on matters concerning the operation and management of agricultural research conducted by the Maine Agricultural Experiment Station and university farm-based programs, including those of the University of Maine Cooperative Extension Service. The board's duties are limited to advising the chancellor and the president on research and programs relating to agriculture. The board does not advise the Director of the Maine Agricultural Experiment Station or have a role in the operation of research and programs within the Maine Agricultural Experiment Station that relate to forestry, wildlife, or fisheries and aquaculture. The board shall assist the chancellor and the president in articulating the mission of the Maine Agricultural Experiment Station as it pertains to agriculture. The director, with the agreement of the board, shall develop a budget for the station. The board and the director shall seek agreement on all issues. In the event that agreement can not be reached, final authority rests with the director. The board may not interfere with funding and grants for commodity research programs brought to the University of Maine System directly or through the efforts of commodity groups. The board shall respect the expertise of the various commodity groups and shall maintain the integrity of the research being recommended and reviewed by specific commodity groups. The board shall assist in the coordination of activities with commodity groups interested in or supporting agricultural research. The board shall consult with the following agricultural commodity advisory committees on agricultural research and extension priorities:

A. The University of Maine System Wild Blueberry Advisory Committee; and `[1997, c. 711, §5 (NEW).]`

B. The Maine Potato Board Research and Product Development Committee. `[1997, c. 711, §5 (NEW).]`

`[ 1997, c. 711, §5 (NEW) .]`

2. **Membership.** The board consists of the following 20 members:

A. A designee of the President of the University of Maine at Orono; `[1997, c. 711, §5 (NEW).]`

B. A designee of the Chancellor of the University of Maine System; `[1997, c. 711, §5 (NEW).]`

C. The Commissioner of Agriculture, Food and Rural Resources or the commissioner's designee; `[1997, c. 711, §5 (NEW).]`

D. The president of a statewide farm bureau or the president's designee; `[2009, c. 393, §1 (AMD).]`

E. The president of a statewide agricultural council or the president's designee; `[2009, c. 393, §1 (AMD).]`

F. Eight members representing the agricultural industry, one person designated by each of the following:

(1) The Maine Potato Board;

(2) The Wild Blueberry Commission of Maine;

(3) A statewide pomological society;

(4) A statewide vegetable and small fruit growers association;

(5) A statewide dairy industry association;

(6) A statewide landscape and nursery association;

| 1

(7) A statewide florist and growers association; and

(8) A statewide organic farmers and gardeners association; [1997, c. 711, §5 (NEW).]

G. Two members of the joint standing committee of the Legislature having jurisdiction over agricultural matters, one appointed by the President of the Senate and one appointed by the Speaker of the House; [1997, c. 711, §5 (NEW).]

H. One farmer with livestock experience in an area other than dairy farming, chosen from a list of 3 nominees submitted by a statewide beef and sheep producers association, appointed by the Governor; [1997, c. 711, §5 (NEW).]

I. Two research faculty members associated with agricultural research at the University of Maine at Orono, appointed by the Board of Trustees of the University of Maine System; [2009, c. 393, §1 (AMD).]

J. The Director of the University of Maine Cooperative Extension Service; and [2009, c. 393, §1 (AMD).]

K. One member representing the aquaculture industry designated by a statewide aquaculture industry association. [2009, c. 393, §1 (NEW).]

[2009, c. 393, §1 (AMD) .]

3. **Terms.** Each member serves a term of 5 years, except that the terms of legislative members expire the first Wednesday in December of even-numbered years. Vacancies must be filled by the appointing authority to complete the term of the preceding appointee.

[1997, c. 711, §5 (NEW) .]

4. **Chair; secretary.** The board shall select annually one of its members to serve as chair. The Director of the Agricultural Experiment Station shall serve as secretary to the board but the director is not a member of the board and has no vote.

[1997, c. 711, §5 (NEW) .]

5. **Compensation.** The board members are entitled to legislative per diem compensation for attendance at board meetings in accordance with Title 5, chapter 379.

[1997, c. 711, §5 (NEW) .]

6. **Report.** The Board of Agriculture shall report at least annually to the joint standing committee of the Legislature having jurisdiction over agricultural matters and to the Board of Trustees of the University of Maine System. The report must include an accounting of meetings and actions of the Board of Agriculture, including agreements entered into, status of demonstration projects, research findings, informational activities and an evaluation of the Maine Agricultural Experiment Station and Cooperative Extension Service programs, with recommendations regarding changes or improvements in the programs and the budget. The Board of Agriculture shall submit annually to the Board of Trustees of the University of Maine System proposals for additional funding for capital building projects at the research farms.

[1997, c. 711, §5 (NEW) .]

7. **Long-range plan.** By January 15, 2000, the board shall establish a long-range plan for operation of the Agricultural Experiment Station and the Cooperative Extension Service programs that includes but is not limited to plans for each of the research farms, joint appointments for experiment station and extension

2 |

faculty, better utilization of research farms and objectives for research for each agricultural commodity in the State. The plan developed by the board does not include operations, research and programs relating to forestry, wildlife, aquaculture and fisheries.

```
[ 1999, c. 72, §1 (AMD) .]
```

```
SECTION HISTORY
1997, c. 711, §5 (NEW).  1999, c. 72, §1 (AMD).  2009, c. 393, §1 (AMD).
```

University of Maine

University of Maine
at Augusta

University of Maine
at Farmington

University of Maine
at Fort Kent

University of Maine
at Machias

University of Maine
at Presque Isle

University of Southern Maine

Maine's
Public
Universities

UNIVERSITY OF MAINE SYSTEM

COMPREHENSIVE ENROLLMENT MANAGEMENT REVIEW

1

2

BACKGROUND

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Background

Comprehensive Enrollment Management Review

	Budget FY18	Projection							
		FY19	%	FY20	%	FY21	%	FY22	%
UM	279,780	284,034	1.5%	289,673	2.0%	295,616	2.1%	301,862	2.1%
UMA	80,000	81,600	2.0%				3.0%	89,164	3.5%
UMF	55,562	57,467	3.4%		**7.47%**		2.2%	61,129	1.8%
UMFK	30,442	30,514	0.2%				0.2%	30,783	0.2%
UMM	15,000	15,375	2.5%		**INCREASE**		1.0%	15,841	1.0%
UMPI	26,328	26,541	0.8%				1.2%	27,663	1.2%
USM	183,286	185,861	1.4%	188,574	1.5%	191,284	1.4%	194,020	1.4%
TOTAL	670,398	681,392	1.6%	693,843	1.8%	706,820	1.9%	720,476	1.9%

Background

4

Enrollment Projections

- Enrollment forecasts have historically been developed at the campus level

  While there is agreement forecast details should continue to be produced at campus level, the current process fails to look at the "whole."

- Campuses use very different processes to develop both short and long term projections

  Greatly impacted by campus IR capacity

Background

UMS has made a number of changes in the enrollment management area in recent years that have improved the process for developing projections

- Professional level expertise at the Cabinet level in Enrollment Management across UMS.

- Changes approved in September '16 to more closely align enrollment and budget

  - Incorporate Enrollment Management perspective into the budget presentations

  - Syncing enrollment projections with multi-year financial analysis

- Build out a System IR team to provide support to campuses for a variety of needs

6

PROCESS

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Process

Charter

COMPREHENSIVE ENROLLMENT MANAGEMENT REVIEW TEAM CHARTER
12 September 2017

BACKGROUND
Successful Enrollment Management – which here includes management and operations affecting student enrollment, retention, persistence, and graduation – is essential to the UMS mission and encompasses two of the UMS BOT's four top strategic priorities. In spring 2017 the BOT received and reviewed the annual UMS multi-year financial forecast which assumes a cumulative 5-year system-wide aggregated increase of 9.5% in credit hour production. Because the forecast occurs in a challenging state demographic, social and competitive context, the Board has charged with Chancellor to undertake a comprehensive, System- and campus-level audit

TEAM CHARGE

The Team will undertake a comprehensive review and audit of:

a. Each campus's enrollment management planning process, as well as the assumptions and content that each campus uses to create its models, projections, and forecasts.

b. The System's enrollment management planning process, as well as the assumptions and content that the System uses to create its models, projections, and forecasts.

This review may need to take i

- The reco. form chartered . expanded memb such as tasks as the co-le. . pants are not members of the lead CEMR team. determine. Additional subteam p.
- The co-Chairs will determine the organizational structure and timelines for the Team's and any of its subteams to meet the defined responsibilities and charge.

TEAM CHARGE
The Team will undertake a comprehensive review and audit of:
a. Each campus's enrollment management planning process, as well as the assumptions and content that each campus uses to create its models, projections, and forecasts.
b. The System's enrollment management planning process, as well as the assumptions and content that the System uses to create its models, projections, and forecasts.
This review may need to take into account related factors such as possible effects of a successful mission differentiation strategy, early college program expansion, adult promise, expanded graduate professional degree offerings, and other initiatives that are part of current or anticipated enrollment management strategies or initiatives. Particular importance should be placed on those initiatives that are part of the SRAP investments. The Team may engage an outside enrollment management specialist to provide objective, third-party input.

In undertaking this review, the Team should answer the following questions:

Process

Charter

1. Is each campus's enrollment management planning process adequate to achieve the projected outcomes? Are the assumptions and content used in each campus's planning process defensible and sufficient to deliver reliable results?
2. Is the System's enrollment management planning process adequate? Are the assumptions and content used in the System's planning process defensible and sufficient to deliver reliable results?
3. Are there process or content factors made in inter-campus enrollment management comparisons or in aggregating and evaluating the campus plans at the System level that distort or materially alter projected targets or outcomes?

Process

Team Approach

1.

Survey

2.

Follow-up Interviews

3.

National Best Practices

- Hanover

- Hawaii

- Others

Process

Process

1.

Survey

3.

National Best Practices

- Hanover

- Hawaii

- Others

Comprehensive Enrollment Management Review

Questions for Campuses
(One response per campus)

As your campus prepares its enrollment projections (annual and multi-year):

1. Who specifically on campus is involved in establishing your projections?

2. What is the timeline you follow for establishing the projections?

3. a) Do you update your projections annually? When?

   b) Do you update your actual enrollment plan to correspond with any new projections?

4. What elements of enrollment are considered as you do prepare your projections (e.g., new student (FTFT, TR, other subsets of populations), continuing (retention, completion [how many may be graduating which would impact overall enrollment], Undergraduate/Graduate, In-state, Out-of-state, early college, etc.)? Please be specific.

5. As you present your annual budget and projections to the Board Finance, Facilities and Technology Committee, who is involved in those presentations and what information is presented?

6. What is the organizational structure of Enrollment Management and to whom does it report? Does it have access to IR capacity/capability?

Process

Process

Team Approach

1.

2.

3.

Survey

Follow-up Interviews

National Best Practices

- Hanover

- Hawaii

- Others

Process

Process

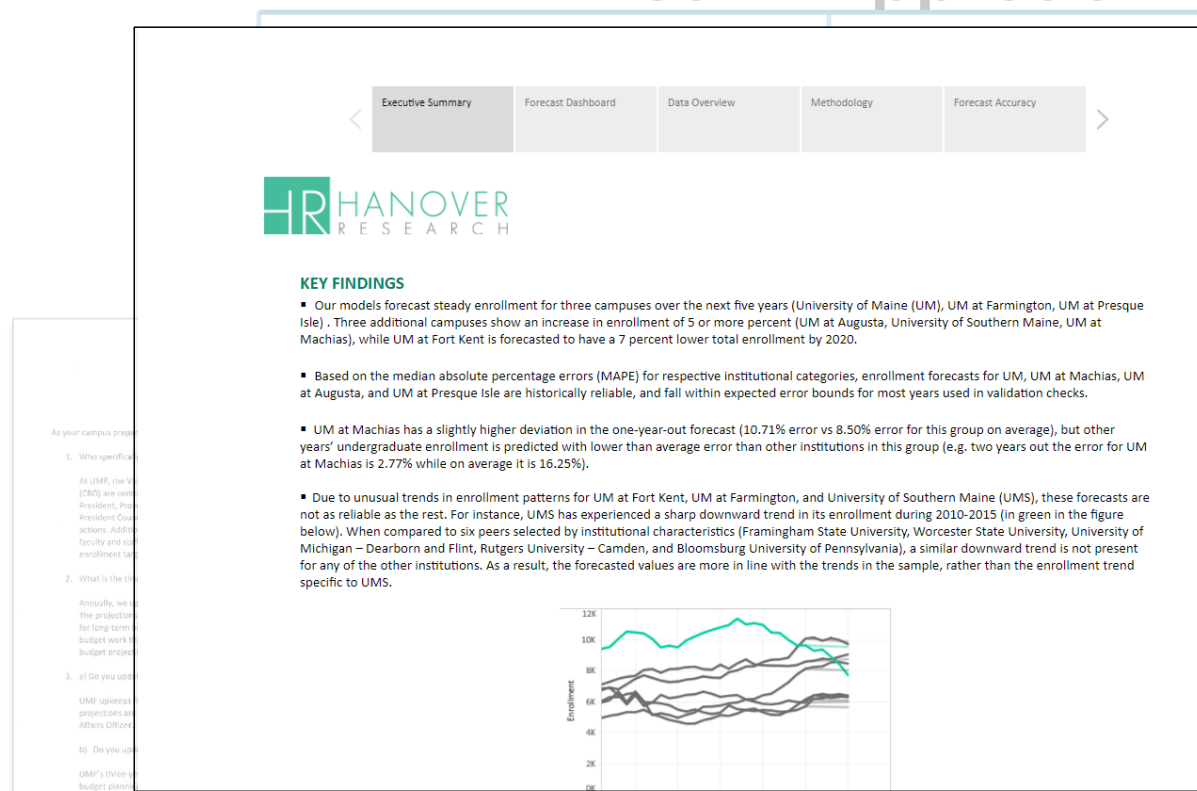## Team Approach

3.

National Best Practices

- Hanover

- Hawaii

- Others

Process

Process

Team Approach

3.

National Best Practices

- Hanover
- Hawaii
- Others

Process

Team Approach

3.

National Best Practices

- Hanover

- Hawaii

- Others

Process

15

RECOMMENDATIONS

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Recommendations

Enrollment Planning is a year round effort. Like the unified budget and capital planning, UMS needs to develop a plan and schedule to integrate enrollment management efforts throughout the calendar year.

Specifically the team is recommending formalizing the following dates on the unified budget calendar:
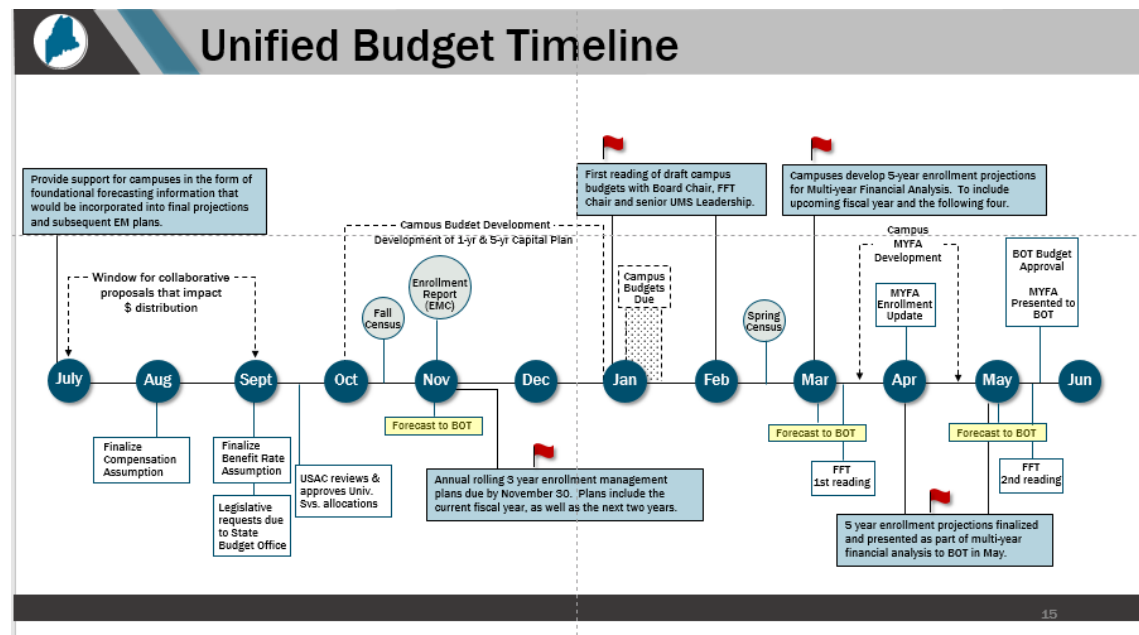
Unified Budget Timeline

17

Provide support for campuses in the form of foundational forecasting information that would be incorporated into final projections and subsequent EM plans.

Window for collaborative proposals that impact $ distribution

Campus Budget Development
Development of 1-yr & 5-yr Capital Plan

First reading of draft campus budgets with Board Chair, FFT Chair and senior UMS Leadership.

Campus Budgets Due

Campuses develop 5-year enrollment projections for Multi-year Financial Analysis. To include upcoming fiscal year and the following four.

Campus MYFA Development

BOT Budget Approval

MYFA Presented to BOT

Enrollment Report (EMC)

Fall Census

Spring Census

MYFA Enrollment Update

July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun

Finalize Compensation Assumption

Finalize Benefit Rate Assumption

Legislative requests due to State Budget Office

USAC reviews & approves Univ. Svs. allocations

Forecast to BOT

Annual rolling 3 year enrollment management plans due by November 30. Plans include the current fiscal year, as well as the next two years.

Forecast to BOT

FFT 1st reading

5 year enrollment projections finalized and presented as part of multi-year financial analysis to BOT in May.

Forecast to BOT

FFT 2nd reading

111

Recommendations

July

Provide support for campuses in the form of foundational forecasting information that would be incorporated into final projections and subsequent EM plans.

Information to include:

- demographics
- feeder school data
- high school grad rates
- retention/completion data
- transfers
- CPI / GDP
- Programs with capacity for growth

In-State Undergraduate Billed Credit Hours

Out of State Undergraduate Billed Credit Hours

Presque Isle High School Feeders Prior Year Graduaton Count

5 year enrollment projections finalized and presented as part of multi-year financial analysis to BOT in May.

Recommendations

Provide support for campuses in the form of foundational forecasting information that would be incorporated into final projections and subsequent EM plans.

Window for collaborative proposals that impact $ distribution

Campus Budget D... Development of 1-yr &

Enrollment Report (EMC)

Fall Census

First reading of draft campus budgets with Board Chair, FFT Chair and senior UMS Leadership.

nrollment projections lysis. To include e following four.

Campus Budgets Due

MYFA Enrollment Update

Spring Census

BOT Budget Approval

MYFA Presented to BOT

July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun

Forecast to BOT

Forecast to BOT

Forecast to BOT

Finalize Compensation Assumption

Finalize Benefit Rate Assumption

Legislative requests d... to State Budget Of...

Annual rolling 3 year enrollment management plans due by November 30. Plans include the current fiscal year, as well as the next two years.

FFT 2nd reading

nrollment projections finalized ented as part of multi-year analysis to BOT in May.

Recommendations

Provide support for campuses in the form of foundational forecasting information that would be incorporated into final projections and subsequent EM plans.

Window for collaborative proposals that impact $ distribution

Campus Budget Dev
Development of 1-yr & 5-

Enrollment Report (EMC)

Fall Census

Campuses develop 5-year enrollment projections for Multi-year Financial Analysis. To include upcoming fiscal year and the following four.

Campus Budgets Due

Approval

MYFA Enrollment Update

MYFA Presented to BOT

Spring Census

| July | Aug | Sept | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun |

Finalize Compensation Assumption

Finalize Benefit Rate Assumption

USAC reviews & approves Univ. Svs. allocations

Legislative requests due to State Budget Office

Forecast to BOT

Annual rolling 3
plans due by N
current fiscal y

Team is recommending a joint full day meeting of CBOs, Campus Enrollment Managers and key System and Campus Institutional Research staff to review and validate "rolled up" numbers.

Recommendations
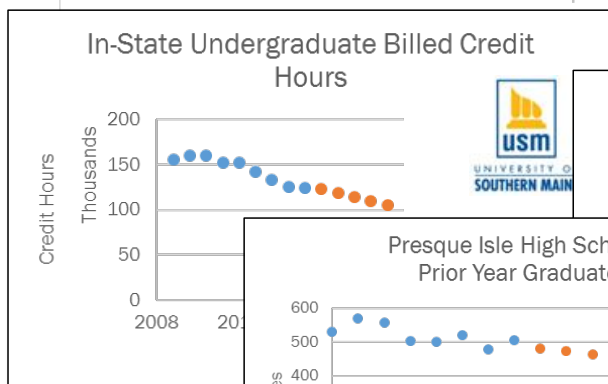
Provide support for campuses in the form of foundational forecasting information that would be incorporated into final projections and subsequent EM plans.
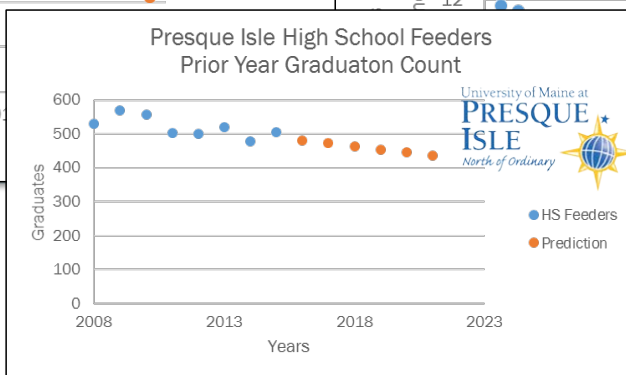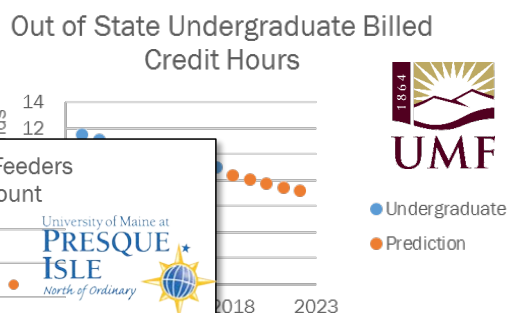
First reading of draft campus budgets with Board Chair, FFT Chair and senior UMS Leadership.

Campuses develop 5-year enrollment projections for Multi-year Financial Analysis. To include upcoming fiscal year and the following four.

Campus Budget Development
Development of 1-yr & 5-yr Capital Plan

Campus MYFA Development

BOT Budget Approval

MYFA Presented to BOT

Campus Budgets Due

MYFA Enrollment Update

Spring Census

July | Jan | Feb | Mar | Apr | May | Jun

Maine's Public Universities

UNIVERSITY OF MAINE SYSTEM

M Y F A

Multi-Year Financial Analysis

May 22, 2017

RYAN LOW
CHIEF FINANCIAL OFFICER

Forecast to BOT

Forecast to BOT

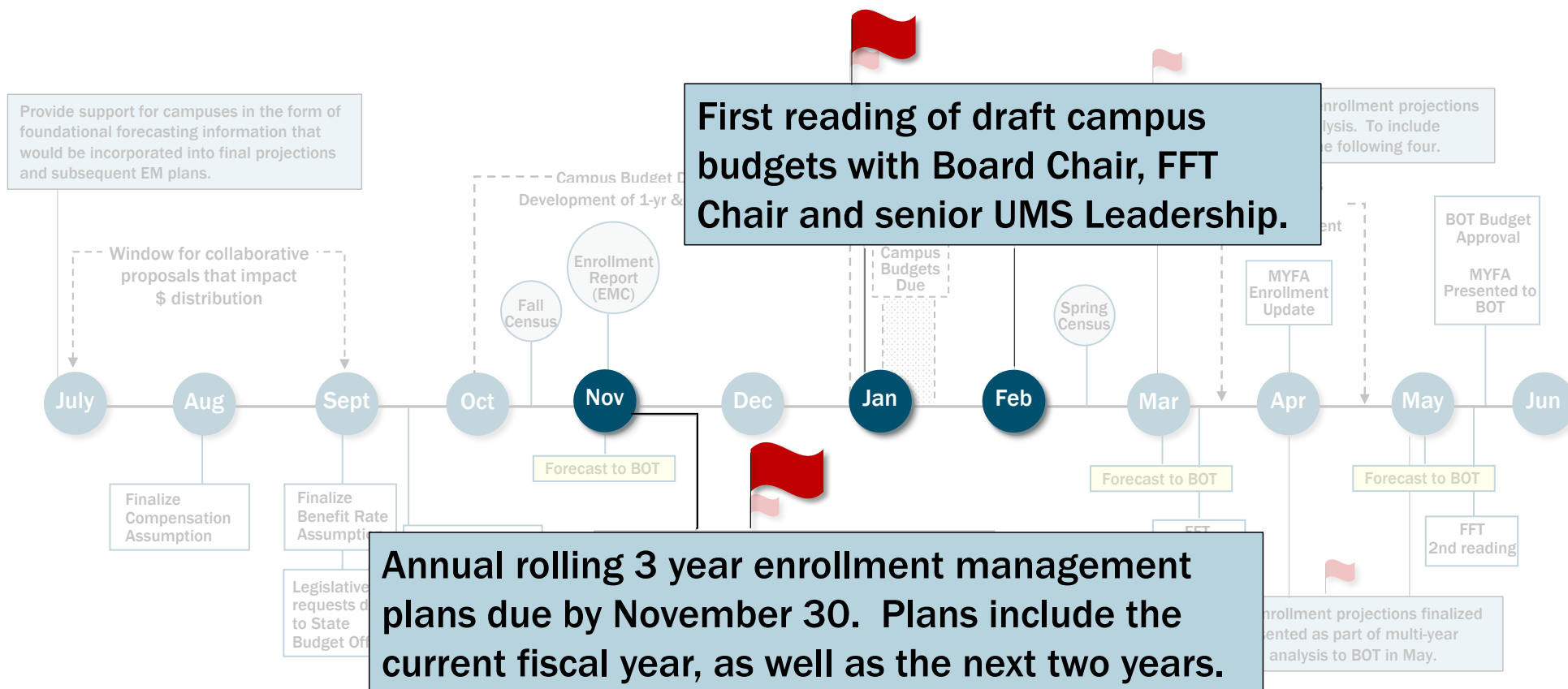**5 year enrollment projections finalized and presented as part of multi-year financial analysis to BOT in May.**
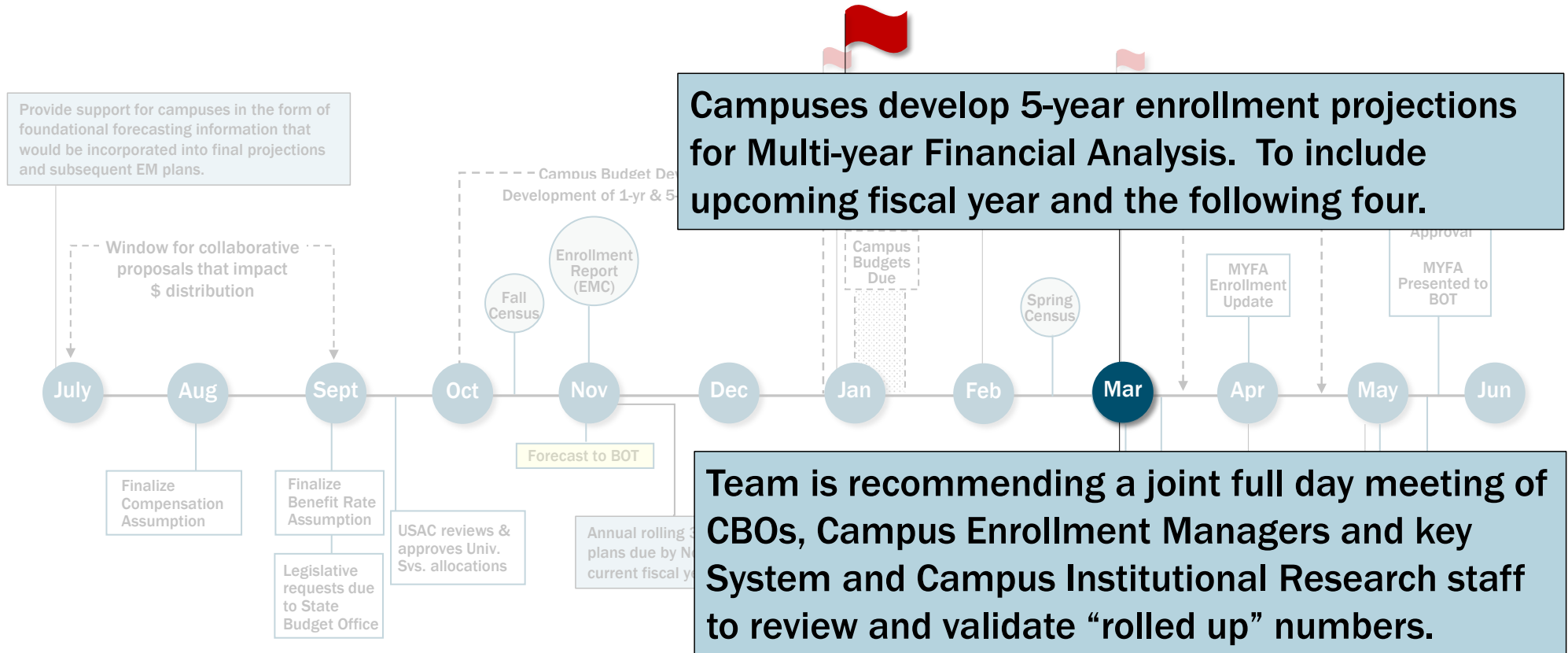
Recommendations

- Student Success is broader than one campus. UMS needs to develop a more holistic approach to student success to incorporate mobility across UMS. Specifically the team is recommending we develop a model to calculate internal retention / completion #s.

- Need to track internal success and acknowledge it. Demonstrating improvement as a System is an element that will work in favor of support for enterprise.

Recommendations

Reinforce the importance of UMS enrollment management plan

- ## Student success
  - Transfers
  - Adult degree completion

- ## Data & IT
  - Use of data as means of achieving improved student success
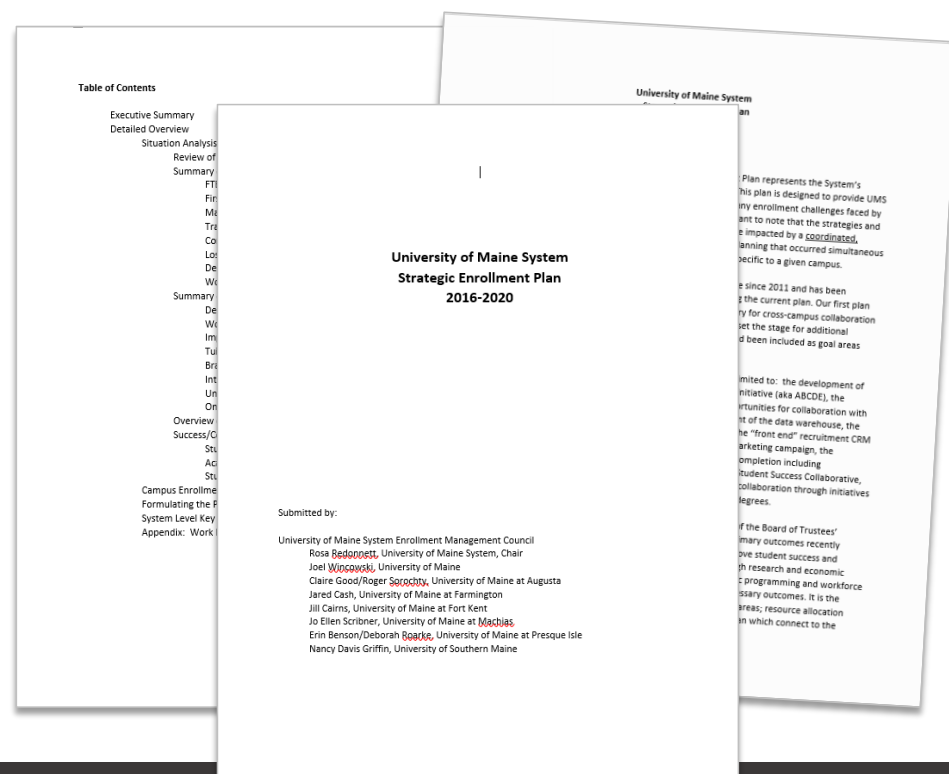
Recommendations

The team recommends more in-depth discussions of campus based goals and strategies between the Trustees and Presidents. Closer integration of the campus enrollment plans and the SRAP investment decisions would result in broader, more aligned system decision making.

Examples

Student Success	Market Research	IR Expertise

Recommendations

We recommend UMS provide campuses market research, including emerging trend summaries relevant to Maine and the New England region to better understand and respond to future markets for academic programs.

Recommendations

- Require an analysis by the campus of the academic programming, academic support and student service parameters needed for any new or enhanced enrollment management strategy.

- We need to provide the appropriate services if we expect to make significant gains with particular student populations...adults, athletes, high school.

27

QUESTIONS?

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

28

APPENDIX

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Comprehensive Enrollment Management Review

Questions for Campuses
(One response per campus)

As your campus prepares its enrollment projections (annual and multi-year):

1. Who specifically on campus is involved in establishing your projections?

2. What is the timeline you follow for establishing the projections?

3. a) Do you update your projections annually? When?

    b) Do you update your actual enrollment plan to correspond with any new projections?

4. What elements of enrollment are considered as you do prepare your projections (e.g., new student (FTFT, TR, other subsets of populations), continuing (retention, completion [how many may be graduating which would impact overall enrollment], Undergraduate/Graduate, In-state, Out-of-state, early college, etc.)? Please be specific.

5. As you present your annual budget and projections to the Board Finance, Facilities and Technology Committee, who is involved in those presentations and what information is presented?

6. What is the organizational structure of Enrollment Management and to whom does it report? Does it have access to IR capacity/capability?

UNIVERSITY OF MAINE SYSTEM STUDENT CONDUCT CODE

POLICY STATEMENT

The purpose of the University of Maine System Student Conduct Code (the "Code") is to promote the pursuit of activities that contribute to the intellectual, ethical, and physical development of the individuals under the auspices of the University of Maine System (the "University") and the individual campuses. The Code seeks to ensure the safety of persons engaging in those pursuits; to protect the free and peaceful expression of ideas; and to assure the integrity of various academic processes.

Students are expected to conduct their affairs with proper regard for the rights of others and of the University. All members of the University community share a responsibility for maintaining an environment where actions are guided by mutual respect, integrity, and reason.

All members of the University are governed by University policies, local ordinances, and state and federal laws. For specific governing documents, students and/or campus organizations may refer to University Policies and Procedures; campus student handbooks; campus residence hall agreements and manuals; and related notices and publications. Individuals in violation of state and federal law are subject to prosecution by appropriate state and federal authorities regardless of whether the activity occurs on or off University Property. In addition, students may be subject to disciplinary action by the University pursuant to the Code. The severity of the imposed sanctions will be appropriate to the violation and circumstances of the situation.

In seeking to encourage responsible attitudes, the University places much reliance upon personal example, counseling, and admonition. In certain circumstances where these preferred means fail, the University will rely upon the rules and procedures described in the Code.

The Officer may make minor modifications to procedure that do not materially jeopardize the fairness owed to any party, such as to accommodate summer schedules, etc.

Policy in effect at the time of the offense will apply even if the policy is changed subsequently but prior to resolution. Procedures in effect at the time of the resolution will apply to resolution of incidents, regardless of when the incident occurred.

If government regulations change in a way that impacts this document, this document will be construed to comply with government regulations in their most recent form.

Commented [SLM1]: Added to Policy Section

IN THE ENFORCEMENT OF THE CODE, THE UNIVERSITY FUNCTIONS IN AN ADMINISTRATIVE MANNER. THE UNIVERSITY'S ADMINISTRATIVE PROCESS AFFORDS FUNDAMENTAL FAIRNESS, BUT DOES NOT FOLLOW THE TRADITIONAL COMMON LAW ADVERSARIAL METHOD OF A COURT OF LAW.

In complying with the letter and spirit of applicable laws and in pursuing its own goals of diversity, the University of Maine System does not discriminate on the grounds of race, color, religion, sex, sexual orientation, including transgender status and gender expression, national origin, citizenship status, age, disability, genetic information or veterans status in employment, education, and all other programs and activities.

Commented [SLM2]: Revised to align with BOT 401 Moved to beginning from the end of the code

The following person has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity, North Stevens Hall, Orono, ME 04469; voice: (207)581-1226; email: equal.opportunity@maine.edu.

A qualified student with a disability is entitled to reasonable accommodations in order to participate in this administrative process. Accommodations may include, but are not limited to, sign language interpretation or information in alternative formats. Students wishing to request reasonable accommodations should make those requests directly to the Officer. The Officer will consult with the appropriate campus office for students with disabilities to assist with the determination of reasonable accommodations. Students may be required to provide documentation in order for the Officer to make a determination.

Commented [SLM3]: New Paragraph

I. **JURISDICTION**
    A. The Code will apply to the following:
        1. Any person(s) registered or enrolled in any course or program offered by the University;
        2. Any person accepted to the University;

Commented [SLM4]: Section was reformatted to be in outline form so it is easier to read

3. Any recognized student organization; or
4. Any group of students not currently recognized, but under probation or suspension, by the University.
B. Persons are deemed to be enrolled at the University until such time as the student has:
    1. Officially graduated from the University;
    2. Been officially dismissed from the University; or
    3. Not been enrolled in any course or program within the University for one calendar year.
C. Persons are also deemed to be enrolled at the University if the student:
    a. Has been officially suspended from the University (persons are deemed to be enrolled during the period of their suspension), or
    b. Is taking distance courses provided by or presented at a University campus.
D. The Code may be applied in cases of conduct when the alleged incident:
    1. Occurs on any campus of the University, or involving any other University Property;
    2. At Activities Pursued Under the Auspices of the University; or
    3. In which the University can demonstrate a substantial interest as an academic institution regardless of where the conduct occurs, including online or off-campus, and in which the conduct seriously threatens: (a) any educational process; (b) legitimate function of the University; or (c) the health or safety of any individual.
E. Jurisdiction is determined on the date of the alleged incident.

> **Commented [SLM5]:** New Provision

II. DEFINITIONS

A. **Activities Pursued Under the Auspices of the University:** Any activities specifically sponsored or participated in by the campus or by any campus organization. Such activities do not include informal off- campus gatherings of students. However, this definition will not be construed so as to limit the University's jurisdiction.

B. **Administrative Hearing Before the Officer:** A hearing before the Officer to determine if a Responding Party has violated any section(s) of the Code.

> **Commented [SLM6]:** New definition

C. **Advisor:** A person who is available to advise or support any party involved in a Code violation investigation and resolution process. Someone acting in the capacity of an advisor may not be a witness. Examples of advisors may include, but are not limited to, family members, friends, University Employees, and attorneys.

D. **Campus Authorities:** Includes, but is not limited to, any Campus Police or Security Staff, the Officer, the Committee, and the Review Panel.

> **Commented [SLM7]:** New definition

E. **Conduct Officer (the "Officer"):** Person(s) or designee(s) responsible for resolving alleged violations of the Code.

F. **Consent:** An individual's agreement to engage in sexual activity.
    1. Consent must be:
        a. Informed, freely, and actively given, and consist of a mutually agreeable and understandable exchange of words or actions.
        b. Clear, knowing and voluntary.
        c. Active, not passive.
    2. Consent may be withdrawn at any time.
    3. Silence, in and of itself, cannot be interpreted as consent.
    4. Consent can be given by words or actions, as long as those words or actions create mutually understandable clear permission regarding willingness to engage in (and conditions of) sexual activity.
    5. Past consent does not imply future consent.
    6. Consent to engage in one form of sexual activity does not imply consent to engage in any other sexual activity.
    7. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with any other person.
    8. There is no consent when the exchange involves unwanted physical force, coercion, intimidation and/or threats.
    9. If an individual is mentally or physically incapacitated or impaired such that one cannot understand the fact, nature, or extent of the sexual situation, and the Incapacitation or impairment is known or should be known to a Reasonable Person, there is no consent. This includes conditions resulting from alcohol or drug consumption, or being asleep, or unconscious.
    10. Consent is not valid if the person is too young to consent to sexual activity under Maine law, even if the minor wanted to engage in the activity.

> **Commented [SLM8]:** Reformatted to outline form

G. **Formal Investigation:** A fair, thorough, and impartial process used to determine, to the fullest extent possible, if a there has

> **Commented [SLM9]:** New definition

been a violation of the Code. Investigations include, but are not limited to, interviews with relevant parties and evidence collection.

H. **Gender Expression:** An individual's external expression of their gender identity, through such means as clothing, hair styling, jewelry, voice, and behavior.

I. **Gender Identity:** An individual's sincerely held core belief regarding their gender whether that individual identities as male, female, a blend of both, neither, or in some other way (such as, for example, an individual who identifies as "queer", "genderqueer", "bi-gender", "intersex", or "gender fluid").

> **Commented [SLM10]:** Divided into two separate definitions per EO director, based on MHRC memo
>
> **Commented [SLM11]:** New definition – aligns with BOT 402

J. **Hostile Environment:** Is created when harassment is:
1. Severe, Persistent, or Pervasive; <u>and</u>
2. Objectively Offensive, such that it denies or limits a person's ability to participate in or benefit from the University's programs, services, opportunities, or activities; or unreasonably interferes with an individual's academic or work performance.

   A hostile environment can be created by anyone involved in a University program or activity, such as an administrator, faculty or staff member, student, or campus guest. Offensiveness alone is not enough to create a hostile environment. Although repeated incidents increase the likelihood that a hostile environment has been created, a single serious incident, such as a Sexual Assault, can be sufficient.

   Determining whether conduct creates a hostile environment depends not only on whether the conduct was unwelcome to the person who feels harassed, but also whether a Reasonable Person in a similar situation would have perceived the conduct as objectively offensive.

   The following factors will also be considered:
   i. The degree to which the conduct affected one or more students' education or individual's employment;
   ii. The nature, scope, frequency, duration, and location of the incident(s);
   iii. The identity, number, and relationships of persons involved; and
   iv. The nature of higher education.

K. **Incapacitation:** An individual is mentally or physically incapacitated such that:
1. The individual cannot understand the fact, nature, or extent of the situation (e.g. to understand the "who, what, when, where, why or how" of the situation); <u>and</u>
2. The incapacitation is known or should be known to the Responding Party (as evaluative from the perspective of a Reasonable Person.

   This includes conditions resulting from alcohol or drug consumption, being asleep, or unconscious.

   A policy violation is not excused by the fact that the Responding Party was intoxicated and, due to that intoxication, did not realize the incapacity of the other person.

L. **Interim Measures or Actions:** Taken to promote the safety and well-being of the Parties, including, but not limited to, moving either Party to a new living, dining or working situation; issuing a no contact order; changing class or work schedules; changing transportation; financial aid accommodations; immigration assistance, and other academic and/or employment accommodations and support.

> **Commented [SLM12]:** New definition

M. **Notification Standards:** Official notice from the University may be hand delivered, mailed to a student's last known address, or delivered through the use of the student's University email account.

> **Commented [SLM13]:** New definition

N. **Party(ies):** The Reporting Party(ies) and Responding Party(ies), collectively.

> **Commented [SLM14]:** New definition

O. **Preliminary Inquiry:** Typically one to three (1-3) days in length, this inquiry precedes a formal investigation, to determine if there is reasonable cause to believe that there has been a violation of the Code.

> **Commented [SLM15]:** New definition

P. **Preponderance of the Evidence:** The standard of evidence used to determine whether the Student Conduct Code has been violated. Under this standard, a violation will be determined to have occurred if, based upon the evidence presented, the Officer, the Committee, or the Review Panel conclude that it is more likely than not that the violation was committed.

Q. **Reasonable Person:** A representative individual under similar circumstances and with similar identities to the person in question, who exercises care, skill, and judgment.

R. **Reporting Party:** A person who alleges harm and/or a policy violation by a student or campus organization. Where the Reporting Party does not want to participate, the University may move forward with the case. In cases of Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, however, the words "Reporting Party" shall refer only to the person who has been harmed by the alleged misconduct.

S. **Responding Party:** A student or organization that has been alleged to have violated the Code, is under Formal Investigation, or has been charged with a violation of the Code.

T. **Review Panel:** A one (1) or three (3) member panel that hears reviews from the Committee, described in Section VII.

U. **Sexual Orientation:** A person's actual or perceived sexuality or sexual identity.

V. **Student Conduct Committee (the "Committee"):** A committee comprised of representatives from campuses of the University responsible for hearing conduct cases on review after the Administrative Hearing, described in Section VI.

W. **University Employee:** Employees, including faculty, staff, students, Board of Trustees, volunteers, and agents of the University.

X. **University of Maine System Student Conduct Code (the "Code"):** This entire document.

Y. **University of Maine System (the "University"):** Means either collectively or singularly, any of the of following campuses: University of Maine at Augusta; University of Maine at Farmington; University of Maine at Fort Kent; University of Maine at Machias; University of Maine (Orono); University of Maine at Presque Isle; University of Southern Maine; University Colleges; and all University Property.

Z. **University Property:** Includes, but is not limited to, any Real or Personal Property owned, held, rented, licensed, chartered, or otherwise engaged by the University in any manner or by University Employees and/or campus organizations as a direct result of and in connection with their service to the University.
    1. Real Property: Land, buildings, fixtures, improvements, and any interests therein.
    2. Personal Property: All property, other than real property, and any interests therein. The University's computer network and all its component parts, which are not real property. Any document or record issued or purporting to be issued by the University.

AA. **Violent Crime:** Arson, assault offenses, intimidation, burglary, manslaughter, murder, destruction/damage/vandalism of property, kidnapping/abduction, and/or robbery.

III. Violations

Violations are activities which directly and significantly interfere with the University's (1) primary educational responsibility of ensuring the opportunity of all members of the community to attain their educational objectives, or (2) subsidiary responsibilities of protecting the health and safety of persons in the campus community, maintaining and protecting property, keeping records, providing living accommodations and other services, and sponsoring non-classroom activities such as lectures, concerts, athletic events, and social functions.

The violations listed below are considered in the context of the student's responsibility as a member of the academic community; other actions which may be considered as violations may be defined by other documents, such as, for example, residence hall contracts. Disciplinary action taken under the Code is independent of the awarding of grades (an academic matter), and provisions of the Code cannot be used for changing awarded grades.

The residence hall contract between the student and the University may specify certain other conditions which impose additional responsibilities and obligations on the residence hall student. The following violations indicate categories of conduct or activity which violate the Code.

Commented [SLM16]: New definition

Commented [SLM17]: Changed name from "Complainant"

Commented [SLM18]: Changed name from "Respondent"
Revised language

Commented [SLM19]: New definition

Commented [SLM20]: New definition

Commented [SLM21]: New definition

Commented [SLM22]: New definition

Commented [SLM23]: New definition

Commented [SLM24]: Revised definition to incorporate the previous four definitions:
-University Personal Property
-University Real Property
-University-Related Personal Property
-University-Related Real Property

Reporting Violations:

All reports are acted upon promptly while every effort is made by the University to preserve the privacy of such reports. Such reports may also be anonymous. Anonymous reports will be investigated to determine if remedies can be provided. Reports of alleged violations of the Code should be reported to Campus Authorities such as the University's Residence Hall staff, Dean of Students, or Officer. Reports of Gender Discrimination (including sexual harassment, dating violence, domestic violence, sexual assault or stalking) may be reported directly to the University's Title IX Coordinator/Deputy Coordinator.

The following violations are provided in order to give students reasonable warning that such conduct or attempted conduct is prohibited.

A. **Academic Misconduct**
   1. **Cheating**: The act or attempted act of deception by which a student seeks to misrepresent that he/she has mastered information on an academic exercise that he/she has not mastered.
   2. **Fabrication**: The use of invented information or the falsification of research or other findings in an academic exercise.
   3. **Plagiarism**: The submission of another's work as one's own, without adequate attribution.
   4. **Facilitating Academic Misconduct**: Assisting in another person's academic misconduct.

B. **Disruption of University Operations**
   1. **Causing a Disturbance**: Disturbance resulting in substantial disruption of authorized activities.
   2. **Failure to Comply with Sanction**: Failure to comply with or attempts to circumvent a sanction(s) imposed by the Officer, Committee, or Review Panel.
   3. **Failure to Identify**: Failing to properly identify oneself to a University Employee acting in pursuit of official duties.
   4. **Interference with Code Enforcement**: Interference with a Reporting Party, Responding Party, witness, investigation or the carrying out of procedures defined in the Code.
   5. **Interference with or Failure to Comply with a University Employee**: Direct interference with or failure to comply with a University Employee in the performance of his/her official duties.
   6. **Supplying False Information**: Knowingly supplying false information to University Employees in pursuit of their official duties or to a Committee or Review Panel in the course of a disciplinary proceeding, or knowingly causing false information to be thus supplied.
   7. **Unauthorized Representation**: Unauthorized representation of the University or University Employee(s).
   8. **Violation of Residence Hall Policies**: Violation of residence hall contracts, except when the residence hall contract specifically provides for an alternate procedure or remedy for the violation concerned.
   9. **Violation of Student Activity Regulations**: Violation of a campus-specific or system-wide regulation, policy, standard of conduct, or code of ethics applicable to the activity in which the student is engaged, and which has been adopted, published or otherwise made known to students participating in such activity.

C. **Health & Safety Violations**
   1. **Creating a Dangerous Condition**: Creation of a fire hazard or other dangerous condition.
   2. **Endangering Health or Safety**: Conduct which threatens or endangers the health or safety of any individual.
   3. **False Reporting of Dangerous Conditions**: Giving or causing to be given false reports of fire or other dangerous conditions.
   4. **Illegal Possession, Use, or Sale of Drugs**: Illegal possession, use, or sale of drugs or drug paraphernalia. The misuse of legal prescription drugs.
   5. **Interference with Safety Equipment or Alarms**: Tampering with, disabling, or causing malfunction of fire and safety equipment or alarm systems.
   6. **Possession or Misuse of Weapons**: Violation of regulations concerning possession or misuse of firearms or other dangerous weapons, as defined by policies established for each campus.
   7. **Restricting Traffic Flow**: Restriction of normal traffic flow into or out of University Property.
   8. **Use or Possession of Chemicals or Explosives**: Unauthorized use or possession of explosive components, chemicals, etc., such as fireworks, explosives, gas or compressed air.
   9. **Violation of Alcohol Policies**: Violations of University or the State of Maine alcoholic beverage regulations or laws.
   10. **Violation of Health or Safety Policies**: Violation of University health or safety regulations.

D. **Offenses Involving Other People**
   1. **Causing Fear of Physical Harm**: Intentionally or recklessly placing a person or persons in reasonable fear of imminent

Commented [SLM25]: New violation

Commented [SLM26]: Revised to include the misuse of legal prescription drugs

physical harm.

2. **Dating Violence:** Violence committed against a person by an individual who is or has been in a social relationship of a romantic or intimate nature with that person. Whether a dating relationship exists is determined based on the reporting party's statement and with consideration of the length of the relationship, the type of relationship, and the frequency of interaction between the persons involved in the relationship. Dating violence includes, but is not limited to, sexual or physical abuse or the threat of such abuse. Dating violence does not include acts covered under the definition of domestic violence. All forms of dating violence prohibited by Maine law are also included.

3. **Domestic Violence:** A felony or misdemeanor crime of violence committed by:
   a. A current or former spouse or intimate partner of the victim;
   b. A person with whom the victim shares a child in common;
   c. A person who is cohabiting with, or has cohabited with, the victim as a spouse or intimate partner;
   d. A person similarly situated to a spouse of the victim under the domestic or family violence laws of the jurisdiction in which the crime of violence occurred, or
   e. By any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of the jurisdiction in which the crime of violence occurred.

   All forms of domestic violence prohibited by Maine law are also included.

4. **Gender Discrimination**: Discriminating against an individual on the basis of that individual's gender, including, but not limited to, Dating Violence, Domestic Violence, Sexual Assault, Sexual Harassment, or Stalking.

5. **Harassment:** Repeated and/or severe acts of unwelcome behavior that creates a hostile working, educational, or living environment that unreasonably interferes with an individual's academic or job performance and opportunities.

6. **Hazing:** Any action taken or situation created by a person or an organization, or with the knowledge or Consent of an organization, which recklessly or intentionally endangers the mental or physical health of a student.

7. **Interference with Residential Life**: Significant interference with the normal residential life of others.

8. **Intimidation:** Implied or actual threats or acts that cause a reasonable fear of harm in another, and may be inferred from conduct, words, or circumstances reasonably calculated to cause fear.

9. **Invasion of Privacy:** The violation of another individual's reasonable expectation of privacy where the circumstances justify that expectation, including, but not limited to, physically trespassing in a private area with the intent of observing or eavesdropping, using an electronic device to intercept, record, amplify or broadcast a private conversation or private events, or engaging in surveillance, photographing, broadcasting, image- capturing or recording of private conversations or private events.

   The fact that the Responding Party was a party to the conversation or event is not determinative of another individual's reasonable expectation of privacy.

10. **Lewd or Indecent Behavior:** Exhibition of the genitals, anus, or pubic area of a person other than for legitimate academic purposes.

11. **Physical Assault**: Intentionally, knowingly, or recklessly causing bodily injury or offensive physical contact to another person.

12. **Retaliation:** Action taken by the University or any individual or group against any person for opposing any practices prohibited by the Code or for filing a complaint, testifying, assisting, or participating in an investigation or proceeding under the Code.

    This includes action taken against a bystander who intervened to stop or attempt to stop a violation of the Code. Retaliation includes intimidating, threatening, coercing, or in any way discriminating against an individual because of the individual's complaint or participation.

    Action is generally deemed retaliatory if it would deter a Reasonable Person in the same circumstances from opposing practices prohibited by the Code or from participating in the resolution of a complaint.

13. **Sexual Assault**: An offense that meets the definition of rape, fondling, incest, or statutory rape, as follows:
    a. Rape is the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the Consent of the victim.
    b. Fondling is the touching of the private body parts of another person for the purpose of sexual gratification, without the Consent of the victim, including instances where the victim is incapable of giving Consent because of his/her age or because of his/her temporary or permanent mental incapacity.
    c. Incest is sexual intercourse between persons who are related to each other within the degrees wherein marriage is

Commented [SLM27]: Removed from definition section – aligns with BOT 402

Commented [SLM28]: Removed from definition section – aligns with BOT 402

Commented [SLM29]: Harassment/Intimidation was divided into two separate violations

Commented [SLM30]: Harassment/Intimidation was divided into two separate violations

Commented [SLM31]: Revised to align with BOT 402

Commented [SLM32]: Removed from definition section – aligns with BOT 402

prohibited by law.
d. Statutory rape is sexual intercourse with a person who is under the statutory age of Consent under applicable law.

All forms of sexual assault and sexual contact prohibited by Maine law are also included.

14. **Sexual Harassment:** Includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, including sexual assault and sexual violence. Sexual harassment, including Sexual Assault, can involve persons of the same or opposite sex.

Consistent with the law, this policy prohibits two types of sexual harassment:
a. Tangible Employment or Educational Action (quid pro quo): This type of sexual harassment occurs when the terms or conditions of employment, educational benefits, academic grades or opportunities, living environment or participation in a University activity are made an explicit or implicit condition of submission to or rejection of unwelcome sexual advances or requests for sexual favors, or such submission or rejection is a factor in decisions affecting an individual's employment, education, living environment, or participation in a University program or activity. Generally, a person who engages in this type of sexual harassment is an agent or employee with some authority conferred by the University.

b. Hostile Environment: Sexual harassment that creates a hostile environment is based on sex and exists when the harassment:
   i. Is severe, pervasive, or persistent, and objectively offensive such that it denies or limits a person's ability to participate in or benefit from the University's programs, services, opportunities, or activities; or
   ii. Unreasonably interferes with an individual's academic or work performance.

A hostile environment can be created by anyone involved in a University program or activity, such as an administrator, faculty or staff member, student, or campus guest. Offensiveness alone is not enough to create a hostile environment. Although repeated incidents increase the likelihood that a hostile environment has been created, a single serious incident, such as a Sexual Assault, can be sufficient.

Determining whether conduct creates a hostile environment depends not only on whether the conduct was unwelcome to the person who feels harassed, but also whether a Reasonable Person in a similar situation would have perceived the conduct as objectively offensive.

The following factors will also be considered:
   i. The degree to which the conduct affected one or more students' education or individual's employment;
   ii. The nature, scope, frequency, duration, and location of the incident(s);
   iii. The identity, number, and relationships of persons involved; and
   iv. The nature of higher education.

15. **Sexual Misconduct:** Includes, but is not limited to, prostituting another person, nonconsensual image capturing of sexual activity, presentation or unauthorized viewing of a non-consensual videotaping of sexual activity, letting others watch you have sex without the knowledge and Consent of your sexual partner, possession of child pornography, peeping tommery, and/or knowingly transmitting an STD or HIV to another person.

Sexual misconduct may also constitute sexual harassment.

All forms of sexual misconduct prohibited by Maine law are also included.

16. **Stalking:** Engaging in a course of conduct directed at a specific person that would cause a Reasonable Person to:
a. Fear for the person's safety or the safety of others; or
b. Suffer substantial emotional distress.

For the purposes of this definition:
a. Course of conduct means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person, or interferes with a person's property.

> **Commented [SLM33]:** Removed from definition section – aligns with BOT 402

> **Commented [SLM34]:** Removed from definition section – aligns with BOT 402

b. <u>Reasonable person</u> means a reasonable person under similar circumstances and with similar identities to the victim.
c. <u>Substantial emotional distress</u> means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling.

All forms of stalking prohibited by Maine law are also included.

17. **Discriminatory Harassment**: Harassment based on actual or perceived race, color, religion, sex, Sexual Orientation, Gender Identity, Gender Expression, national origin or citizenship status, age, disability, genetic information or veteran status.
18. **Unauthorized Recording of a Conversation**: Intercepting, recording or image-capturing a University Employee in a classroom, office or over the telephone without that University Employee's Consent unless it is part of an approved reasonable accommodation.

E. <u>**Offenses Involving Property**</u>
1. **Defacement, Destruction, or Misuse of Property**: Intentional and/or reckless misuse, destruction, or defacement of University Property or of the property of other people without authorization.
2. **Misuse of University Computers**: Misuse of the University computer network or computers including, but not limited to, theft of computer files or data, e-mail, or other electronically stored information, probing or hacking into other computers or computer systems, spamming, sending out computer viruses, or uploading or downloading copyrighted material for personal use or distribution without authorization.
3. **Motor Vehicle Violation**: Violation of motor vehicle policies established for each campus.
4. **Tampering, Destruction, or Falsification of Records**: Tampering with, destroying, or falsifying official records.
5. **Theft or Unauthorized Use**: Theft, attempted theft, or unauthorized acquisition, removal, or use of the property of another.
6. **Trespassing**: Trespassing or unauthorized presence on any University Property, including residence halls.

F. <u>**General Infractions**</u>
1. **Aiding Infraction**: Knowingly assisting in the violation of any of the provisions of the Code.
2. **Continued Infraction**: Continued infractions of the Code.
3. **Conviction of a Crime**: Conviction of any crime that threatens: (a) any educational process or legitimate function of the University, or (b) the health or safety of any individual.
4. **Other Illegal Activity**: Violating local, state, or federal laws otherwise not covered under the Code.

IV. SANCTIONS

If a Responding Party admits to a violation of the Code to the Officer, Investigator, Committee or Review Panel; or upon determination by the Officer, Committee or Review Panel that a Responding Party has been found in violation of the Code, one or more of the following sanctions may be imposed in accordance with the provisions of the Code (see Section V):

A. **Assigned Educational Projects:** This may include research projects, reflective essays, counseling assessments, sanction seminars or other related assignments intended to promote learning.
B. **Community Service**: The type of service may be related to the nature of the violation.
C. **Deferred Sanction**: A specific period of time during which a sanction has been imposed but is stayed. Any further violation of the Code during that time may, at minimum result in the imposition of the deferred sanction, and any new or additional sanctions deemed necessary.
D. **Disciplinary Dismissal:** Permanent separation (subject to the right of review after five years) from the University.
1. Responding Parties who are dismissed will not be permitted to attend any of the University campuses or attend any University functions. After five (5) years from the date of the dismissal, the Responding Party may submit a written request to be readmitted to attend one of the University campuses. For a Responding Party preparing to transfer to a non-University institution who has been dismissed for a Violent Crime or Sexual Assault, a letter will be attached to the student's transcript explaining the dismissal. After five (5) years from the date of the dismissal, the Responding Party may submit a written request to have the letter attached for transfer applications to non-University institutions removed from their transcript.
2. Requests for readmission or removal of the letter attached for transfer applications will be submitted to the Officer of the campus from which the Responding Party was dismissed. The Officer will convene the campus committee designated by the President to review such requests pursuant to the campus written procedures.

E. **Disciplinary Probation**: A specified period of time when any further violation may result in additional sanctions, up to and including dismissal from the University.

F. **Disciplinary Suspension**: Separation from the University for a specific period of time and/or until a stated condition(s) is met.

Responding Parties who are suspended will not be permitted to attend any of the University campuses during the sanction period or attend any University functions. After the sanction period has been completed and all requirements of the suspension have been met, the Responding Party is eligible for readmission to any University campus. For a Responding Party preparing to transfer to a non-University institution who has been suspended for a Violent Crime or Sexual Assault, a letter will be attached to his/her transcript explaining that he/she has been suspended. If the Responding Party is transferring to a non-University institution after the sanction has been completed the letter will not be attached to the transcript.

G. **Fine**: Payment of money. Responding Parties who are unable to pay may discuss alternate payment arrangements.

H. **Loss of Contact with a Specific Person(s)**: With this sanction, the person may not initiate direct or indirect contact with a specified person(s).

I. **Loss of Visitation Privileges**: This loss of visitation may be to any designated area(s) of any University Property.

J. **Official Warning:** Official acknowledgment of a violation and the expectation that it will not be repeated.

K. **Removal from University Housing**: Removal from a particular hall or all housing.

L. **Restitution**: Restitution, up to the replacement value of the items damaged, stolen, removed, or used without authority and damages incurred.

M. **Such other action(s) as the Committee, Officer or Review Panel may reasonably deem appropriate (e.g., suspension of an organization's official campus recognition, suspension of a student from an extracurricular activity, termination from student employment, and/or academic degree revocation).**

> **Commented [SLM35]:** Added in two new examples

The University may impose a more severe sanction on a Responding Party when the Officer, Committee, or Review Panel determines that a Responding Party intentionally selected the person or organization against whom the violation was committed, or selected the property damaged or stolen, because of the race, religion, color, sex, Sexual Orientation, Gender Identity, Gender Expression, national origin or citizenship status, age, disability, genetic information or veteran status of that person, or the persons in the organization or the owner of the property.

V. PROCEDURES

Each University campus may adopt procedures for carrying out the provisions of the Code within the guidelines set forth by the Code as described below and consistent with the Code. University campuses having a professional code of ethics may adopt additional procedural provisions to be applicable to their own students.

ADMINISTRATION AND INTERPRETATION OF THE CODE WILL BE SOLELY WITHIN THE JURISDICTION OF THE OFFICER, THE COMMITTEE OR THE REVIEW PANEL, SUCH INTERPRETATION BEING PURSUANT TO THE PROCEDURES OF THE CODE.

A. **PRELIMINARY INQUIRY**

1. Alleged violations of the Code brought to the attention of the University by University Employees, students, or members of the general public will result in the initiation of a Preliminary Inquiry. A Preliminary Inquiry will determine if there is sufficient information to warrant a Formal Investigation or informal resolution. **Before interviewing or questioning of the Parties, notification must be provided under Section V.C., Notice of Formal Investigation, unless doing so would be likely to jeopardize health or safety, or the integrity of the investigation, or lead to the destruction of evidence.**

2. Informal resolution may be used to resolve cases where:
    a. There is sufficient information to support the allegations;
    b. All parties have mutually consented to the process; and
    c. The process is acceptable to the Officer.

    The Parties have the right to end the informal process at any time and begin the formal complaint process. Mediation may not be used in cases of allegations of Sexual Assault.

3. Upon the conclusion of the Preliminary Inquiry, in accordance with Notification Standards, if the alleged violation is

Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will be simultaneously notified whether no charges will be filed, a Formal Investigation will commence, or Informal Resolution will be pursued. In all other cases, only the Responding Party will be notified whether or not charges will be filed, or if a Formal Investigation will commence.

4. If, during the Preliminary Inquiry or at any point during the Formal Investigation, the Officer determines that there is no reasonable cause to conclude that the Code has been violated, the disciplinary process will end and the Responding Party will be notified. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will receive simultaneous notification of the Officer's decision end the disciplinary process and both the Parties will be notified of the right of review.

5. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, once the need for a Formal Investigation has been determined, the Parties will be provided written notification of the Formal Investigation at the appropriate time during the Formal Investigation.

6. Each Officer, Committee member, and Review Panelist is expected to conduct due diligence to determine if there is a potential conflict-of-interest. If there is a conflict of interest for the Officer, the Officer will refer the matter to another Officer. If any member of the Committee or Review panel is conflicted, an alternate will be appointed. The parties have the right to raise any potential conflict-of-interest with the Officer or any member of the Committee or Review Panel.

The University aims to complete the investigation, including the Preliminary Inquiry and Formal Investigation, if any, within a sixty (60) business day time period from the date of initial notice to completion of the Formal Investigation, if any, which time period may extended as necessary for appropriate cause.

B. **INTERIM MEASURES OR ACTIONS**

1. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the University may provide Interim Measures or Actions intended to address the short-term effects of the alleged Harassment, discrimination, and/or Retaliation, to the Parties and the community, and to prevent further violations of the Code. Interim Measures or Actions taken will be kept as private as reasonably practicable.

2. A Responding Party may be suspended from the University or have privileges revoked pending the outcome of a disciplinary proceeding if, in the judgment of the Officer, the Responding Party's continued presence or use of privileges at the University pending the outcome of the proceeding is likely to pose a substantial threat to the Reporting Party or to other people and/or is likely to cause significant property damage and/or disruption of or interference with the normal operations of the University. The Officer may converse with the Parties when such Interim Measures and Actions are considered.

3. Responding Parties who have been issued an Interim Measures or Actions or an interim suspension may seek review of that decision by requesting the Campus President or designee to review the decision. The Campus President or designee will review and make a determination on the request within five (5) business days of receipt.

4. In accordance with Notification Standards, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking the Officer may inform the Parties of any Interim Measures or Actions.

5. Interim Measures or Actions, including but not limited to: interim suspensions; no-contact orders; University Property usage restrictions; University account holds; and academic degree holds, will be implemented to ensure as minimal negative impact on the Parties while maintaining the safety of the University community and integrity of the investigation.

6. An enrolled student may not graduate if that student has a pending conduct case. If a student officially withdraws from the University or does not participate in the disciplinary process, the process will continue and the student may not be permitted to return to the University or graduate until the student is found not responsible for a violation of the Code or any imposed sanctions have been satisfied.

C. **NOTICE OF FORMAL INVESTIGATION**

1. Prior to commencement of a Formal Investigation, the Officer will notify the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) in writing per the Notification Standards of the following:
   a. Alleged Code violation(s);
   b. Reporting Party(ies);
   c. Date(s) of alleged occurrence(s);
   d. Maximum possible sanctions which may be imposed;

> **Commented [SLM36]:** New section added

    e.   The procedures that will be used to resolve the complaint; and

    f.   Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) right of review.

D. **FORMAL INVESTIGATION**

1. Upon the Officer's decision to commence a Formal Investigation, the Officer will initiate the investigation or assign it to a trained investigator, as soon as practicable.
2. The University may undertake a short delay in its investigation when criminal charges on the basis of the same behaviors that invoked this process are being investigated. The University will promptly resume its investigation and resolution processes once notified by law enforcement that the initial evidence collection is complete.
3. All investigations will be thorough, reliable, impartial, prompt and fair. Investigations entail interviews with all relevant parties and witnesses, obtaining available evidence, and identifying sources of expert information, as necessary.
4. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, both the Parties will be given access to the relevant evidence to be used in rendering a determination and each party will be provided a full and fair opportunity to address that evidence prior to a finding being rendered.
5. The Officer and/or investigator will provide regular updates to the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) throughout the investigation, as appropriate.
6. During the Investigation the Parties may be accompanied by an Advisor.
7. If no charges are being brought at the conclusion of the Formal Investigation, the Officer will provide such notification to the Responding Party. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will receive simultaneous notification of the Officer's decision not to bring charges and both the Parties will be notified of the right of review to either a committee chair or alternative hearing officer.

E. **NOTICE OF ADMINISTRATIVE HEARING BEFORE THE OFFICER**

1. If charges are being filed, the Officer will notify the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) in writing per the Notification Standards of the following:
    a.   Charge(s);
    b.   Reporting Party(ies);
    c.   Date(s) of alleged occurrence(s);
    d.   Maximum possible sanction which may be imposed;
    e.   The procedures that will be used to resolve the complaint; and
    f.   Date and time of the Administrative Hearing.

F. **ADMINISTRATIVE HEARING BEFORE THE OFFICER**

An Administrative Hearing before the Officer will be held for cases that have not been disposed of informally where there is sufficient evidence to charge a Code violation.

1. If any Party is not present at the time appointed for the hearing, the Officer will first attempt to determine the reason for that person's absence. The Officer may then proceed in a normal manner without a Party's attendance, may hear only a portion of the testimony and adjourn to a later date, or may continue the entire hearing to a later date.
    a.   The Officer may not consider the absence of any Party as relevant to whether the Responding Party committed the alleged violation of the Code.
2. During the hearing the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Reporting Party), may be accompanied by an Advisor and a support person of their choice. Advisors and support people will not be permitted to speak at the hearing, except to speak with their advisee, unless permission has otherwise been granted by the Officer.
3. During the hearing, the Officer may hear and consider as evidence any relevant information.

    The Officer <u>may not</u> consider:
    a.   Information obtained directly or indirectly through a search of a Party's or witnesses', effects, or room if a court of law has determined the search was illegal.

> **Commented [SLM37]:** Option of either an Administrative Hearing or Committee Hearing changed to first step in adjudication process is an Administrative Hearing. Option of student hearing panel removed.

     b. If the Officer is aware that a criminal prosecution relating to the same violation(s) is being conducted, or such action appears likely to be made, independent of the hearing, the Officer will notify the Responding Party in advance of the right to remain silent, and the Officer will draw no negative inference from the Responding Party's refusal to give information or consent to a search, except that the Responding Party had no answer or evidence to give.

4. The Officer will then:

     a. Make a determination that the Responding Party is in violation of the Code if a Preponderance of the Evidence demonstrates that the Responding Party has violated the code, or dismiss the case if the Officer determines the Responding Party is not in violation of the Code. The Officer will inform the Responding Party, in writing, of the outcome, including any sanctions imposed and any right of review.

     b. If the alleged violation is a Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Parties will receive simultaneous written notification of the outcome, including any sanctions and the rationale for the result and any sanctions, and of the Parties' right of review.

     c. If the alleged violation is Gender Discrimination or Sexual Harassment, the Reporting Party shall receive simultaneous notification of the outcome and of any sanctions that directly relate to the Reporting Party, and of the Reporting Party's right of review.

     d. In a case of a Violent Crime, the University may disclose the final results of the disciplinary proceeding to the victim(s), regardless of whether the University concluded a violation was committed.

5. If the Officer determines the Responding Party is responsible for a violation of the Code, the Officer will impose appropriate sanctions. Sanctions will become operative immediately once notice has been given to the Responding Party.

6. **Sanctions imposed as the result of the Administrative Hearing are implemented immediately unless the Officer stays their implementation in extraordinary circumstances, pending the outcome of a review hearing.** Graduation, study abroad, internships/ externships, etc. do NOT in and of themselves constitute extraordinary circumstances, and students may not be able to participate in those activities during the review period.

G. **RIGHT OF REVIEW BEYOND ADMINISTRATIVE HEARING BEFORE THE OFFICER**

1. In the event the Officer issues a sanction of suspension, dismissal, academic degree revocation, or loss of recognition of campus organizations, the Responding Party may request a review of the finding and/or sanction. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties have the right to a review of any finding(s) or sanction(s).

2. Requests for review will be in writing, state the issue(s) to be reviewed, and provide a detailed rationale for the request. The written request for a review will be submitted to the Officer within seven (7) calendar days after the Party(ies) has received notice of the Administrative Hearing finding(s) and shall not exceed five (5) pages in length.

3. The request for review to the Committee will be limited to the following grounds:

     a. A procedural error or omission occurred that significantly impacted the outcome of the hearing (e.g. substantiated bias, material deviation from established procedures, etc.).

     b. To consider new evidence, unknown or unavailable during the original hearing or investigation, that could substantially impact the original finding or sanction. A summary of this new evidence and its potential impact will be included in the written request for review.

     c. The sanction imposed is significantly disproportionate to the severity of the violation and/or the cumulative record of the Responding Party.

     d. Reconsideration of existing information and whether it supports the Administrative Hearing Before the Officer finding.

4. The Committee will review request(s) for review. The original finding(s) and sanction(s) will stand if the request for review is not timely or is not based on the grounds listed above in Section V.G(3), and such a decision is final.

5. The Committee review may result in: (a) a change to the finding(s); (b) a change in sanction(s), such as a higher sanction, a lower sanction, the same sanction, or no sanction at all being imposed; or (c) remand to Administrative Hearing Before the Officer.

H. **RESPONSIBILITIES OF THE COMMITTEE**

1. As soon as practicable upon receipt of the request for review, the following steps will be taken:

     a. The Committee chair will notify, in writing, the Officer and the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment,

or Stalking) of a date, place, and time for the Committee hearing. Committee hearings are normally held not earlier than five (5) calendar days and not later than fourteen (14) calendar days after issuance of the notification of hearing.

b. List in the notice to the Parties the names of the Committee member(s) conducting the review and witnesses being invited by the Committee.

c. Make arrangements for the keeping of a recorded record of the Committee hearing. In cases of a review to the Review Panel, the Responding Party charged with the violation, his/her Advisor, and authorized Campus Authorities may have access to the record for purpose of review relating to a request for review. No copies will be made except by the University. The record will be kept by the University campus for at least three (3) years after all review rights have been exhausted at which time the record may be destroyed. Records of hearings are deemed to be Student Education Records under the Family Educational Rights and Privacy Act of 1974 (FERPA) and may not be disclosed publicly except as provided in FERPA. No recording in any form, other than the one made by the Committee, is permitted at the Committee hearing. If the alleged violation is Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Reporting Party and his/her Advisor may have the same access to the recording as the Respondent. If the alleged violation is Gender Discrimination or Sexual Harassment, the Reporting Party and his/her Advisor may have access to the portions of the recording pertaining to the Reporting Party.

2. Composition of the Committee
   a. The Committee will be comprised as described in Section VI.
   b. The Parties or the Officer will have the right to challenge, for cause, any Committee member by submitting to the Committee Chair written notice stating the grounds for the challenge at least two (2) business days prior to the scheduled hearing. Removal of members for cause will be within the authority and at the discretion of the Committee Chair or another member of the Committee if the Chair is unable to exercise that function or is challenged for cause.

3. Hearing Preliminaries
   a. At any proceeding before the Committee, the Parties and witnesses may have the assistance of an Advisor.
   b. The hearing will be closed to the public. The Committee Chair may permit, in addition to the Party's Advisor, one support person for each Party to observe the proceedings. At the discretion of the Committee Chair, the Committee Chair reserves the right to close the hearing.
   c. If any Party or witness is not present at the time appointed for the hearing, the Committee will attempt to determine the reason for that party's absence. The Committee may proceed: (1) in a normal manner without their attendance; (2) hear only a portion of the testimony and adjourn to a later date; or (3) continue the entire hearing to a later date. The Committee may not consider the absence of a party as relevant to whether the Responding Party committed the alleged violation of the Code.

4. Hearing Procedures
   a. Responsibility for recognizing and permitting persons to speak lies exclusively with the Committee Chair.
   b. Persons disruptive at any stage of the hearing may be evicted at the reasonable discretion of the Committee Chair.
   c. The names of witnesses and/or copies of written statements will be submitted to the Officer at least two (2) business days prior to the hearing for inclusion in the materials presented to the Committee. At the discretion of the Committee Chair, the Parties may submit written documents, oral testimony of witnesses, and all relevant documents, records, and exhibits at the time of the hearing.
   d. The Officer will first present the results of the Preliminary Investigation, Formal Investigation, and Administrative Hearing.
   e. The Reporting Party may present oral testimony and/or written statements from any person(s) including the Responding Party, and all relevant documents, records and exhibits.
   f. The Responding Party may then present oral testimony and or written documentation themselves and/or from other witnesses, and all relevant documents, records and exhibits.
   g. At any time during the proceedings, members of the Committee may question witnesses or parties to the proceeding; witnesses or parties may only ask questions of each other at the discretion of and through the Committee Chair. **Questioning by any Advisor is not permitted.** Advisors and support people may not speak at the hearing, except to their advisee.
   h. After the presentation of all the information to the Committee, the Officer and the Responding Party (and the Reporting Party if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) may present summaries of their arguments to the Committee.
   i. During the hearing, the Committee may consider any relevant information to the grounds for appeal, will not be bound by the strict rules of legal evidence, and may take into account any information which is of value in determining the issues involved. Efforts will be made to obtain the most reliable information available.

      j.   After all parties have presented their respective information, the Committee will go into closed session to determine whether the Responding Party is in violation of the Code. Deliberations are not recorded. A Committee member should vote that the Responding Party is in violation of the Code only if a Preponderance of the Evidence demonstrates behavior that is in violation.

      k.   A simple majority vote of responsible or not responsible for a violation of the Code by the Committee members present will prevail. If the majority of the Committee votes for not responsible or there is a tie, the Responding Party will be found not responsible.

      l.   If a Responding Party is found to be responsible for the violation of Code, the Officer and the Responding Party (and the Reporting Party if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) may make recommendations to the Committee as to the appropriate sanctions. The Committee will go back into closed session and deliberate on sanctions. Deliberations are not recorded. A majority vote of the Committee members is needed for an imposition of a sanction(s).

5.   After Committee deliberations are concluded, the Committee Chair will:

      a.   Inform the Responding Party of the finding of the Committee, per the Notification Standards including:

          i.   The section(s) of the Code found to have been violated;

          ii.   The sanction imposed; <u>and</u>

          iii.   The rationale for both the finding(s) and the sanction(s).

      b.   If the alleged violation is a Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Committee will inform the Parties, per the Notification Standards, simultaneously of the outcome of the proceeding, the rationale for the result, any sanctions, when a decision is considered final, any changes that occur prior to finalization, and any rights of review.

      c.   If the alleged violation is Gender Discrimination or Sexual Harassment in addition to informing the Complainant of the outcome of the proceedings the Committee shall inform the Complainant of any sanctions imposed upon the Respondent that directly relate to the Complainant.

      d.   In a case of a Violent Crime, the University may disclose the final results of the Committee Hearing to the victim, regardless of whether the University concluded there was a violation of the Code.

6.   **<u>Sanctions imposed as the result of the Committee hearing are implemented immediately unless the Chair of the Committee stays their implementation in extraordinary circumstances, pending the outcome of a review hearing.</u>** Graduation, study abroad, internships/ externships, etc. do NOT in and of themselves constitute extraordinary circumstances, and students may not be able to participate in those activities during the review period.

I.   **RIGHT OF REVIEW BEYOND COMMITTEE**

1.   In the event the Committee approves a sanction of suspension, dismissal, academic degree revocation, or loss of recognition of campus organizations, the Responding Party may request a review of the finding or sanction. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, all Parties have the right to a review of any finding(s) or sanction(s).

2.   Requests for review will be in writing, state the issue(s) to be reviewed, and provide a detailed rationale for the request. The written request for a review will be submitted to the Officer within seven (7) calendar days after the Party(ies) has received notice of the Committee finding(s) and shall not exceed five (5) pages in length.

3.   If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the review request will be shared with the other Party(ies), who may file a response within five (5) calendar days and/or bring their own review on separate grounds within the original timeframe. If new grounds are raised, the party requesting the review will be permitted to submit a written response to these new grounds within five (5) calendar days. This response will be shared with all Parties.

4.   Campus president or designee, will appoint a Review Panel as described in Section VII below.

5.   The request for review to the Review Panel will be limited to the following grounds:

      a.   A procedural error or omission occurred that significantly impacted the outcome of the process (e.g. substantiated bias, material deviation from established procedures, etc.).

      b.   To consider new evidence, unknown or unavailable during the original hearing or investigation, that could substantially impact the original finding or sanction. A summary of this new evidence and its potential impact will be included.

      c.   The sanction imposed is significantly disproportionate to the severity of the violation and the cumulative record of the Responding Party.

6.   The Review Panel will review request(s) for review. The original finding(s) and sanction(s) will stand if the request for review is not timely or is not based on the grounds listed above in Section V.H(5), and such a decision is final.

> **Commented [SLM38]:** Page limited added

7. If the Review Panel finds that at least one of the review grounds is met by at least one party, additional principles governing the hearing of review will include the following:
   a. The Review Panel may make changes to the finding only where there is clear error and to the sanction(s) only if there is a compelling justification to do so.
   b. A review hearing is not intended to be a full re-hearing (de novo) of the allegation(s). A review to the Review Panel is limited to a review of the written documentation and recorded record of the Committee hearing regarding the grounds for review, and any new information provided by Parties. A review is not an opportunity for the Review Panel to substitute their judgment for that of the Committee merely because it disagrees with the Committee finding(s) and/or sanction(s). Reviews may be remanded to the original Committee or Officer at the discretion of the Review Panel. A remand to the original Committee or Officer can not be reviewed.
   c. In accordance with the Notification Standards, the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) will be informed of whether the grounds for a review are accepted and of the results of the review decision or remand.
   d. A majority vote of the Review Panel will prevail.
   e. Once the Review Panel has made a decision, the outcome is final. Further reviews are not permitted, even if a decision or sanction is changed on remand, except in the case of a new hearing before a new Committee or Officer, if ordered by the Review Panel.
   f. In accordance with the Notification Standards, the Responding Party (and the Responding Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) will be informed in writing of the outcome of the Review Panel.
   g. In a case of a Violent Crime the University may disclose the final results of the Review Panel to the victim, regardless of whether the University concluded a violation was committed.
8. In rare cases where a procedural (or substantive) error cannot be cured by the Review Panel (as in cases of bias), the Review Panel may recommend a new hearing with a new Committee. The results of the new Committee hearing may be reviewed, once, on any of the three (3) applicable grounds for review stated in Section V.H(5) above.
9. In cases where the review results in reinstatement to the University or resumption of privileges, all reasonable attempts will be made to restore the Responding Party to his/her/their/its prior status.

VI. STUDENT CONDUCT COMMITTEE COMPOSITION

A. Committee members will be identified by campus presidents or their designee(s).
B. Each University campus will identify from their respective campus, at least three (3) people, who can serve as trained Committee members, each in the following categories:
   1. Enrolled students;
   2. Faculty members; and
   3. Staff members.
C. Each hearing Committee will have at least three (3) and no more than seven (7) members consisting of:
   1. Committee Chair who is either a faculty or staff member;
   2. At least one (1) enrolled student; and
   3. At least one (1) faculty or staff member.
D. All members of a hearing Committee will avoid both the appearance and reality of any conflict of interest. Any Committee member who has a potential conflict of interest or feels that s/he is unable to render an unbiased decision in the case will decline assignment to that Committee.
E. The composition of the Committee will have equitable gender representation whenever practicable.

VII. REVIEW PANEL COMPOSITION

A. At the discretion of each campus president or designee, the Review Panel shall consist of either:
   1. One (1) person who is a faculty or staff member, as identified by the campus president or designee; or
   2. Three (3) members which shall include:
      a. One (1) faculty or staff member identified by the campus president;
      b. One (1) enrolled student; and
      c. One (1) Committee member.
B. All Review Panel members may not have previous involvement with the current matter. All members of a Review Panel will avoid both the appearance and reality of any conflict of interest. Any Review Panel member who has a potential conflict of interest or feels that s/he is unable to render an unbiased decision in the case will decline assignment to that Review Panel.

VIII. TRAINING

    A. The following individuals will have annual training on issues related to Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking and how to conduct an investigation and hearing process that protects the safety of individuals involved and promotes accountability:

        1. Campus presidents' designee(s);
        2. Officers;
        3. Individuals responsible for conducting Preliminary Inquiry or Formal Investigations;
        4. Committee members; and
        5. Review Panel members.

IX. SPECIFIC PROCEDURES WITH RESPECT TO DATING VIOLENCE, DOMESTIC VIOLENCE, SEXUAL ASSAULT, OR STALKING

The University prohibits Dating Violence, Domestic Violence, Sexual Assault, or Stalking. In such cases, the University will provide a prompt, fair, and impartial investigation and resolution. This process will be conducted by University Employees who receive annual training on these issues, and on how to conduct an investigation and hearing process that protects the safety of individuals involved and promotes accountability.

    A. Reporting a Violation
        1. Individuals may elect to report an incident to Campus Authorities, local law enforcement, both, or neither.
        2. Should a Reporting Party elect to report an incident to local law enforcement, Campus Authorities are available to assist with this process at the Reporting Party's request.
        3. Reporting Parties should, if possible, attempt to preserve any evidence. This evidence could prove crucial should the Reporting Party choose to report a violation of the Code, report a criminal act to local law enforcement, or seek an order of protection from abuse or harassment from the courts.
        4. As with other violations of the Code, and in accordance with federal law, the Preponderance of the Evidence standard will be used to determine whether a violation of the Code has occurred.
    B. Sanctions and Protective Measures
        1. Separate from the sanctions outlined in Section IV, it is within the University's power to impose remedial measures for the Parties.
        2. Even if a Reporting Party chooses not to pursue disciplinary proceedings under the Code or report the incident to law enforcement, the Reporting Party should consider talking to Title IX Coordinator or the Deputy Coordinator about the possibility of remedial measures, as many measures (such as counseling or changing classes) may be possible regardless of whether an investigation is initiated.
        3. Examples of possible remedial measures include:
            1. Changes in housing, classes, or transportation in order to avoid contact between the Parties;
            2. No-contact directives; and
            3. Helping connect the Parties to access services on campus and in the community, including counseling.
        4. Additional information on resources, including details about free on-campus counseling services and other resources on campus and in the community, may be found in the University's policy pamphlet on sexual assault, domestic violence, dating violence, and stalking.
    C. Confidentiality
        1. Under federal law, the University is required to report statistics regarding the occurrence of certain crimes in the University community. When reporting these statistics the University withholds the names of Parties as confidential and, to the extent permissible by law, withholds any other information that may serve to identify the Parties.
        2. If a Reporting Party requests that their name or other identifiable information not be disclosed to the Responding Party, the University's ability to respond to the incident and pursue disciplinary action may be limited. Reporting Parties should note that, under Title IX of the Education Amendments of 1972, retaliation against a Party is prohibited. University Employees will take steps to prevent retaliation and will take responsive action if retaliation is found to have occurred.

X. STUDENT CONDUCT CODE REVIEW BOARD
    A. The Student Conduct Code Review Board will be responsible for:
        1. Considering all proposed amendments to the Code and acting as an advisor to the Board of Trustees in matters pertaining to the Code; and
        2. Sending recommendations on proposed amendments of the Code to the President's Council and Chancellor for transmission to the Board of Trustees.

> **Commented [SLM41]:** New section – training requirements are consolidated here, instead spread out throughout the code.

B. The Student Conduct Code Review Board will be composed of the following:
1. From each campus of the University:
    a. One (1) Officer;
    b. One (1) Committee chair; <u>and</u>
    c. One (1) enrolled student appointed by the President or his/her designee after seeking nominations from student representatives.
2. One (1) enrolled student who is in a distance education program. This enrolled student will be appointed by the Vice Chancellor for Academic Affairs or his/her designee.
3. One (1) representative from the Board of Trustees.
4. One (1) representative appointed by Chancellor.
C. The Chancellor's representative will be responsible for calling the Student Conduct Code Review Board into session.
D. The Student Conduct Code Review Board will meet at least once every three (3) years, but may meet more often when requested by the following:
1. Officers representing at least two (2) campuses of the University;
2. Student government officers representing at least two (2) campuses of the University; <u>or</u>
3. The Chancellor.

XI. AMENDING THE STUDENT CONDUCT CODE

The Board of Trustees will act upon proposed amendments to the Code after receiving recommendations of the Student Conduct Code Review Board, the President's Council of the University System, and the Chancellor. As provisions of the Code are subject to periodic review and change, the most recent and current copy of the Code may be obtained through the University of Maine System Chief Student Affairs Office or the Student Affairs Office on each campus.

Revised by the Student Conduct Code Review Board and accepted by the Board of Trustees, <mark>XXXXXXXX/</mark>
Effective Date: July 1, 2018

UNIVERSITY OF MAINE SYSTEM STUDENT CONDUCT CODE

POLICY STATEMENT

The purpose of the University of Maine System Student Conduct Code (the "Code") is to promote the pursuit of activities that contribute to the intellectual, ethical, and physical development of the individuals under the auspices of the University of Maine System (the "University") and the individual campuses. The Code seeks to ensure the safety of persons engaging in those pursuits; to protect the free and peaceful expression of ideas; and to assure the integrity of various academic processes.

Students are expected to conduct their affairs with proper regard for the rights of others and of the University. All members of the University community share a responsibility for maintaining an environment where actions are guided by mutual respect, integrity, and reason.

All members of the University are governed by University policies, local ordinances, and state and federal laws. For specific governing documents, students and/or campus organizations may refer to University Policies and Procedures; campus student handbooks; campus residence hall agreements and manuals; and related notices and publications. Individuals in violation of state and federal law are subject to prosecution by appropriate state and federal authorities regardless of whether the activity occurs on or off University Property. In addition, students may be subject to disciplinary action by the University pursuant to the Code. The severity of the imposed sanctions will be appropriate to the violation and circumstances of the situation.

In seeking to encourage responsible attitudes, the University places much reliance upon personal example, counseling, and admonition. In certain circumstances where these preferred means fail, the University will rely upon the rules and procedures described in the Code.

The Officer may make minor modifications to procedure that do not materially jeopardize the fairness owed to any party, such as to accommodate summer schedules, etc.

Policy in effect at the time of the offense will apply even if the policy is changed subsequently but prior to resolution. Procedures in effect at the time of the resolution will apply to resolution of incidents, regardless of when the incident occurred.

If government regulations change in a way that impacts this document, this document will be construed to comply with government regulations in their most recent form.

IN THE ENFORCEMENT OF THE CODE, THE UNIVERSITY FUNCTIONS IN AN ADMINISTRATIVE MANNER. THE UNIVERSITY'S ADMINISTRATIVE PROCESS AFFORDS FUNDAMENTAL FAIRNESS, BUT DOES NOT FOLLOW THE TRADITIONAL COMMON LAW ADVERSARIAL METHOD OF A COURT OF LAW.

In complying with the letter and spirit of applicable laws and in pursuing its own goals of diversity, the University of Maine System does not discriminate on the grounds of race, color, religion, sex, sexual orientation, including transgender status and gender expression, national origin, citizenship status, age, disability, genetic information or veterans status in employment, education, and all other programs and activities.

The following person has been designated to handle inquiries regarding non-discrimination policies: Director of Equal Opportunity, North Stevens Hall, Orono, ME 04469; voice: (207)581-1226; TTY 711 (Maine Relay System email: equal.opportunity@maine.edu.

A qualified student with a disability is entitled to reasonable accommodations in order to participate in this administrative process. Accommodations may include, but are not limited to, sign language interpretation or information in alternative formats. Students wishing to request reasonable accommodations should make those requests directly to the Officer. The Officer will consult with the appropriate campus office for students with disabilities to assist with the determination of reasonable accommodations. Students may be required to provide documentation in order for the Officer to make a determination.

I.   **JURISDICTION**
    A.   The Code will apply to the following:
       1.   Any person(s) registered or enrolled in any course or program offered by the University;
       2.   Any person accepted to the University;

3. Any recognized student organization; <u>or</u>
4. Any group of students not currently recognized, but under probation or suspension, by the University.

B. Persons are deemed to be enrolled at the University until such time as the student has:
1. Officially graduated from the University;
2. Been officially dismissed from the University; <u>or</u>
3. Not been enrolled in any course or program within the University for one calendar year.

C. Persons are also deemed to be enrolled at the University if the student:
   a. Has been officially suspended from the University (persons are deemed to be enrolled during the period of their suspension), <u>or</u>
   b. Is taking distance courses provided by or presented at a University campus.

D. The Code may be applied in cases of conduct when the alleged incident:
1. Occurs on any campus of the University, or involving any other University Property;
2. At Activities Pursued Under the Auspices of the University; or
3. In which the University can demonstrate a substantial interest as an academic institution regardless of where the conduct occurs, including online or off-campus, and in which the conduct seriously threatens: (a) any educational process; (b) legitimate function of the University; or (c) the health or safety of any individual.

E. Jurisdiction is determined on the date of the alleged incident.

II. DEFINITIONS

A. **Activities Pursued Under the Auspices of the University:** Any activities specifically sponsored or participated in by the campus or by any campus organization. Such activities do not include informal off-campus gatherings of students. However, this definition will not be construed so as to limit the University's jurisdiction.

B. **Administrative Hearing Before the Officer:** A hearing before the Officer to determine if a Responding Party has violated any section(s) of the Code.

C. **Advisor:** A person who is available to advise or support any party involved in a Code violation investigation and resolution process. Someone acting in the capacity of an advisor may not be a witness. Examples of advisors may include, but are not limited to, family members, friends, University Employees, and attorneys.

D. **Campus Authorities:** Includes, but is not limited to, any Campus Police or Security Staff, the Officer, the Committee, and the Review Panel.

E. **Conduct Officer (the "Officer"):** Person(s) or designee(s) responsible for resolving alleged violations of the Code.

F. **Consent:** An individual's agreement to engage in sexual activity.
1. Consent must be:
   a. Informed, freely, and actively given, and consist of a mutually agreeable and understandable exchange of words or actions.
   b. Clear, knowing and voluntary.
   c. Active, not passive.
2. Consent may be withdrawn at any time.
3. Silence, in and of itself, cannot be interpreted as consent.
4. Consent can be given by words or actions, as long as those words or actions create mutually understandable clear permission regarding willingness to engage in (and conditions of) sexual activity.
5. Past consent does not imply future consent.
6. Consent to engage in one form of sexual activity does not imply consent to engage in any other sexual activity.
7. Consent to engage in sexual activity with one person does not imply consent to engage in sexual activity with any other person.
8. There is no consent when the exchange involves unwanted physical force, coercion, intimidation and/or threats.
9. If an individual is mentally or physically incapacitated or impaired such that one cannot understand the fact, nature, or extent of the sexual situation, and the Incapacitation or impairment is known or should be known to a Reasonable Person, there is no consent. This includes conditions resulting from alcohol or drug consumption, or being asleep, or unconscious.
10. Consent is not valid if the person is too young to consent to sexual activity under Maine law, even if the minor wanted to engage in the activity.

G. **Formal Investigation:** A fair, thorough, and impartial process used to determine, to the fullest extent possible, if a there has

been a violation of the Code. Investigations include, but are not limited to, interviews with relevant parties and evidence collection.

H. **Gender Expression:** An individual's external expression of their gender identity, through such means as clothing, hair styling, jewelry, voice, and behavior.

I. **Gender Identity:** An individual's sincerely held core belief regarding their gender whether that individual identifies as male, female, a blend of both, neither, or in some other way (such as, for example, an individual who identifies as "queer", "genderqueer", "bi-gender", "intersex", or "gender fluid").

J. **Hostile Environment:** Is created when harassment is:
   1. Severe, Persistent, or Pervasive; <u>and</u>
   2. Objectively Offensive, such that it denies or limits a person's ability to participate in or benefit from the University's programs, services, opportunities, or activities; or unreasonably interferes with an individual's academic or work performance.

   A hostile environment can be created by anyone involved in a University program or activity, such as an administrator, faculty or staff member, student, or campus guest. Offensiveness alone is not enough to create a hostile environment. Although repeated incidents increase the likelihood that a hostile environment has been created, a single serious incident, such as a Sexual Assault, can be sufficient.

   Determining whether conduct creates a hostile environment depends not only on whether the conduct was unwelcome to the person who feels harassed, but also whether a Reasonable Person in a similar situation would have perceived the conduct as objectively offensive.

   The following factors will also be considered:
      i. The degree to which the conduct affected one or more students' education or individual's employment;
      ii. The nature, scope, frequency, duration, and location of the incident(s);
      iii. The identity, number, and relationships of persons involved; and
      iv. The nature of higher education.

K. **Incapacitation:** An individual is mentally or physically incapacitated such that:
   1. The individual cannot understand the fact, nature, or extent of the situation (e.g. to understand the "who, what, when, where, why or how" of the situation); <u>and</u>
   2. The incapacitation is known or should be known to the Responding Party (as evaluative from the perspective of a Reasonable Person).

   This includes conditions resulting from alcohol or drug consumption, being asleep, or unconscious.

   A policy violation is not excused by the fact that the Responding Party was intoxicated and, due to that intoxication, did not realize the incapacity of the other person.

L. **Interim Measures or Actions:** Taken to promote the safety and well-being of the Parties, including, but not limited to, moving either Party to a new living, dining or working situation; issuing a no contact order; changing class or work schedules; changing transportation; financial aid accommodations; immigration assistance; and other academic and/or employment accommodations and support.

M. **Notification Standards:** Official notice from the University may be hand delivered, mailed to a student's last known address, or delivered through the use of the student's University email account.

N. **Party(ies):** The Reporting Party(ies) and Responding Party(ies), collectively.

O. **Preliminary Inquiry:** Typically one to three (1-3) days in length, this inquiry precedes a formal investigation, to determine if there is reasonable cause to believe that there has been a violation of the Code.

P. **Preponderance of the Evidence**: The standard of evidence used to determine whether the Student Conduct Code has been violated. Under this standard, a violation will be determined to have occurred if, based upon the evidence presented, the Officer, the Committee, or the Review Panel conclude that it is more likely than not that the violation was committed.

Q. **Reasonable Person:** A representative individual under similar circumstances and with similar identities to the person in question, who exercises care, skill, and judgment.

R. **Reporting Party:** A person who alleges harm and/or a policy violation by a student or campus organization. Where the Reporting Party does not want to participate, the University may move forward with the case. In cases of Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, however, the words "Reporting Party" shall refer only to the person who has been harmed by the alleged misconduct.

S. **Responding Party:** A student or organization that has been alleged to have violated the Code, is under Formal Investigation, or has been charged with a violation of the Code.

T. **Review Panel:** A one (1) or three (3) member panel that hears reviews from the Committee, described in Section VII.

U. **Sexual Orientation:** A person's actual or perceived sexuality or sexual identity.

V. **Student Conduct Committee (the "Committee"):** A committee composed of representatives from campuses of the University responsible for hearing conduct cases on review after the Administrative Hearing, described in Section VI.

W. **University Employee:** Employees, including faculty, staff, students, Board of Trustees, volunteers, and agents of the University.

X. **University of Maine System Student Conduct Code (the "Code"):** This entire document.

Y. **University of Maine System (the "University"):** Means either collectively or singularly, any of the of following campuses: University of Maine at Augusta; University of Maine at Farmington; University of Maine at Fort Kent; University of Maine at Machias; University of Maine (Orono); University of Maine at Presque Isle; University of Southern Maine; University Colleges; and all University Property.

Z. **University Property:** Includes, but is not limited to, any Real or Personal Property owned, held, rented, licensed, chartered, or otherwise engaged by the University in any manner or by University Employees and/or campus organizations as a direct result of and in connection with their service to the University.
   1. Real Property: Land, buildings, fixtures, improvements, and any interests therein.
   2. Personal Property: All property, other than real property, and any interests therein. The University's computer network and all its component parts, which are not real property. Any document or record issued or purporting to be issued by the University.

AA. **Violent Crime:** Arson, assault offenses, intimidation, burglary, manslaughter, murder, destruction/damage/vandalism of property, kidnapping/abduction, and/or robbery.

III. Violations

Violations are activities which directly and significantly interfere with the University's (1) primary educational responsibility of ensuring the opportunity of all members of the community to attain their educational objectives, or (2) subsidiary responsibilities of protecting the health and safety of persons in the campus community, maintaining and protecting property, keeping records, providing living accommodations and other services, and sponsoring non-classroom activities such as lectures, concerts, athletic events, and social functions.

The violations listed below are considered in the context of the student's responsibility as a member of the academic community; other actions which may be considered as violations may be defined by other documents, such as, for example, residence hall contracts. Disciplinary action taken under the Code is independent of the awarding of grades (an academic matter), and provisions of the Code cannot be used for changing awarded grades.

The residence hall contract between the student and the University may specify certain other conditions which impose additional responsibilities and obligations on the residence hall student. The following violations indicate categories of conduct or activity which violate the Code.

Reporting Violations:

All reports are acted upon promptly while every effort is made by the University to preserve the privacy of such reports. Such reports may also be anonymous. Anonymous reports will be investigated to determine if remedies can be provided. Reports of alleged violations of the Code should be reported to Campus Authorities such as the University's Residence Hall staff, Dean of Students, or Officer. Reports of Gender Discrimination (including sexual harassment, dating violence, domestic violence, sexual assault or stalking) may be reported directly to the University's Title IX Coordinator/Deputy Coordinator.

The following violations are provided in order to give students reasonable warning that such conduct or attempted conduct is prohibited.

A. **Academic Misconduct**
    1. **Cheating**: The act or attempted act of deception by which a student seeks to misrepresent that he/she has mastered information on an academic exercise that he/she has not mastered.
    2. **Fabrication**: The use of invented information or the falsification of research or other findings in an academic exercise.
    3. **Plagiarism**: The submission of another's work as one's own, without adequate attribution.
    4. **Facilitating Academic Misconduct**: Assisting in another person's academic misconduct.

B. **Disruption of University Operations**
    1. **Causing a Disturbance**: Disturbance resulting in substantial disruption of authorized activities.
    2. **Failure to Comply with Sanction**: Failure to comply with or attempts to circumvent a sanction(s) imposed by the Officer, Committee, or Review Panel.
    3. **Failure to Identify**: Failing to properly identify oneself to a University Employee acting in pursuit of official duties.
    4. **Interference with Code Enforcement**: Interference with a Reporting Party, Responding Party, witness, investigation or the carrying out of procedures defined in the Code.
    5. **Interference with or Failure to Comply with a University Employee**: Direct interference with or failure to comply with a University Employee in the performance of his/her official duties.
    6. **Supplying False Information**: Knowingly supplying false information to University Employees in pursuit of their official duties or to a Committee or Review Panel in the course of a disciplinary proceeding, or knowingly causing false information to be thus supplied.
    7. **Unauthorized Representation**: Unauthorized representation of the University or University Employee(s).
    8. **Violation of Residence Hall Policies**: Violation of residence hall contracts, except when the residence hall contract specifically provides for an alternate procedure or remedy for the violation concerned.
    9. **Violation of Student Activity Regulations**: Violation of a campus-specific or system-wide regulation, policy, standard of conduct, or code of ethics applicable to the activity in which the student is engaged, and which has been adopted, published or otherwise made known to students participating in such activity.

C. **Health & Safety Violations**
    1. **Creating a Dangerous Condition**: Creation of a fire hazard or other dangerous condition.
    2. **Endangering Health or Safety**: Conduct which threatens or endangers the health or safety of any individual.
    3. **False Reporting of Dangerous Conditions**: Giving or causing to be given false reports of fire or other dangerous conditions.
    4. **Illegal Possession, Use, or Sale of Drugs**: Illegal possession, use, or sale of drugs or drug paraphernalia. The misuse of legal prescription drugs.
    5. **Interference with Safety Equipment or Alarms**: Tampering with, disabling, or causing malfunction of fire and safety equipment or alarm systems.
    6. **Possession or Misuse of Weapons**: Violation of regulations concerning possession or misuse of firearms or other dangerous weapons, as defined by policies established for each campus.
    7. **Restricting Traffic Flow**: Restriction of normal traffic flow into or out of University Property.
    8. **Use or Possession of Chemicals or Explosives**: Unauthorized use or possession of explosive components, chemicals, etc., such as fireworks, explosives, gas or compressed air.
    9. **Violation of Alcohol Policies**: Violations of University or the State of Maine alcoholic beverage regulations or laws.
    10. **Violation of Health or Safety Policies**: Violation of University health or safety regulations.

D. **Offenses Involving Other People**
    1. **Causing Fear of Physical Harm**: Intentionally or recklessly placing a person or persons in reasonable fear of imminent

physical harm.

2. **Dating Violence:** Violence committed against a person by an individual who is or has been in a social relationship of a romantic or intimate nature with that person. Whether a dating relationship exists is determined based on the reporting party's statement and with consideration of the length of the relationship, the type of relationship, and the frequency of interaction between the persons involved in the relationship. Dating violence includes, but is not limited to, sexual or physical abuse or the threat of such abuse. Dating violence does not include acts covered under the definition of domestic violence. All forms of dating violence prohibited by Maine law are also included.

3. **Domestic Violence:** A felony or misdemeanor crime of violence committed by:
   a. A current or former spouse or intimate partner of the victim;
   b. A person with whom the victim shares a child in common;
   c. A person who is cohabitating with, or has cohabitated with, the victim as a spouse or intimate partner;
   d. A person similarly situated to a spouse of the victim under the domestic or family violence laws of the jurisdiction in which the crime of violence occurred; or
   e. By any other person against an adult or youth victim who is protected from that person's acts under the domestic or family violence laws of the jurisdiction in which the crime of violence occurred.

   All forms of domestic violence prohibited by Maine law are also included.

4. **Gender Discrimination**: Discriminating against an individual on the basis of that individual's gender, including, but not limited to, Dating Violence, Domestic Violence, Sexual Assault, Sexual Harassment, or Stalking.

5. **Harassment:** Repeated and/or severe acts of unwelcome behavior that creates a hostile working, educational, or living environment that unreasonably interferes with an individual's academic or job performance and opportunities.

6. **Hazing:** Any action taken or situation created by a person or an organization, or with the knowledge or Consent of an organization, which recklessly or intentionally endangers the mental or physical health of a student.

7. **Interference with Residential Life**: Significant interference with the normal residential life of others.

8. **Intimidation:** Implied or actual threats or acts that cause a reasonable fear of harm in another, and may be inferred from conduct, words, or circumstances reasonably calculated to cause fear.

9. **Invasion of Privacy:** The violation of another individual's reasonable expectation of privacy where the circumstances justify that expectation, including, but not limited to, physically trespassing in a private area with the intent of observing or eavesdropping; using an electronic device to intercept, record, amplify or broadcast a private conversation or private events; or engaging in surveillance, photographing, broadcasting, image-capturing or recording of private conversations or private events.

   The fact that the Responding Party was a party to the conversation or event is not determinative of another individual's reasonable expectation of privacy.

10. **Lewd or Indecent Behavior:** Exhibition of the genitals, anus, or pubic area of a person other than for legitimate academic purposes.

11. **Physical Assault**: Intentionally, knowingly, or recklessly causing bodily injury or offensive physical contact to another person.

12. **Retaliation:** Action taken by the University or any individual or group against any person for opposing any practices prohibited by the Code or for filing a complaint, testifying, assisting, or participating in an investigation or proceeding under the Code.

   This includes action taken against a bystander who intervened to stop or attempt to stop a violation of the Code. Retaliation includes intimidating, threatening, coercing, or in any way discriminating against an individual because of the individual's complaint or participation.

   Action is generally deemed retaliatory if it would deter a Reasonable Person in the same circumstances from opposing practices prohibited by the Code or from participating in the resolution of a complaint.

13. **Sexual Assault**: An offense that meets the definition of rape, fondling, incest, or statutory rape, as follows:
    a. <u>Rape</u> is the penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the Consent of the victim.
    b. <u>Fondling</u> is the touching of the private body parts of another person for the purpose of sexual gratification, without the Consent of the victim, including instances where the victim is incapable of giving Consent because of his/her age or because of his/her temporary or permanent mental incapacity.
    c. <u>Incest</u> is sexual intercourse between persons who are related to each other within the degrees wherein marriage is

prohibited by law.
d. <u>Statutory rape</u> is sexual intercourse with a person who is under the statutory age of Consent under applicable law.

All forms of sexual assault and sexual contact prohibited by Maine law are also included.

14. **Sexual Harassment:** Includes unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature, including sexual assault and sexual violence. Sexual harassment, including Sexual Assault, can involve persons of the same or opposite sex.

Consistent with the law, this policy prohibits two types of sexual harassment:
a. <u>Tangible Employment or Educational Action (quid pro quo)</u>: This type of sexual harassment occurs when the terms or conditions of employment, educational benefits, academic grades or opportunities, living environment or participation in a University activity are made an explicit or implicit condition of submission to or rejection of unwelcome sexual advances or requests for sexual favors, or such submission or rejection is a factor in decisions affecting an individual's employment, education, living environment, or participation in a University program or activity. Generally, a person who engages in this type of sexual harassment is an agent or employee with some authority conferred by the University.

b. <u>Hostile Environment</u>: Sexual harassment that creates a hostile environment is based on sex and exists when the harassment:
    i. Is severe, pervasive, or persistent, and objectively offensive such that it denies or limits a person's ability to participate in or benefit from the University's programs, services, opportunities, or activities; or
    ii. Unreasonably interferes with an individual's academic or work performance.

A hostile environment can be created by anyone involved in a University program or activity, such as an administrator, faculty or staff member, student, or campus guest. Offensiveness alone is not enough to create a hostile environment. Although repeated incidents increase the likelihood that a hostile environment has been created, a single serious incident, such as a Sexual Assault, can be sufficient.

Determining whether conduct creates a hostile environment depends not only on whether the conduct was unwelcome to the person who feels harassed, but also whether a Reasonable Person in a similar situation would have perceived the conduct as objectively offensive.

The following factors will also be considered:
    i. The degree to which the conduct affected one or more students' education or individual's employment;
    ii. The nature, scope, frequency, duration, and location of the incident(s);
    iii. The identity, number, and relationships of persons involved; and
    iv. The nature of higher education.

15. **Sexual Misconduct:** Includes, but is not limited to, prostituting another person, nonconsensual image capturing of sexual activity, presentation or unauthorized viewing of a non-consensual videotaping of sexual activity, letting others watch you have sex without the knowledge and Consent of your sexual partner, possession of child pornography, peeping tommery, and/or knowingly transmitting an STD or HIV to another person.

Sexual misconduct may also constitute sexual harassment.

All forms of sexual misconduct prohibited by Maine law are also included.

16. **Stalking:** Engaging in a course of conduct directed at a specific person that would cause a Reasonable Person to:
a. Fear for the person's safety or the safety of others; or
b. Suffer substantial emotional distress.

For the purposes of this definition:
a. <u>Course of conduct</u> means two or more acts, including, but not limited to, acts in which the stalker directly, indirectly, or through third parties, by any action, method, device, or means, follows, monitors, observes, surveils, threatens, or communicates to or about a person, or interferes with a person's property.

      b.   <u>Reasonable person</u> means a reasonable person under similar circumstances and with similar identities to the victim.

      c.   <u>Substantial emotional distress</u> means significant mental suffering or anguish that may, but does not necessarily, require medical or other professional treatment or counseling.

    All forms of stalking prohibited by Maine law are also included.

17. **Discriminatory Harassment**: Harassment based on actual or perceived race, color, religion, sex, Sexual Orientation, Gender Identity, Gender Expression, national origin or citizenship status, age, disability, genetic information or veteran status.
18. **Unauthorized Recording of a Conversation**: Intercepting, recording or image-capturing a University Employee in a classroom, office or over the telephone without that University Employee's Consent unless it is part of an approved reasonable accommodation.

E. **Offenses Involving Property**
1. **Defacement, Destruction, or Misuse of Property**: Intentional and/or reckless misuse, destruction, or defacement of University Property or of the property of other people without authorization.
2. **Misuse of University Computers**: Misuse of the University computer network or computers including, but not limited to, theft of computer files or data, e-mail, or other electronically stored information, probing or hacking into other computers or computer systems, spamming, sending out computer viruses, or uploading or downloading copyrighted material for personal use or distribution without authorization.
3. **Motor Vehicle Violation**: Violation of motor vehicle policies established for each campus.
4. **Tampering, Destruction, or Falsification of Records**: Tampering with, destroying, or falsifying official records.
5. **Theft or Unauthorized Use**: Theft, attempted theft, or unauthorized acquisition, removal, or use of the property of another.
6. **Trespassing**: Trespassing or unauthorized presence on any University Property, including residence halls.

F. **General Infractions**
1. **Aiding Infraction**: Knowingly assisting in the violation of any of the provisions of the Code.
2. **Continued Infraction**: Continued infractions of the Code.
3. **Conviction of a Crime**: Conviction of any crime that threatens: (a) any educational process or legitimate function of the University, or (b) the health or safety of any individual.
4. **Other Illegal Activity**: Violating local, state, or federal laws otherwise not covered under the Code.

IV. SANCTIONS

If a Responding Party admits to a violation of the Code to the Officer, Investigator, Committee or Review Panel; or upon determination by the Officer, Committee or Review Panel that a Responding Party has been found in violation of the Code, one or more of the following sanctions may be imposed in accordance with the provisions of the Code (see Section V):

A. **Assigned Educational Projects:** This may include research projects, reflective essays, counseling assessments, sanction seminars or other related assignments intended to promote learning.
B. **Community Service**: The type of service may be related to the nature of the violation.
C. **Deferred Sanction**: A specific period of time during which a sanction has been imposed but is stayed. Any further violation of the Code during that time may, at minimum, result in the imposition of the deferred sanction, and any new or additional sanctions deemed necessary.
D. **Disciplinary Dismissal:** Permanent separation (subject to the right of review after five years) from the University.
1. Responding Parties who are dismissed will not be permitted to attend any of the University campuses or attend any University functions. After five (5) years from the date of the dismissal, the Responding Party may submit a written request to be readmitted to attend one of the University campuses. For a Responding Party preparing to transfer to a non-University institution who has been dismissed for a Violent Crime or Sexual Assault, a letter will be attached to the student's transcript explaining the dismissal. After five (5) years from the date of the dismissal, the Responding Party may submit a written request to have the letter attached for transfer applications to non-University institutions removed from their transcript.
2. Requests for readmission or removal of the letter attached for transfer applications will be submitted to the Officer of the campus from which the Responding Party was dismissed. The Officer will convene the campus committee designated by the President to review such requests pursuant to the campus written procedures.

E. **Disciplinary Probation**: A specified period of time when any further violation may result in additional sanctions, up to and including dismissal from the University.

F. **Disciplinary Suspension**: Separation from the University for a specific period of time and/or until a stated condition(s) is met.

Responding Parties who are suspended will not be permitted to attend any of the University campuses during the sanction period or attend any University functions. After the sanction period has been completed and all requirements of the suspension have been met, the Responding Party is eligible for readmission to any University campus. For a Responding Party preparing to transfer to a non-University institution who has been suspended for a Violent Crime or Sexual Assault, a letter will be attached to his/her transcript explaining that he/she has been suspended. If the Responding Party is transferring to a non-University institution after the sanction has been completed the letter will not be attached to the transcript.

G. **Fine**: Payment of money. Responding Parties who are unable to pay may discuss alternate payment arrangements.

H. **Loss of Contact with a Specific Person(s)**: With this sanction, the person may not initiate direct or indirect contact with a specified person(s).

I. **Loss of Visitation Privileges**: This loss of visitation may be to any designated area(s) of any University Property.

J. **Official Warning:** Official acknowledgment of a violation and the expectation that it will not be repeated.

K. **Removal from University Housing**: Removal from a particular hall or all housing.

L. **Restitution**: Restitution, up to the replacement value of the items damaged, stolen, removed, or used without authority and damages incurred.

M. **Such other action(s) as the Committee, Officer or Review Panel may reasonably deem appropriate (e.g., suspension of an organization's official campus recognition, suspension of a student from an extracurricular activity, termination from student employment, and/or academic degree revocation).**

The University may impose a more severe sanction on a Responding Party when the Officer, Committee, or Review Panel determines that a Responding Party intentionally selected the person or organization against whom the violation was committed, or selected the property damaged or stolen, because of the race, religion, color, sex, Sexual Orientation, Gender Identity, Gender Expression, national origin or citizenship status, age, disability, genetic information or veteran status of that person, or the persons in the organization or the owner of the property.

V. PROCEDURES

Each University campus may adopt procedures for carrying out the provisions of the Code within the guidelines set forth by the Code as described below and consistent with the Code. University campuses having a professional code of ethics may adopt additional procedural provisions to be applicable to their own students.

ADMINISTRATION AND INTERPRETATION OF THE CODE WILL BE SOLELY WITHIN THE JURISDICTION OF THE OFFICER, THE COMMITTEE OR THE REVIEW PANEL, SUCH INTERPRETATION BEING PURSUANT TO THE PROCEDURES OF THE CODE.

A. **PRELIMINARY INQUIRY**
   1. Alleged violations of the Code brought to the attention of the University by University Employees, students, or members of the general public will result in the initiation of a Preliminary Inquiry. A Preliminary Inquiry will determine if there is sufficient information to warrant a Formal Investigation or informal resolution. **Before interviewing or questioning of the Parties, notification must be provided under Section V.C., Notice of Formal Investigation, unless doing so would be likely to jeopardize health or safety, or the integrity of the investigation, or lead to the destruction of evidence.**
   2. Informal resolution may be used to resolve cases where:
      a. There is sufficient information to support the allegations;
      b. All parties have mutually consented to the process; and
      c. The process is acceptable to the Officer.

      The Parties have the right to end the informal process at any time and begin the formal complaint process. Mediation may not be used in cases of allegations of Sexual Assault.

   3. Upon the conclusion of the Preliminary Inquiry, in accordance with Notification Standards, if the alleged violation is

Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will be simultaneously notified whether no charges will be filed, a Formal Investigation will commence, or Informal Resolution will be pursued. In all other cases, only the Responding Party will be notified whether or not charges will be filed, or if a Formal Investigation will commence.

4. If, during the Preliminary Inquiry or at any point during the Formal Investigation, the Officer determines that there is no reasonable cause to conclude that the Code has been violated, the disciplinary process will end and the Responding Party will be notified. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will receive simultaneous notification of the Officer's decision end the disciplinary process and both the Parties will be notified of the right of review.

5. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, once the need for a Formal Investigation has been determined, the Parties will be provided written notification of the Formal Investigation at the appropriate time during the Formal Investigation.

6. Each Officer, Committee member, and Review Panelist is expected to conduct due diligence to determine if there is a potential conflict of interest. If there is a conflict of interest for the Officer, the Officer will refer the matter to another Officer. If any member of the Committee or Review panel is conflicted, an alternate will be appointed. The parties have the right to raise any potential conflict of interest with the Officer or any member of the Committee or Review Panel.

The University aims to complete the investigation, including the Preliminary Inquiry and Formal Investigation, if any, within a sixty (60) business day time period from the date of initial notice to completion of the Formal Investigation, if any, which time period may be extended as necessary for appropriate cause.

B. **INTERIM MEASURES OR ACTIONS**
1. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the University may provide Interim Measures or Actions intended to address the short-term effects of the alleged Harassment, discrimination, and/or Retaliation, to the Parties and the community, and to prevent further violations of the Code. Interim Measures or Actions taken will be kept as private as reasonably practicable.

2. A Responding Party may be suspended from the University or have privileges revoked pending the outcome of a disciplinary proceeding if, in the judgment of the Officer, the Responding Party's continued presence or use of privileges at the University pending the outcome of the proceeding is likely to pose a substantial threat to the Reporting Party or to other people and/or is likely to cause significant property damage and/or disruption of or interference with the normal operations of the University. The Officer may converse with the Parties when such Interim Measures and Actions are considered.

3. Responding Parties who have been issued an Interim Measures or Actions or an interim suspension may seek review of that decision by requesting the Campus President or designee to review the decision. The Campus President or designee will review the request within five (5) business days of receipt.

4. In accordance with Notification Standards, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking the Officer may inform the Parties of any Interim Measures or Actions.

5. Interim Measures or Actions, including but not limited to: interim suspensions; no-contact orders; University Property usage restrictions; University account holds; and academic degree holds, will be implemented to ensure as minimal negative impact on the Parties while maintaining the safety of the University community and integrity of the investigation.

6. An enrolled student may not graduate if that student has a pending conduct case. If a student officially withdraws from the University or does not participate in the disciplinary process, the process will continue and the student may not be permitted to return to the University or graduate until the student is found not responsible for a violation of the Code or any imposed sanctions have been satisfied.

C. **NOTICE OF FORMAL INVESTIGATION**
1. Prior to commencement of a Formal Investigation, the Officer will notify the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) in writing per the Notification Standards of the following:
   a. Alleged Code violation(s);
   b. Reporting Party(ies);
   c. Date(s) of alleged occurrence(s);
   d. Maximum possible sanctions which may be imposed;

  e. The procedures that will be used to resolve the complaint; and

  f. Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) right of review.

D. **FORMAL INVESTIGATION**

1. Upon the Officer's decision to commence a Formal Investigation, the Officer will initiate the investigation or assign it to a trained investigator, as soon as practicable.
2. The University may undertake a short delay in its investigation when criminal charges on the basis of the same behaviors that invoked this process are being investigated. The University will promptly resume its investigation and resolution processes once notified by law enforcement that the initial evidence collection is complete.
3. All investigations will be thorough, reliable, impartial, prompt and fair. Investigations entail interviews with all relevant parties and witnesses, obtaining available evidence, and identifying sources of expert information, as necessary.
4. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, both the Parties will be given access to the relevant evidence to be used in rendering a determination and each party will be provided a full and fair opportunity to address that evidence prior to a finding being rendered.
5. The Officer and/or investigator will provide regular updates to the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) throughout the investigation, as appropriate.
6. During the Investigation the Parties may be accompanied by an Advisor.
7. If no charges are being brought at the conclusion of the Formal Investigation, the Officer will provide such notification to the Responding Party. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties will receive simultaneous notification of the Officer's decision not to bring charges and both the Parties will be notified of the right of review to either a committee chair or alternative hearing officer.

E. **NOTICE OF ADMINISTRATIVE HEARING BEFORE THE OFFICER**

1. If charges are being filed, the Officer will notify the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) in writing per the Notification Standards of the following:
   a. Charge(s);
   b. Reporting Party(ies);
   c. Date(s) of alleged occurrence(s);
   d. Maximum possible sanction which may be imposed;
   e. The procedures that will be used to resolve the complaint; and
   f. Date and time of the Administrative Hearing.

F. **ADMINISTRATIVE HEARING BEFORE THE OFFICER**

An Administrative Hearing Before the Officer will be held for cases that have not been disposed of informally where there is sufficient evidence to charge a Code violation.

1. If any Party is not present at the time appointed for the hearing, the Officer will first attempt to determine the reason for that person's absence. The Officer may then proceed in a normal manner without a Party's attendance, may hear only a portion of the testimony and adjourn to a later date, or may continue the entire hearing to a later date.
   a. The Officer may not consider the absence of any Party as relevant to whether the Responding Party committed the alleged violation of the Code.
2. During the hearing the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking), may be accompanied by an Advisor and a support person of their choice. Advisors and support people will not be permitted to speak at the hearing, except to speak with their advisee, unless permission has otherwise been granted by the Officer.
3. During the hearing, the Officer may hear and consider as evidence any relevant information.

 The Officer <u>may not</u> consider:
   a. Information obtained directly or indirectly through a search of a Party's or witnesses' effects or room if a court of law has determined the search was illegal.

b. If the Officer is aware that a criminal prosecution relating to the same violation(s) is being conducted, or such action appears likely to be made, independent of the hearing, the Officer will notify the Responding Party in advance of the right to remain silent, and the Officer will draw no negative inference from the Responding Party's refusal to give information or consent to a search, except that the Responding Party had no answer or evidence to give.

4. The Officer will then:
   a. Make a determination that the Responding Party is in violation of the Code if a Preponderance of the Evidence demonstrates that the Responding Party has violated the code, or dismiss the case if the Officer determines the Responding Party is not in violation of the Code. The Officer will inform the Responding Party, in writing, of the outcome, including any sanctions imposed and any right of review.
   b. If the alleged violation is a Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Parties will receive simultaneous written notification of the outcome, including any sanctions and the rationale for the result and any sanctions, and of the Parties' right of review.
   c. If the alleged violation is Gender Discrimination or Sexual Harassment, the Reporting Party shall receive simultaneous notification of the outcome and of any sanctions that directly relate to the Reporting Party, and of the Reporting Party's right of review.
   d. In a case of a Violent Crime, the University may disclose the final results of the disciplinary proceeding to the victim(s), regardless of whether the University concluded a violation was committed.

5. If the Officer determines the Responding Party is responsible for a violation of the Code, the Officer will impose appropriate sanctions. Sanctions will become operative immediately once notice has been given to the Responding Party.

6. **Sanctions imposed as the result of the Administrative Hearing are implemented immediately unless the Officer stays their implementation in extraordinary circumstances, pending the outcome of a review hearing.** Graduation, study abroad, internships/externships, etc. do NOT in and of themselves constitute extraordinary circumstances, and students may not be able to participate in those activities during the review period.

G. **RIGHT OF REVIEW BEYOND ADMINISTRATIVE HEARING BEFORE THE OFFICER**

1. In the event the Officer issues a sanction of suspension, dismissal, removal from University Housing, academic degree revocation, or loss of recognition of campus organizations, the Responding Party may request a review of the finding and/or sanction. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the Parties have the right to a review of any finding(s) or sanction(s).

2. Requests for review will be in writing, state the issue(s) to be reviewed, and provide a detailed rationale for the request. The written request for a review will be submitted to the Officer within seven (7) calendar days after the Party(ies) has received notice of the Administrative Hearing finding(s) and shall not exceed five (5) pages in length.

3. The request for review to the Committee will be limited to the following grounds:
   a. A procedural error or omission occurred that significantly impacted the outcome of the hearing (e.g. substantiated bias, material deviation from established procedures, etc.).
   b. To consider new evidence, unknown or unavailable during the original hearing or investigation, that could substantially impact the original finding or sanction. A summary of this new evidence and its potential impact will be included in the written request for review.
   c. The sanction imposed is significantly disproportionate to the severity of the violation and/or the cumulative record of the Responding Party.
   d. Reconsideration of existing information and whether it supports the Administrative Hearing before the Officer finding.

4. The Committee will review request(s) for review. The original finding(s) and sanction(s) will stand if the request for review is not timely or is not based on the grounds listed above in Section V.G(3), and such a decision is final.

5. The Committee review may result in: (a) a change to the finding(s); (b) a change in sanction(s), such as a higher sanction, a lower sanction, the same sanction, or no sanction at all being imposed; or (c) remand to Administrative Hearing Before the Officer.

H. **RESPONSIBILITIES OF THE COMMITTEE**
1. As soon as practicable upon receipt of the request for review, the following steps will be taken:
   a. The Committee chair will notify, in writing, the Officer and the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment,

or Stalking) of a date, place, and time for the Committee hearing. Committee hearings are normally held not earlier than five (5) calendar days and not later than fourteen (14) calendar days after issuance of the notification of hearing.

    b. List in the notice to the Parties the names of the Committee member(s) conducting the review and witnesses being invited by the Committee.

    c. Make arrangements for the keeping of a recorded record of the Committee hearing. In cases of a review to the Review Panel, the Responding Party charged with the violation, his/her Advisor, and authorized Campus Authorities may have access to the record for purpose of review relating to a request for review. No copies will be made except by the University. The record will be kept by the University campus for at least three (3) years after all review rights have been exhausted at which time the record may be destroyed. Records of hearings are deemed to be Student Education Records under the Family Educational Rights and Privacy Act of 1974 (FERPA) and may not be disclosed publicly except as provided in FERPA. No recording in any form, other than the one made by the Committee, is permitted at the Committee hearing. If the alleged violation is Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Reporting Party and his/her Advisor may have the same access to the recording as the Respondent. If the alleged violation is Gender Discrimination or Sexual Harassment, the Reporting Party and his/her Advisor may have access to the portions of the recording pertaining to the Reporting Party.

2. Composition of the Committee

    a. The Committee will be composed as described in Section VI.

    b. The Parties or the Officer will have the right to challenge, for cause, any Committee member by submitting to the Committee Chair written notice stating the grounds for the challenge at least two (2) business days prior to the scheduled hearing. Removal of members for cause will be within the authority and at the discretion of the Committee Chair or another member of the Committee if the Chair is unable to exercise that function or is challenged for cause.

3. Hearing Preliminaries

    a. At any proceeding before the Committee, the Parties and witnesses may have the assistance of an Advisor.

    b. The hearing will be closed to the public. The Committee Chair may permit, in addition to the Party's Advisor, one support person for each Party to observe the proceedings. At the discretion of the Committee Chair, the Committee Chair reserves the right to close the hearing.

    c. If any Party or witness is not present at the time appointed for the hearing, the Committee will attempt to determine the reason for that party's absence. The Committee may proceed: (1) in a normal manner without their attendance; (2) hear only a portion of the testimony and adjourn to a later date; or (3) continue the entire hearing to a later date. The Committee may not consider the absence of a party as relevant to whether the Responding Party committed the alleged violation of the Code.

4. Hearing Procedures

    a. Responsibility for recognizing and permitting persons to speak lies exclusively with the Committee Chair.

    b. Persons disruptive at any stage of the hearing may be evicted at the reasonable discretion of the Committee Chair.

    c. The names of witnesses and/or copies of written statements will be submitted to the Officer at least two (2) business days prior to the hearing for inclusion in the materials presented to the Committee. At the discretion of the Committee Chair, the Parties may submit written documents, oral testimony of witnesses, and all relevant documents, records, and exhibits at the time of the hearing.

    d. The Officer will first present the results of the Preliminary Investigation, Formal Investigation, and Administrative Hearing.

    e. The Reporting Party may present oral testimony and/or written statements from any person(s) including the Responding Party, and all relevant documents, records and exhibits.

    f. The Responding Party may then present oral testimony and/or written documentation themselves and/or from other witnesses, and all relevant documents, records and exhibits.

    g. At any time during the proceedings, members of the Committee may question witnesses or parties to the proceeding; witnesses or parties may only ask questions of each other at the discretion of and through the Committee Chair. **Questioning by any Advisor is not permitted.** Advisors and support people may not speak at the hearing, except to their advisee.

    h. After the presentation of all the information to the Committee, the Officer and the Responding Party (and the Reporting Party if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) may present summaries of their arguments to the Committee.

    i. During the hearing, the Committee may consider any relevant information to the grounds for appeal, will not be bound by the strict rules of legal evidence, and may take into account any information which is of value in determining the issues involved. Efforts will be made to obtain the most reliable information available.

j.   After all parties have presented their respective information, the Committee will go into closed session to determine whether the Responding Party is in violation of the Code. Deliberations are not recorded. A Committee member should vote that the Responding Party is in violation of the Code only if a Preponderance of the Evidence demonstrates behavior that is in violation.

k.   A simple majority vote of responsible or not responsible for a violation of the Code by the Committee members present will prevail. If the majority of the Committee votes for not responsible or there is a tie, the Responding Party will be found not responsible.

l.   If a Responding Party is found to be responsible for the violation of Code, the Officer and the Responding Party (and the Reporting Party if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) may make recommendations to the Committee as to the appropriate sanctions. The Committee will go back into closed session and deliberate on sanctions. Deliberations are not recorded. A majority vote of the Committee members is needed for an imposition of a sanction(s).

5.   After Committee deliberations are concluded, the Committee Chair will:

a.   Inform the Responding Party of the finding of the Committee, per the Notification Standards including:

i.   The section(s) of the Code found to have been violated;

ii.   The sanction imposed; and

iii.   The rationale for both the finding(s) and the sanction(s).

b.   If the alleged violation is a Dating Violence, Domestic Violence, Sexual Assault, or Stalking, the Committee will inform the Parties, per the Notification Standards, simultaneously of the outcome of the proceeding, the rationale for the result, any sanctions, when a decision is considered final, any changes that occur prior to finalization, and any rights of review.

c.   If the alleged violation is Gender Discrimination or Sexual Harassment, in addition to informing the Complainant of the outcome of the proceedings the Committee shall inform the Complainant of any sanctions imposed upon the Respondent that directly relate to the Complainant.

d.   In a case of a Violent Crime, the University may disclose the final results of the Committee Hearing to the victim, regardless of whether the University concluded there was a violation of the Code.

6.   **Sanctions imposed as the result of the Committee hearing are implemented immediately unless the Chair of the Committee stays their implementation in extraordinary circumstances, pending the outcome of a review hearing.** Graduation, study abroad, internships/externships, etc. do NOT in and of themselves constitute extraordinary circumstances, and students may not be able to participate in those activities during the review period.

I.   **RIGHT OF REVIEW BEYOND COMMITTEE**

1.   In the event the Committee approves a sanction of suspension, dismissal, removal from University Housing, academic degree revocation, or loss of recognition of campus organizations, the Responding Party may request a review of the finding or sanction. If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, all Parties have the right to a review of any finding(s) or sanction(s).

2.   Requests for review will be in writing, state the issue(s) to be reviewed, and provide a detailed rationale for the request. The written request for a review will be submitted to the Officer within seven (7) calendar days after the Party(ies) has received notice of the Committee finding(s) and shall not exceed five (5) pages in length.

3.   If the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking, the review request will be shared with the other Party(ies), who may file a response within five (5) calendar days and/or bring their own review on separate grounds within the original timeframe. If new grounds are raised, the party requesting the review will be permitted to submit a written response to these new grounds within five (5) calendar days. This response will be shared with all Parties.

4.   Campus president or designee will appoint a Review Panel as described in Section VII below.

5.   The request for review to the Review Panel will be limited to the following grounds:

a.   A procedural error or omission occurred that significantly impacted the outcome of the process (e.g. substantiated bias, material deviation from established procedures, etc.).

b.   To consider new evidence, unknown or unavailable during the original hearing or investigation, that could substantially impact the original finding or sanction. A summary of this new evidence and its potential impact will be included.

c.   The sanction imposed is significantly disproportionate to the severity of the violation and the cumulative record of the Responding Party.

6.   The Review Panel will review request(s) for review. The original finding(s) and sanction(s) will stand if the request for review is not timely or is not based on the grounds listed above in Section V.H(5), and such a decision is final.

7. If the Review Panel finds that at least one of the review grounds is met by at least one party, additional principles governing the hearing of review will include the following:
   a. The Review Panel may make changes to the finding only where there is clear error and to the sanction(s) only if there is a compelling justification to do so.
   b. A review hearing is not intended to be a full re-hearing (de novo) of the allegation(s). A review to the Review Panel is limited to a review of the written documentation and recorded record of the Committee hearing regarding the grounds for review, and any new information provided by Parties. A review is not an opportunity for the Review Panel to substitute their judgment for that of the Committee merely because it disagrees with the Committee finding(s) and/or sanction(s). Reviews may be remanded to the original Committee or Officer at the discretion of the Review Panel. A remand to the original Committee or Officer cannot be reviewed.
   c. In accordance with the Notification Standards, the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) will be informed of whether the grounds for a review are accepted and of the results of the review decision or remand.
   d. A majority vote of the Review Panel will prevail.
   e. Once the Review Panel has made a decision, the outcome is final. Further reviews are not permitted, even if a decision or sanction is changed on remand, except in the case of a new hearing before a new Committee or Officer, if ordered by the Review Panel.
   f. In accordance with the Notification Standards, the Responding Party (and the Reporting Party, if the alleged violation is Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking) will be informed in writing of the outcome of the Review Panel.
   g. In a case of a Violent Crime the University may disclose the final results of the Review Panel to the victim, regardless of whether the University concluded a violation was committed.
8. In rare cases where a procedural (or substantive) error cannot be cured by the Review Panel (as in cases of bias), the Review Panel may recommend a new hearing with a new Committee. The results of the new Committee hearing may be reviewed, once, on any of the three (3) applicable grounds for review stated in Section V.H(5) above.
9. In cases where the review results in reinstatement to the University or resumption of privileges, all reasonable attempts will be made to restore the Responding Party to his/her/their/its prior status.

VI. STUDENT CONDUCT COMMITTEE COMPOSITION
A. Committee members will be identified by campus presidents or their designee(s).
B. Each University campus will identify from their respective campus, at least three (3) people, who can serve as trained Committee members, each in the following categories:
   1. Enrolled students;
   2. Faculty members; and
   3. Staff members.
C. Each hearing Committee will have at least three (3) and no more than seven (7) members consisting of:
   1. Committee Chair who is either a faculty or staff member;
   2. At least one (1) enrolled student; and
   3. At least one (1) faculty or staff member.
D. All members of a hearing Committee will avoid both the appearance and reality of any conflict of interest. Any Committee member who has a potential conflict of interest or feels that s/he is unable to render an unbiased decision in the case will decline assignment to that Committee.
E. The composition of the Committee will have equitable gender representation whenever practicable.

VII. REVIEW PANEL COMPOSITION
A. At the discretion of each campus president or designee, the Review Panel shall consist of either:
   1. One (1) person who is a faculty or staff member, as identified by the campus president or designee; or
   2. Three (3) members which shall include:
      a. One (1) faculty or staff member identified by the campus president;
      b. One (1) enrolled student; and
      c. One (1) Committee member.
B. All Review Panel members may not have previous involvement with the current matter. All members of a Review Panel will avoid both the appearance and reality of any conflict of interest. Any Review Panel member who has a potential conflict of interest or feels that s/he is unable to render an unbiased decision in the case will decline assignment to that Review Panel.

VIII. TRAINING
    A.   The following individuals will have annual training on issues related to Dating Violence, Domestic Violence, Gender Discrimination, Sexual Assault, Sexual Harassment, or Stalking and how to conduct an investigation and hearing process that protects the safety of individuals involved and promotes accountability:
        1.   Campus presidents' designee(s);
        2.   Officers;
        3.   Individuals responsible for conducting Preliminary Inquiry or Formal Investigations;
        4.   Committee members; and
        5.   Review Panel members.

IX. SPECIFIC PROCEDURES WITH RESPECT TO DATING VIOLENCE, DOMESTIC VIOLENCE, SEXUAL ASSAULT, OR STALKING

The University prohibits Dating Violence, Domestic Violence, Sexual Assault, or Stalking. In such cases, the University will provide a prompt, fair, and impartial investigation and resolution. This process will be conducted by University Employees who receive annual training on these issues, and on how to conduct an investigation and hearing process that protects the safety of individuals involved and promotes accountability.

    A.   Reporting a Violation
        1.   Individuals may elect to report an incident to Campus Authorities, local law enforcement, both, or neither.
        2.   Should a Reporting Party elect to report an incident to local law enforcement, Campus Authorities are available to assist with this process at the Reporting Party's request.
        3.   Reporting Parties should, if possible, attempt to preserve any evidence. This evidence could prove crucial should the Reporting Party choose to report a violation of the Code, report a criminal act to local law enforcement, or seek an order of protection from abuse or harassment from the courts.
        4.   As with other violations of the Code, and in accordance with federal law, the Preponderance of the Evidence standard will be used to determine whether a violation of the Code has occurred.
    B.   Sanctions and Protective Measures
        1.   Separate from the sanctions outlined in Section IV, it is within the University's power to impose remedial measures for the Parties.
        2.   Even if a Reporting Party chooses not to pursue disciplinary proceedings under the Code or report the incident to law enforcement, the Reporting Party should consider talking to Title IX Coordinator or the Deputy Coordinator about the possibility of remedial measures, as many measures (such as counseling or changing classes) may be possible regardless of whether an investigation is initiated.
        3.   Examples of possible remedial measures include:
            1.   Changes in housing, classes, or transportation in order to avoid contact between the Parties;
            2.   No-contact directives; and
            3.   Helping connect the Parties to access services on campus and in the community, including counseling.
        4.   Additional information on resources, including details about free on-campus counseling services and other resources on campus and in the community, may be found in the University's policy pamphlet on sexual assault, domestic violence, dating violence, and stalking.
    C.   Confidentiality
        1.   Under federal law, the University is required to report statistics regarding the occurrence of certain crimes in the University community. When reporting these statistics the University withholds the names of Parties as confidential and, to the extent permissible by law, withholds any other information that may serve to identify the Parties.
        2.   If a Reporting Party requests that their name or other identifiable information not be disclosed to the Responding Party, the University's ability to respond to the incident and pursue disciplinary action may be limited. Reporting Parties should note that, under Title IX of the Education Amendments of 1972, retaliation against a Party is prohibited. University Employees will take steps to prevent retaliation and will take responsive action if retaliation is found to have occurred.

X. STUDENT CONDUCT CODE REVIEW BOARD
    A.   The Student Conduct Code Review Board will be responsible for:
        1.   Considering all proposed amendments to the Code and acting as an advisor to the Board of Trustees in matters pertaining to the Code; and
        2.   Sending recommendations on proposed amendments of the Code to the President's Council and Chancellor for transmission to the Board of Trustees.

B. The Student Conduct Code Review Board will be composed of the following:
1. From each campus of the University:
   a. One (1) Officer;
   b. One (1) Committee chair; and
   c. One (1) enrolled student appointed by the President or his/her designee after seeking nominations from student representatives.
2. One (1) enrolled student who is in a distance education program. This enrolled student will be appointed by the Vice Chancellor for Academic Affairs or his/her designee.
3. One (1) representative from the Board of Trustees.
4. One (1) representative appointed by Chancellor.
C. The Chancellor's representative will be responsible for calling the Student Conduct Code Review Board into session.
D. The Student Conduct Code Review Board will meet at least once every three (3) years, but may meet more often when requested by the following:
1. Officers representing at least two (2) campuses of the University;
2. Student government officers representing at least two (2) campuses of the University; or
3. The Chancellor.

XI. AMENDING THE STUDENT CONDUCT CODE

The Board of Trustees will act upon proposed amendments to the Code after receiving recommendations of the Student Conduct Code Review Board, the President's Council of the University System, and the Chancellor. As provisions of the Code are subject to periodic review and change, the most recent and current copy of the Code may be obtained through the University of Maine System Chief Student Affairs Office or the Student Affairs Office on each campus.

Revised by the Student Conduct Code Review Board and accepted by the Board of Trustees, XXXXXXXX/
Effective Date: July 1, 2018

UNIVERSITY OF MAINE SYSTEM
Policy Manual

ACADEMIC AFFAIRS
Section 310   Tenure

Effective: 6/7/70
Last Revised: 7/9/90
Responsible Office: Academic Affairs

Policy Statement:

Tenure . . . an arrangement under which faculty appointments are continued until retirement or disability, subject to dismissal for cause, termination due to financial reasons, and/or termination due to change in the University program offerings.

The decision to grant or not to grant tenure rests solely with the Board of Trustees. Nothing in the administrative procedures, or in the criteria developed under those procedures, or in the approval of the criteria, shall limit or restrict that discretionary authority of the Board.

Related Documents:

Administrative Procedures for Awarding Tenure

Administrative Procedures for Awarding Tenure

Guidelines:

1. Each new appointee should receive a letter of appointment which includes, as a minimum, such data as:
   a. academic rank and/or title of position;
   b. general duties to be performed;
   c. beginning and ending dates of appointment;
   d. type of appointment - probationary, temporary;
   e. indication of amount, if any, of prior service
   f. to be counted toward probationary period;
   g. salary.

2. The specific assignment of prior credit will be part of the letter received at the time of initial appointment. The time credited as probationary years with regard to service at other institutions of higher education, whether units of the University of Maine System or not, shall not exceed three years.

3. A probationary appointment shall not exceed six consecutive academic years in a full-time position on a single campus. A leave of absence, sabbatical, or a teacher improvement assignment shall not constitute a break in continuous service, nor shall it be included in the six-year period without prior written agreement between the faculty member and the President at the time of the request.

4. Individuals on probationary appointments shall normally complete the full term, i.e., the sixth year, before the Board awards tenure.

5. At the time of initial appointment, exceptionally qualified individuals may be awarded tenure at the rank of full professor, with the approval of the appointment by the Trustees. In other cases, as the campuses deem appropriate, full professors may receive an initial appointment without tenure but, with Trustee approval at the time of their appointment, may be given the opportunity to apply for tenure during the second year of their appointment.

6. Tenure shall not be awarded ordinarily below the associate professor level or its equivalent.

7. Each campus shall develop its criteria for promotion and tenure, and, once developed, a statement of such criteria shall be forwarded to the Chancellor and the Trustees for review and approval and thereafter be made available by the campus administration to all faculty members in the institution. These criteria shall include reference to teaching, public service, research, and scholarship activities as are appropriate to the University System and campus missions. Criteria may vary among units or departments, but shall be in accord with the over-all campus criteria.

8. Student input is a desirable and meaningful part of faculty evaluation, and the contribution students make to the evaluative process is essential to the improvement of instruction. Student evaluations are to be secured on a regular, systematic, and equitable basis and made part of the official record.

9. Evidence should be obtained from outside the institution and from outside the University of Maine System, as appropriate, regarding the scholarship and research of candidates for tenure.

10. Tenured faculty, as well as nontenured faculty, shall be reviewed on an annual basis. Each campus shall develop its criteria for faculty evaluation, and, once developed, a statement of such criteria shall be forwarded to the Chancellor and the Trustees for review and approval and thereafter be made available by the campus administration to all faculty members in the institution.

11. The tenure guidelines provide the policy framework for the process to be followed on each campus. Where exceptions are sought, it is necessary that the campus present its request in detail, including the rationale for the exception, to the Chancellor and the Board of Trustees.

12. Tenure may be transferable among the institutions of the University of Maine System at the discretion of the Board of Trustees, consistent with the tenure policies of the institution to which transfer is sought.

13. Senior administrators shall not be awarded tenure as part of their administrative contracts. However, the Trustees will consider, on an exceptional basis, a nomination to tenure for an academic dean, when presented under these conditions:

    a. the nominee will have been accepted by an appropriate academic department and accorded faculty rank, at the time of appointment as academic dean;

    b. the nomination will have been duly evaluated through the campus's tenure processes.

TABLE I

Numbers of Exceptions, Numbers of Women Candidates, and Total Numbers of Candidates for Tenure, 2018

Campus	Number	Exception to Board Policy	Women	Percentage of candidates who are women
UM	13	1	4	31%
UMA	0	0	0	N/A
UMF	4	0	3	75%
UMFK	0	0	0	N/A
UMM	1	0	0	0%
UMPI	3	0	2	67%
USM	2	0	1	50%
Total	**23**	**1**	**10**	**43%**

54.66% of faculty are men; 45.34% of faculty are women
63.15 of the male faculty are tenured; 49.0% of the women faculty are tenured

Table II. Numbers of Candidates Considered at Campus Level
and Numbers Forwarded for Board Approval, 2012-2018

	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	Total
UMaine							
Considered	6	15	3	7	11	13	55
Recommended	6	15	3	7	11	13	55
UM - Augusta							
Considered	2	0	2	4	3	0	11
Recommended	2	0	2	4	3	0	11
UM - Farmington							
Considered	4	1	5	1	3	4	18
Recommended	4	1	5	1	3	4	18
UM - Fort Kent							
Considered	0	0	3	1	1	0	5
Recommended	0	0	3	1	1	0	5
UM - Machias							
Considered	2	2	0	1	4	1	10
Recommended	2	2	0	1	4	1	10
UM - Presque Isle							
Considered	3	1	1	1	2	3	11
Recommended	3	1	1	1	2	3	11
USM							
Considered	8	7	2	4	3	2	26
Recommended	8	7	2	4	3	2	26
System Total							
Considered	**25**	**26**	**16**	**19**	**27**	**23**	**136**
Recommended	**25**	**26**	**16**	**19**	**27**	**23**	**136**

Faculty and Tenure Statistics

2017 - 2018

University
of
Maine System
Office of Human
Resources

March 2018

University Of Maine System
Faculty and Tenure Statistics

This report provides a statistical summary of the tenure status and demographic characteristics of full-time faculty* at the University of Maine System. Current information and trends since 1987 are provided.

The information was extracted from the University's Human Resources Information file in February 2018, reflecting the 2017-2018 academic year. For the purpose of this report, a faculty member is defined as any full-time regular professional employee with a rank of professor, associate professor, assistant professor, instructor, or lecturer. Included are teaching faculty and administrators with rank who may or may not be teaching.

Office of Human Resources
March 2018   1

University Of Maine System
Faculty and Tenure Statistics: Highlights

<u>Number of Faculty</u>

▪ 1,180 faculty are included in this report. The number of faculty grew steadily throughout the 1980's; decreased throughout the 1990's, rose from 1997 to 2007, then declined steadily until 2015. There has been a steady increase from 2015 to 2017. The change in the number of faculty generally follows enrollment trends.

▪ There are 24 more faculty than last year. Tenured faculty decreased to 669 from 685 last year, and the number of faculty without tenure increased over last year's number by 40 to reach 511.

▪ Part-time "adjunct" faculty are not included in this report.

▪ Faculty participating in the partial retirement program or with shared appointments or similar arrangements are counted as full-time for this report. These faculty are included in the full-time faculty bargaining unit, may be eligible for tenure or be tenured, and receive full-time benefits. 36 faculty members are in the partial retirement program, 6 are in shared appointments.

▪ There are 23 faculty members who will be considered for tenure in the coming academic year.

<u>Tenured and Non-tenured Faculty</u>

▪ 56.7% (669) of the faculty have tenure. The percentage of tenured faculty varies from a high of 65.17% at UMA to a low of 52.95% at UM.

▪ The percent of tenured faculty at UMS decreased this year to 56.7%.

▪ At the University of Maine System 20.0% of the faculty are in pre-tenure status, and 23.3% not eligible for tenure.

▪ 43.3% (511) of UMS faculty do not have tenure. Of this number, 46.2% are eligible for tenure, and 53.8% are not eligible for tenure.

On average, a faculty member serves 5.7 years in the University of Maine System before being awarded tenure. The average years of service from date of appointment to tenure has slowly climbed since 2009 from 5.4 years.

▪ There are 46 pre-tenured faculty who have 5 or more years of service that are eligible for tenure in the next academic year.

▪ There were 85 new faculty hired in 2017, of this number 44 (51.8%) are eligible for tenure.

Office of Human Resources
March 2018   2

<u>Women and Minority Faculty</u>

- 45.3% (535) are women and 54.7% (645) of the faculty are men. The proportion of women faculty ranges from a high of 60.3% at UMF to a low of 38.1% at UM.

- The percentage of faculty who are women has steadily increased from 21.9% in 1981 to 45.34% in 2017. This is the highest percentage of women faculty ever reported at the University of Maine System.

- 63.1% of men faculty have tenure, and 49.0% of women faculty have tenure. At the two graduate centers, the proportion of women with tenure is 43.8% at UM and 49.0% at USM.

- The percentage of women faculty with tenure had grown over the years, from 37.4% in 1981 to 58.2% in 2014/15. However, there has been a decrease over the last year few years in the percentage of women faculty with tenure (52.5% in 2015/16; 52.3% in 2016/17; 49.0% in 2017/2018). The percentage of women with tenure continues to be substantially lower than the percentage of men with tenure (63.1%).

- Women are under-represented at the rank of full professor; 22.4% of women are professors while 40.2% of men are professors. The percentage of women professors has steadily decreased since the peak in 2014/15 at 25.4%. In 1984 only 6.3% of women were professors.

- Women faculty have an average of 6.1 years of service when awarded tenure; men faculty serve 5.5 years on average before being awarded tenure. Over time the data have shown a consistent difference between men and women in the number of years of employment prior to the granting of tenure.

- Minority faculty members have increased from last year at 94 to 109, or 9.2%. In 1993, 2.6% of faculty were minority. This year shows the highest percentage of minority faculty members recorded for the University of Maine System.

Office of Human Resources
March 2018   3

<u>Age Distribution</u>

- The average age of all faculty increased steadily for more than twenty years, then decreased last year. The average age this year decreased slightly from last year at 52.7 down to 52.2.

- Tenured faculty average 57.4 years of age and non-tenured faculty average 45.4 years of age.

- The average age varies from 50.8 years at UM to 57.2 years at UMA.

- The average age of faculty by rank is: professors, 60.3; associate professors, 53.7; assistant professors, 42.1; instructors, 53.6; and lecturers, 47.7.

- 97.2% of tenured faculty are age 40 or older while 58.9% of non-tenured faculty are age 40 or older. The percentage of tenured faculty who are age 40 or older has increased steadily from approximately 80% in 1981.

- 306 tenured faculty (396 total faculty) are age 60 or over and 155 tenured faculty (191 total faculty) are age 65 or older.

- Projections based on the current workforce indicate a large number of faculty reaching normal retirement age. From fiscal year 2018 to fiscal year 2022, 205 faculty members will attain age 65.

<u>Disciplines</u>

- Education is the discipline area with the largest number of faculty (139), followed by Social Sciences (104), Biological and Life Sciences (101), Physical Sciences (91), and Health Sciences (86). The top 10 disciplines have remained constant for the past five years.

<u>Sabbaticals</u>

- The AFUM collective bargaining agreement provides 51 sabbaticals per year across all Universities. Additional sabbaticals may be granted at the discretion of the departments if there are no additional costs to the University and the Chief Administrative Officer recommends additional awards.

- The total number of sabbaticals fluctuate over a 3 - 5 year periods. There were a higher number of sabbaticals from the academic years 05/06 through 08/09 with a peak in 08/09 at 95. There have been fewer sabbaticals between the academic years 09/10 through 17/18. There were 66 faculty on sabbatical this year, which is up 9 from the prior year.

Note: In all Tables a "-" indicates zero.

Office of Human Resources
March 2018   4

Tenure Status by Rank and University

UMAINE

Tenured	314
Non Tenured	279
Total	593

UMA

Tenured	58
Non Tenured	31
Total	89

UMF

Tenured	74
Non Tenured	47
Total	121

Tenure Status by Rank and University

UMFK

Tenured 21
Non Tenured 12
Total 33

UMM

Tenured 20
Non Tenured 11
Total 31

UMPI

Tenured 19
Non Tenured 21
Total 40

Office of Human Resources
March 2018

6
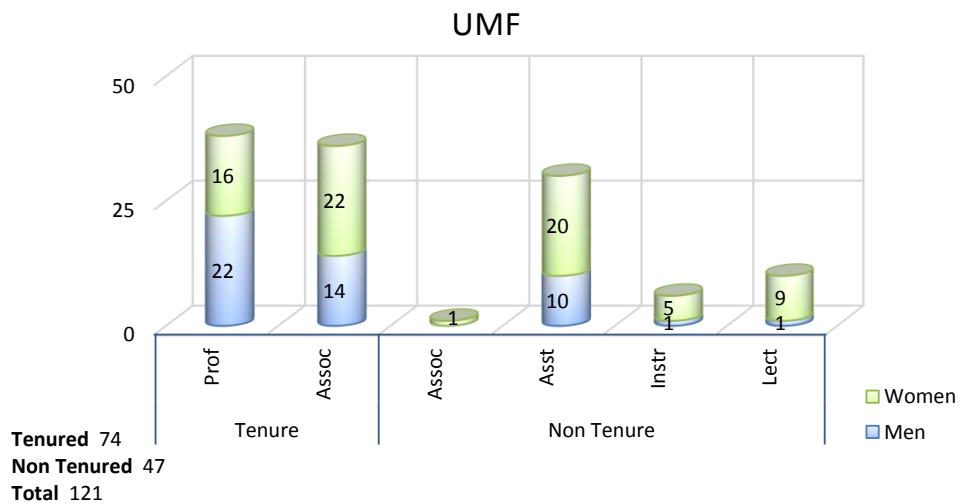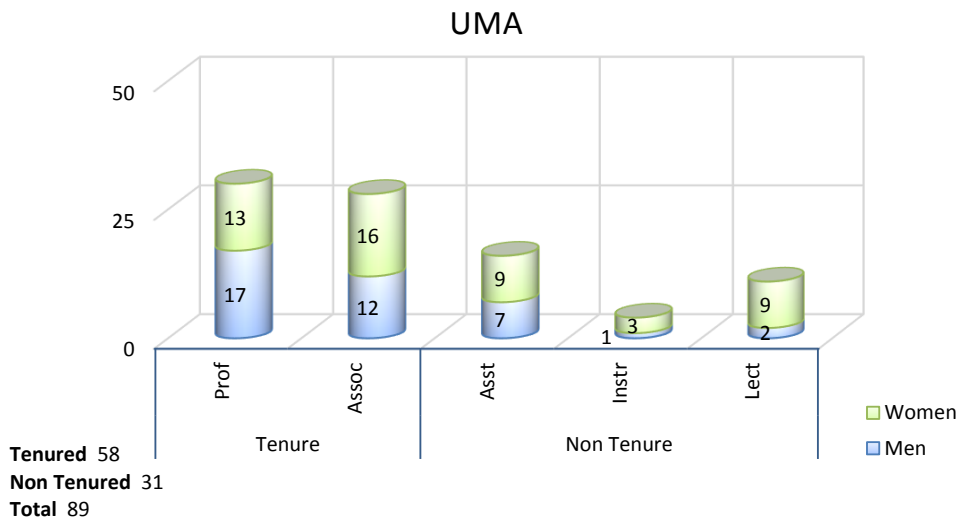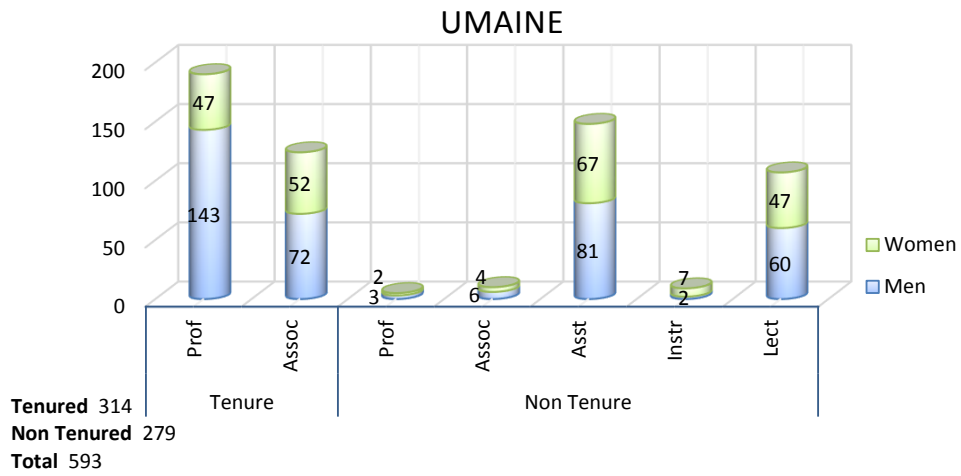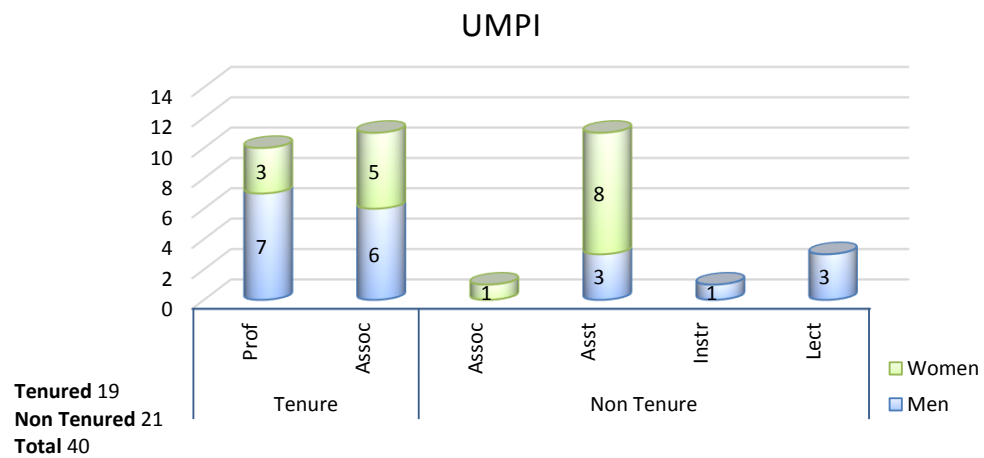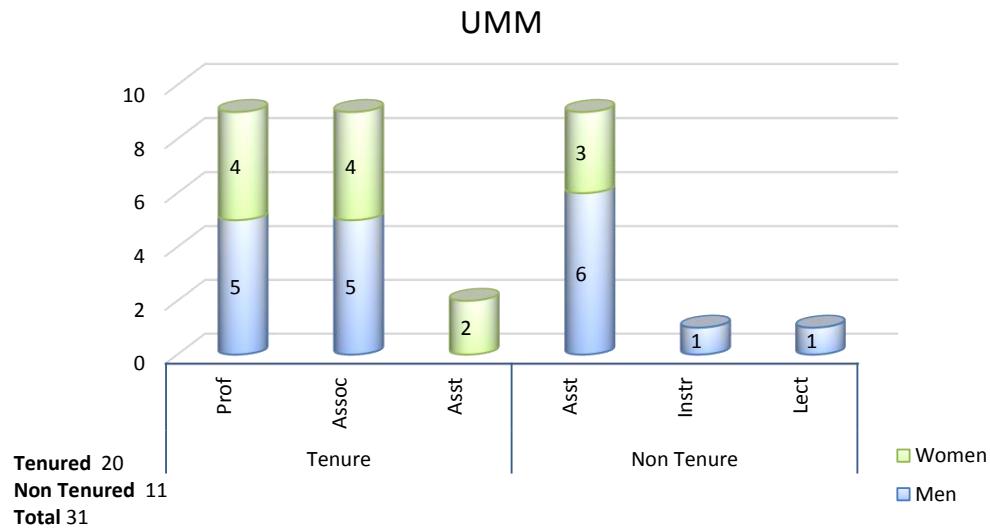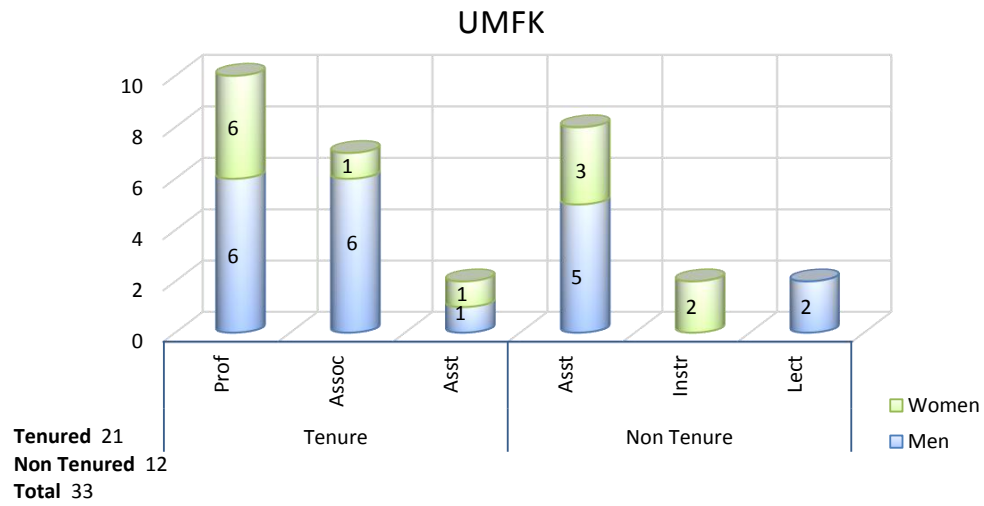
Tenure Status by Rank and University

USM
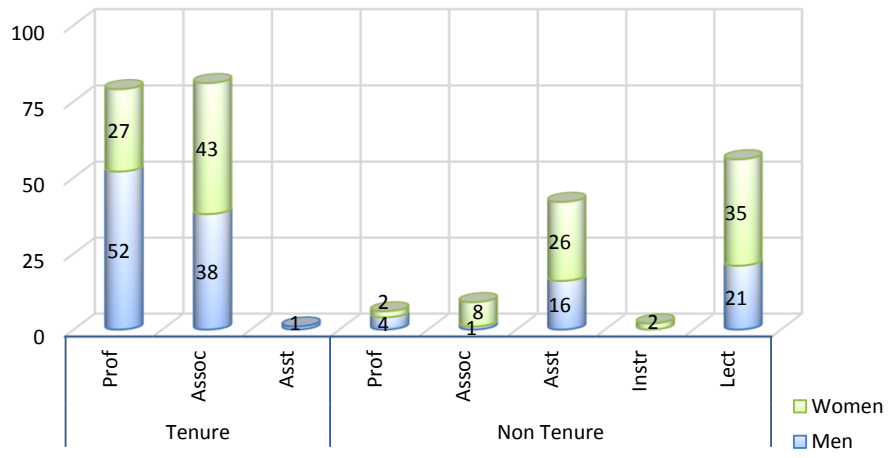
Tenured 161
Non Tenured 115
Total 276

TOTAL
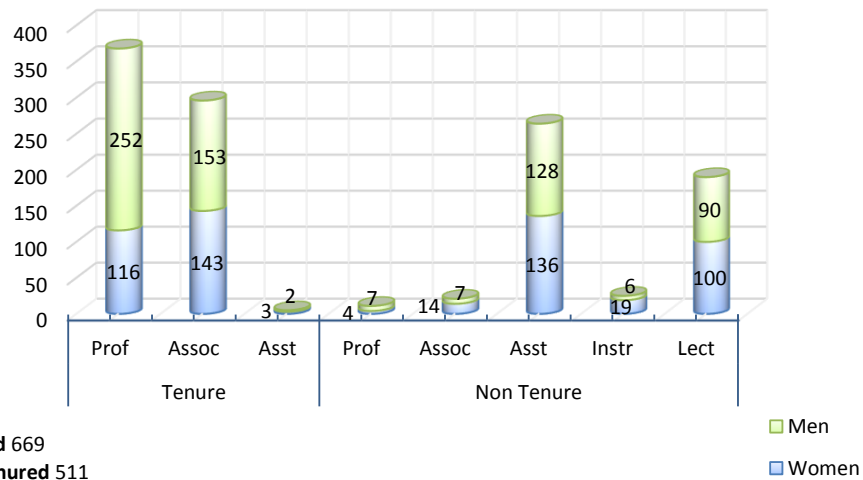
Tenured 669
Non Tenured 511
Total 1,180

Percent of Professors by Gender and University

% Women Who Are Professors   % Men Who Are Professors
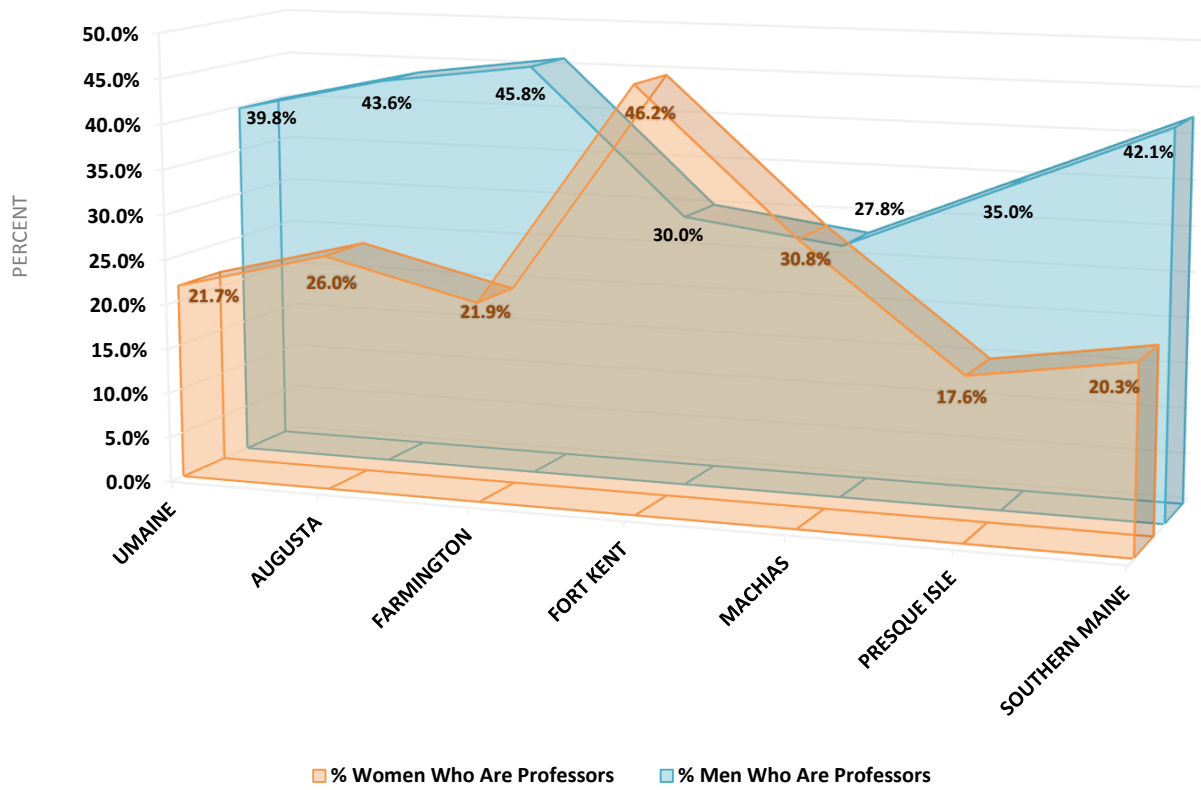
Tenure Status by Gender and University

	TENURED WOMEN		TENURED MEN		TENURED FACULTY	
UNIVERSITY	NO.	% OF TOTAL WOMEN FACULTY	NO.	% OF TOTAL MEN FACULTY	NO.	% OF TOTAL FACULTY
UMAINE	99	43.8%	215	58.6%	314	53.0%
AUGUSTA	29	58.0%	29	74.4%	58	65.2%
FARMINGTON	38	52.1%	36	75.0%	74	61.2%
FORT KENT	8	61.5%	13	65.0%	21	63.6%
MACHIAS	10	76.9%	10	55.6%	20	64.5%
PRESQUE ISLE	8	47.1%	13	65.0%	21	56.8%
SOUTHERN MAINE	70	49.0%	91	68.4%	161	58.3%
TOTAL	**262**	**49.0%**	**407**	**63.1%**	**669**	**56.7%**

Tenure Status by University

University	TENURED (%)	ELIGIBLE (%)	NOT ELIGIBLE (%)
UMAINE	53.0	22.1	25.0
AUGUSTA	65.2	17.3	18.0
FARMINGTON	61.2	22.3	16.5
FORT KENT	63.6	6.1	30.3
MACHIAS	64.5	32.2	6.5
PRESQUE ISLE	56.8	32.4	10.8
SOUTHERN MAINE	58.3	14.5	27.2
TOTAL	56.7	20.0	23.3
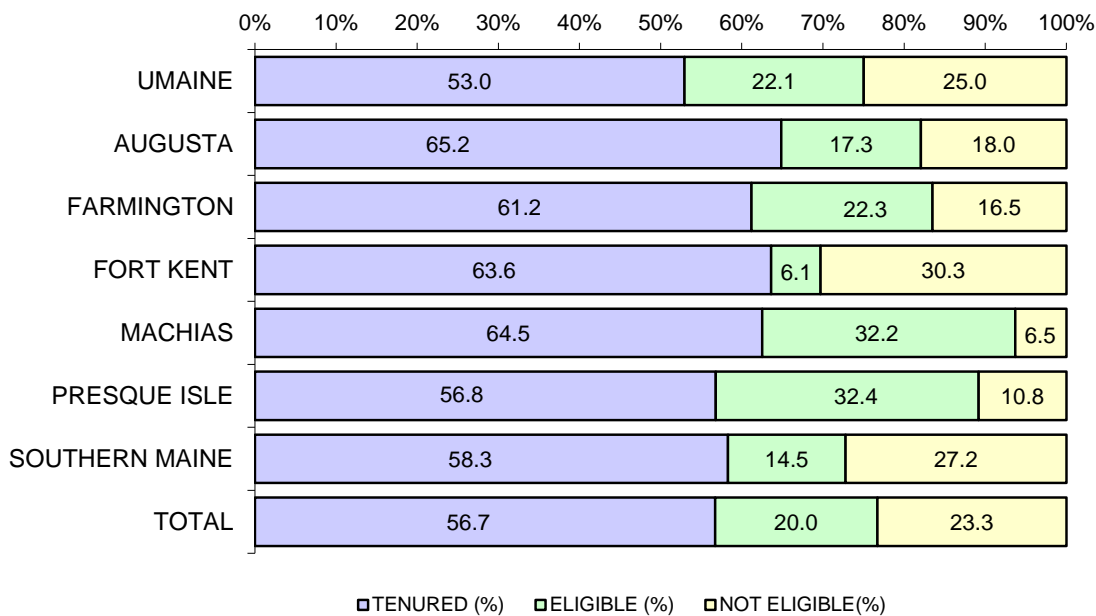
Tenure Status by University
Number of Non-Tenured Faculty

UNIVERSITY	TOTAL NUMBER OF TENURED FACULTY	ELIGIBLE FOR TENURE	NOT ELIGIBLE FOR TENURE	TOTAL NOT TENURED	TENURED OR ELIGIBLE FOR TENURE	TOTAL FACULTY
UMAINE	314	131	148	279	445	593
AUGUSTA	58	15	16	31	73	89
FARMINGTON	74	27	20	47	101	121
FORT KENT	21	2	10	12	23	33
MACHIAS	20	9	2	11	29	31
PRESQUE ISLE	21	12	4	16	33	37
SOUTHERN MAINE	161	40	75	115	201	276
TOTAL	**669**	**236**	**275**	**511**	**905**	**1,180**

UNIVERSITY	TENURED FACULTY AS % OF FACULTY WHO ARE TENURED OR ARE ELIGIBLE FOR TENURE	% OF TOTAL FACULTY WHO ARE TENURED	% OF TOTAL FACULTY WHO ARE TENURED OR ARE ELIGIBLE FOR TENURE	% OF TOTAL FACULTY WHO ARE NOT ELIGIBLE FOR TENURE	% OF NON-TENURED FACULTY WHO ARE ELIGIBLE FOR TENURE
UMAINE	70.6	53.0	75.0	25.0	47.0
AUGUSTA	79.5	65.2	82.0	18.0	48.4
FARMINGTON	73.3	61.2	83.5	16.5	57.4
FORT KENT	91.3	63.6	69.7	30.3	16.7
MACHIAS	69.0	64.5	93.5	6.5	81.8
PRESQUE ISLE	63.6	56.8	89.2	10.8	75.0
SOUTHERN MAINE	80.1	58.3	72.8	27.2	34.8
TOTAL	**73.9**	**56.7**	**76.7**	**23.3**	**46.2**

Office of Human Resources
March 2018   10

Ethnicity by Tenure Status

ETHNICITY	TENURE		ELIGIBLE FOR TENURE		NOT ELIGIBLE FOR TENURE		TOTAL	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
WHITE	619	92.5%	204	86.4%	248	90.2%	1071	90.8%
MINORITY	50	7.5%	32	13.6%	27	9.8%	109	9.2%
TOTAL	669	100.0%	236	100.0%	275	100.0%	1180	100.0%

Ethnicity by University

UNIVERSITY	MINORITY NUMBER	MINORITY PERCENT
UMAINE	65	11.0
AUGUSTA	1	1.1
FARMINGTON	6	5.0
FORT KENT	5	15.2
MACHIAS	1	3.2
PRESQUE ISLE	3	8.1
SOUTHERN MAINE	28	10.1
TOTAL	109	9.2

Average Years of Service from Date of Appointment To Date of Tenure

UNIVERSITY	WOMEN	MEN	TOTAL
UMAINE	6.2	5.3	5.5
AUGUSTA	8.1	6.2	7.2
FARMINGTON	4.8	5.1	4.9
FORT KENT	6.6	6.2	6.3
MACHIAS	6.2	9.1	7.7
PRESQUE ISLE	6.1	5.8	6.0
SOUTHERN MAINE	5.8	5.5	5.6
TOTAL	6.1	5.5	5.7

Average Age by Gender and University

	Tenured			Non Tenured			
	Women	**Men**	**Total**	**Women**	**Men**	**Total**	**Grand Total**
UMAINE	56.5	58.5	57.9	42.6	43.1	42.9	50.8
AUGUSTA	59.9	62.1	61.0	49.5	51.6	50.2	57.2
FARMINGTON	53.8	55.4	54.6	47.3	46.5	47.1	51.6
FORT KENT	53.9	57.2	56.0	50.6	46.7	48.3	53.2
MACHIAS	53.3	55.2	54.3	48.3	44.6	45.6	51.2
PRESQUE ISLE	57.8	52.4	54.4	51.4	50.9	51.2	53.0
SOUTHERN MAINE	55.5	59.0	57.5	48.6	48.5	48.6	53.8
Grand Total	**56.1**	**58.2**	**57.4**	**45.8**	**45.0**	**45.4**	**52.2**

Average Age

Office of Human Resources
March 2018   12

175
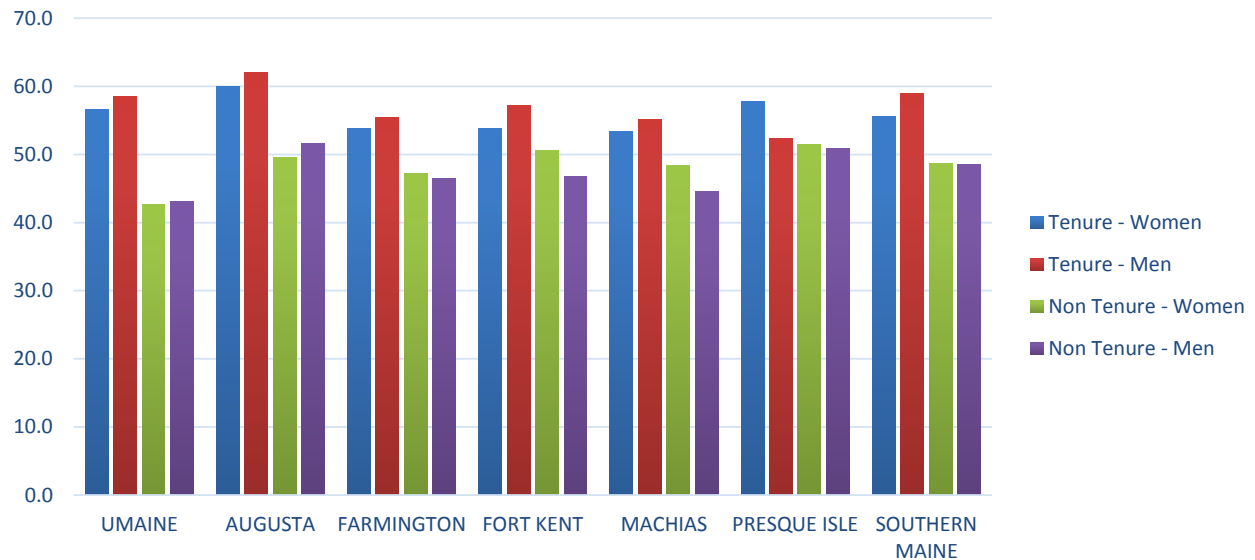
Average Age by Gender and Rank

University	Rank	Tenure			Non Tenure			Total
		Women	Men	Total	Women	Men	Total	Total
UMAINE	Professor	59.9	60.9	60.6	67.0	67.0	67.0	60.8
	Associate Professor	53.5	53.6	53.6	52.3	57.3	55.3	53.7
	Assistant Professor				39.1	39.2	39.2	39.2
	Instructor				54.0	62.0	55.8	55.8
	Lecturer				44.0	45.1	44.6	44.6
UMAINE Total		**56.5**	**58.5**	**57.9**	**42.6**	**43.1**	**42.9**	**50.8**
AUGUSTA	Professor	64.0	68.2	66.4				66.4
	Associate Professor	56.6	53.3	55.2				55.2
	Assistant Professor				41.1	45.9	43.2	43.2
	Instructor				61.3	66.0	62.5	62.5
	Lecturer				54.0	64.5	55.9	55.9
AUGUSTA Total		**59.9**	**62.1**	**61.0**	**49.5**	**51.6**	**50.2**	**57.2**
FARMINGTON	Professor	57.9	57.5	57.7				57.7
	Associate Professor	50.8	52.0	51.3	59.0		59.0	51.5
	Assistant Professor				42.0	47.7	43.9	43.9
	Instructor				48.8	33.0	46.2	46.2
	Lecturer				56.8	48.0	55.9	55.9
FARMINGTON Total		**53.8**	**55.4**	**54.6**	**47.3**	**46.5**	**47.1**	**51.6**
FORT KENT	Professor	58.2	56.7	57.4				57.4
	Associate Professor	41.0	58.0	55.6				55.6
	Assistant Professor	41.0	56.0	48.5	47.3	46.2	46.6	47.0
	Instructor				55.5		55.5	55.5
	Lecturer					48.0	48.0	48.0
FORT KENT Total		**53.9**	**57.2**	**56.0**	**50.6**	**46.7**	**48.3**	**53.2**
MACHIAS	Professor	60.3	57.4	58.7				58.7
	Associate Professor	51.8	53.0	52.4				52.4
	Assistant Professor	42.5		42.5	48.3	47.3	47.7	46.7
	Instructor					34.0	34.0	34.0
	Lecturer					39.0	39.0	39.0
MACHIAS Total		**53.3**	**55.2**	**54.3**	**48.3**	**44.6**	**45.6**	**51.2**
PRESQUE ISLE	Professor	51.7	56.9	55.3				55.3
	Associate Professor	61.4	47.2	53.6	63.0		63.0	54.4
	Assistant Professor				50.0	47.3	49.3	49.3
	Instructor					42.0	42.0	42.0
	Lecturer					57.3	57.3	57.3
PRESQUE ISLE Total		**58.4**	**57.8**	**52.4**	**54.4**	**51.4**	**50.9**	**51.2**
SOUTHERN MAINE	Professor	56.4	61.5	59.7	48.5	56.0	53.5	59.3
	Associate Professor	55.0	55.3	55.1	46.9	37.0	45.8	54.2
	Assistant Professor		69.0	69.0	49.8	39.7	45.9	46.5
	Instructor				62.0		62.0	62.0
	Lecturer				47.4	54.4	50.0	50.0
SOUTHERN MAINE Total		**55.4**	**55.5**	**59.0**	**57.5**	**48.6**	**48.5**	**48.6**
Grand Total		**56.1**	**58.2**	**57.4**	**45.8**	**45.0**	**45.4**	**52.2**
ALL CAMPUSES	Professor	59.0	60.9	60.3	57.8	60.7	59.6	60.3
	Associate Professor	54.0	53.8	53.9	50.4	54.4	51.8	53.7
	Assistant Professor	42.0	62.5	50.2	42.7	41.1	42.0	42.1
	Instructor				54.8	49.8	53.6	53.6
	Lecturer				47.3	48.1	47.7	47.7
ALL CAMPUSES	**Total**	**56.1**	**58.2**	**57.4**	**45.8**	**45.0**	**45.4**	**52.2**

Office of Human Resources
March 2018   13

Faculty by Discipline by University
Tenured and Non-Tenured

DISCIPLINE	UM	UMA	UMF	UMFK	UMM	UMPI	USM	Total
Agriculture Business & Production	48	1		7			5	61
Architecture & Related Programs	1	3						4
Area Ethnic & Cultural Studies		1	1					2
Biological Sciences/Life Sciences	66	5	7		6	4	13	101
Business Management & Administrative Services	29	6	4	4	2	4	20	69
Communications	10	1		1			5	17
Computer & Information Sciences	6	4	1	1			5	17
Criminal Justice And Corrections		1						1
Education	67	1	37	1	3	5	25	139
Engineering	72						6	78
Engineering Or Related Technologies	20						1	21
English Language & Literature	24	11	13	2	2	4	13	69
Foreign Languages & Literature	7	1	5	1			5	19
Health Sciences	23	16	2	8		3	34	86
History	14			1	1		2	18
Home Economics – Family And Consumer Life	8							8
Law And Legal Studies		2					20	22
Library Science		1						1
Mathematics	26	7	9	1	2	1	9	55
Multi/Interdisciplinary Studies	5	2					1	8
Parks, Recreation, Leisure & Fitness Studies	8				3	2	12	25
Philosophy & Religion	6	1	3				6	16
Physical Sciences	63	1	9		3	4	11	91
Psychology	17	6	9	1	4	2	7	46
Public Administration & Social Services	10	1		1		2	22	36
Social Sciences	35	10	13	3	3	5	35	104
Visual & Performing Arts	26	7	8	1	2	1	19	64
Liberal Arts & Sciences	2							2
TOTAL	**593**	**89**	**121**	**33**	**31**	**37**	**276**	**1180**

Office of Human Resources
March 2018   14

Disciplines with Greatest Numbers of Faculty
Tenured and Non-tenured

Discipline	Number
AGRICULTURE BUSINESS & PRODUCTION	61
VISUAL & PERFORMING ARTS	64
ENGLISH LANGUAGE & LITERATURE	69
BUS MGT & ADMINISTRATIVE SERVICES	69
ENGINEERING	78
HEALTH SCIENCES	86
PHYSICAL SCIENCES	91
BIOLOGICAL SCIENCES/LIFE SCIENCES	101
SOCIAL SCIENCES	104
EDUCATION	139
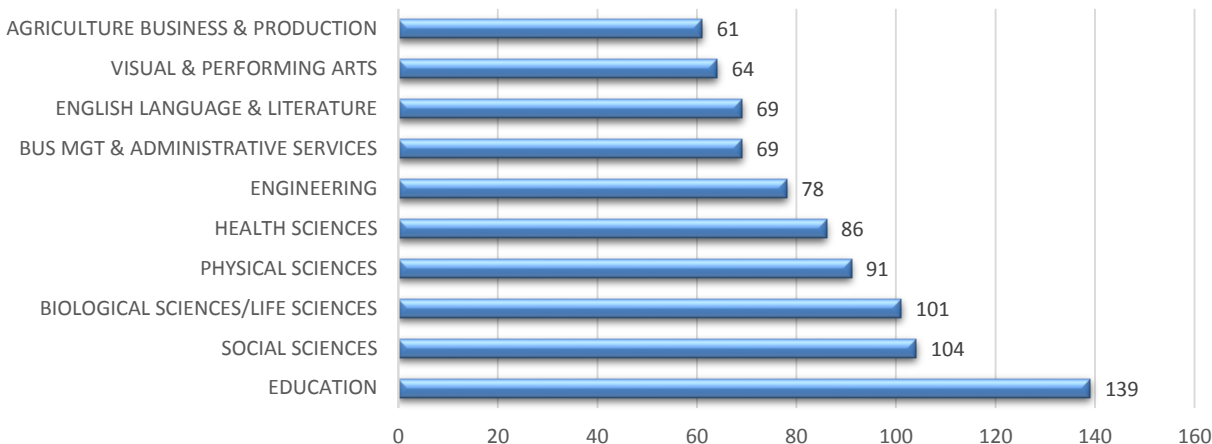
Top 10 Disciplines 2011 – 2017
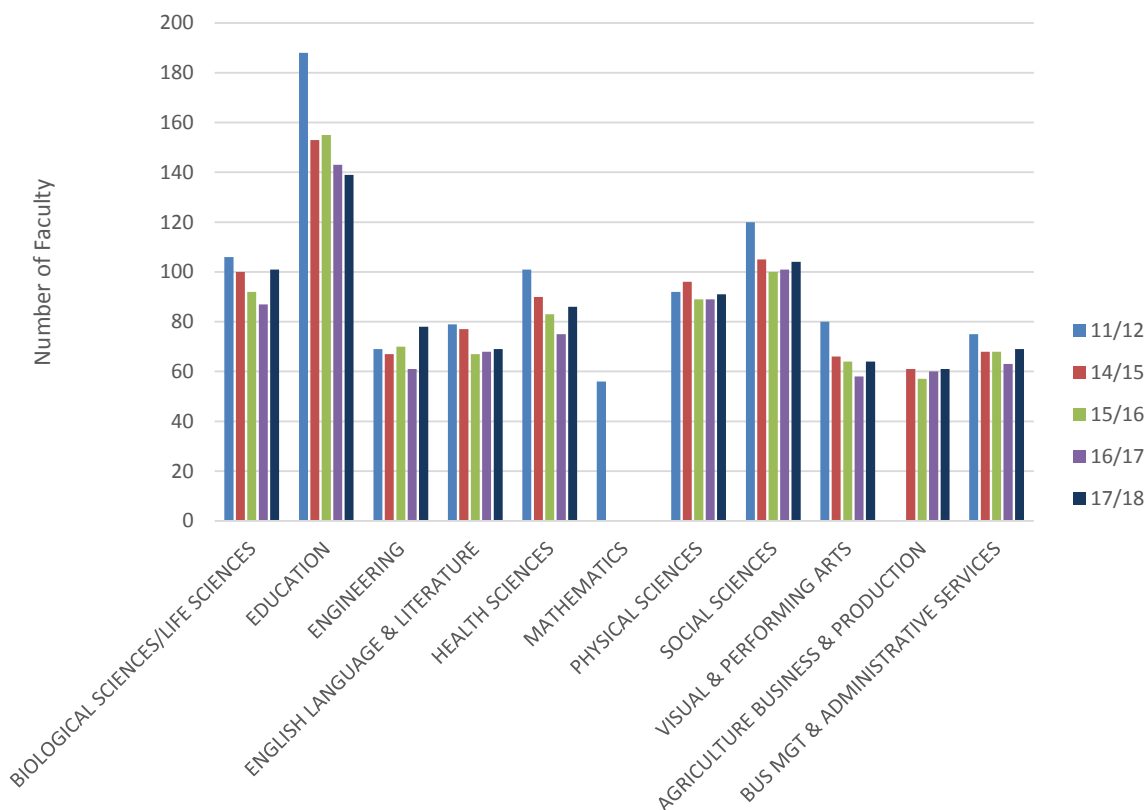
From 1987 Through 2017
Total Number of All Faculty

YEAR	FACULTY	MEN %	WOMEN %
2017	1,180	54.7	45.3
2016	1,156	53.3	43.7
2015	1,144	57.1	42.9
2014	1,198	57.7	42.3
2011	1,335	57.9	42.1
2008	1,400	59.4	40.6
2005	1,380	60.5	39.5
2002	1,388	61.1	38.9
1999	1,310	64.9	35.1
1996	1,288	68.0	32.0
1993	1,325	69.7	30.3
1990	1,394	72.0	28.0
1987	1,353	74.1	25.9

Percent Tenured Faculty by Gender

YEAR	NUMBER	TENURED FACULTY %	MEN %	WOMEN %
2017	669	56.7	63.1	49.0
2016	685	59.3	64.7	52.3
2015	694	60.7	66.8	52.5
2014	795	66.4	72.4	58.2
2011	876	65.6	71.9	56.9
2008	906	64.7	70.0	57.0
2005	870	63.0	69.0	53.9
2002	848	61.1	69.7	47.6
1999	832	63.5	70.5	50.7
1996	897	69.6	76.7	54.6
1993	907	68.5	75.8	51.6
1990	856	61.4	68.6	42.8
1987	796	58.8	65.8	38.9

Office of Human Resources
March 2018   16

Gender Composition Faculty
1987 - 2003 - 2017

1987

Tenured Women
10.0%

Untenured Men
25.4%

78.1%
Men

Untenured Women
15.8%

Tenured Men
48.8%

21.9%
Women

■ Tenured Women ■ Tenured Men ■ Untenured Women ■ Untenured Men

2003

Untenured Men
19.1%

Tenured Women
19.8%

61.4%
Men

Untenured Women
18.8%

Tenured Men
42.3%

38.6%
Women

■ Tenured Women ■ Tenured Men ■ Untenured Women ■ Untenured Men

2018

Untenured Men
20.2%

Tenured Women
22.2%

54.7%
Men

Untenured Women
23.1%

Tenured Men
34.5%

45.3%
Women

■ Tenured Women ■ Tenured Men ■ Untenured Women ■ Untenured Men

Office of Human Resources
March 2018   17

Student Head Count/Number of Faculty

*The information for the student head count was from the University of Maine System Fall 2017 Enrollment Report

Tenure Status
1987 - 1997 - 2008 - 2017

Legend: Tenured (%) — Eligible (%) — Not Eligible (%)

Chart values:

Year	Not Eligible (%)	Eligible (%)	Tenured (%)
1987	13.8	27.4	58.8
1997	13.7	19.0	67.3
2008	19.50	15.80	64.7
2017	23.30	20.00	56.7
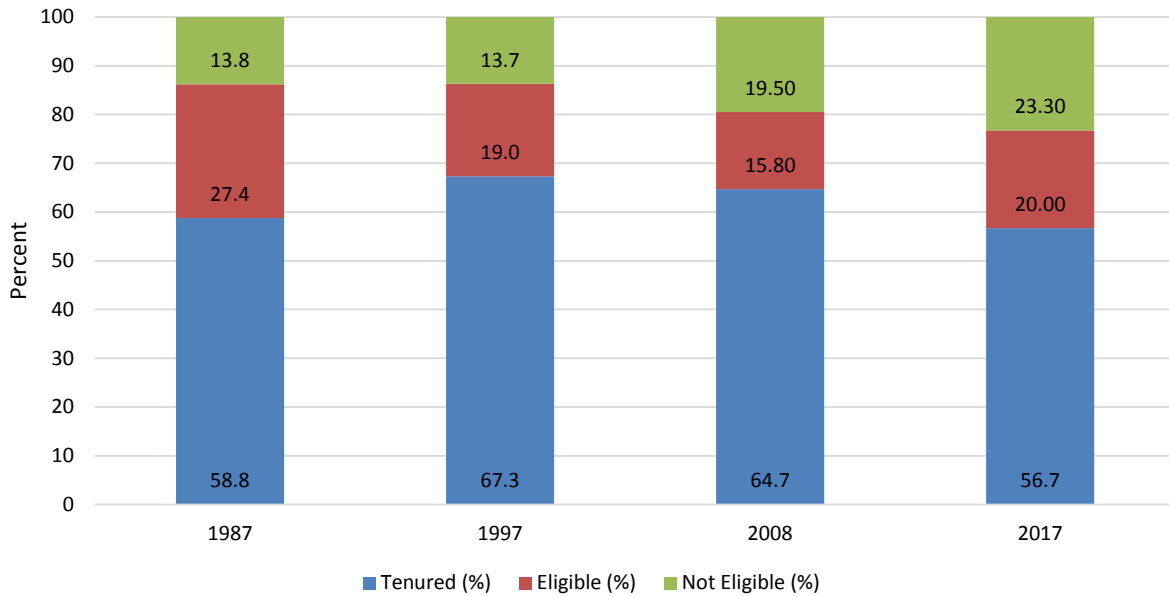
New Hire* Faculty on Tenure Track

Year	Total Faculty	New Hires	Tenure Track
2017	1,180	85	44
2016	1,156	63	38
2015	1,144	95	40
2014	1,198	59	29
2013	1,272	68	24
2012	1,318	61	27
2011	1,335	78	47
2008	1,400	62	37

* New hire as of 6/1/2017

Office of Human Resources
March 2018   19

Faculty and Tenure Profile Trends
From 1987 Through 2017
Years to Tenure by Gender

YEAR	AVG	MEN	WOMEN
2017	5.7	5.5	6.1
2016	5.7	5.5	6.0
2015	5.6	5.4	5.9
2014	5.6	5.4	6.1
2011	5.6	5.3	6.0
2008	5.4	5.2	5.8
2005	5.5	5.2	5.9
2002	5.3	5.1	5.8
1999	5.4	5.2	6.1
1996	5.3	5.0	5.9
1993	5.1	4.9	5.8
1990	5.1	5.0	5.9
1987	5.2	5.0	6.1

Minority Faculty

YEAR	NUMBER	PERCENT
2017	109	9.2
2016	94	8.1
2015	89	7.8
2014	81	6.8
2011	80	6.0
2008	73	5.2
2005	63	4.6
2002	57	4.1
1999	55	4.2
1996	39	3.0
1993	34	2.6
1990	40	2.9
1987	-	-

Average Age

YEAR	AVG AGE	TENURED	NON-TENURED	TENURED OVER 40 %
2017	52.2	57.4	45.4	97.2
2016	52.7	57.5	45.8	97.7
2015	52.7	57.1	45.9	96.4
2014	53.8	57.4	46.8	96.1
2011*	53.3	56.8	46.8	96.5
2008	53.5	56.9	47.1	97.1
2005	51.5	55.0	45.7	96.0
2002*	49.9	54.0	43.5	95.4
1999	49.7	53.4	43.1	95.8
1996	49.6	52.5	42.9	94.1
1993	48.5	51.2	42.7	89.7
1990	47.5	51.0	41.9	88.7
1987	46.1	50.2	40.2	88.3

*There was a revision to the method for determining age in 2002 that resulted in rounding differences. Average age information has been revised to correct errors in the March 2011 report.

Office of Human Resources
March 2018

20

Faculty and Tenure Profile Trends
From 1987 Through 2017
Academic Rank

YEAR	PROFESSOR	ASSOC PROF	ASST PROF	INSTRUCTOR	LECTURER
2017	32.1%	26.9%	22.8%	2.1%	16.1%
2016	33.9%	28.3%	19.7%	1.7%	16.4%
2015	34.1%	29.4%	18.0%	2.2%	16.3%
2014	36.0%	33.2%	15.7%	2.1%	13.0%
2011	34.7%	34.5%	15.8%	2.4%	12.6%
2008	33.6%	34.8%	18.0%	3.6%	9.9%
2005	31.5%	34.5%	22.0%	3.8%	8.4%
2002	31.2%	32.7%	25.2%	3.2%	7.6%
1999	30.8%	35.0%	24.7%	3.0%	6.5%
1996	32.4%	39.8%	19.3%	3.3%	5.2%
1993	31.9%	37.6%	22.1%	4.2%	4.2%
1990	29.3%	33.1%	29.5%	4.0%	4.2%
1987	30.4%	32.7%	26.6%	6.0%	4.2%

YEAR	PROFESSOR	ASSOC PROF	ASST PROF	INSTRUCTOR	LECTURER
2017	379	317	269	25	190
2016	392	327	228	19	190
2015	390	336	206	25	187
2014	431	398	188	25	156
2011	463	461	211	32	168
2008	471	487	252	51	139
2005	435	474	303	52	116
2002	433	454	350	45	106
1999	404	459	323	39	85
1996	417	513	249	42	67
1993	428	505	297	56	59
1990	414	469	417	56	59
1987	387	417	339	77	54

Office of Human Resources
March 2018

21

University of Maine System
Number of Current
Faculty Reaching Normal Retirement Age(65)

Note: Analysis includes regular, full and part-time faculty using January 2018 employee snapshot and assumes NO new faculty are hired.

In FY18, 191 faculty are currently age 65 or older.

Office of Human Resources
March 2018   22
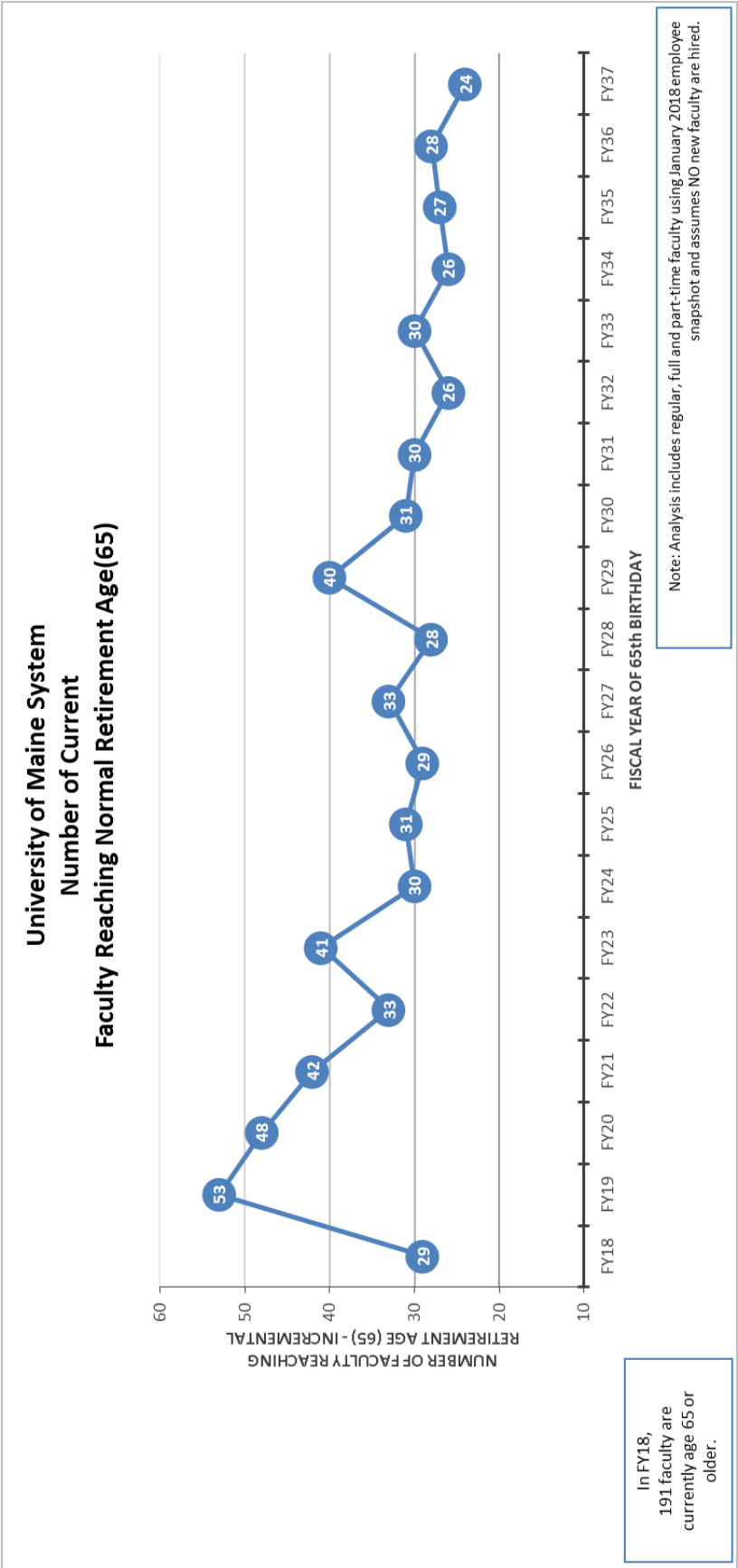
Faculty Sabbaticals
Academic Years 05/06 Through 17/18

	AY	SPRING	FALL
05/06 (91)	27	40	24
08/09 (94)	23	43	28
11/12 (75)	14	35	26
14/15 (79)	28	26	25
17/18 (66)	14	31	21
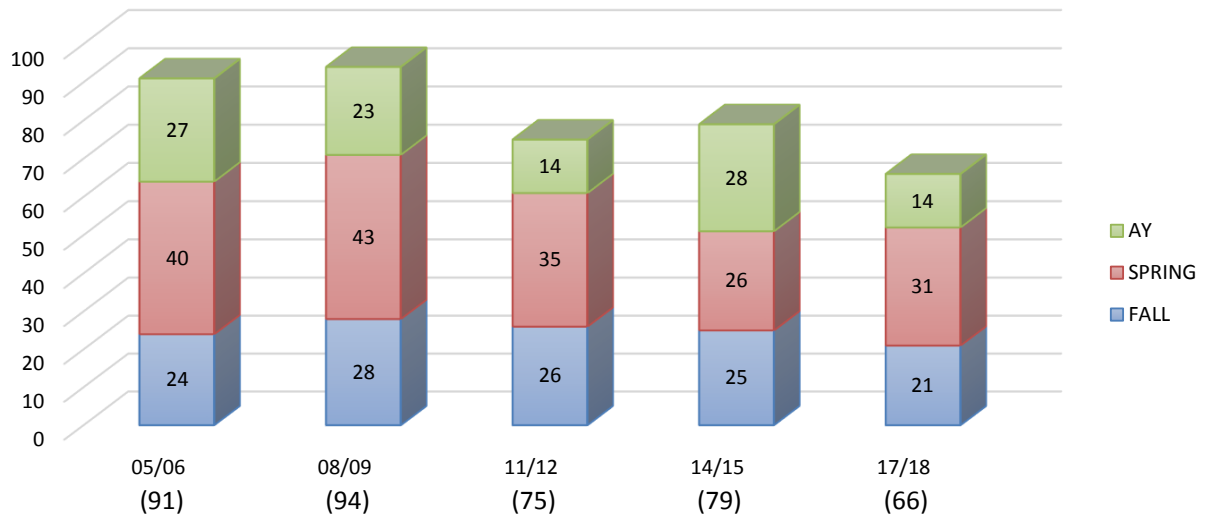
Fall and spring sabbaticals are a full release for only one semester.
An academic year (AY) sabbatical is a 1/2 time release for the faculty member over an academic year.

Office of Human Resources
March 2018   23

All Faculty at UMS Schools and Peer Institutions for Fall 2015

University of Maine System	Head Count				Percent of Total		
	# Faculty	# Tenured	# Tenured Track	# Non-Tenured	% Tenured	% Tenured Track	% Non-Tenured
University of Maine at Augusta Peer Summary	**1657**	**459**	**284**	**914**	**30.19%**	**19.08%**	**50.73%**
University of Maine at Augusta	**260**	**50**	**15**	**195**	**19.23%**	**5.77%**	**75.00%**
Bluefield State College	77	40	17	20	51.95%	22.08%	25.97%
Dalton State College	247	89	58	100	36.03%	23.48%	40.49%
Dickinson State University	146	41	25	80	28.08%	17.12%	54.79%
Indiana University-Kokomo	237	42	32	163	17.72%	13.50%	68.78%
Lewis-Clark State College	182	80	49	53	43.96%	26.92%	29.12%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
University of Hawaii-West Oahu	169	40	46	83	23.67%	27.22%	49.11%
University of Maine at Farmington Peer Summary	**3306**	**1375**	**458**	**1473**	**41.78%**	**14.55%**	**43.66%**
University of Maine at Farmington	**167**	**77**	**24**	**66**	**46.11%**	**14.37%**	**39.52%**
Eastern Connecticut State University	364	228	89	47	62.64%	24.45%	12.91%
Fort Lewis College	232	96	39	97	41.38%	16.81%	41.81%
Henderson State University	196	105	39	52	53.57%	19.90%	26.53%
Keene State College	463	167	51	245	36.07%	11.02%	52.92%
Massachusetts College of Liberal Arts	170	62	24	84	36.47%	14.12%	49.41%
Shepherd University	349	88	48	213	25.21%	13.75%	61.03%
SUNY at Fredonia	453	177	41	235	39.07%	9.05%	51.88%
SUNY College at Potsdam	360	176	42	142	48.89%	11.67%	39.44%
Western Oregon University	380	143	33	204	37.63%	8.68%	53.68%
Western State Colorado University	172	56	28	88	32.56%	16.28%	51.16%
University of Maine at Fort Kent Peer Summary	**1542**	**487**	**292**	**763**	**31.77%**	**20.65%**	**47.58%**
Black Hills State University	150	64	34	52	42.67%	22.67%	34.67%
Dickinson State University	146	41	25	80	28.08%	17.12%	54.79%
Eastern Oregon University	193	52	27	114	26.94%	13.99%	59.07%
Lewis-Clark State College	182	80	49	53	43.96%	26.92%	29.12%
Massachusetts College of Liberal Arts	170	62	24	84	36.47%	14.12%	49.41%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Northwestern Oklahoma State University	89	32	23	34	35.96%	25.84%	38.20%
Oklahoma Panhandle State University	95	11	35	49	11.58%	36.84%	51.58%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
University of Maine at Fort Kent	**76**	**18**	**5**	**53**	**23.68%**	**6.58%**	**69.74%**
University of Maine at Machias Peer Summary	**689**	**215**	**159**	**315**	**30.95%**	**23.20%**	**45.85%**
University of Maine at Machias	**66**	**16**	**10**	**40**	**24.24%**	**15.15%**	**60.61%**
Dickinson State University	146	41	25	80	28.08%	17.12%	54.79%
Glenville State College	96	34	21	41	35.42%	21.88%	42.71%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Oklahoma Panhandle State University	95	11	35	49	11.58%	36.84%	51.58%
The University of Montana-Western	95	35	14	46	36.84%	14.74%	48.42%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
University of Maine at Presque Isle Peer Summary	**1336**	**367**	**229**	**740**	**28.09%**	**19.06%**	**52.85%**
University of Maine at Presque Isle	**93**	**19**	**14**	**60**	**20.43%**	**15.05%**	**64.52%**
Dickinson State University	146	41	25	80	28.08%	17.12%	54.79%
Glenville State College	96	34	21	41	35.42%	21.88%	42.71%
Massachusetts College of Liberal Arts	170	62	24	84	36.47%	14.12%	49.41%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Oklahoma Panhandle State University	95	11	35	49	11.58%	36.84%	51.58%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
University of Maine at Fort Kent	76	18	5	53	23.68%	6.58%	69.74%
West Liberty University	219	55	35	129	25.11%	15.98%	58.90%

University of Maine Peer Summary	**9770**	**3735**	**1305**	**4730**	**39.09%**	**14.13%**	**46.78%**
University of Maine	**818**	**306**	**84**	**428**	**37.41%**	**10.27%**	**52.32%**
Montana State University	1165	387	201	577	33.22%	17.25%	49.53%
North Dakota State University-Main Campus	787	388	181	218	49.30%	23.00%	27.70%
South Dakota State University	810	286	132	392	35.31%	16.30%	48.40%
University of Idaho	963	465	187	311	48.29%	19.42%	32.29%
University of New Hampshire-Main Campus	1154	484	121	549	41.94%	10.49%	47.57%
University of Rhode Island	1156	456	106	594	39.45%	9.17%	51.38%
University of Vermont	1663	506	107	1050	30.43%	6.43%	63.14%
University of Wyoming	1254	457	186	611	36.44%	14.83%	48.72%
University of Southern Maine Peer Summary	**5053**	**1804**	**787**	**2462**	**40.29%**	**17.12%**	**42.58%**
University of Southern Maine	**620**	**160**	**21**	**439**	**25.81%**	**3.39%**	**70.81%**
California State University-Dominguez Hills	832	161	78	593	19.35%	9.38%	71.27%
Fayetteville State University	271	152	69	50	56.09%	25.46%	18.45%
Murray State University	703	237	142	324	33.71%	20.20%	46.09%
North Carolina Central University	727	198	93	436	27.24%	12.79%	59.97%
Salem State University	365	260	84	21	71.23%	23.01%	5.75%
Texas Woman's University	444	213	105	126	47.97%	23.65%	28.38%
University of Arkansas at Little Rock	493	295	102	96	59.84%	20.69%	19.47%
University of Michigan-Flint	598	128	93	377	21.40%	15.55%	63.04%
Grand Total	**23353**	**8442**	**3514**	**11397**	**34.74%**	**18.08%**	**47.18%**

Note: The UMS Institutional Research department constucted this table using IPEDS 2015 data. These data include (full-time and part-time) employees who have a faculty status. UMS 2/23/2018

All Instructional Faculty at UMS Schools and Peer Institutions for Fall 2015

| | Head Count | | | | Percent of Total | | |
Row Labels	# Faculty	# Tenured	# Tenured Track	# Non-Tenured	% Tenured	% Tenured Track	% Non-Tenured
University of Maine at Augusta Peer Summary	**1595**	**428**	**266**	**901**	**29.43%**	**18.69%**	**51.88%**
University of Maine at Augusta	**260**	**50**	**15**	**195**	**19.23%**	**5.77%**	**75.00%**
Bluefield State College	77	40	17	20	51.95%	22.08%	25.97%
Dalton State College	235	82	58	95	34.89%	24.68%	40.43%
Dickinson State University	141	37	24	80	26.24%	17.02%	56.74%
Indiana University-Kokomo	225	32	30	163	14.22%	13.33%	72.44%
Lewis-Clark State College	173	77	49	47	44.51%	28.32%	27.17%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
University of Hawaii-West Oahu	145	33	31	81	22.76%	21.38%	55.86%
University of Maine at Farmington Peer Summary	**2985**	**1239**	**414**	**1332**	**42.45%**	**15.03%**	**42.53%**
University of Maine at Farmington	**167**	**77**	**24**	**66**	**46.11%**	**14.37%**	**39.52%**
Eastern Connecticut State University	198	135	52	11	68.18%	26.26%	5.56%
Fort Lewis College	230	94	39	97	40.87%	16.96%	42.17%
Henderson State University	184	94	38	52	51.09%	20.65%	28.26%
Keene State College	420	156	51	213	37.14%	12.14%	50.71%
Massachusetts College of Liberal Arts	168	61	23	84	36.31%	13.69%	50.00%
Shepherd University	307	81	48	178	26.38%	15.64%	57.98%
SUNY at Fredonia	446	176	41	229	39.46%	9.19%	51.35%
SUNY College at Potsdam	347	176	42	129	50.72%	12.10%	37.18%
Western Oregon University	349	135	29	185	38.68%	8.31%	53.01%
Western State Colorado University	169	54	27	88	31.95%	15.98%	52.07%
University of Maine at Fort Kent Peer Summary	**1481**	**464**	**283**	**734**	**31.44%**	**21.02%**	**47.54%**
University of Maine at Fort Kent	**76**	**18**	**5**	**53**	**23.68%**	**6.58%**	**69.74%**
Black Hills State University	129	56	32	41	43.41%	24.81%	31.78%
Dickinson State University	141	37	24	80	26.24%	17.02%	56.74%
Eastern Oregon University	178	49	24	105	27.53%	13.48%	58.99%
Lewis-Clark State College	173	77	49	47	44.51%	28.32%	27.17%
Massachusetts College of Liberal Arts	168	61	23	84	36.31%	13.69%	50.00%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Northwestern Oklahoma State University	89	32	23	34	35.96%	25.84%	38.20%
Oklahoma Panhandle State University	86	7	33	46	8.14%	38.37%	53.49%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
University of Maine at Machias Peer Summary	**668**	**207**	**156**	**305**	**30.61%**	**23.57%**	**45.82%**
University of Maine at Machias	**66**	**16**	**10**	**40**	**24.24%**	**15.15%**	**60.61%**
Dickinson State University	141	37	24	80	26.24%	17.02%	56.74%
Glenville State College	96	34	21	41	35.42%	21.88%	42.71%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Oklahoma Panhandle State University	86	7	33	46	8.14%	38.37%	53.49%
The University of Montana-Western	88	35	14	39	39.77%	15.91%	44.32%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
University of Maine at Presque Isle Peer Summary	**1310**	**349**	**224**	**737**	**27.23%**	**19.19%**	**53.58%**
University of Maine at Presque Isle	**93**	**19**	**14**	**60**	**20.43%**	**15.05%**	**64.52%**
University of Maine at Fort Kent	76	18	5	53	23.68%	6.58%	69.74%
Dickinson State University	141	37	24	80	26.24%	17.02%	56.74%
Glenville State College	96	34	21	41	35.42%	21.88%	42.71%
Massachusetts College of Liberal Arts	168	61	23	84	36.31%	13.69%	50.00%
Montana State University-Northern	89	28	26	35	31.46%	29.21%	39.33%
Oklahoma Panhandle State University	86	7	33	46	8.14%	38.37%	53.49%
Rogers State University	250	49	16	185	19.60%	6.40%	74.00%
The University of Virginia's College at Wise	102	50	28	24	49.02%	27.45%	23.53%
West Liberty University	209	46	34	129	22.01%	16.27%	61.72%

University of Maine Peer Summary	**8169**	**3235**	**1177**	**3757**	**40.29%**	**15.54%**	**44.17%**
University of Maine	**757**	**306**	**84**	**367**	**40.42%**	**11.10%**	**48.48%**
Montana State University	990	336	170	484	33.94%	17.17%	48.89%
North Dakota State University-Main Campus	618	279	145	194	45.15%	23.46%	31.39%
South Dakota State University	690	217	115	358	31.45%	16.67%	51.88%
University of Idaho	732	323	144	265	44.13%	19.67%	36.20%
University of New Hampshire-Main Campus	1032	451	121	460	43.70%	11.72%	44.57%
University of Rhode Island	1106	427	106	573	38.61%	9.58%	51.81%
University of Vermont	1440	477	107	856	33.13%	7.43%	59.44%
University of Wyoming	804	419	185	200	52.11%	23.01%	24.88%
University of Southern Maine Peer Summary	**4725**	**1710**	**772**	**2243**	**40.63%**	**17.97%**	**41.40%**
University of Southern Maine	**612**	**160**	**21**	**431**	**26.14%**	**3.43%**	**70.42%**
California State University-Dominguez Hills	832	161	78	593	19.35%	9.38%	71.27%
Fayetteville State University	260	143	69	48	55.00%	26.54%	18.46%
Murray State University	641	218	133	290	34.01%	20.75%	45.24%
North Carolina Central University	549	180	91	278	32.79%	16.58%	50.64%
Salem State University	355	251	83	21	70.70%	23.38%	5.92%
Texas Woman's University	444	213	105	126	47.97%	23.65%	28.38%
University of Arkansas at Little Rock	448	269	99	80	60.04%	22.10%	17.86%
University of Michigan-Flint	584	115	93	376	19.69%	15.92%	64.38%
Grand Total	**20933**	**7632**	**3292**	**10009**	**34.74%**	**18.53%**	**46.73%**

Note: The UMS Institutional Research department constucted this table using IPEDS 2015 data. These data include (full-time and part-time) employees who have an instructional and faculty status. UMS 2/23/2018

Board Policy:

Institutional Authority on Political Matters

Introduction

The University of Maine System is a public institution and instrumentality of the State of Maine, consisting of the University of Maine, including its regional campus the University of Maine at Machias; the University of Maine at Augusta, including its campus in Bangor and University College centers around the state; the University of Maine at Farmington; the University of Maine at Fort Kent; the University of Maine at Presque Isle; and the University of Southern Maine, including its campuses in Gorham and Lewiston-Auburn. UMS's public mission is to advance higher education in Maine through teaching, research, and public service; the System and its campuses receive significant state and federal taxpayer support to do so in ways that best serve all Maine citizens.

This policy is subject to Board Policy 212, *Free Speech, Academic Freedom, and Civility*, so as to best respect all UMS community members' constitutionally protected free speech rights, individual rights as citizens, and faculty academic freedom. The Board recognizes its faculty as subject matter experts in their areas of teaching and research and encourages them to responsibly disseminate their research and knowledge. This policy does not restrict any UMS faculty, staff, or student from speaking on political matters, including testifying before or speaking with legislators or policy makers, about the subjects of their teaching or research expertise or personal experience, provided they do not represent that they speak for their campus or the System unless specifically authorized to do so.

UMS and its constituent universities fully embrace the First Amendment rights of all citizens, including all students and employees, to hold and express political, social, or religious views of any kind. Because UMS is funded in significant part by all Maine taxpayers and student tuition revenue sourced from federal financial aid programs, and because UMS must also maintain its federal 501(c)(3) tax-exempt status, the System and its universities, and individuals speaking or acting on their behalf, must at all times remain impartial as to such viewpoints except as provided elsewhere in this or other System policies.

UMS Legislative Advocacy

The UMS Charter authorizes and directs the UMS Chancellor to develop and implement an effective statewide legislative program for the System. All UMS legislative advocacy without exception will therefore be managed through the Chancellor's office, specifically the Office of Community and Government Relations. System legislative advocacy, including university-specific advocacy, may only be pursued by individuals authorized by UMS for that purpose.

For the purposes of this policy, "UMS (or System) legislative advocacy" includes interaction with the State Legislature, including individual legislators or legislative committees and their staff, the Governor's office and staff, or any other public official or the general public *when the purpose of the interaction or communication is to advocate for a specific UMS institutional position or outcome*.

Institutional interactions with the United States government's Executive Branch and agencies, Congress and congressional staff, and the various federal regulatory bodies having legal jurisdiction over each System university's operation and activities are subject to this policy as well, except in cases where a

1

specific campus or System office has primary responsibility for a function closely tied to the functional responsibility of the governmental office at issue (e.g., Department of Education Title IV officials and campus financial aid offices; Department of Education Office of Civil Rights and System General Counsel, etc.). Further, this policy does not restrict any UMS faculty, employee, department, division, or office from providing information, research, survey data, or policy advice to a local, state, or federal government official or office when required to do so by grant, contract, or legal mandate (e.g., the University of Maine Center for Community Inclusion and Disability Studies (CCIDS), which, by federal law, is required to advise, educate, and disseminate information to state and federal policymakers about individuals with developmental disabilities, or any similarly-purposed office or activities).

Restrictions on Partisan Political Activity

UMS and its universities cannot participate or intervene in any partisan political campaign on behalf of, or in opposition to, any candidate for public office, which, for the purposes of this section, is referred to as "partisan political activity."

If System and university employees wish to become actively involved in partisan political activities, they must do so on their own time, without using System or University funds or resources of any kind, and in such a way as to not interfere with or impair performing their regular System/university duties. When exercising their rights to participate in the political process as individuals or as otherwise permitted by this Policy, System/university employees should emphasize that their comments or actions are their own, and not those of the System or university unless they have been specifically authorized to speak or act on behalf of a System institution. This disclaimer is especially important if an employee, when speaking or acting as a private citizen or as otherwise permitted by this Policy, is using his or her title or affiliation with the System or a university for identification purposes or to establish his/her competence in a particular field.

Employees Seeking Elective Office

See Board Policy 403 (http://www.maine.edu/about-the-system/board-of-trustees/policy-manual/section403/)

Chancellor and Presidential Authority to Make Institutional Statements

Because public statements made and actions taken by the UMS Chancellor and System University Presidents may be ascribed to or perceived as the institutional position of UMS and/or its universities, respectively, this section applies only to the Chancellor and Presidents, who:

- Have authority to speak or issue statements, or designate official spokespersons to speak or issue statements, on behalf of their institutions on issues core to the System/university mission (green/mission critical issues);
- Should review in advance with the rapid response advisory team described below, when time permits, issues related to but not directly mission central (yellow/mission indirectly related issues); and
- Are not authorized to speak, including through official spokespersons, on issues beyond or only tangentially related to core institutional mission (red/mission unrelated issues).

2

Issues are not static in relevance, but may vary in public or political salience over time; the Board will review and update the mission issue examples below for relevance at least every three years. Issues may shift from one concentric circle to another, or overlap, depending on context. The Chancellor and System University Presidents must at all times strive to maintain impartiality on political, social, or religious matters, subject to their duties to advance the missions of their institutions and the System as a whole.

Issues that involve legislative matters or advocacy must be coordinated as provided in "UMS Legislative Advocacy" above.

A standing rapid response advisory committee of six members, including two Trustees, two Presidents, and two senior UMS staff (one of whom should be the System General Counsel or his/her legal designee) should be available to review, when time permits, the reasonableness of making statements on issues brought forth by the Chancellor/Presidents that appear to fall in the yellow zone.

GREEN/Mission Critical: Academic administration, curriculum, institutional finances and planning, health and safety of students and employees, and general issues critical to the financial or functional stability and wellbeing of the institution and its students, e.g., Pell grant funding, guns on campus, defunding TRIO programs, marijuana dispensaries near campus.

YELLOW/Mission Indirectly Related: Issues important or relevant to society at large that may impact an institution or its students or employees, but not in such a way as to undermine the institution's educational mission or prevent the institution from carrying it out, e.g., climate change, labor standards, immigration policy.

RED/Mission Unrelated: Issues of local, state or national import, but not relevant to educational mission or institutional financial or functional stability, e.g., abortion policy, tax reform, global trade policy.

The Board retains the right at all times to issue statements, including through the Chair or Chancellor, on behalf of the University of Maine System that cover all System universities.

Discussed:

BOT Drafting Task Force 5/2/17, 8/7/17, 10/17/17, 3/6/18, 3/9/18, 3/12/18, and 3/13/18

Presidents' Council (earlier 2/8/17, 4/12/17, 5/10/17, 6/14/17 (update only), 7/14/17 (update only),
8/9/17 (update only), 9/13/17, 10/11/17, 11/8/17, 12/12/17, 1/10/18, 2/14/18, 3/14/18

UMS BOT Student Reps 11/20/17; 3/2/18 and 3/15/18 (via email); 3/18/18 (scheduled)

UMS BOT Faculty Reps 11/19/17 (and via email and in-person meetings through December 2017 to
present); 3/15/18 (via email); 3/18/18 (expected to be scheduled)

UMaine Faculty Senate Executive Board 1/12/18 (in Orono)

USM Faculty Senate 2/2/18; USM Faculty 2/13/18 (in Portland)

UMA Faculty Senate 2/16/18 (in Bangor)

UMM Faculty 2/21/18 (in Machias)

UMF Faculty 2/22/18 (in Farmington)

3

Review Draft
Report of the Small Campus Advancement Team
March 2018

Participants: Kate Foster, UMF (co-chair); John Short, UMFK (co-chair); Joyce Blanchard, UMA; Dan Qualls, UMM; Deborah Roark, UMPI

Charge: The Team charter calls for the group to develop:

(1) an inventory of current advancement resources by campus;
(2) a set of recommended guidelines for what small campus advancement should achieve on a regular and sustained basis;
(3) an inventory of human and financial resources necessary to achieve the guidelines set out in (2);
(4) a gap analysis of where each campus stands relative to (2);
(5) a set of recommendations as to how best to achieve (2).

Background and Process

Chancellor James Page established the Small Campus Advancement Team in late September 2017 to explore the realities and potential for small campuses in the University of Maine System, namely University of Maine at Augusta, University of Maine at Farmington, University of Maine at Fort Kent, University of Maine at Machias, and University of Maine at Presque Isle, to produce positive outcomes in fundraising and development.

The group met initially in mid-October to organize and scope its work, subsequently adding a member from UMM, casting a net for conversations and materials, and developing and administering a survey of small campuses to inventory capacity and identify issues. (See Appendix A for copy of the survey instrument.) The group met again by polycom in December and January to synthesize survey findings, assess options, and outline draft recommendations for review by campus constituents.

1. Inventory of Current Advancement Resources

As the data in table 1 indicate, together the five small campuses have 7.7 FTE devoted to advancement functions. Notably, only 3.3 of this total, an average of less than one FTE per campus, is targeted for fundraising, with the remaining FTE for affiliated functions of alumni affairs (1.9), external and public relations (1.5 FTE), and events planning (.8). The fractions reveal the reality of these small campus operations, which is that most persons working in these areas wear multiple hats.

Since compiling these data in Fall 2017, UMF has added 1.0 FTE on fundraising and public relations (.5 FTE in each category). That increases the current total small campus advancement FTE at 8.7.

Table 1. Employee FTE, by Advancement Category, UMS Small Campuses, 2017

	UMA	UMF	UMFK	UMM	UMPI	Total Small Campuses
Alumni Affairs	1.0	.83	.05	0	.05	**1.9**
Fundraising	0.5	1.83	.85	0	.25	**3.3**
External/Public Relations	0.5	.65	.05	0	.3	**1.5**
Events Planning	.33	.33	.15	0	.1	**.8**
TOTAL FTE	**2.3**	**3.6**	**1.1**	**0**	**0.7**	**7.7**

As the small number of FTE suggests, these are low-capacity and functionally immature shops, even while some individual employees have multiple years in the field. Campuses accordingly supplement their advancement efforts with formal and ad hoc bodies and assistance, as shown in Table 2.

Table 2. Advancement Supplements, UMS Small Campuses, 2017

	UMA	UMF	UMFK	UMM	UMPI
Legally separate Foundation?	N	N	Y	N	Y
Legally separate Alumni Assoc.?	N	Y	N	N	Y
Use of Advancement Consultants?	N	Y	N	N	N
Use of BoV for Advancement?	N	limited	Y	limited	limited

UMFK and UMPI each have a foundation authorized to raise funds for the university. UMPI also supports an alumni association, as does UMF. UMF used a consultant in 2017 (for wealth screening and assistance with alumni relations and annual fundraising), although other campuses have in the past used consultants for campaigns. All campuses look to their Board of Visitors for advancement assistance, although only UMA and UMFK formally do so for fundraising. BoV members help UMF (for alumni and external relations), UMM (external relations) and UMPI (alumni relations) for non-fundraising functions.

UMPI is an alternating-year member of the Council for Advancement and Support of Education (CASE; full-time membership is impossible due to high annual expense), while UMA has a membership in the Association of Fundraising Professionals (AFP).

An additional form of advancement capacity and potential derives from the endowment and alumni base for individual campuses, as shown in Table 3.

Together the five campuses have an endowment of $32.7 million against E&G expenditures, including institutional student aid, of 112.7 million, the equivalent of $5,905 per student FTE.

As a ratio of total expenditures, the small campus endowment level averages .29, ranging from a low of .19 at UMA to a high of .41 at UMPI. (UMPI's endowment level includes funds held by its foundation in addition

to those in the managed investment fund.) Financially strong private sector institutions have endowment to expenditures ratios well above 1 and often in the 3-5 range, with endowment proceeds supporting upward of 30 percent of operating expenses. Public sector institutions, in contrast, long relied on state support to fund annual operating expenses, which led to more time lobbying state legislatures than building endowments. Only in recent decades as state support has dropped significantly have many public sector institutions begun to aggressively boost endowment levels through capital campaigns and other fundraising.

Inadequate data resources—none of the small campuses has complete databases for alumni contact information—hindered insights on capacity. The data in Table 3 are in several instances estimates of the number of living alumni, with some campuses alert to the number of active alumni for whom contact information is available. Alumni/ae are key potential assets for university fundraising, and typically provide the base funding for annual funds, provided these donor candidates have the interest, linkage, and means to support their alma mater.

Table 3. Supplemental Sources of Advancement Capacity, UMS Small Campuses, 2017

	UMA	UMF	UMFK	UMM	UMPI	Total Small Campus
FY17 E&G Expenditures, with institutional aid	$38.8	$34.1 M	$14.2 M	$10.6 M	$15.0 M	**$112.7 M**
Endowment, 7/1/17	$7.4 M	$13.7 M	$2.9 M	$2.4 M	$6.2 M	**$32.7 M**
Endowment/Budget Ratio	0.19	0.40	0.21	0.23	0.41	**0.29**
Student FTE (Matriculated undergrad)	2,010	1,616	758	434	720	**5,538**
Endowment per student FTE	$3,678	$8,478	$3,898	$5,633	$8,604	**$5,905**
Number of living/active alumni	13,975	14,000	5,387	5,132	9,724	**48,218**

The pattern of modest and varying capacity carries over to modest and varying fundraising outcomes, as outlined in Table 4. The four-year accumulation of total gifts ranges from $971,300 ($242,800 annual average) to $2.8 million ($926,300 annual average) across the small campuses.

These totals vary in part from non-predictable bequest gifts, led over the four-year period by $2.5 million for UMA, which ran a capital campaign during this period. Bequests may be restricted or non-restricted.

Non-bequest gifts range from $221,300 (roughly $55,300 annual average) to $1.3 million (annual average of $327,000). (For comparison, in the two most recent years, UM averaged $13.5 million annually and USM averaged $2.8 million.) For three of the five small campuses, namely UMF, UMM, and UMPI, scholarships drew the largest amounts of four-year giving. For UMA and UMFK, "other" restricted gifts were the largest component of non-bequest gifts. UMF has raised considerable funds for athletics, a level greater than for

unrestricted annual fund or other restricted categories. This patterns reflects in part two targeted campaigns for athletics over this period.

Table 4. Fundraising Outcomes, FY14-17, UMS Small Campuses

Data in Cells: $ 4-yr Total ($ Annual Avg.)	UMA	UMF	UMFK	UMM	UMPI	Total Small Campus
Total Non-Bequests	**$279,000** **($93,000)**	**$1,308,600** **($327,100)**	**$1,301,200** **($325,300)**	**$221,300** **($55,300)**	**$526,300** **($131,600)**	**$3,636400** **($909,100)**
Unrestricted Annual	*$37,700* *($12,600)*	*$236,500* *($59,100)*	*$117,000* *($29,200)*	*$9,200* *($2,300)*	*$41,800* *($10,400)*	*$550,000* *($137,500)*
Scholarships	*$86,000* *($28,700)*	*$454,200* *($113,600)*	*$540,000* *($135,000)*	*$133,700* *($33,400)*	*$245,400* *($61,400)*	*$1,459,400* *($364,800)*
Athletics	*$8,500* *($2,800)*	*$339,800* *($85,000)*	*$4,500* *($1,100)*	*$6,200* *($1,540)*	*$2,500* *($600)*	*$361,500* *($90,400)*
Restricted Other	*$146,800* *($48,900)*	*$278,000* *($69,500)*	*$639,700* *($159,900)*	*$72,500* *($18,100)*	*$236,600* *($59,100)*	*$1,373,600* *($343,400)*
Bequests	**$2,500,000** **($833,333)**	**$173,000** **($43,250)**	-	**$750,000** **($187,000)**	**$519,200** **($128,800)**	**$3,942,200** **($985,600)**
TOTAL GIFTS	**$2,779,000** **($926,300)**	**$1,481,600** **($370,400)**	**$1,301,200** **($325,300)**	**$971,300** **($242,800)**	**$1,045,500** **(261,400)**	**$7,578,600** **($1,894,600)**

Data on fundraising outcomes also reveals the relatively low rate of overall and alumni donors, as shown in Table 5. There is wide variation in alumni and donor patterns, with alumni donors representing 60 percent of UMFK's total donors over the four-year period. This compares to 14 percent for UMA and 34-36 percent for UMF and UMPI. Alumni giving rates are low for all campuses for which data are available, ranging from 3.2 percent at UMF to 6 percent at UMPI.

Table 5. Donor Gifts, FY14-17, UMS Small Campuses

	UMA	UMF	UMFK	UMM	UMPI
Number of Donors	1,174	6,075	1,839	589	349
of which, alumni donors	*160*	*2,184*	*1,095*	*n/a*	*118*
% of donors who are alumni	14%	36%	60%	n/a	34%
Alumni Giving Rate (share of mailable alumni who give)	n/a	3.2%	5%	n/a	6%

2.   Guidelines for Small Campus Advancement

Team research affirmed that fundraising is a long game over which rules of thumb change as an operation matures. New or immature advancement operations typically run in the red, requiring up-front investment to build capacity and relationships that may not yield returns for years. As an operation develops, it seeks to "break even," that is, yield fundraising returns on a 1:1 basis to investment in gift officers and fundraising services. Only once an advancement operation matures and grows mass and relationships can it expect to "turn a profit," that is, return donations in amounts greater than expenses.

Data from the "2017 Fundraising Effectiveness Survey Report"[1] found that growth in giving for nonprofits varied by size of organization, with smaller organizations performing less well in 2016 than did large organizations. Specifically, organizations with giving levels less than $100,000 saw a year-over-year decline in giving of 10.4 percent compared to an increase of 1.2 percent for organizations raising $100,000-$500,000 and an increase of 8.6 percent for organizations raising more than $500,000. The reason rests in capacity:

> "Growth rate is a direct result of continuous investment in fundraising. Examples are timely renewal and upgrading solicitations, extra thank you notes, invitations to special events, mailing quarterly newsletters and annual reports, and more. Small nonprofits with under $500,000 in annual revenues often do not have adequate resources to maintain such communications with current and past donors. The result of lack of contact is high donor losses […]." *(Jim Greenfield, Growth in Giving Working Group member)*

Such guidelines pertain to fundraising (development, grantwriting) and not to alumni service units, public or external relations, or events planning, which yield financial returns only indirectly. Numeric goals for these latter units would include number of alumni connections, participation in university events, generation of effective content with clear and resonating messages, number and amount of alumni/ae gifts, and persistence rates for alumni donors. External relations guidelines might include external contacts, building audiences through print, radio, tv, online and other media, deploying social media effectively, crafting and sustaining a distinctive brand in the fundraising marketplace, and building a culture of philanthropy throughout a university community and its constituents.

Beyond these general principles, the team found no set of numeric guidelines for small public university advancement operations. Team research did, however, identify six functions an advancement shop must deliver effectively to achieve fundraising goals on a regular and sustained basis. These are:

1. **Research and prospecting** (including wealth screening and research on individuals, corporations, foundations)

2. **Relationship building** (with prospects, alumni, donors, volunteers, boards, program officers, others)

---

[1] Bill Levis, Ben Miller, and Cathy Williams. 2017. "2017 Fundraising Effectiveness Survey Report." A project of the Growth in Giving Initiative. The dataset of nonprofits has over 10,000 organizations, mostly small sized.

3. **Data resources** (accurate and timely records; effective tools and capacity for data gathering, monitoring, analysis, and reporting)

4. **Needs assessment and case development** (compelling case for annual fund and comprehensive campaigns)

5. **Preparation** for appeals, solicitations, and grants

6. **Execution and follow up** (including recordkeeping, stewardship, and grants reporting)

Getting these right does not imply for a small operation that these functions be managed in house. Areas lacking sufficient capacity or resources could be shared with another advancement operation, outsourced to a consultant or third party, secured from foundation, alumni or boards of visitors, or otherwise managed beyond an in-house advancement operation.

3. Human and Financial Resources to Achieve Advancement Guidelines

The team drew on insights from *Advancing Small Colleges: A Benchmarking Survey Update* from the Council of Independent Colleges (CIC).[2] Although approaching a decade old and based on a 2005 survey of small to medium-sized private institutions, the findings offer perspective for assessing small campus advancement in public institutions today.

The team identified human and financial resource needs common to every campus.

1. **Human Resources.** For fundraising alone—that is, not counting alumni relations, public relations or external affairs—the CIC survey reported an average of 4.2 FTE administrative and professional fundraising staff for colleges with FTE enrollment up to 1,000, approximately 5.0 FTE for enrollment FTE 1,000-1,500 and 8.7 fundraising FTE for institutions with FTE enrollment of 1,500-2,000. Schools additionally had 1.3 to 3.6 FTE clerical staff members supporting fundraising. These levels reflect the historically higher staffing patterns for fundraising in private versus public institutions. That said, as enrollment and state funding stabilize or stagnate, public institutions must raise more support from external sources, which enables these staffing data to serve as a benchmark.

   As the survey findings in Table 1 indicated, none of the UMS small campuses comes close in 2018 to attaining these benchmarks from 2005. Fundraising staff range from a low of 0 (UMM) to high of 1.83 FTE (UMF), a level severely hampering success to build relationships, manage operations, and execute to fundraising goals. Only UMF has a full-time administrative assistant to answer queries, assist with mailing, conduct basic research, and assist with gift processing. Increasing the number of personnel dedicated to advancement functions is a basic starting point for advancement success.

   Challenges of insufficient staff size compound issues of staff capacity—in time, expertise, and functional acumen. Each campus has personnel doing double or triple duty on assignments, crossing between

---

[2] Wesley K. Willmer, ed. 2008. *Advancing Small Colleges: A Benchmarking Survey Update*. Washington, D.C.: Council for Advancement and Support of Education. Survey responses came from 274 small- to medium-sized private institutions.

alumni relations, external affairs, fundraising, and public relations. Staff **professional development** is minimal, with cost and time precluding even foundational development. CASE webinars and other trainings are frequent, but expensive, often involving travel and straining budgets.

Topics for professional development, which could be offered through a regular workshop series, include advancement leadership, Advance data management and reporting, online giving, student phonathons, moves management, scholarship management, case development and needs assessment, major gifts, planned giving, gift stewardship, grantwriting, and running a campaign.

2. **Financial Resources.** The CASE/CIC survey found that institutions up to 1,500 FTE enrollment allocated an average of 7.8 to 8.8 percent of their E&G budget to advancement functions.[3] Although there was a range of numeric spending levels, most institutions with up to 1,000 FTE enrollment expended $500,000 to $1.49 million annually. The modal level of spending for schools in the 1,000 to 1,500 FTE range was $1.5 to $1.99 million annually. For institutions of 1,500 to 2,000 FTE enrollment, the annual spending on advancement was typically in the $2.5-2.99 million range. Considering fundraising expenditures alone, colleges with enrollment FTE of 500-1,000 had annual expenditures in 2005 of $470,000 to $606,000 ($596,000-$769,000 in 2018 dollars). Mean fundraising expenditures for institutions of 1,000-2,000 FTE were $615,000 to $994,000 ($780,000 to $1.26 million in 2018 dollars).

None of the UMS small campuses approaches these levels of expenditures for advancement either in percentage share or absolute dollar. With a hire of a Director of Advancement in January 2018, UMF has the largest budget for advancement, but even this campus spends under $350,000 annually on fundraising compensation, a level in 2018 below that of institutions under 1,000 FTE enrollment in 2005. Inadequate financial resources to invest in advancement leaves the smaller schools unable to outfit an advancement team with adequate personnel for annual fund, major gifts, planned giving, relationship building, gifts processing, and alumni affairs.

Considering gaps in human and financial resources at the campus level, the team assessed perceived strengths and weaknesses by campus to assess whether the small campuses might collectively have adequate human and financial resources to build and sustain advancement capacity. These are summarized in Table 6.

Table 6. Advancement Strengths and Weaknesses, by Campus, Fall 2017

	Advancement Strengths	Advancement Weaknesses
UMA	Low-cost, far-reaching annual giving appeal	No reporting depth; delays due to Advance queues
UMF	Personal relations with donor and alumni; 50th reunion events	Insufficient expertise and resources; no formal donor management; variable stewardship, reporting, analysis, grants, and alumni giving

---

[3] This percentage is slightly inflated by the inclusion of admissions and recruitment under the "advancement" umbrella at 6 percent of the responding institutions.

UMFK	Personal contact; collaborative commitment; board organization and communications; annual fund process;	Inadequate staff numbers; stewardship; planned giving; donor cultivation
UMM	Numerous strong community partnerships on which to build advancement	Decentralized ad hoc fundraising capacity
UMPI	Personal attention to donor/alumni visitors; grantwriting; strategic thinking; government & community relations	Lacks culture of philanthropy; inadequate staffing, capacity, time and resources; inability to utilize Advance

4. Gap Analysis to Achieve Advancement Guidelines

Analysis of responses to open-ended questions allowed the team to evaluate how far campuses are from having adequate capacity to manage the six essential advancement functions.

1. **Donor Research and Prospecting.** None of the small campuses reported expertise in this area or capacity to develop programs for donor research. UMF utilizes a third-party software (Wealth Engine) and a consultant to generate donor information. UMA works closely with its Board of Visitors and Bangor Advisory Board to identify close prospective relationships. However, neither campus has a formal approach for donor research and prospecting.

2. **Relationship Building.** All of the small campuses understand the value of establishing relationships and friend-raising, with varying levels of time and resources committed to this area. Examples illustrate this range: UMM developed a Director of Community Outreach that has begun building relationships with BoV members and community partners and leaders; UMA focuses on connecting through local channels such as the Board of Trade, Kennebec Valley Chamber of Commerce, and other local organizations; UMPI has an Executive Director of Advancement who coordinates with the President in relationship building; UMF has built relations around targeted campaigns; and UMFK uses receptions, events, and university publications to extend its reach and build links with prospective donors. None of the campuses assesses the time it devotes to relationship building to be sufficient. As one measure, the share of time a president spends on advancement ranges from 2.5 percent to a maximum of 10 percent.

3. **Data Resources.** Each of the five small campuses expressed frustration at the quality of data and analysis and reporting tools to support fundraising. Four of the five campuses use Advance (only UMM does not have any system in place to manage data), with all Advance users but one expressing low satisfaction with the tool. (UMFK expressed medium satisfaction.) Among particular complaints are the wait time for reports, lack of capacity to develop queries, lack of expertise to obtain and analyze data in the Advance system, and frustration at the lack of IT support for the software. The consequence for all campuses is passivity in gathering and using data effectively to build a stronger fundraising infrastructure.

4. **Needs Assessment and Case Development.** Three of the campuses have either none or only minimal expertise in case development. As a result, needs are assessed in an informal case by case manner. UMA contracted with CCCS Consulting to help identify what it could present to donors for the university's

50th Anniversary Campaign. UMF relied on its Campus Master Plan process to identify capital priorities and uses the budget process to prioritize programmatic needs. Most campuses have limited grants capacity to assist with needs assessment. The exception is UMPI, whose sole Advancement officer supports this function.

5. **Preparation and Execution of Annual Fund Appeals, Solicitations, and Grants.** UMA, UMF, and UMFK have an annual giving program, with mailings or solicitations twice per year. For UMFK this is the most effective and successful area of fundraising. Other campuses assess expertise and effectiveness as modest and variable. UMPI solicits only Foundation, BoV and Alumni board members, with plans to solicit the entire donor database in future years. Direct fundraising activities across the small campuses include phone-a-thons, annual fund campaigns, and/or targeted/segmented appeals (Foundation Board, Board of Visitors, and Alumni Board). Additionally, a variety of "friend-raising" activities, which will increase awareness (and hopefully produce an ROI for the campuses), are conducted at the small campuses.   These activities include homecoming weekends, affinity group reunions, holiday cards, sports boosters/Athletics Hall of Fame events, affinity agreements with area hotels and restaurants, summer cruise, student/alumni mixers, comedians, sports boosters, alumni ski day, receptions and dinners at the President's House. UMA, UMF, UMFK, and UMM do not have a dedicated grant writer to assist in grant development. Grant writing is done by individual faculty and departments and not through a concerted effort. UMPI's Advancement position supports the sponsored research/projects function of the campus and assists faculty and staff with grant requests. UMPI has created an internal grants process, which appears to be working smoothly as more faculty have submitted proposals and received grants over the past two years.

6. **Execution and Follow-up, including Stewardship.** With the exception of UMM, which relies on it business office to provide acknowledgment letters, the small campuses routinely mail tax receipts and other acknowledgments as basic stewardship. UMFK hosts a reception for scholarship families and student recipients, a process managed to a lesser degree by UMPI and UMF, which has scholarship recipients send notes to donors. UMA and UMM, with UMF and UMPI sharing the sentiment, have no systematic way of managing stewardship, which results in case by case responses.

5. Summary of Recommendations

From these analyses the team generated recommendations to improve small campus advancement, dividing the ideas into categories by degree of centralization/collaboration. The predominant themes are financial support for people and technology resources, professional development to build capacity, and more responsive systems tailored to small campus needs, all essential for small campuses to achieve and sustain performance in advancement.

With the exception of items retained at the campus level, each of the recommendations would require vetting by collaborators and detailed analysis, including a pro forma with financial estimates, tasks and timelines, before final decision and implementation. Also prudent will be assessing any System-level investments in the context of other priorities for strategic investment.

A. Retain at Campus-Level

Numerous advancement functions, notably those based in personal relationships connected to the university, are best retained at the campus level. These include alumni and foundation relations and services, fundraising with alumni, such as with the annual fund, major gifts and bequests, and operations associated with targeted or capital campaigns, including case statements and feasibility studies.

- Manage alumni affairs
- Build fundraising relations
- Execute an annual fund
- Prepare case development and needs assessment
- Pursue major gifts and bequests
- Undertake campaign feasibility studies

B. Collaborative Actions (2-4 campuses)

In two instances, a subset of the five small campuses saw value in collaborating on a specific advancement function. Four of the campuses (only UMFK declined) have interest in exploring an alternative fundraising software instead of Advance, which functions best for larger and more sophisticated advancement operations. Three of the campuses have interest in exploring the potential to share a development officer, with a portfolio to be determined by additional conversations and research.

- Research and procure alternative software (other than Advance) more conducive to small campus fundraising
- Share a development officer

Collaborative Actions (5 campuses)

Team members saw value in having all five small campuses collaborate on four advancement actions. The first is to pursue a joint contract for prospect research, capturing economies of scale in submitting donor prospects to a single vendor. Also ripe for collaboration are grant activities, not only sharing a grant-seeking database, but also exploring the potential to share two or more grantwriters. Finally, conversations with the Maine Center for Philanthropy suggested that the small campuses might collaborate on a proposal to the Center for support to build fundraising capacity.

- Pursue a joint contract for prospect research
- Jointly employ 2-3 "circuit-riding" grant writers
- Share a grant-seeking database, such as Foundation Directory Online
- Coordinate a joint grant proposal to the Maine Center for Philanthropy for small campus advancement capacity building

UM or USM Support (via MOU, through fee or other contribution)

In two instances, small campuses are already working individually with the more mature and effective advancement operations at University of Maine and USM. The team recommends continuing and potentially expanding these arrangements to secure assistance with sponsored programs and Advance

training. The larger campuses might also assist with data records and analysis, including report generation for fundraising. The team also recommends exploring for some small campuses the potential to have a development officer at USM or UM assigned to assist a small campus with fundraising. We anticipate these functions supported by a fee or other contribution.

- Assist with NSF-caliber grants and sponsored program paperwork
- Assist with recordkeeping, data, and report generation, specifically training personnel at small campuses to use Advance
- Assign development officer to a small campus

Systemwide Support

The team recommends Systemwide support for several functions targeted to the small campuses, but potentially of value to all units in the UMS. Essential for all is clarifying the policies for grant seeking, particularly for foundations in Maine. Also potentially valuable for all is a multi-month or ongoing educational series to build capacity and competence in elements of advancement. Accompanying that for small campus personnel would be opportunities to participate in conferences and obtain professional development for fundraising. Also recommended is that central funds be used for CASE membership for small campuses, perhaps securing a group rate. CASE materials and opportunities are impressive and worthy, but none of the small campuses can consistently afford the high membership fees. The final two recommendations are for technology support. In one instance, the need is for better training and assistance on Advance, frustration around which is longstanding and significant on campuses without sophisticated programming support. The second instance would explore and potentially secure an alternative software package, one better tailored to small advancement operations.

- Clarify System policies for grant seeking (e.g., access to which foundations, process for queuing, timetable)
- Support a yearlong workshop series (perhaps monthly or bimonthly) for all interested parties and campuses, with topics including case development, social media fundraising, and planned giving
- Expand conference participation and professional development opportunities for advancement
- Fund CASE membership for small campuses (perhaps a group rate for System schools)
- Improve and increase technology & data training and support, including IT assistance to generate Advance reports for standard queries
- Assist with research and procurement for alternative fundraising software to meet small campus needs

UNIVERSITY OF MAINE SYSTEM
Board of Trustees
AGENDA CALENDAR

A working calendar for developing agendas and submitting various reports to the Board has been designed in order to allow maximum planning in organizing presentations and reference materials. The calendar identifies the timetable for submission of items and reports which recur every six to 24 months as well as special reports with specific time lines. It does not include general items which are ordinarily on each Board meeting agenda; e.g., reports and consent agenda. The following agenda is subject to change consistent with scheduling, reporting, and other factors that the Chancellor deems necessary to consider such matters.

The Calendar will be updated and included in the Board Meeting materials on a regular basis.

JANUARY: Academic Affairs
　　　　　　　Academic Year Calendar
　　　　　　　Honorary Degree Nominations
　　　　　　Fiscal Matters
　　　　　　　State Research Report

MARCH: Academic Affairs
　　　　　　　Tenure Nominations
　　　　　　　Tenure Report
　　　　　　Governance/Administration
　　　　　　　Board Calendar
　　　　　　　Establishment of Nominating Committee
　　　　　　Student Affairs
　　　　　　　Spring Enrollment Update

MAY: Fiscal Matters
　　　　　　　Budgets and Student Charges
　　　　　　　Multi-Year Financial Analysis

　　　　　　Governance/Administration
　　　　　　　Election of Board Officers
　　　　　　　Confirmation of Board of Visitors

JULY: Governance/Administration
　　　　　　　Appointment of Standing Committees
　　　　　　Human Resources
　　　　　　　Annual Report on Named Chairs and Professorships

SEPTEMBER: Fiscal Matters
　　　　　　　Appropriation Request

NOVEMBER: Academic Affairs
　　　　　　　Awarding of Academic Degrees
　　　　　　Fiscal Matters
　　　　　　　Review of Annual Financial Report
　　　　　　Student Affairs
　　　　　　　Official Fall Enrollment Update

September 2017

Capital Project Status Report

Executive Summary
March 2018

Attached is the Capital Project Status Report for the March 18-19, 2018 meeting of the Board of Trustees.

The report reflects a total of 20 projects, with one project being removed since the previous report, and two new projects added to this report.

The Lewiston Hall Renovation (1100528) project at UMA is complete and has been removed from this report. The two new projects added to this report are for UM, Wells Commons Generator (5100433), and for USM, USM Center for the Arts (6100300). Both projects were approved by the Board at the January 29, 2018 meeting, with approved budgets of $525,000 and $1,000,000 respectively.

One project will be removed from the next Capital Project Status Report. This is USM's Anderson Hall Renewal & Renovations project (6200191, 6100272). With a limited timeline for this project, this project was terminated early with a reduced scope and with costs coming in under budget.

Four projects on the report which were completed in 2017 continue to be listed and have not yet been marked for removal because, while the construction is complete, the documentation and financial work associated with each has not yet been concluded.

3/08/2018

Current number and approved cost of active major capital facility projects

Legend:
- Total # of BOT approved projects as of report date
- Total approved BOT estimated expenditures - all funds

Total Approved Funding by Source for Active Major Capital Facility Projects

Legend:
- Grants
- Campus funds
- Gifts & Endowments
- State Bonds
- Revenue Bonds
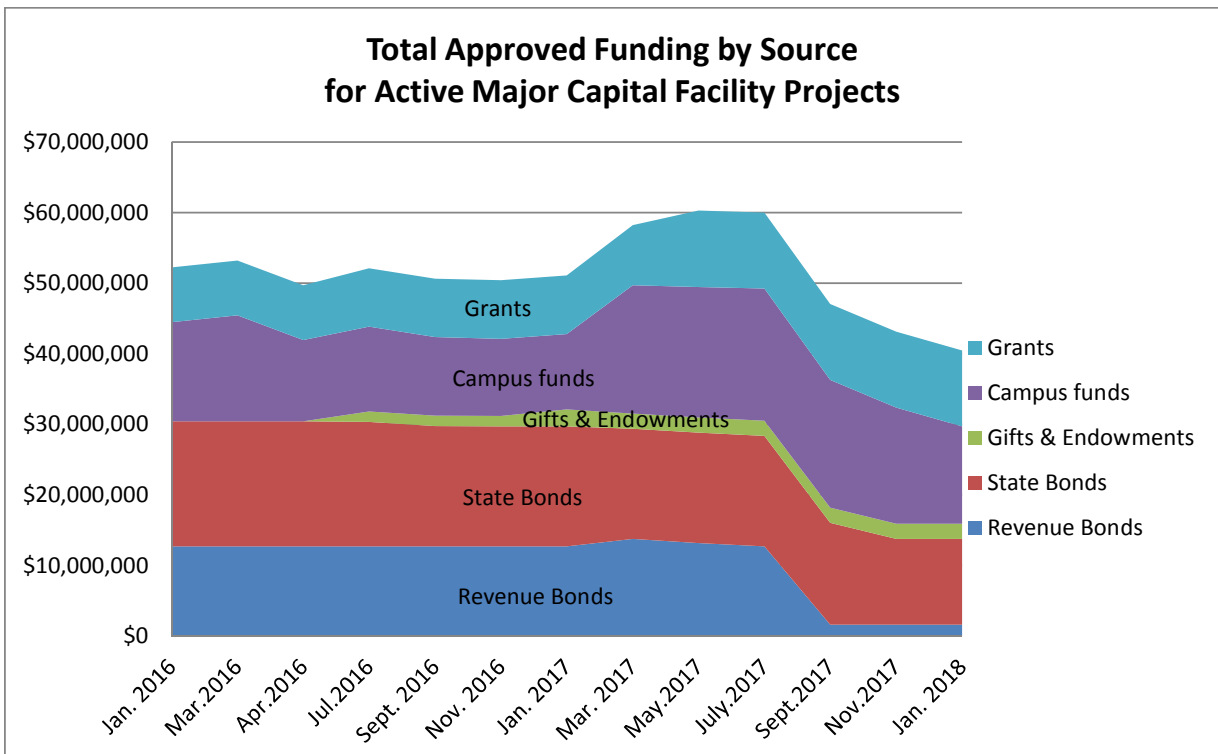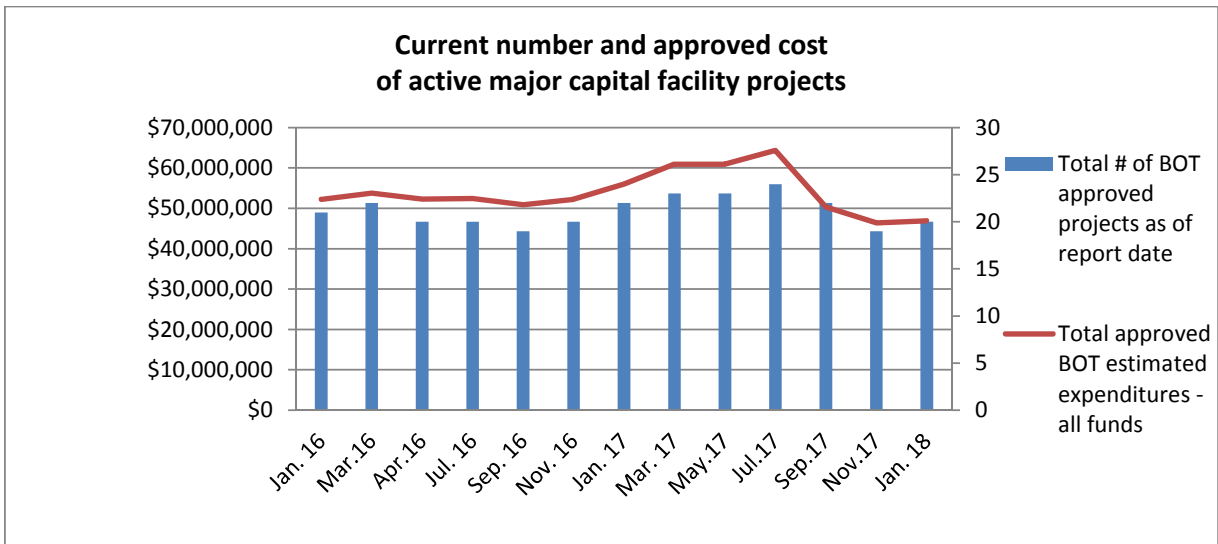
3/08/2018

Capital Project Status Report
Board Approved Projects
March 2018 - Board of Trustees
With Grand Totals and % of Current Approved Estimates

Campus, Project Name (Project ID)	Funding Source(s) & each source's share of expenditures to date	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
UM								
Advanced Structures and Composites Center Expansion/ASCC Equip W2-Thermoplastics Lab/ASCC Equip W2 Tow Carriage (5100316, 5100414, 5100432)	Grants (77%), 2010 State Energy Bond (11%), Gifts (12%)	Project 5100316 is Complete, Project 5100414 Design in Progress, Project 5100432 is Design in Progress	2014	2018	$6,400,000	$10,400,000	90%	Board Approved $6.4M in November, 2012. Board approved $1.6M in March 2014. Board approved increase of $871,000 in March 2015. BOT approved additional $1.5M in May 2016 for equipment project.
Cooperative Extension Diagnostic & Research Lab (5100387)	2014 State Bond (85%), Campus E&G Funds (10%), Grants (5%)	Construction in Progress	2016	2018	$9,000,000	$9,400,000	83%	BOT approved $9M in July, 2015. Board approved increase of $400,000 in July 2017.
Aquatic Animal Health Facility (5100440)	Grants (82%), Campus E&G Funds (18%)	Construction in Progress	2017	2018	$2,300,000	$2,800,000	5%	Board approved $2.3M in January, 2017. Board approved increase of $500,000 (8.6%) in project cost in November, 2017.
Barrow's Hall ESRB Lab Renovations (5100424)	Campus E&G Funds (100%)	Construction in Progress	2017	2018	$1,900,000	$1,900,000	38%	Board approved $1.9M in March, 2017
Memorial Union Bear's Den Renovations (5100427)	Campus AUX Funds (100%)	Construction Complete	2017	2018	$3,600,000	$3,600,000	86%	Board approved $3.6M in March, 2017
Darling Marine Center Waterfront Infrastructure (5200484)	2017 University Bond (100%)	Design in Progress	2017	2018	$3,000,000	$3,000,000	0%	Board approved $3M in July, 2017.
Engineering Education and Design Center (5100458)	Bond (0%), Campus E&G Funds (100%)	Design in Progress	2024	2024	$1,000,000	$1,000,000	1%	Board approved $1M in September, 2017.
* Wells Commons Generator (5100433)	Campus Auxiliary Reserves (100%)	Design in Progress	2019	2019	$525,000	$525,000	1%	Board approved $525,000 January, 2018.
UMF								
Science Labs Renovations (Preble & Ricker (2100065, 2100068)	2013 Lab & Class State Bond (100%)	Substantially Complete	2014	2018	$1,377,000	$1,377,000	88%	Board approved $1.377M in July 2014.
UMFK								
Forestry Geographic Info Sys Tech Labs/Nursing Lab Renov/Teleconf Ctr Upgrades (3100029 3100030 3100031)	2013 Lab & Class State Bond (100%)	Construction in Progress	2014	2018	$1,200,000	$1,200,000	99%	Board approved $1.2M in May 2014.
UMM								
Science Building Laboratory Upgrades (4100027)	2013 Lab & Class State Bond (100%)	Substantially Complete	2014	2018	$600,000	$600,000	98%	Finance & Facilities Committee Approved $600K in January, 2014.
Compressed Natural Gas Heating Conversion (4100028)	Revenue Bonds (100%)	Substantially Complete	2014	2017	$1,800,000	$1,800,000	84%	Board approved $1.8M in July 2014.
Card Access Project (4100036, 41000037)	Campus E&G Funds (21%), Campus Auxiliary Funds (79%)	Construction in Progress	2018	2018	$571,000	$597,500	64%	Board approved $571,000 in July, 2017. Change in project cost to $597,500 (4.6% change) approved by Chancellor in October 2017 per Trustee policy 701.

1

Campus, Project Name (Project ID)	Funding Source(s) & each source's share of expenditures to date	Status	Original Estimated Completion	Current Est. Completion	Original Approved Estimate	Current Approved Estimate	% Expended of Current Approved Estimate	Prior Actions, Information & Notes
USM								
Campus Card Access Install (6100271)	Campus E&G Funds (100%)	Construction in Progress	2017	2018	$700,000	$700,000	83%	Board approved $700K in March, 2017.
Gorham Softball Field Improvements (6200181)	Campus E&G Funds (100%)	Construction Complete	2015	2017	$1,500,000	$2,389,000	97%	BOT approved $1.5M in July, 2015. Board approved increase to $2.2M in March, 2016. Change in project cost to $2.389M (8.6% change) approved by Chancellor in January 2017 per Trustee policy 701.
Brooks Kitchen Exhaust Upgrade (6100245)	Campus E&G Funds (100%)	Construction Complete	2016	2018	$819,000	$893,000	95%	Board approved $819,000 in March, 2016. Change in project cost to $893K (9.04% change) approved by Chancellor in March 2017 per Trustee policy 701.
Costello Field House Floor Replacement (6100280)	Gifts & Endowments (100%)	Construction Complete	2017	2017	$900,000	$900,000	91%	Board approved $900,000 in November, 2016.
Science Building Renovations & Build-Out (6100274)	Campus E&G Funds (100%)	Construction Complete	2017	2017	$1,600,000	$1,600,000	75%	Board approved $1.6M in January, 2017.
*** Anderson Hall Renewal & Renovations (6200191, 6100272)	Campus E&G Funds (100%)	Complete	2017	2018	$1,250,000	$1,250,000	16%	Board approved $1.25M in January, 2017.
* USM Center for the Arts (6100300)	Gifts (100%)	Design in Progress	2022	2022	$1,000,000	$1,000,000	0%	Board approved $1M in January, 2018.
Explanatory Notes: * Project is new as of this report. ** Details of this project include updates since the last report. *** This project has been completed since the last report and is not expected to appear on the next report.	Funding source(s) reflects primary source(s) for project.	Calendar Year unless otherwise noted.				Percentage expended reflects total expended as of January 31, 2018 as a percentage of the current approved project estimate.		

Educate Maine and the University of Maine System: 2017 Year in Review

Overview

Educate Maine greatly appreciates the $50,000 of support UMS provided in 2017. We worked hard to see that UMS received services and deliverables in excess of that level and we feel like we met that goal in support of a lead partner.

Some of those accomplishments:

Project Login
- Maintained gains in degree completion
- Exceeded goals for internships, business connections, and student engagement
- Building K-12 capacity to deliver computer science education and connecting that work to UMS
- Building a strong policy framework to support our goals of computer science for every Maine student

Educator and Leadership Development
- Reinforced connections to Maine County and State Teacher of the Year program through multiple learning opportunities at campuses across UMS
- Continue to bring educators and policy makers to campuses across the system to reinforce the role and potential of UMS in driving workforce and economic development through Education Leaders Experience and PLA programs

Business Partnerships
- Secured oversight role for Focus Maine internship program that will allow us to align UMS internship work more closely with these private sector initiatives

Research and Advocacy
- Continue to produce research that emphasizes the role of UMS in workforce and economic development and the value in public investment in UMS
- Successfully partnering with UMS to coordinate advocacy and policy maker engagement to advance supportive policy and to address problematic initiatives

MaineSpark and Workforce Development
- Growing the size, scope, and profile of MaineSpark with UMS as a lead partner
- Positioning the effort to be the lead on workforce development thought and strategic planning statewide

Thank you for the continued support and thank you for considering a continuation of that support. The following provides a finer level of detail of both activities and accomplishments.

482 Congress Street, Suite 303, Portland, ME 04101 • 207-347-8638 • info@educatemaine.org

Project Login

<u>CS/IT Degrees and Credentials</u>

- Bachelor degrees have increased from 62 to 93 between 2013 and 2017 – 50% growth
- Overall, UMS campuses awarded 120 CS/IT degrees (Bachelor, Associate, and Graduate) in 2017, up from 81 in 2013 – 48% growth
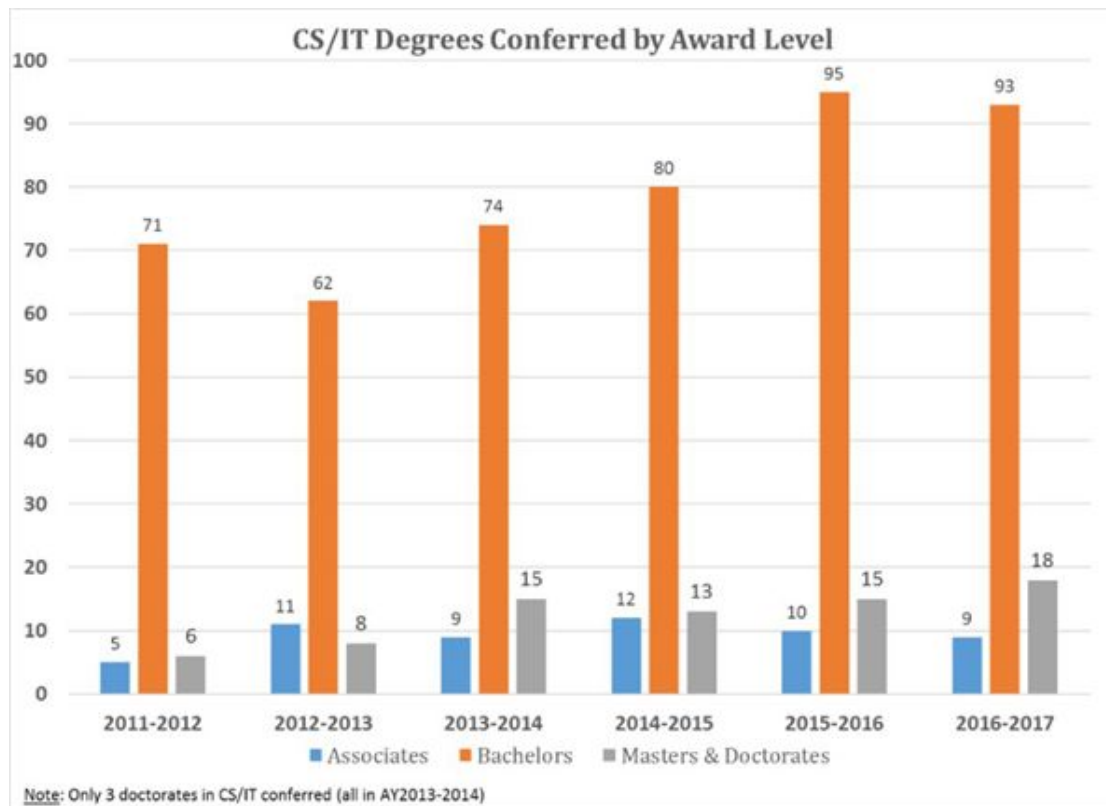
GOAL: UMS set a goal of doubling bachelor degrees awarded by the 2016-2017 school year.

<u>Internships</u>

We are in the process of collecting internship data for 2017. We estimate that 40 participating employers offered approximately 175 paid CS/IT internships in 2017. UMS students made up a large share of these students.

GOAL: Our 4-year objective was to "Identify and promote 150 paid computing and IT internship positions by 2016; we have exceeded this goal and expect at least a 10% increase per year.

<u>Campus Networking Receptions</u>

- 265 UMS students attended campus receptions at the UMS campuses offering computing and IT degree programs (up from 161 the prior year)

2

- 5 Receptions were held in:
  - ◦ Orono for University of Maine
  - ◦ Fort Kent for the University of Maine at Fort Kent
  - ◦ Farmington for University of Maine at Farmington
  - ◦ Augusta for University of Maine at Augusta
  - ◦ Portland at University of Southern Maine
- Some of the 50 companies represented included LL Bean, Tyler Technologies, MMG Insurance, UNUM, AthenaHealth, Bangor Savings Bank, Cianbro, MaineHealth, CGI, Spectrum Healthcare, CourseStorm, Eastern Maine Healthcare Systems, and IDEXX.
- These receptions drew students from other area community colleges and TechHire participants.

GOAL: Our 4-year objective was to "Bring together at least 20 business representatives and 190 students to campus networking receptions." This goal was exceeded.

K-12 Computer Science & STEM Education
- Educate Maine and MMSA have been supporting 31 middle and high school teachers to implement computer science curriculum by meeting with them quarterly at the University of Maine at Augusta and offering high quality professional development.
- The staff are recruiting for next year's Code.org teacher professional development cohort this spring. The quarterly workshops will again be at the University of Maine at Augusta.
- Project>Login's Program Director was named chair of the K-12 Computer Science Task Force to draft a plan to expand K-12 computer science through Maine. Dr. Carol Kim, Dr. Harlan Onsrud, and Marina Van Der Eb represented the University of Maine System on the task force.
- Educate Maine and MMSA have now agreed to become a Code.org Regional Partner for K-5 teachers as well, so now the organizations can offer K-12 teacher professional development.
- Project>Login staff presented to the Education and Cultural Affairs Committee four times this year to advocate for computer science expansion.
- The Project>Login Program Director serves on Code.org's Regional Advisory Committee with leaders from other states to ensure Maine has access to national efforts to expand computer science.
- Project>Login staff serve on the Maine STEM Collaborative, Maine STEM Council, and Maine Afterschool Network to promote STEM priorities and other educational initiatives across the state.
- Project>Login staff organized Teen Tech Night at the Maine Science Festival and facilitated five regional digital festivals in different parts of the state to facilitate hands-on computer science activities for Maine students.
- The Project>Login staff partnered with CashStar and Live and Work in Maine to host Django Girls which was a weekend event to teach women how to program.

GOAL: Our 4-year objective was to bring together 250 learners and parents each year in activities that increase interest in digital learning and awareness of careers in computing and IT. This goal was exceeded.

3

Workforce Development Initiatives
- The Project>Login staff are collaborating with workforce partners from across Maine to implement the U.S. DOL TechHire project. Currently, more than 90 participants are enrolled in the grant and are completing appropriate training plans.
- TechHire participants have already been hired full-time at the University of Maine, IDEXX, and AthenaHealth as a few examples.
- The University of Maine at Augusta is currently working with Coastal Counties Workforce, Inc. (our grant partner) to serve many of the TechHire participants.
- More than a dozen students from the UMS campuses are enrolled in the TechHIre grant, so they will receive additional career services by the Project>Login staff.

GOAL: Investigate and pursue opportunities to fund and deliver on-the-job and credential training for high-demand computing occupations. This goal has been met.

Other Partnerships
- Educate Maine and Live and Work in Maine continue to partner to match UMS students with high quality internship opportunities through events and an internship job board.
- Educate Maine is now under contract with FocusMaine to facilitate the FocusMaine Intern Experience program during the summer of 2018. Innovate for Maine, the University of Maine Flagship Internship Program, and Live and Work in Maine will be strong partners with this work.
- Project>Login has partnered with Museum LA in Lewiston to host the 2018 Maine Innovation Expo which is an event with hundreds of visitors learning about innovation in Maine.

Additional Projects
- Project>Login partnered with the University of Southern Maine to offer summer intern housing in Gorham during the summer of 2017. More than 50 interns participated in this program.
- Project>Login will soon be the fiscal agent for Mainely Tech Women, a group originally formed to be focus on UMS retention efforts. This more formal partnership will lead to increased programming.
- The Project>Login Program Director continues to chair the Maine School of Science and Mathematics Board of Trustees. Dr. Raymond Rice has been very active as a trustee on behalf of UMS.
- Project>Login staff are active in the University of Maine's ACM-W chapter which focuses on supporting women in computer science-related degree programs.
- The Project>Login staff partnered with Up With Community to focus on diversity, equity, and inclusion training to be able to better work with participants, partners, and employers.
- Project>Login presented at the New England Board of Higher Education's conference about the successes of the program in collaboration with the University of Maine System.
- Project>Login hosted a founder and funder dinner in October of 2017 to highlight the successes of the program and engage higher education institutions and employers on planning for the future. The employers and higher education representatives were excited about the growth of the program and plans for the future.

4

Educator and Leadership Development

Maine State and County Teachers of the Year Program

Educate Maine honors 16 exemplary Pre-K to 12 teachers statewide annually. Many of these teachers received their education at a UMS campus. We work with UMS campuses to bring these educators back for in-service and teaching opportunities for current students. This continues to be a successful partnership and a great marketing opportunity for the UMS education schools. Activity increased in 2017:

- Hosted State Teacher of the Year Oral Presentations at University of Maine in conjunction with the College of Education and Human Development
- Planning pre-service teacher presentation at University of Maine
- Executed pre-service teacher presentation at University of Maine Farmington
- Planning pre-service teacher activities at the University of Southern Maine

Education Leaders Experience

UNUM, Educate Maine, and the Maine Principals' Association work with 25-30 superintendents, principals, curriculum directors, guidance counselors, and teacher leaders every year to expose them to opportunities for their students. UMS, and in particular, the University of Maine, is a key piece of their curriculum. We bring each class to Orono in the fall for tours and talks. Our leaders have identified this as one of their favorite days of this yearlong program. Activities in 2017:

- Visit to the University of Maine campus including presentations from the Advanced Structures and Composite Center, the Advanced Manufacturing Center, and the Foster Center for Innovation
- Visit to University of Maine Presque Isle including presentations on the Aroostook economy and on the proficiency education work
- Visit to Brunswick Landing and Tech Place with presentation on the composites work and partnership with the University of Maine

Business Partnerships

Focus Maine Internship Program

Educate Maine looks for ways to strengthen the University System's connections to the business community and their initiatives. That work has focused primarily on connecting students to employment with Maine companies through internship and direct hire efforts. This has been done through our partnership with Live and Work in Maine and through Innovate for Maine Fellows program.

Educate Maine just signed an MOU with Focus Maine to oversee their internship program in 2018. The program will work with Maine companies statewide to offer over 300 internships, professional development, and social/cultural activities for the cohort of interns. We plan on doing this with our existing partners and guiding the work to benefit System students and programs.

5

Research and Advocacy

Research

Educate Maine produces research in support of public education and uses it to inform policy and advocacy statewide. Our annual *Education Indicators for Maine* report sets a data foundation for discussion, drawing connections between Early Childhood, K-12, and Higher Education (Dr. Flynn Ross from USM is a member of our advisory committee). Last year, we developed two policy briefs to support the Indicator report in partnership with the Maine State Chamber of Commerce:

- Career Technical Education (CTE): Increasing Student Success by 100%
- How is Public Education Funded in Maine? (pending release)

Both highlight the role and contributions of the University of Maine System and connect them to the Pre-K to 12 system in terms of promoting student success in Maine.

Additionally, we hold our annual Education Symposium that draws 350 to 400 guests from across the state. This year we featured several University of Maine System efforts/people:

- Dr. Susan Hunter as keynote
- Adult Promise breakout sessions
- University of Maine Farmington breakout session
- Informational tables and resources

Advocacy

Educate Maine also works strategically with the University System's advocacy and communications staff to promote the system before the Legislature. This work happens primarily with Samantha Warren. We were able to work collaboratively on several pieces of legislation:

Governor's Budget Higher Education
- Educate Maine was in support
- Testified that proposed increase was important to support College and Career Readiness and Adult Degree attainment
- Testified that is supports our Coalition's goal of 60% by 2025
- Testified that they consider future increases tied to CPI increases
- **RECEIVED FUNDING INCREASE BUT NOT CPI ADJUSTMENT**

LD 43 "Resolve To Establish the Task Force to Study Higher Education Attainment and Completion Goals"
https://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280062511
- Educate Maine was neither for nor against
- Testified about the work our Coalition was doing in this arena and the goal of 60% by 2025
- Testified that the MaineSpark Coalition would be happy to help and they should rely on us to get much of this work done as opposed to forming new structure
- **WE WERE ABLE TO GET THIS BILL KILLED**

6

LD 49 "An Act To Improve Science and Engineering Education for Maine's Students"
http://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280062517
- Educate Maine was in support
- Testified about the need for more STEM jobs in the economic forecast
- Testified about the need for engineers (per Dana Humphrey's argument)
- Testified that we need the best rigorous standards to prepare students for STEM careers and NGSS would do just that
- **BILL CARRIED OVER TO THIS SESSION**

LD 228 "An Act To Establish Mathematics Postsecondary Readiness Requirements for High School Graduation" http://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280062722
- Educate Maine was in support
- Testified in the underlying intent which was to better define the level of math needed to be college and career ready
- Diverged from the bill's recommendation for the mechanism and pointed back to existing structure that would allow Maine to get there and insisted that the Committee get input from the University System before making any changes to standards requirements
- **BILL WAS KILLED BUT THIS DISCUSSION IS ONGOING**

LD 669 "An Act To Address the Unmet Workforce Needs of Employers and To Improve the Economic Future of Workers"
http://legislature.maine.gov/LawMakerWeb/summary.asp?paper=SP0231&SessionID=12
- Educate Maine was in support
- Testified on behalf of the MaineSpark Coalition and spoke to the concepts in the bill that support us getting to 60% by 2025
- **PENDING**

LD 1774 "An Act to Reduce Childhood Poverty by Leveraging Investments in Families for Tomorrow"
https://legislature.maine.gov/LawMakerWeb/summary.asp?ID=280067321

- Represented the MaineSpark Coalition's work and testified in support of accessing existing federal funds to support adult learners returning to get their degrees
- **PENDING**

Computer Science Task Force Report

- Worked with the University System leaders to craft policy recommendations to advance and strengthen computer science quality and access across the entire Pre-K to 12 system
- **PENDING**

Educate Maine is a lead partner in MDF's Policy Leaders Academy. We advocated strongly for continued visits to the University of Maine and for connections to the University System's economic development work. The bus tour stopped at the University of Maine and legislators were able to connect their votes for money to good economic outcomes. This was also a great opportunity to reemphasize the potential for growth through investments in the engineering program.

MaineSpark 60% by 2025

The workforce development effort we began over a year ago continues to grow in size, activity, and profile. MaineSpark has almost 50 organizations actively involved in the work. The University of Maine System is a lead partner on all fronts of this work. There are a number of achievements/activities over the last year:

- MaineSpark moved the Legislature to adopt the 60% by 2025 goal in statute – it is the state's attainment goal
- Established branding and messaging around this statewide campaign
- Building a large communications platform that will speak to the work and accomplishments of partners (completed summer 2018)
- Building a metrics dashboard to track MaineSpark work and accomplishments (completed spring of 2018)
- Developing a policy priorities platform to share with gubernatorial and legislative candidates in 2018 (completed March 2018 – a variety of outreach and engagement activities are in the works)
- Developing work plans in four strategic tracks to guide work (completed spring of 2018)
- Developing business plan to sustain this effort over multiple years (completed March 2018 – will begin to shop this to funders)

In addition to the backbone functions listed above, there has been a great deal of work on the strategic tracks levels:

- Adult Promise secured $750,000 SHEEO grant to pilot adult promise scholarship and support projects (Rosa Redonnett led this work)
- Future Success secured another $150,000 grant from Nellie Mae to support the work to connect K-12 with higher education and to improve college and career readiness for Maine students
- Future Success members have reconstituted Maine's Complete College America team (under leadership of Rosa Redonnett) and are actively involved with the national group representing both the University System and the Community College System
- Improved connections and communication between K-12 system and higher education resulting in better collaboration around policy and program efforts

Looking ahead, there are a number of goals for MaineSpark. The following are just a few of particular relevance to the University System:

- Secure the support and active involvement of the next Governor in championing this work
- Build stronger ties to Maine employers by connecting jobs to education through research and outreach
- Develop a clear message for now the University System will advance this goal as a lead partner

MaineSpark continues to pay dividends to the partners and has allowed us to affectively show a united front on all things workforce and economic development. This will only become stronger and more effective in advancing our missions.

![Maine's Public Universities - University of Maine System logo]

University of Maine System
Management Group Appointments/Changes
11/1/2017 - 2/28/2018

Campus	Name	Position Title	Effective Date	Prior Salary	New Salary	Notes	Previous Position Title
UMM	Andrew Egan	UMM Vice President and Head of Campus	Start Date tbd		$140,000		New Hire
USM	A.T. Miller	Vice President Equity and Inclusion	Start Date tbd		$120,000		New Hire
UM	Niclas Erhardt	Interim Dean for the Undergraduate School of Business in the Maine Business School	1/15/2018	$ 144,545	$144,545	Add $15,000 stipend for 6-month appt	Associate Dean of the Maine Business School

Retro Actions prior to 11/1/17 not previously reported to BOT							
USM	Jeannine Uzzi	Provost and Vice President for Academic Affairs	7/1/2017	$ 163,840	$188,416	15% pay increase based upon goal attainment outlined in appointment letter	Approved 1/26/18
USM	Rosa Redonnett	UMS Chief Student Affairs Officer	7/1/2017	$ 143,607	$155,107	8% equity pay increase	Approved 10/26/17
UMS	Claire Strickland	CBO-UM	7/2/2017	$ 140,760	$155,000	10.1% equity pay increase	Approved 9/18/17

236

Sightlines Annual Facilities Report, UMS

Executive Summary
March 2018

The Sightlines annual report is provided for information. Highlights of the report include:

A key metric formally adopted by Trustees – density as measure of the intensity or efficiency of the use of our space – has improved in FY17 against an overall downward trend. This is illustrated in the attached slide deck from Sightlines, *The University of Maine System FY2017 ROPA+*. Please see Slide 10 per the slide numbering sequence (i.e. not the page numbers of the overall Board Book.)

While this is only a single data point and not yet a trend, it does indicate the University's efforts to constrain and reduce its footprint, among other factors, are starting to make a difference, according to Sightlines. The University's footprint is coming more into line with a size appropriate to the population it serves.

Beyond density, the Sightlines data continues to reflect a challenging situation in which the condition of the University's facilities as measured by renovation age and net asset value have continued to decline. The University is currently on pace to see more than half of all space not have been meaningfully renovated in more than 50 years by 2022. This is illustrated on Slide 18 in the slide numbering sequence.

The measures of condition or quality of the University's facilities simply are unlikely to improve overall until and unless substantially more investment is made in existing facilities each year, as the University is seeking to begin doing with the bond request currently pending before the legislature.

Additional slides of potential particular interest may include:
- Slide 7 summarizes Sightlines core findings for the year.
- Slide 41 shows the continuing positive news about carbon reduction at the University.
- Slide 49 illustrates the ongoing gap between current investment levels and the levels that would be needed to meet Trustee priorities.
- Slide 50 illustrates the long-term trend of deteriorating facility condition.
- Slide 52 highlights a case study from UMM regarding the benefit of space reduction.
- Slides 59-61 forecast how the space reduction initiative approved by Trustees in January 2018 could help achieve further benefits.
- Slide 65 and onward detail the current status of the facility-related key performance indicators previously adopted by Trustees

The Finance, Facilities and Technology committee received a briefing directly from Sightlines. The determination was made to forego the additional direct briefing this year for the full Board of Trustees, but Trustees are here provided with the full written document for the year.

Vocabulary for Facilities Measurement, Benchmarking & Analysis

Annual Stewardship	Asset Reinvestment	Operational Effectiveness	Service
The annual investment needed to ensure buildings will properly perform and reach their useful life. *"Keep-Up Costs".*	The accumulation of repair and modernization needs and the definition of resource capacity to correct them. *"Catch-Up Costs"*	The effectiveness of the facilities operating budget, staffing, supervision, and energy management.	The measure of service process, the maintenance quality of space and systems, and the customers opinion of service delivery.

Asset Value Change

Operations Success

sightlines
a G⊕RDIAN company

4

Peer System Comparisons

State System Comparisons

Massachusetts State Universities

Mississippi Institutions of Higher Learning

Oregon University System

Pennsylvania State System of Higher Education

University of Alaska System

University of Missouri System

University of New Hampshire System

For the FY17 analysis, the CT State System was removed from the peer group and replaced with the UNH System

Comparative Considerations

Size, technical complexity, region, geographic location, and setting are all factors included in the selection of peer institutions

sightlines
a G●RDIAN company

6

FY2017 Core Observations

➢ Removing buildings from the building inventory increases System density and improves net asset value.

➢ Total capital investments continue to not meet Sightlines' Annual targets and increase overall backlog of need.

➢ Project selection addresses highest risk needs and helps maximize value of minimal investment levels.

➢ Opportunities exist to be more proactive through operating planned maintenance and stewardship.

sightlines
a G@RDIAN company

7

Space Profile

Total GSF Over Time

System GSF decreased by 254K GSF since FY12

Total GSF Over Time
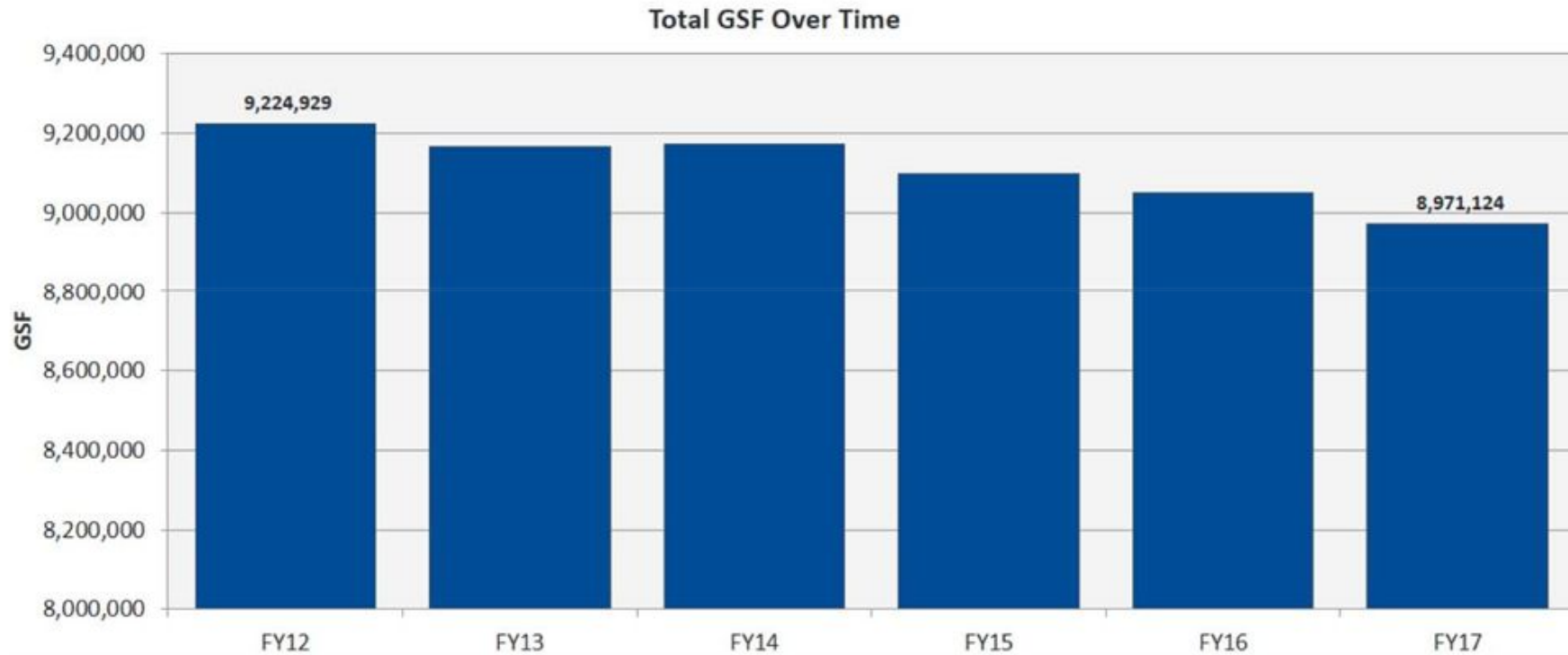
Density Across the Maine System

Density reaches 326 users/100K GSF in FY17 with additional UMS staff and buildings offline
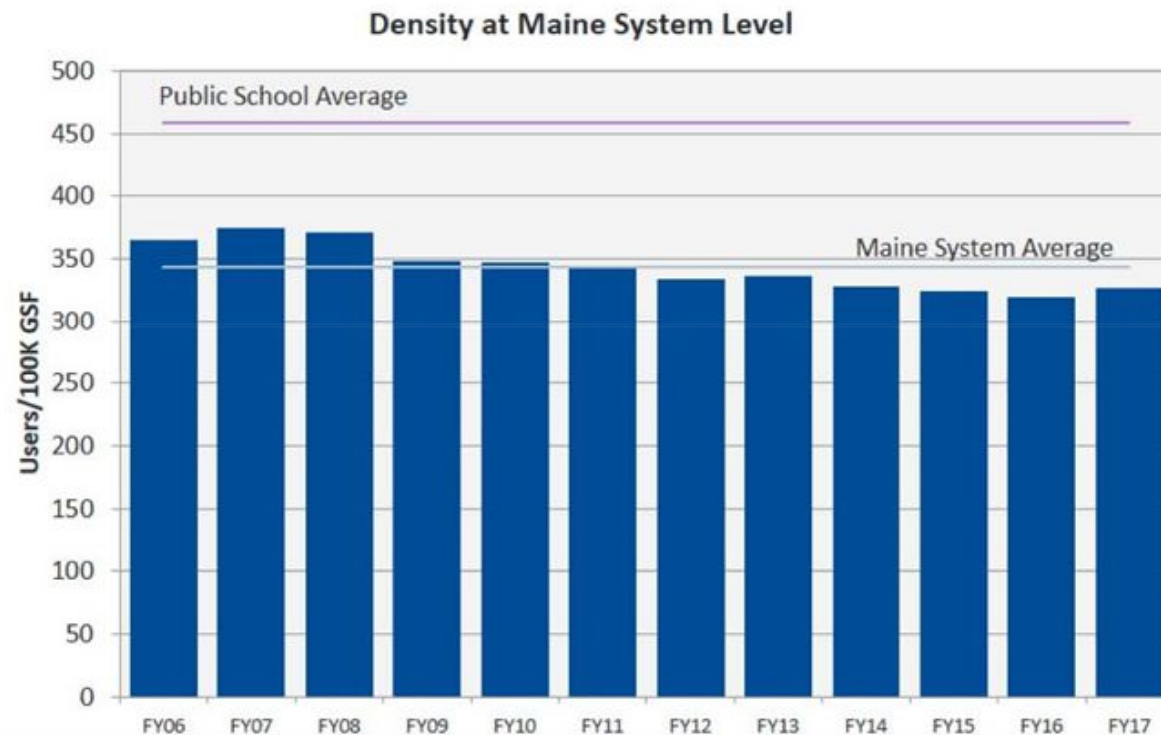
Density: Measures number of users per 100,000 GSF

Users include all student, faculty, and staff FTEs

Measures campus building usage on a daily basis

Average Construction Age of Post-War Buildings: 52 years old

Funding sources should be allocated based on age and condition of the buildings

% of GSF by Construction & Renovation Year

Pre-War

Built pre-1951
- Durable construction
- Older but lasts longer

Post-War

Built 1951 - 1975
- Lower quality
- Needs more repairs & renovation

Modern

1975 - 1990
- Quick flash construction
- Low quality components

Complex

Built post-1991
- Technically complex
- Higher quality
- More expensive to maintain or repair

Legend:
- Sightlines Database- Construction Age
- UM System Construction Age

sightlines
a GORDIAN company

12

Maine System Continues to Age

Campus Age Distribution Over Time

| | Under 10 | 10 to 25 | 25 to 50 | Over 50 |

sightlines
a G⊕RDIAN company

Space Over 50 is Growing

Consistent distribution of high risk space over the years

Campus Age Distribution Over Time

Chart — % of Space by Campus Age Distribution:

	Maine System 2006	Maine System 2011	Maine System 2017
Over 50	27%	33%	44%
25 to 50	43%	33%	24%
10 to 25	11%	14%	22%
Under 10	19%	20%	10%

Legend: ■ Under 10 ■ 10 to 25 ■ 25 to 50 ■ Over 50

Buildings Over 50

Life cycles of major building components are past due. Failures are possible. Core modernization cycles are missed.

Highest risk

Buildings 25 to 50

Major envelope and mechanical life cycles come due. Functional obsolescence prevalent.

Higher Risk

Buildings 10 to 25

Short life-cycle needs; primarily space renewal.

Medium Risk

Buildings Under 10

Little work. "Honeymoon" period.

Low Risk

sightlines
a G⦿RDIAN company

14

Space Over 50 is Growing

Consistent distribution of high risk space over the years

High Risk Profile Consistent Across All Campuses

UMaine has the largest majority of space over 50 in the system

FY17 Renovation Age Across System
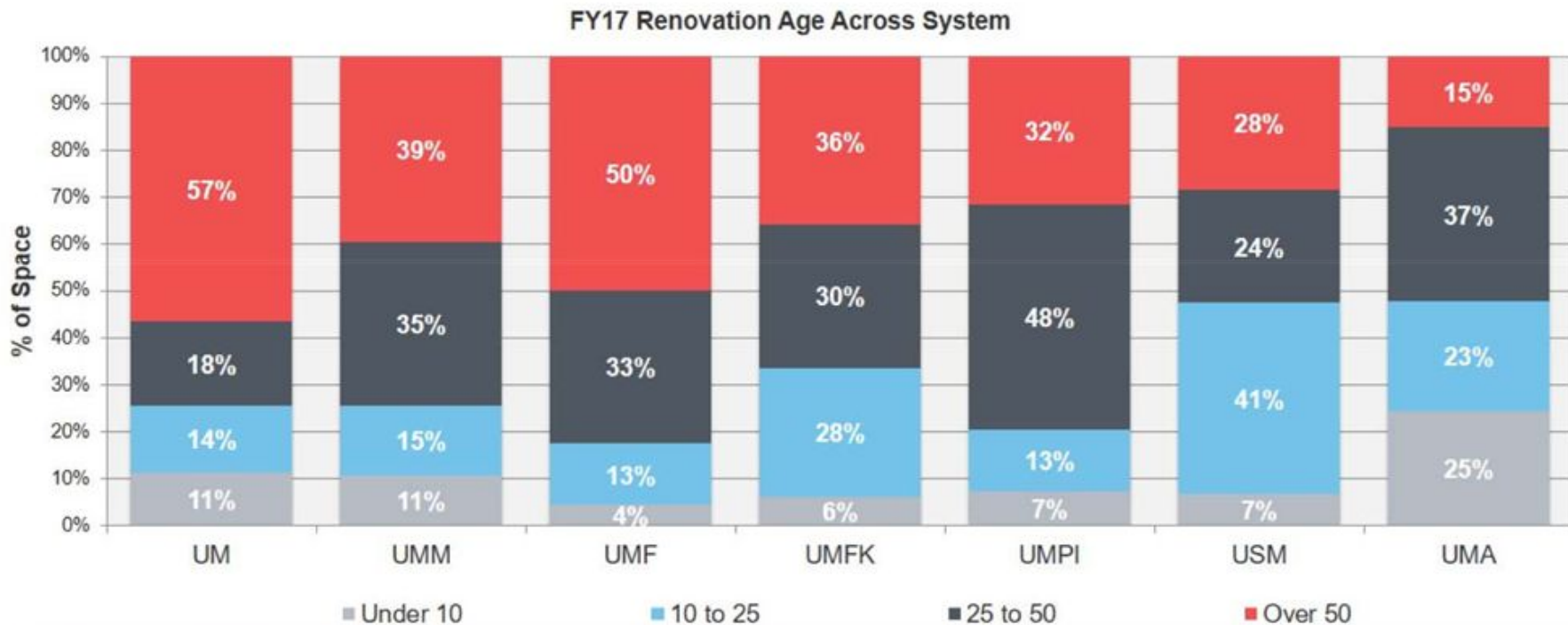
Significant Growth in % of Buildings Over 50 Years Old

Maine System Percent of Space Over 50

— Public School Average

sightlines
a G®RDIAN°company

17
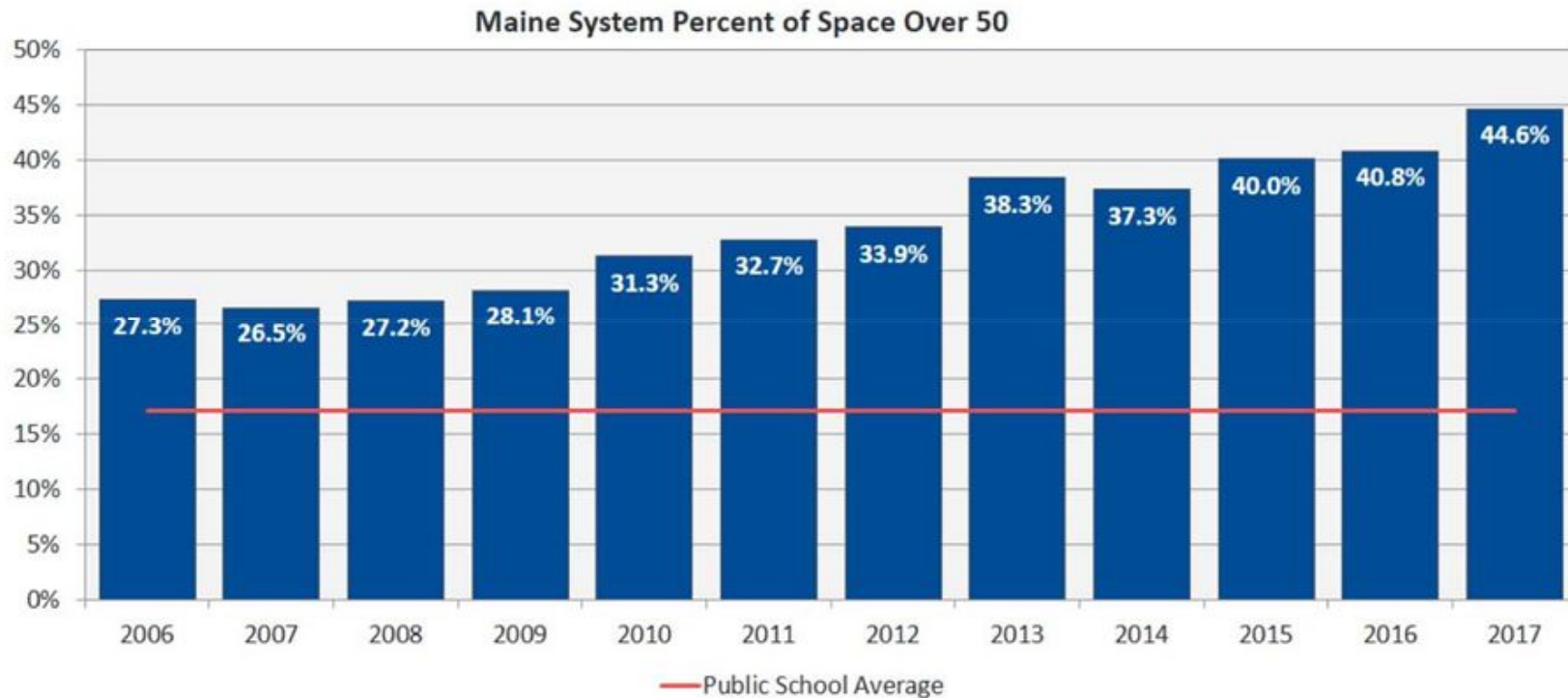
By 2022 54% of Space Will be Over 50 Years Old

Plan now for major life cycle replacements in these buildings

Maine System Percent of Space Over 50

- 2006: 27.3%
- 2007: 26.5%
- 2008: 27.2%
- 2009: 28.1%
- 2010: 31.2%
- 2011: 32.7%
- 2012: 33.9%
- 2013: 38.3%
- 2014: 37.3%
- 2015: 40.0%
- 2016: 40.8%
- 2017: 44.6%
- 2022: 54.3%

— Public School Average

sightlines
a G⊛RDIAN company

*FY22 is calculated as campus is today, with no changes to the space profile

18
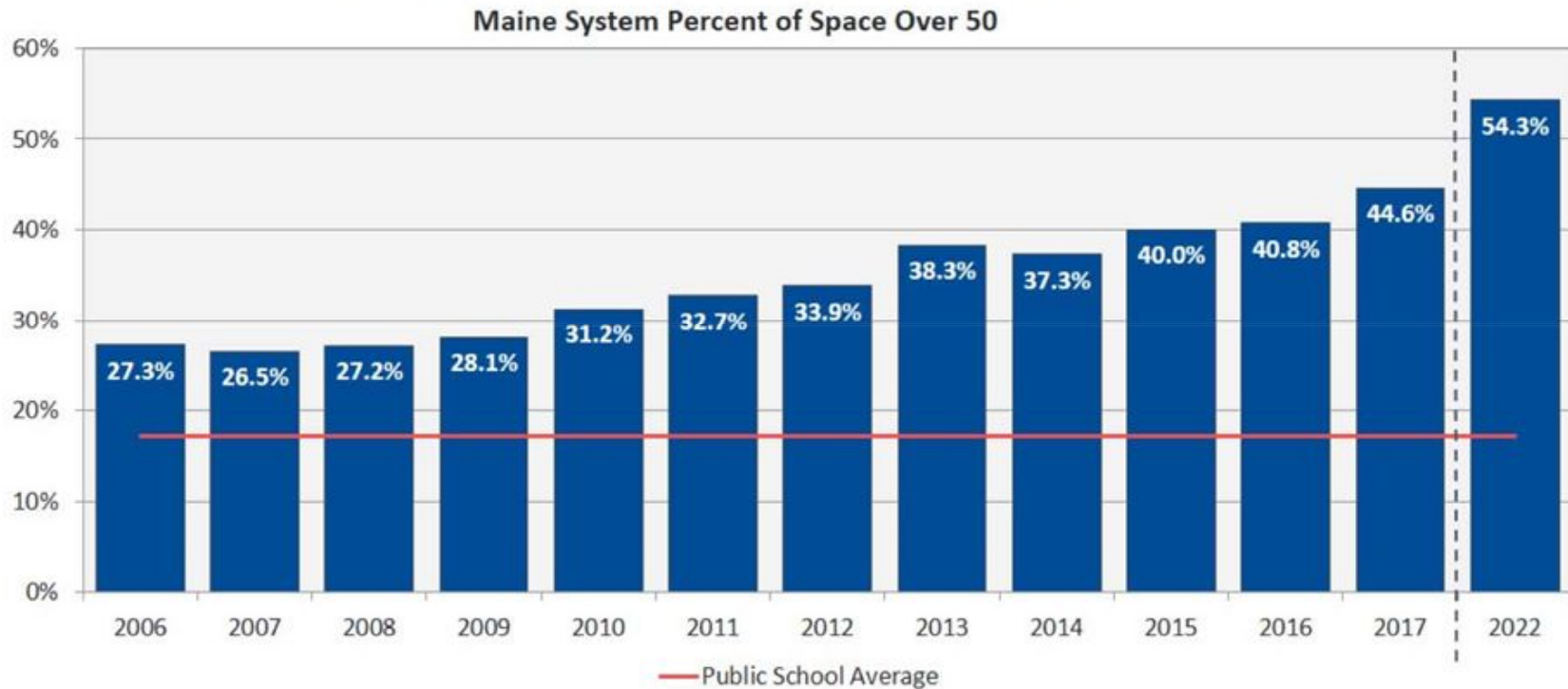
Case Study – UMA Shift in Renovation Age

Renovations and demolitions at UMA offsets age

Campus Renovation Age by Category
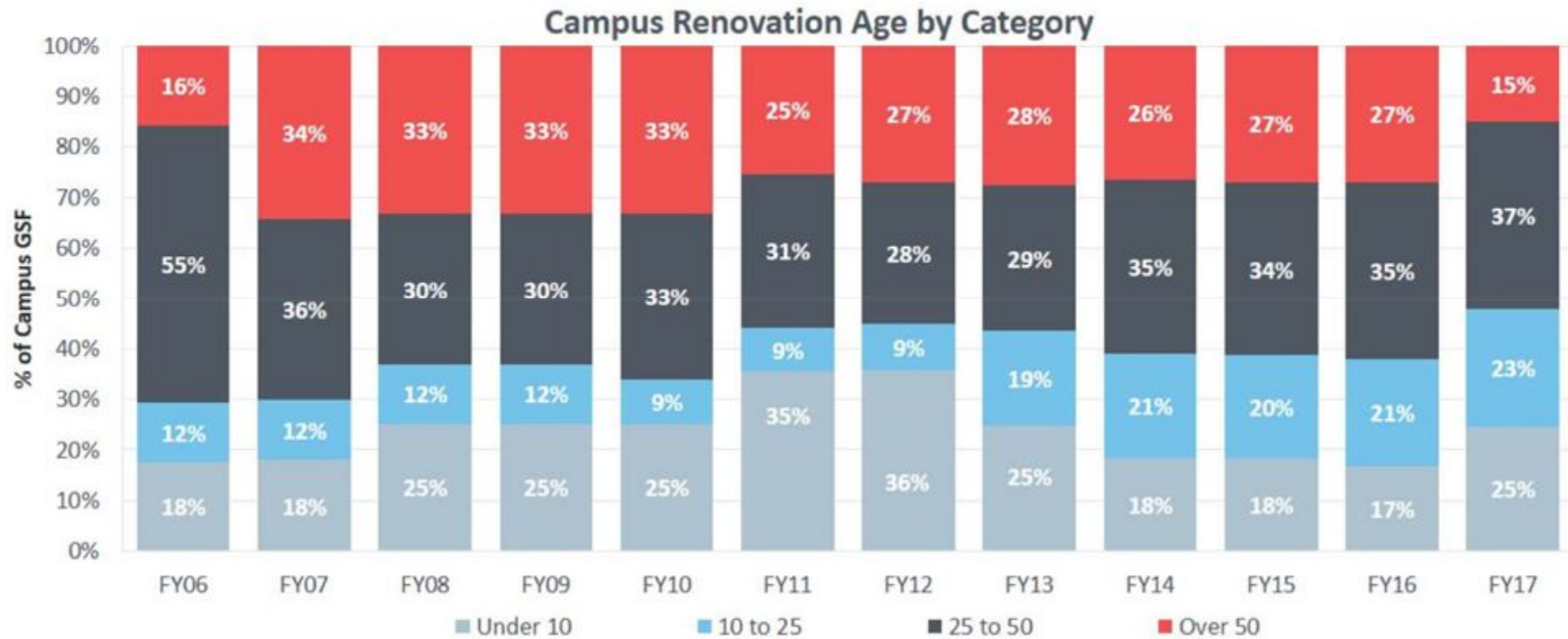
Case Study – UMA Shift in Renovation Age
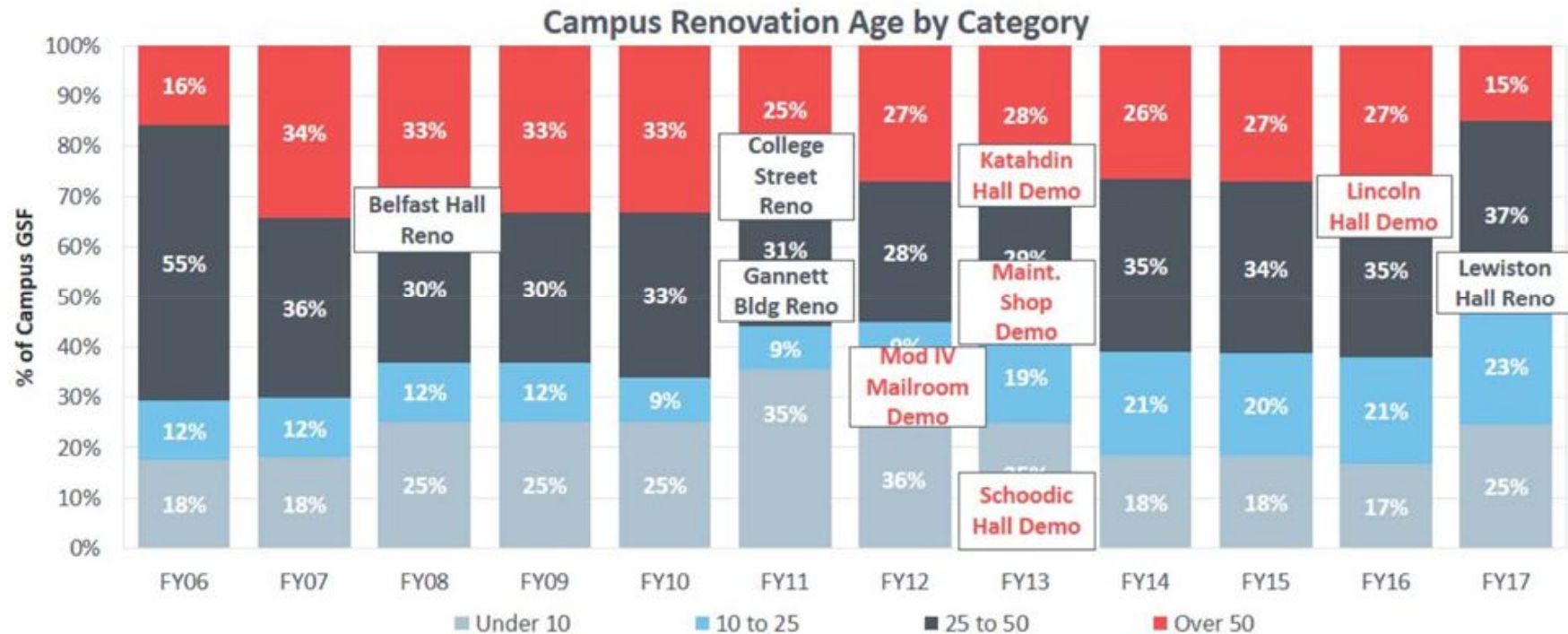
Renovations and demolitions at UMA offsets age

Over 45 Template Distributed to Every Institution

Sample taken from UMM

Building Name	GSF	Program Use	Historical Registry Listing	Utilization Rate	Condition	Value to Program	Value to Institution's Mission
Dorward Hall-North Wing-B	22,129	Residence Hall	No	1: High	2: Fair Condition	1: Valuable	2. Aligns with Institution's Mission
Dorward Hall-West Wing-A	21,139	Residence Hall	No	1: High	2: Fair Condition	1: Valuable	2. Aligns with Institution's Mission
Kilburn Commons	9,555	Student Life	No	1: High	1: Excellent Condition	1: Valuable	1. Supports Institution's Mission
Obrien House	5,000	Admissions House	No	2: Moderate	2: Fair Condition	1: Valuable	1. Supports Institution's Mission
Powers Hall	33,525	Academic	No	1: High	3: Poor Condition	1: Valuable	1. Supports Institution's Mission
Reynolds Health Center-Gym	33,741	Student Life	No	1: High	2: Fair Condition	1: Valuable	1. Supports Institution's Mission
Sennett Hall- South Wing C	12,612	Residence Hall	No	1: High	2: Fair Condition	1: Valuable	1. Supports Institution's Mission
Sennett Hall-Center Wing-B	10,558	Residence House	No	1: High	2: Fair Condition	1: Valuable	2. Aligns with Institution's Mission
Sennett Hall-North Wing-A	12,558	Residence House	No	1: High	2: Fair Condition	1: Valuable	2. Aligns with Institution's Mission

The following slides will dig deeper into some of the buildings on this list.

sightlines
a G⊛RDIAN company

22

Total Maine System Findings

Comparing condition with utilization across the system

Building vs. Utilization

	Poor to Fair	Good to Excellent
High	3,202,123 GSF	383,689 GSF
Low	568,109 GSF	43,220 GSF

Utilization Rate (vertical axis, High to Low)

Condition of Buildings (horizontal axis, Poor to Fair → Good to Excellent)

sightlines
a G⦿RDIAN company

A user is defined as an occupant of the space for an estimated 4 hours/day or more.
1. High: Greater than 20 users on a daily basis
2. Medium: 10-20 users on a daily basis
3. Low: Fewer than 10 users on a daily basis

23

Candidates for Potential Renovation

Comparing condition with utilization across the system

Building vs. Utilization

Utilization Rate

High

Low

3,202,123 GSF	383,689 GSF
568,109 GSF	43,220 GSF

Poor to Fair   **Condition of Buildings**   *Good to Excellent*

sightlines
a **G@RDIAN** company

A user is defined as an occupant of the space for an estimated 4 hours/day or more.
1. High: Greater than 20 users on a daily basis
2. Medium: 10-20 users on a daily basis
3. Low: Fewer than 10 users on a daily basis

24

Potential Candidates for Removal

Comparing condition with utilization across the system

Building vs. Utilization

A two-by-two matrix with Utilization Rate (Low to High) on the vertical axis and Condition of Buildings (Poor to Fair / Good to Excellent) on the horizontal axis.

- High / Poor to Fair: 3,202,123 GSF
- High / Good to Excellent: 383,689 GSF
- Low / Poor to Fair: 568,109 GSF (highlighted)
- Low / Good to Excellent: 43,220 GSF

Utilization Rate (High — Low)

Condition of Buildings (Poor to Fair — Good to Excellent)

sightlines
a G⊕RDIAN company

A user is defined as an occupant of the space for an estimated 4 hours/day or more.
1. High: Greater than 20 users on a daily basis
2. Medium: 10-20 users on a daily basis
3. Low: Fewer than 10 users on a daily basis

25

Low Utilization and Poor Condition Space

Removing historical buildings and storage structures from the equation

Buildings Over 45 with Poor Condition/Low Utilization	Sum of GSF
The University of Maine	283,919
University of Maine at Augusta	17,851
University of Maine at Farmington	60,965
University of Maine at Fort Kent	19,328
University of Maine at Machias	5,000
University of Maine at Presque Isle	793
University of Southern Maine	180,253
Total	568,109

Less Historic Buildings

Buildings Over 45 with Poor Condition/Low Utilization	Sum of GSF
The University of Maine	103,101
University of Maine at Augusta	17,851
University of Maine at Farmington	60,965
University of Maine at Fort Kent	19,328
University of Maine at Machias	5,000
University of Maine at Presque Isle	793
University of Southern Maine	169,725
Total	376,763

sightlines
a G@RDIAN company

26

Low Utilization and Poor Condition Space

Removing historical buildings and storage structures from the equation

Buildings Over 45 with Poor Condition/Low Utilization	Sum of GSF
The University of Maine	103,101
University of Maine at Augusta	17,851
University of Maine at Farmington	60,965
University of Maine at Fort Kent	19,328
University of Maine at Machias	5,000
University of Maine at Presque Isle	793
University of Southern Maine	169,725
Total	376,763

Less Storage

Buildings Over 45 with Poor Condition/Low Utilization	Sum of GSF
The University of Maine	85,195
University of Maine at Augusta	15,576
University of Maine at Farmington	60,465
University of Maine at Fort Kent	15,964
University of Maine at Machias	5,000
University of Maine at Presque Isle	409
University of Southern Maine	169,537
Total	352,146

sightlines
a G●RDIAN company

27

Operations Success

UMS Spending Consistent from FY16 to FY17

Utility expenditures decreased from FY17
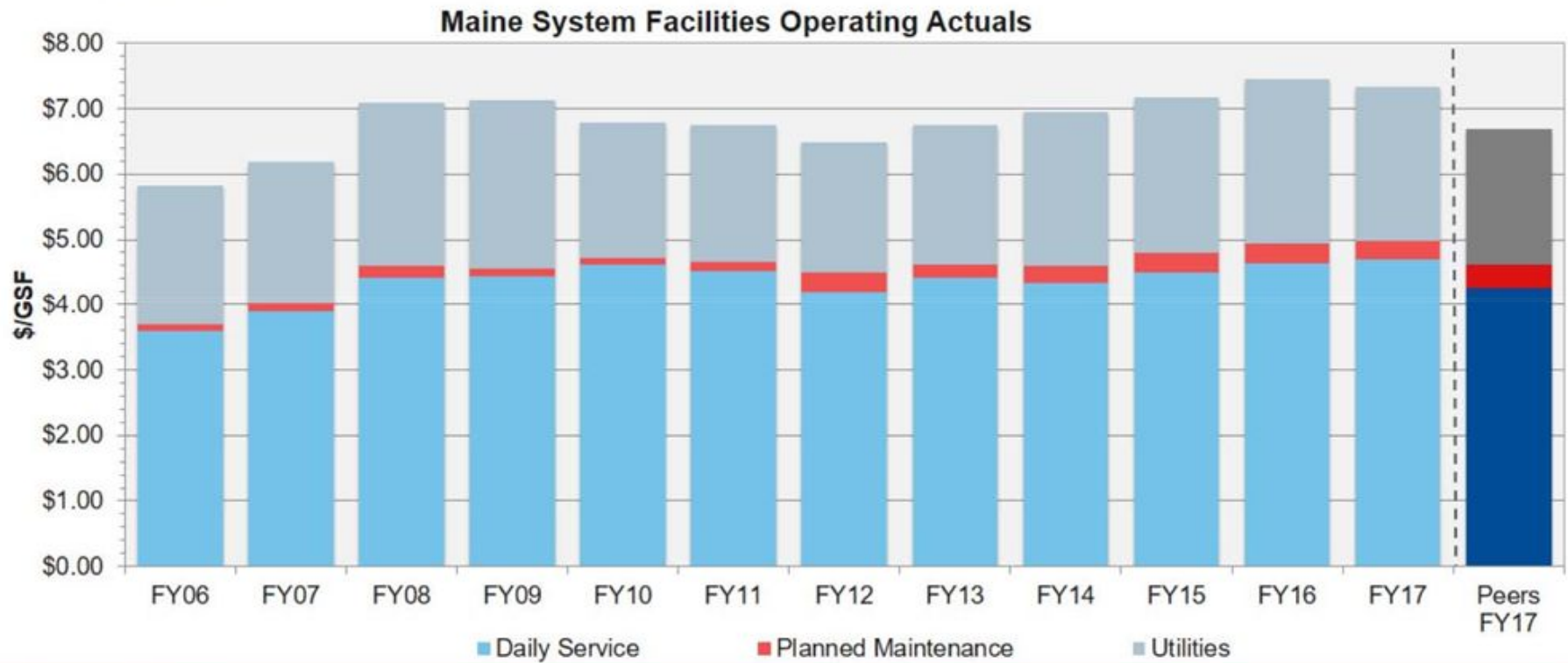
Maine System Facilities Operating Actuals

Legend: ■ Daily Service ■ Planned Maintenance ■ Utilities

sightlines
a G⊕RDIAN company

29
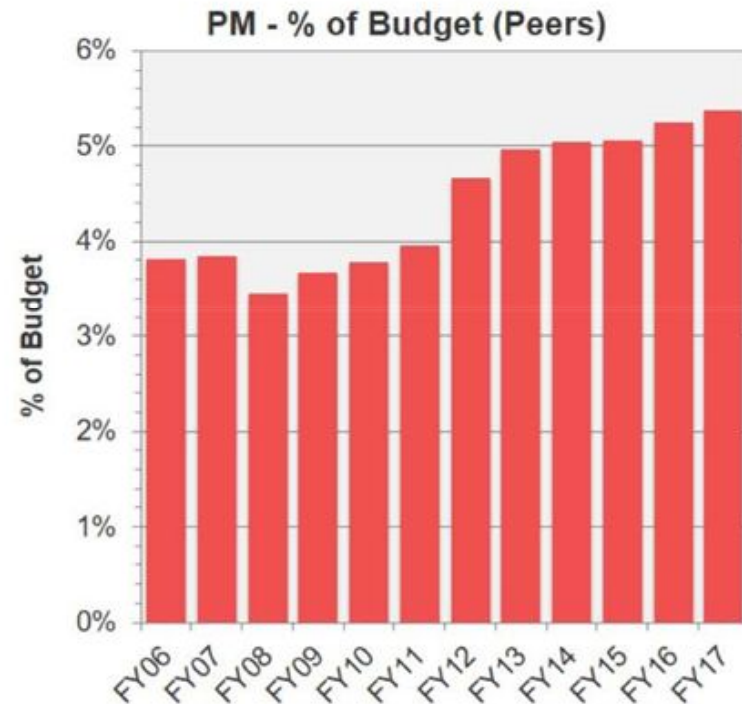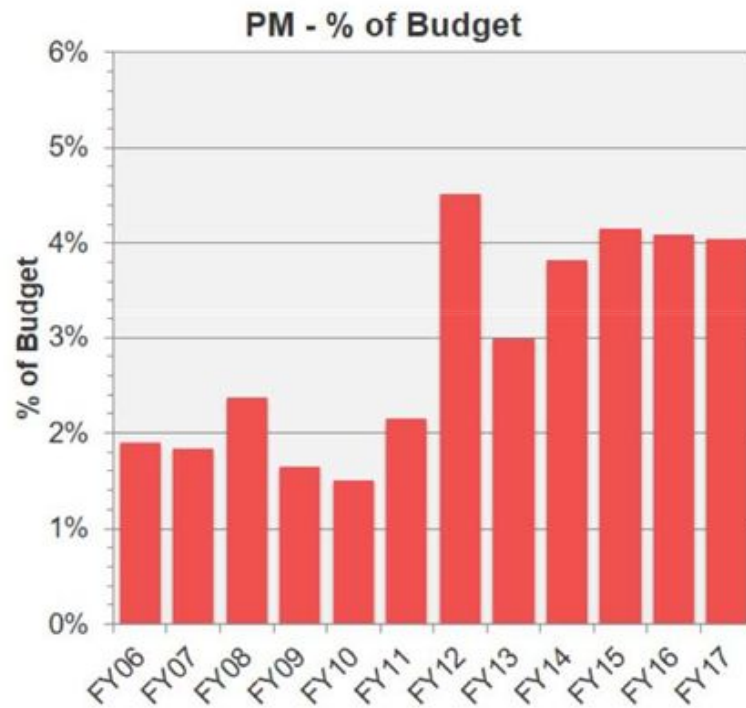
Maintenance Operations

Staff covered fewer GSF/FTE, heavier supervision than peers

Maintenance Staffing — GSF/FTE by fiscal year (FY06–FY17) with Public School Average line and Peers FY17.

Maintenance Supervision — FTE/Supervisor by fiscal year (FY06–FY17) with Public School Average line and Peers FY17.

31
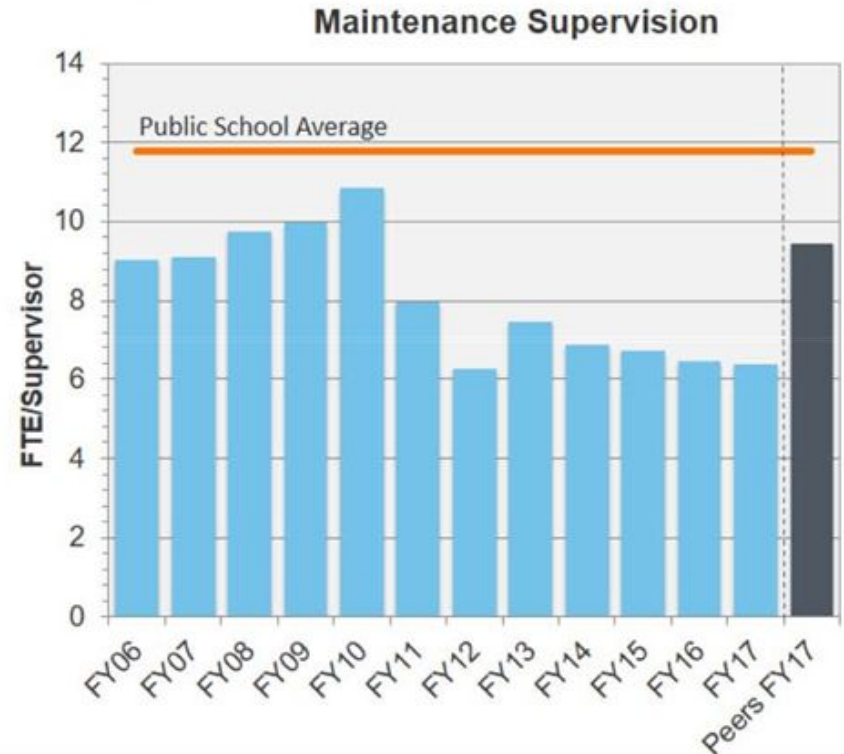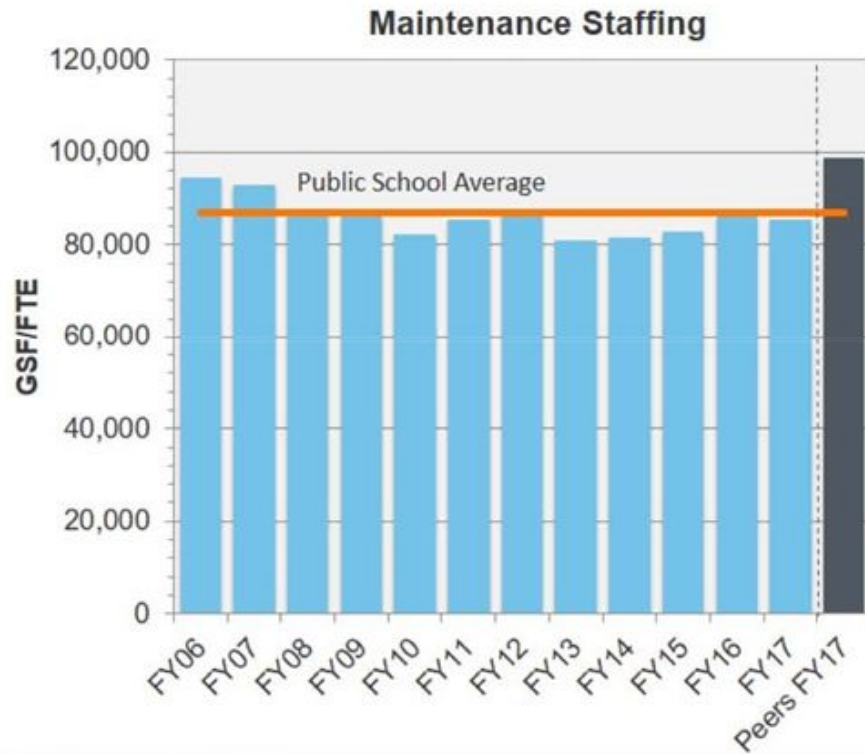
Custodial Operations

UMS has more custodial staff than peers and public school average

Custodial Staffing

Custodial Supervision

sightlines
a G⊕RDIAN°company
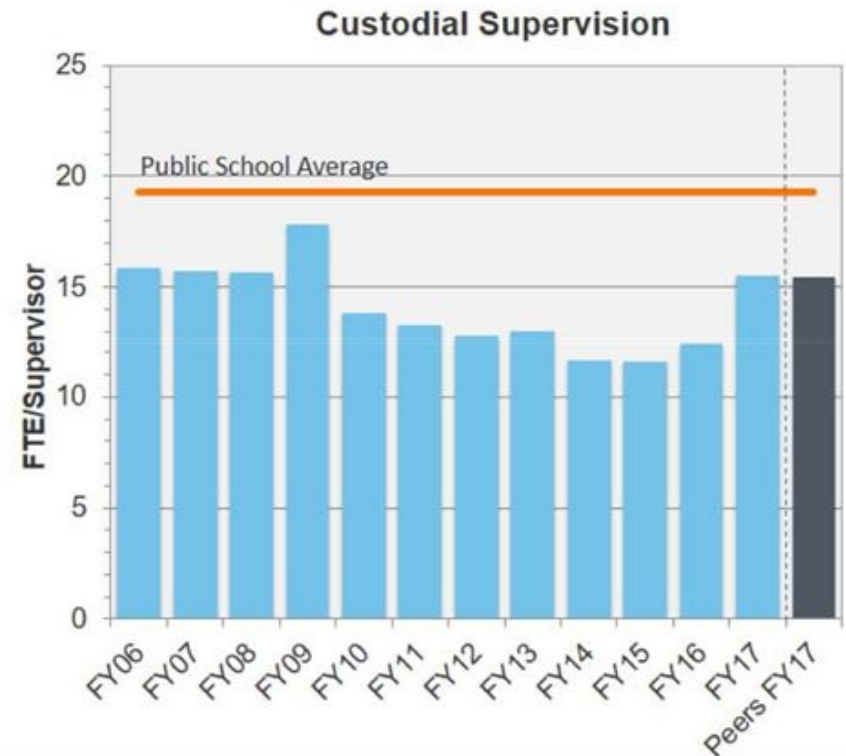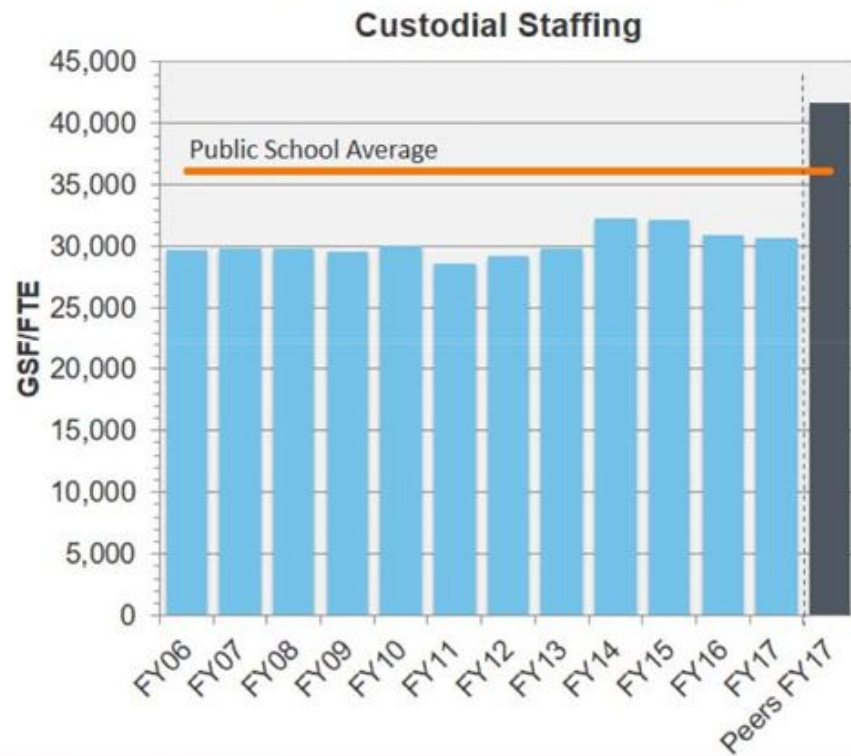
Grounds Operations

Grounds staff responsible for more acres than peers and public school average

Grounds Staffing

Grounds Supervision

33

270

Customer Satisfaction Survey

Survey Score Index

UMS average

UM 69%
UMM 77%
UMF
UMFK 76%
UMPI 69%
USM 67%
UMA

sightlines
a GORDIAN company

UMF and UMA did not complete the FY16 survey

34
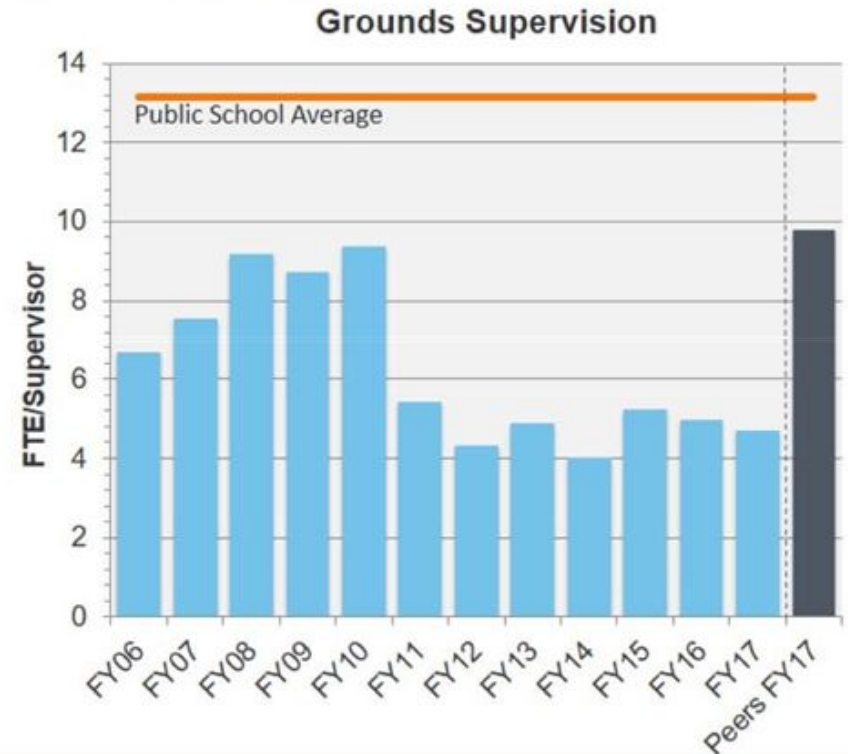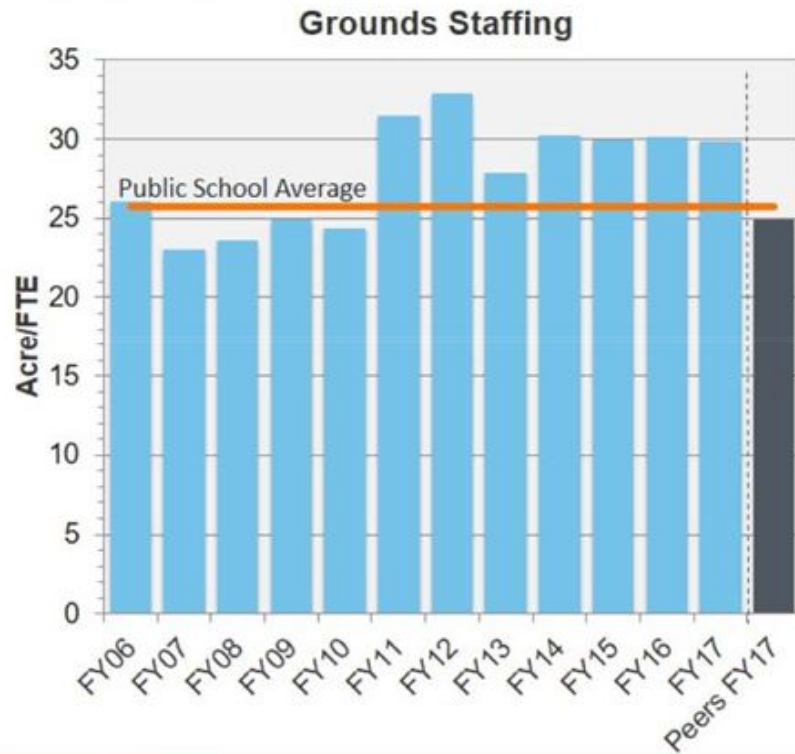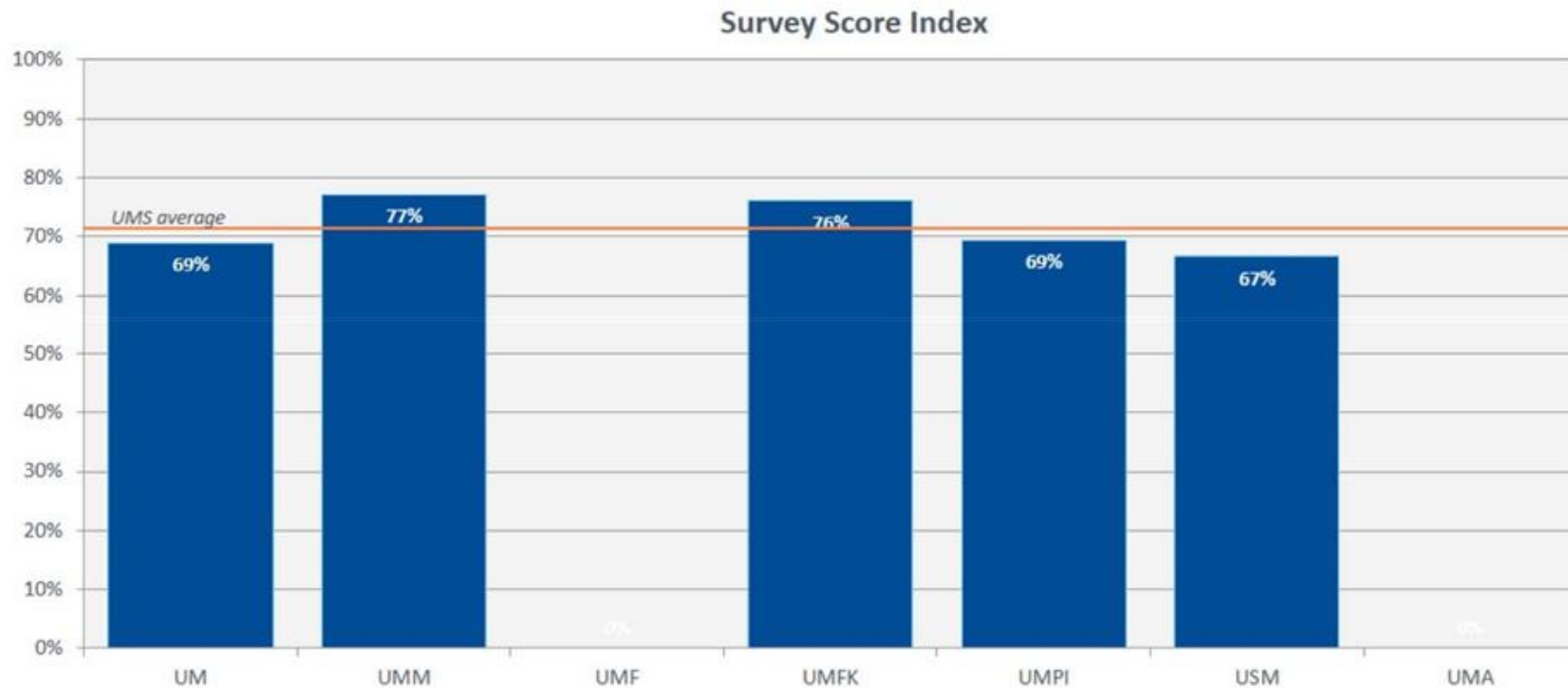
Opportunities for Improvement in Feedback and Scheduling

USM scores highest in general satisfaction

Consistent Consumption Despite Degree Day Increase

*Degree days noted are based on the Orono, Maine location
**Fossil fuels contain all heating fuel sources, including alternative fuel sources
(ie biomass, wood chips, etc.)

37

sightlines
a G☉RDIAN company
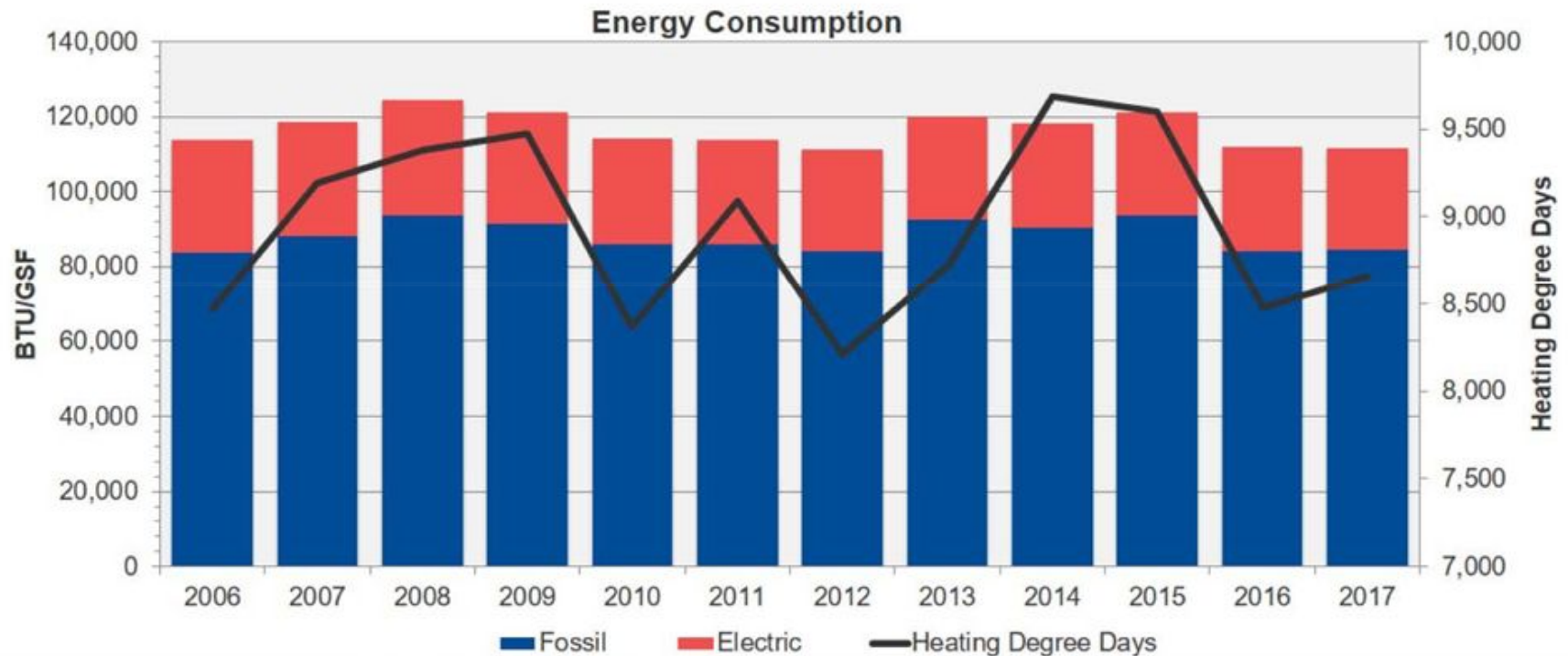
Consistent Consumption When Heating Degree Days Factored In

*Degree days noted are based on the Orono, Maine location
**Fossil fuels contain all heating fuel sources, including alternative fuel sources
(ie biomass, wood chips, etc.)

39
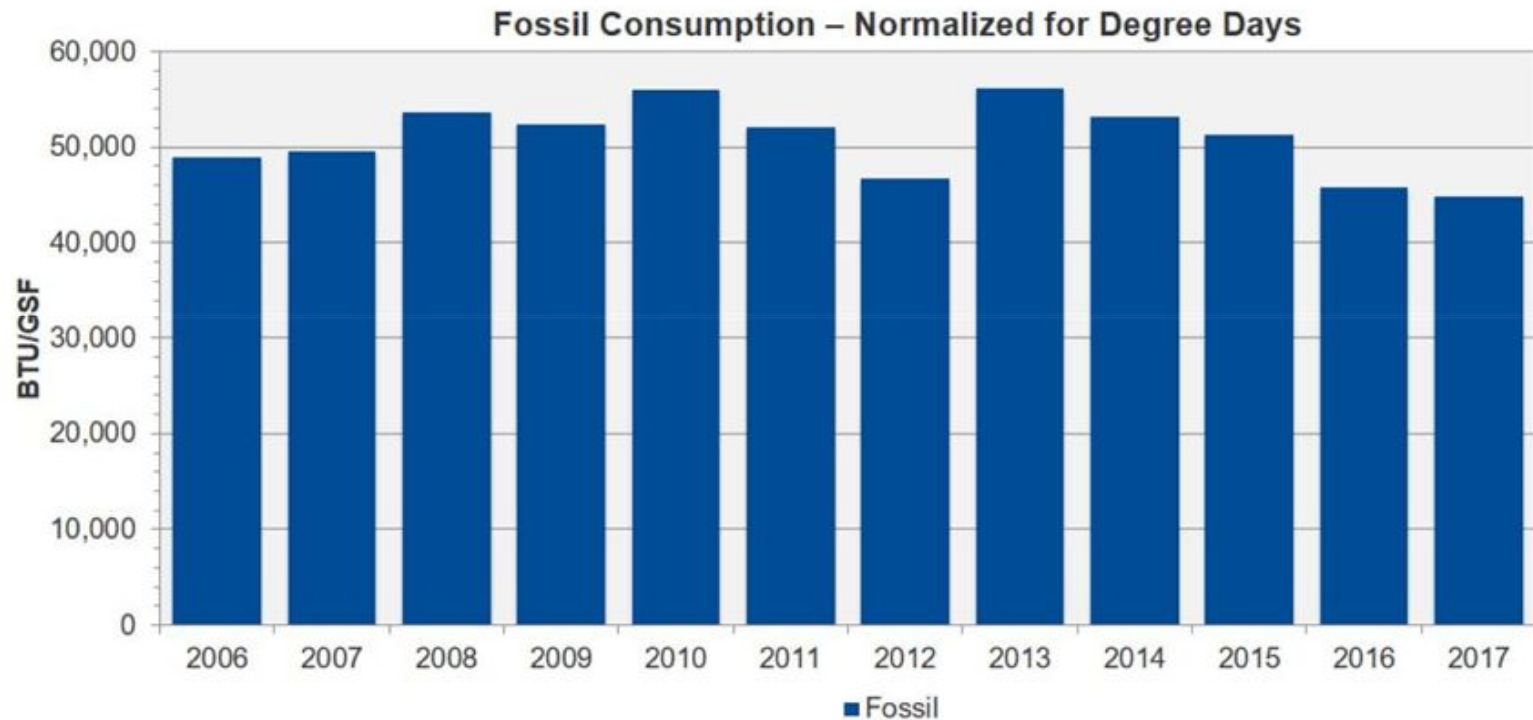
UMaine System Fuel Mix Emitting Less Carbon

Fossil Fuel Mix

Legend: ■ High Intensity Fossil Fuels   ▢ Low Intensity Fossil Fuels   ■ Biomass

*High intensity fuels include oil #2 and oil #6
**Low intensity fuels include natural gas and propane

sightlines
a GORDIAN company
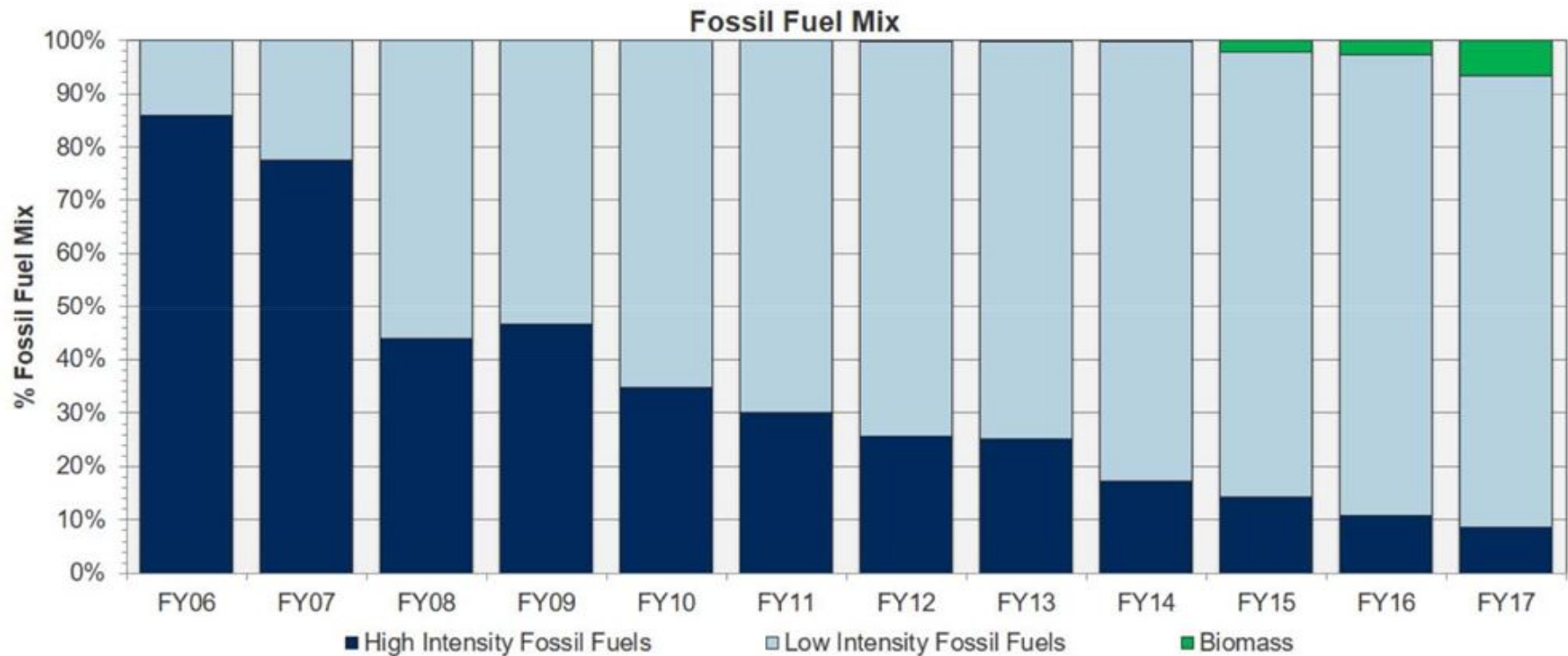
Total Gross Emissions Over Time

Maine System Total Gross Emissions (FY2006-FY2017)

MTCDE = Metric Tons of Carbon Dioxide Equivalent

sightlines
a G⊕RDIAN company
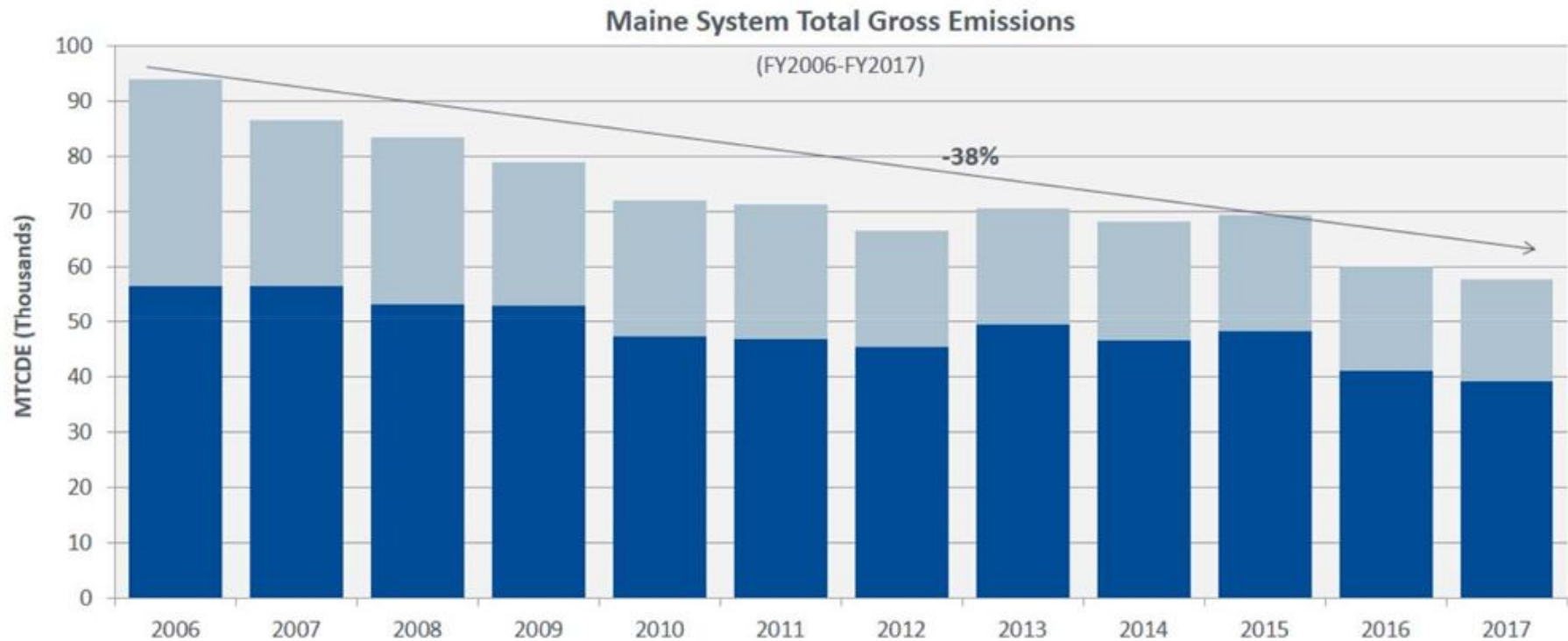
Asset Value Change

Total Investment Lower in FY2017

Total Capital Investment

Legend: ■ Existing Space Investment   ■ New Space Investment   ■ Non-Facilities

Examples of Non-Facilities work include: Study/Design fees, IT work, and demolition costs. These are necessary capital costs for Facilities Operations but do not add value/enhance existing buildings.

43
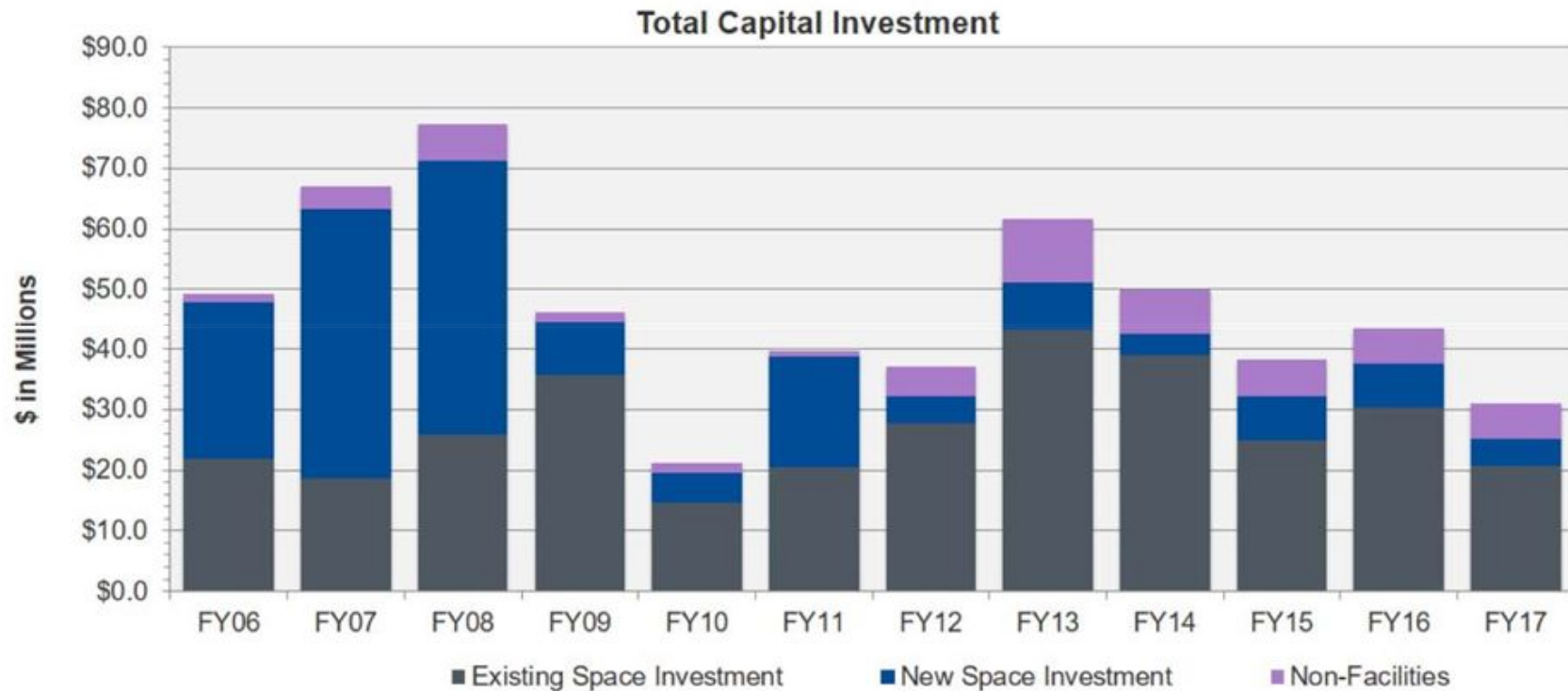
Investments Focus on Existing Space

FY06-FY11

5%
46%
49%

FY12-FY16

15%
13%
72%

FY17

18%
15%
67%

■ Existing Space Investment ■ New Space Investment ■ Non-Facilities
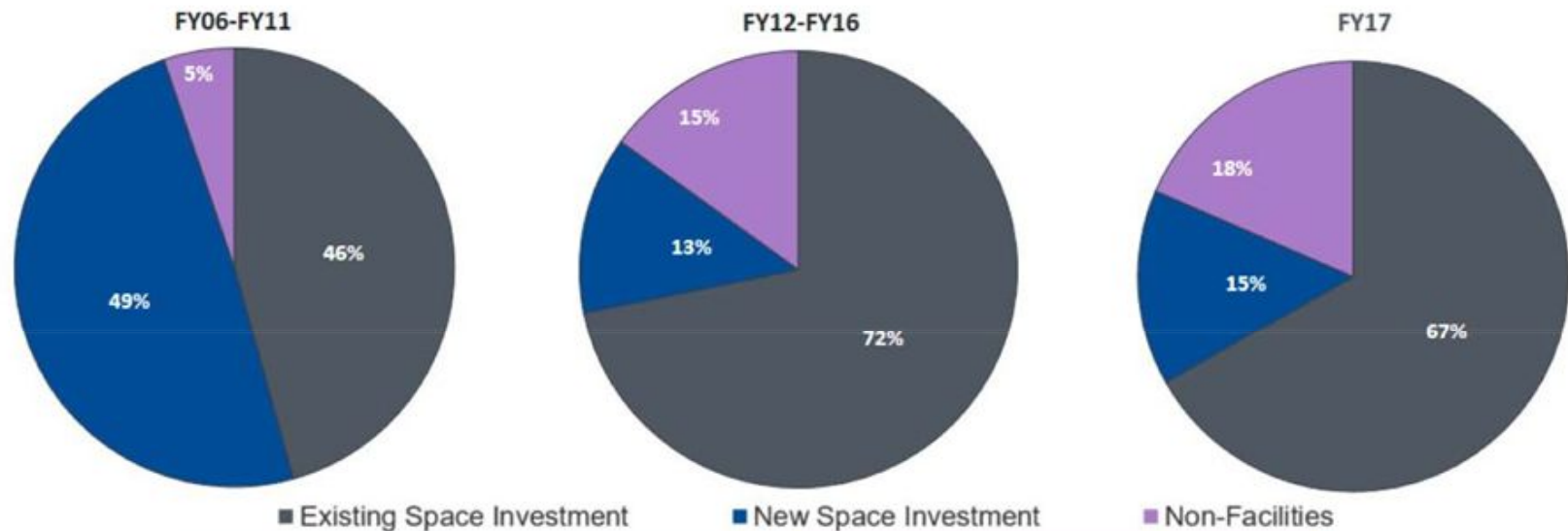
Significant Projects in FY17:
UM – Animal Plant & Insect Lab
UMA – Lewiston Hall Renovation
USM – Softball Field Improvements

New Space Projects in FY17:
UM – AEWC Wing
UMF – Central Energy Plant

sightlines
a G⊕RDIAN company

Examples of Non-Facilities work include: Study/Design fees, IT work, and demolition costs. These are necessary capital costs for Facilities Operations but do not add value/enhance existing buildings.
44

★

281

Gap In Investment Widens

An additional $22M needed to hit peer levels in FY17
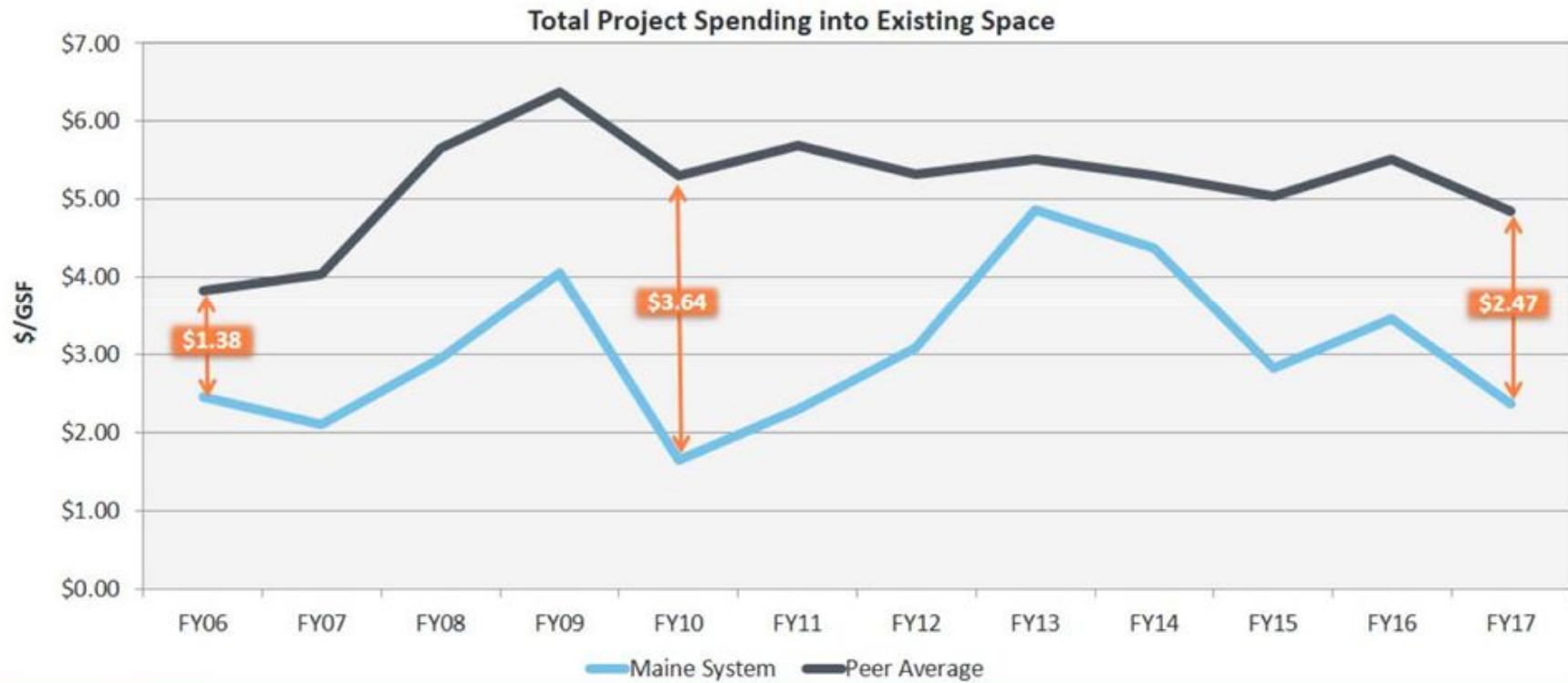
Project Selection Comparable To Peers
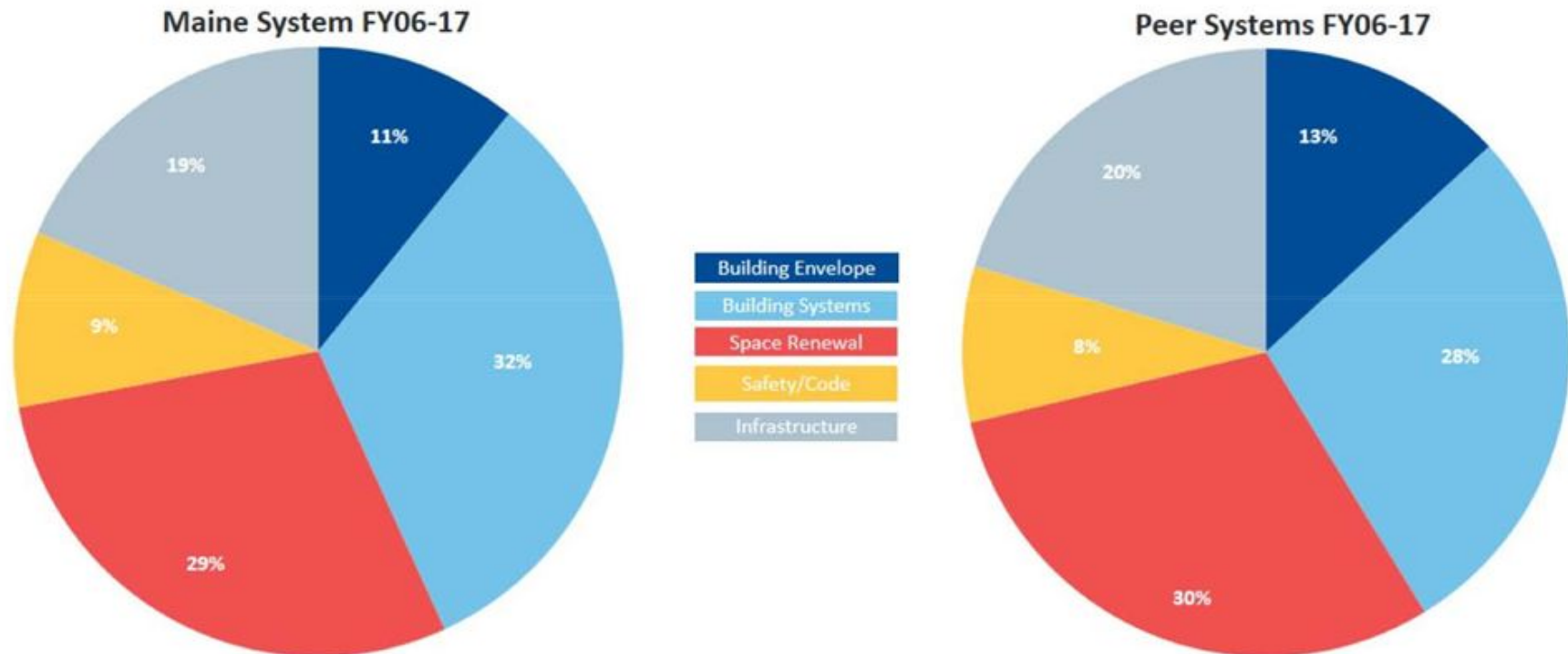
Investment Shifts Towards Greater ROI Projects

57% of investment went toward MEP projects from 2012-2017

2006-2011 Historical Project Investment

2012-2017 Historical Project Investment

- Envelope/Mechanical
- Space/Programming

Does not include infrastructure investments.

sightlines
a G⊗RDIAN company

47
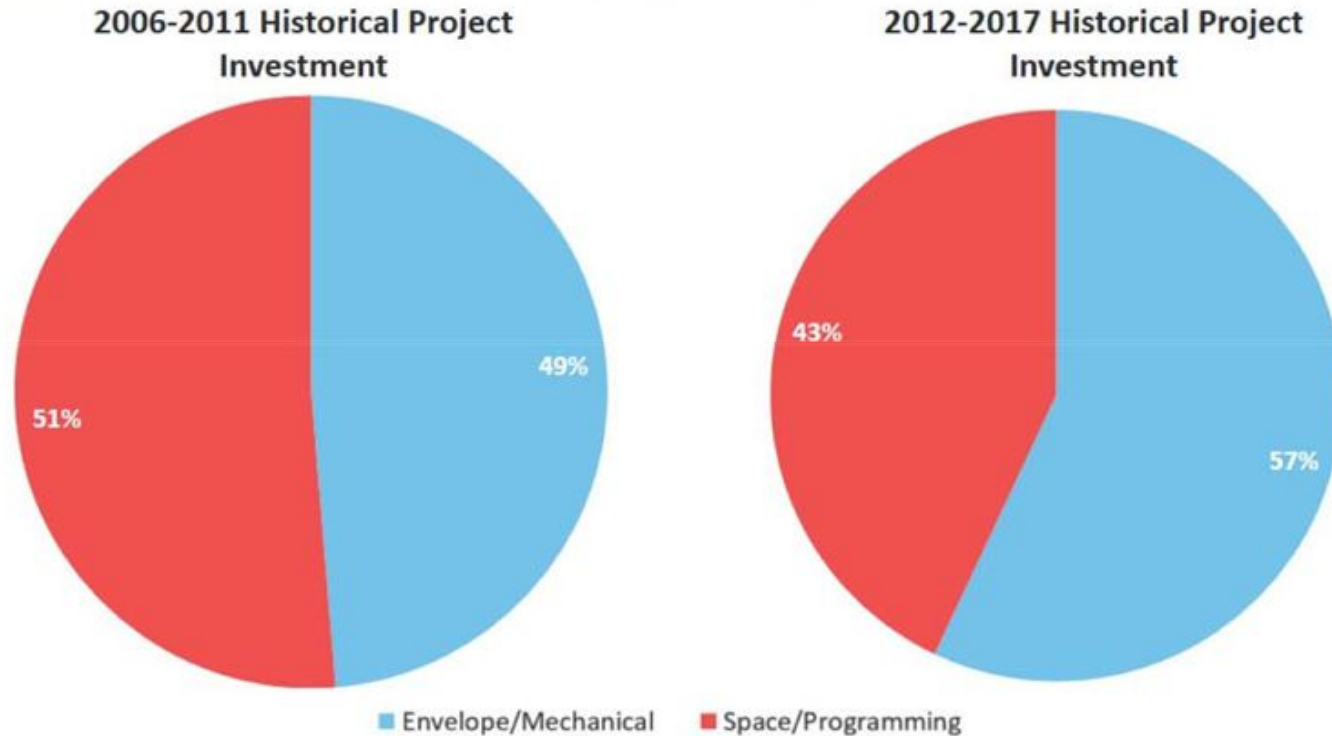
Defining an Annual Investment Target

Annual Funding Target: $35.9M

FY17 Annual Investment Target

Replacement Value: $2.4B

Functional obsolescence drives investment prior to life cycles & discounts the annual investment target

- $80
- $70
- $60
- $50
- $40
- $30
- $20
- $10
- $0

Millions

$72.7

$30.8

$27.3

$15.4

$20.5

3% Replacement Value
$72.7M

Life Cycle Need
$58.1M

Annual Investment Target
$35.9M

■ Envelope/Mechanical   ■ Space/Program

sightlines
a G●RDIAN company

48
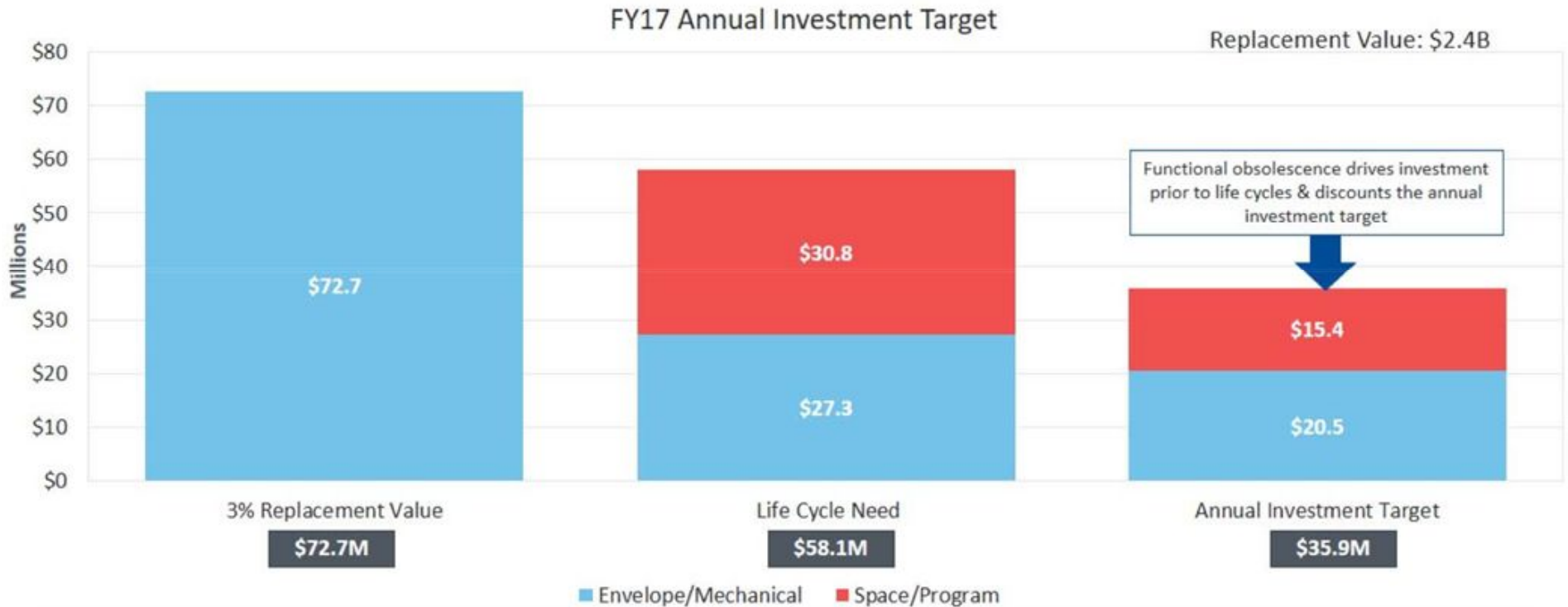
Deferral to Backlog of Need Increases in FY2017

Gap between funding in target results in backlog growth

Historical Capital Investment in Existing Space vs Funding Target

Legend: Annual Stewardship | Asset Reinvestment | Annual Investment Target | Life Cycle Need
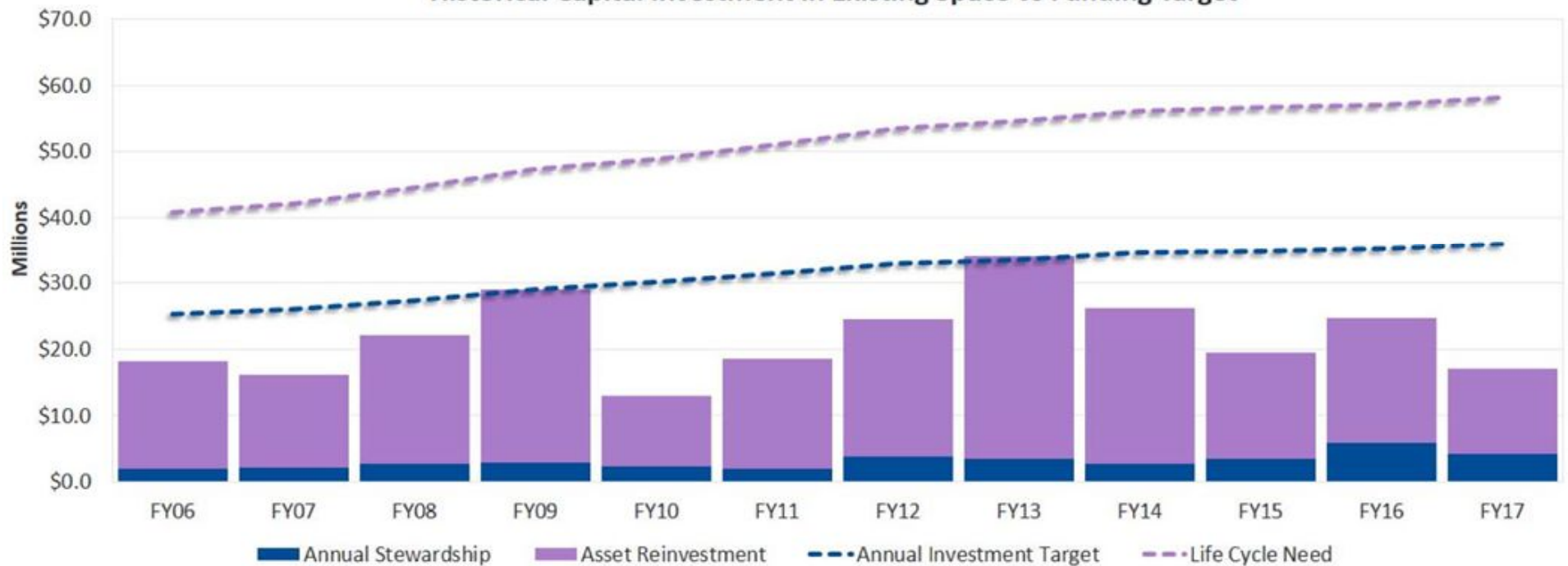
NAV Decreases Over Time

NAV dictates large-scale capital infusions or renovations are inevitable

FY17 Net Asset Value

Investment Strategy

"Keep Up" Stage: Primarily new or recently renovated buildings with sporadic building repair & life cycle needs

Balanced Profile Stage: Buildings are beginning to show their age and may require more significant investment and renovation on a case-by-case basis

"Catch Up" Stage: Buildings require more significant repairs; major building components are in jeopardy of complete failure; large-scale capital infusions or renovations are inevitable

Transitional/Gut Renovation/Demo Stage: Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

$$\text{Net Asset Value} = \frac{\text{Replacement Value} - \text{Backlog}}{\text{Replacement Value}}$$

sightlines
a G⊕RDIAN company

50

287

FY17 NAV By Campus

FY17 Net Asset Value

Investment Strategy

"Keep Up" Stage: Primarily new or recently renovated buildings with sporadic building repair & life cycle needs

Balanced Profile Stage: Buildings are beginning to show their age and may require more significant investment and renovation on a case-by-case basis

"Catch Up" Stage: Buildings require more significant repairs; major building components are in jeopardy of complete failure; large-scale capital infusions or renovations are inevitable

Transitional/Gut Renovation/Demo Stage: Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

$$\text{Net Asset Value} = \frac{\text{Replacement Value} - \text{Backlog}}{\text{Replacement Value}}$$

sightlines
a G⊕RDIAN company

51

288

Case Study – Demolition of Kimball Hall at UMM

Net Asset Value

Investment Strategy

"Keep Up" Stage: Primarily new or recently renovated buildings with sporadic building repair & life cycle needs

Balanced Profile Stage: Buildings are beginning to show their age and may require more significant investment and renovation on a case-by-case basis

"Catch Up" Stage: Buildings require more significant repairs; major building components are in jeopardy of complete failure; large-scale capital infusions or renovations are inevitable

Transitional/Gut Renovation/Demo Stage: Major buildings components are in jeopardy of failure. Reliability issues are widespread throughout the building.

$$\text{Net Asset Value} = \frac{\text{Replacement Value} - \text{Backlog}}{\text{Replacement Value}}$$

sightlines
a G⦿RDIAN company

52

289

ROPA+ Prediction

Aligning Capital Funding Sources With Need

Prediction

Dollars in Millions

- $1,200
- $1,000
- $800 — $525
- $600
- $400 — $349
- $200
- $0 — $227

Asset Reinvestment Need

- Modernization and Infrastructure
- Renewal Need
- Current Need

✓ Modernization and Infrastructure Needs
✓ Estimated using a combination of the Sightlines' database and BPS analyses.

✓ **Combination of Funds**

✓ Life Cycle Needs coming due between 2017-2026

✓ **"Keep-Up" Funds**

✓ Deferred Maintenance
✓ The subsystem has already failed
✓ The subsystem is functioning with substantial degradation of efficiency or performing at increased cost

✓ **"Catch-Up" Funds**

sightlines
a G⊕RDIAN company

55

292

Core Systems Needs Decrease, Modernization Needs Increase

Current and Renewal Need is 53% of total need, down from 57% in FY2016

FY2017 Prediction Need

FY2016 Prediction Need

■ Current Need ■ Renewal Need ■ Modernization and Infrastructure

sightlines
a G●RDIAN°company

56
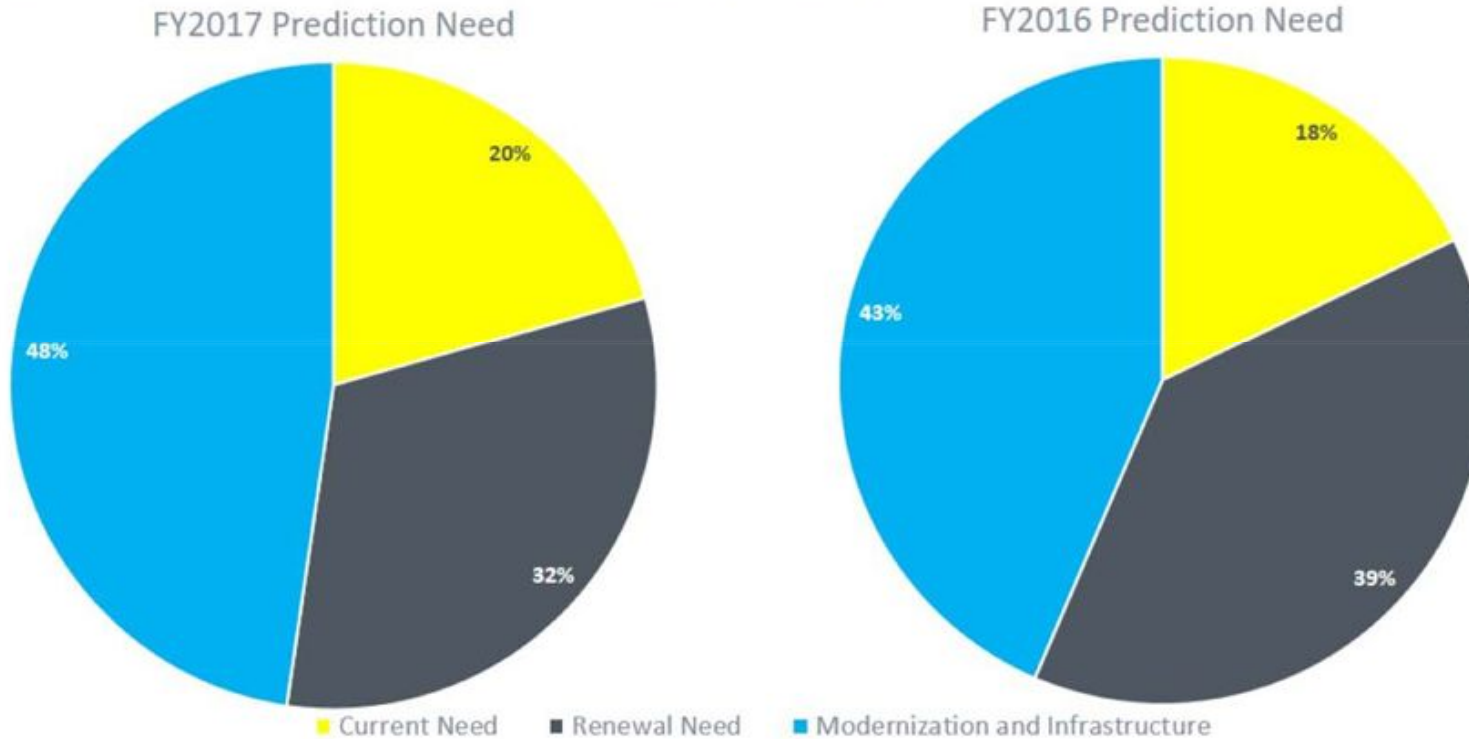
FY17 Total Current Need by System
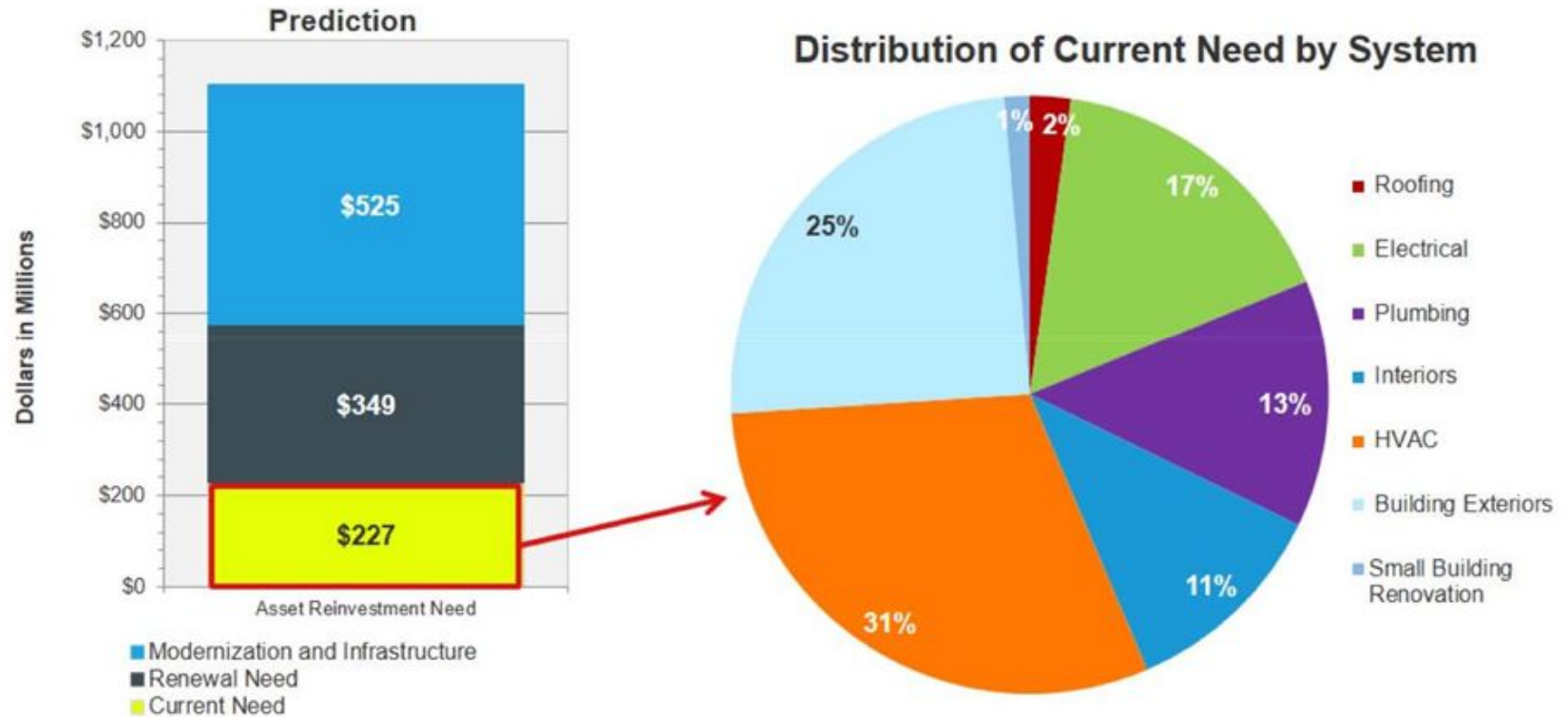
60% of Historical Investment Focused Towards Durable Projects

Stronger investment in mechanical work needed in future years

2006-2017 Historical Project Investment

- 15%
- 40%
- 45%
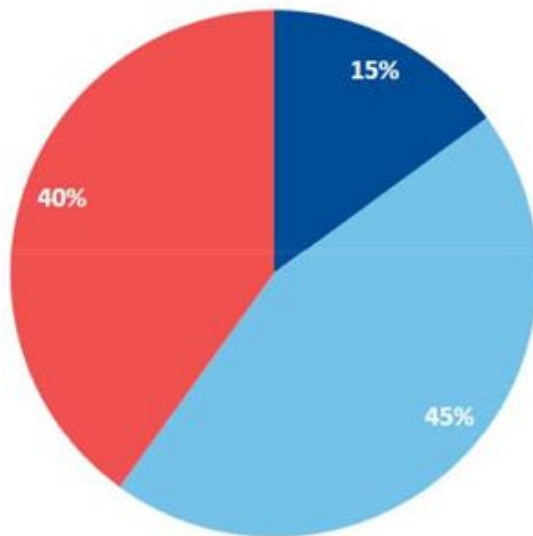
Distribution of Maine System Need* by System

- 18%
- 25%
- 57%
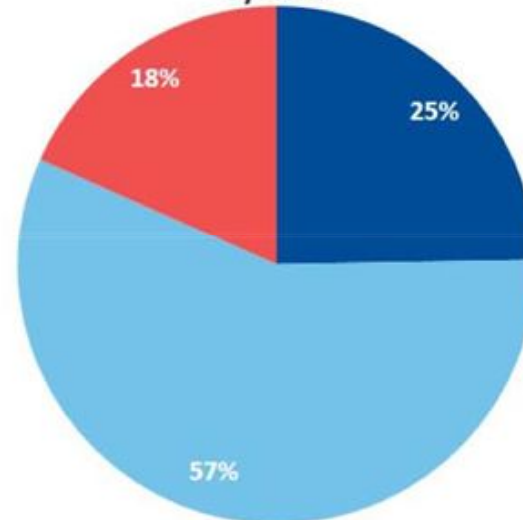
■ Envelope ■ Mechanical ■ Interiors

$234M Invested

$586M of Need

*Need includes backlog and renewal projects, not modernization or infrastructure work

58

sightlines
a G⊛RDIAN company

Strategic Roadmap to Achieve UMS Goals

Updated August 2017

Assumptions

- The values used are for removing buildings with a NAV of 60% or lower.
- The average backlog of these buildings is $139/GSF.

GSF Removed	Backlog Eliminated
100,000 GSF	$13.9M
200,000 GSF	$27.9M
300,000 GSF	$41.8M
400,000 GSF	$55.8M

- Student enrollment, faculty and staff counts remain stable with FY2016 data.
- The GSF reductions are net and assume the University will not increase space or will remove enough space to achieve net reductions of the amount as shown.

sightlines
a G❂RDIAN company

Removing GSF from the UMaine System Inventory

UMS – Net Asset Value

UMS – Density
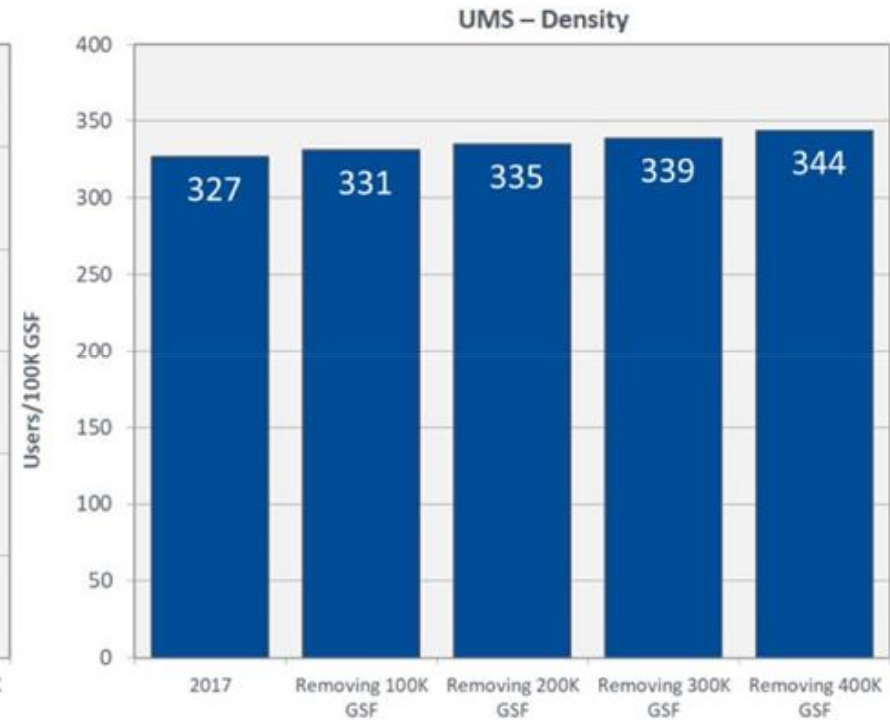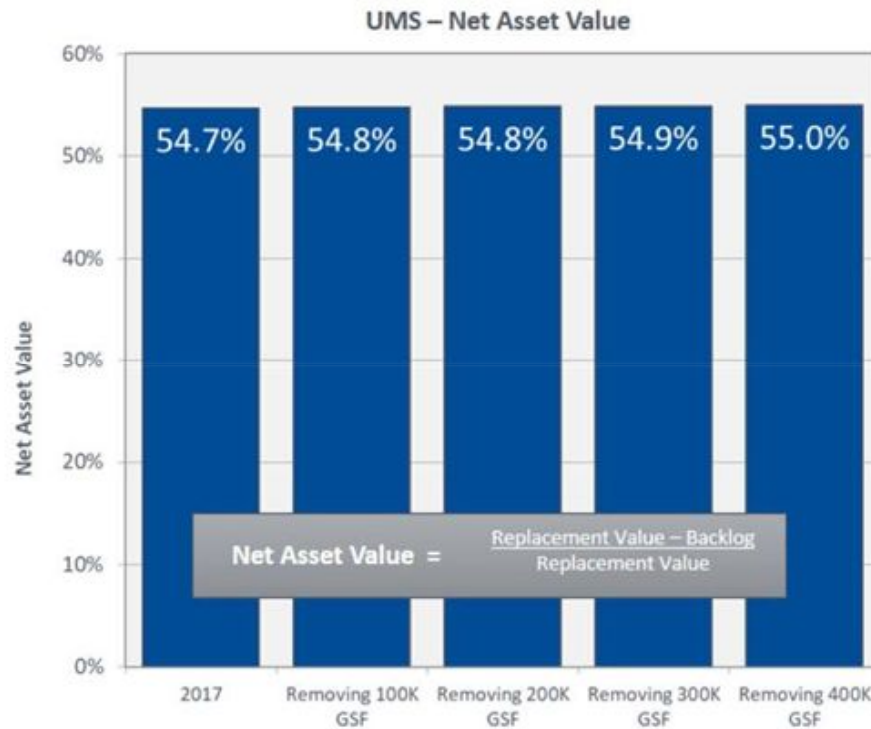
Concluding Comments

✓ **Strategically Keep Up and Catch Up**

- Explore individual building needs over time and strategically identify sequencing for major renovations.
- Buildings with needs coming due gradually over time should be "kept up," or stewarded. Buildings with large spikes of need should be "caught up," with non-critical life cycle projects intentionally deferred and then addressed with a major renovation.
- A large capital infusion will be needed to address all the needs coming due in the next 10 years.

✓ **Construct Building Portfolios**

- Create Building Portfolios to segregate those buildings that will be demolished or renovated to provide a clearer view of the stewardship needs for remaining inventory.

✓ **Understand Operating Performance**

- Given the new IWMS, develop system wide reports to track and monitor operating resources.
- Understand customer expectations through consistent customer satisfaction surveys.
- Work to align expectations to the available operating resources.

sightlines
a G⊕RDIAN company

62

★

299

Appendix: UMS Key
Performance Indicators

Using Sightlines Data to Monitor UMS KPIs

1. Density: Number of users	2. NAV: Net Asset Value	3. Capital Expenditures on Existing Space; %CRV
- Current UMS measure: 297 - Interim Goal: 332 - Peer/Industry standard: 460 - Long-term System goal: 415	- Current UMS measure: 59% - Interim Goal: 63.5% - Peer/Industry standard: 75% - Long-term System goal: 70%	- Current UMS measure: 1.88-2.34% - Peer/Industry standard: <1.5% - Periodic reporting recommended.
4. Annual Facilities Operating Expenses; *Maintenance, Custodial, Grounds, & Paid Utilities % GIR*	5. Total Cost of Ownership (TCO);	6. Energy Cost; *per GSF*
- Current UMS measure: 9.67% - At this time, there are no commonly accepted standards in this area. UMS will continue to track, report, & internally benchmark their progress.	UMS should formally consider lifetime cost of a facility and other KPIs in planning and decision making, not only one-time construction costs.	- Current UMS measure: $1.72 - Peer/Industry standard: $1.98 - Periodic reporting recommended.
7. Annual Facilities Operating Expenses; *Maintenance, Custodial, Grounds, & Paid Utilities % CRV*	8. Annual Facilities Operating Expenses; *Maintenance, Custodial, Grounds, & Paid Utilities per GSF*	9. Preventive Maintenance/ Demand Maintenance; *% Annual Expenditures*
- Current UMS measure: 2.89 - 3.60% - Peer/Industry standard: TBD - Periodic reporting recommended.	- Current UMS measure: $6.70 - Peer/Industry standard: $6.13 - Establishment of specific goals to be revisited in FY17.	- Current UMS measure: 3% - Peer/Industry standard: in evaluation - Establishment of specific goals to be revisited in FY17.
10. Coverage: FTE (Maintenance, Custodial, Grounds); *per GSF*	11. Energy Cost; *per Million BTUs*	12. Energy BTUs; *per GSF*
- Continue to monitor GSF/FTE ratios. - Strive to meet or exceed APPA/Sightlines benchmarks, i.e.: Custodial target zone: 29,213 – 37,000 GSF/FTE	- Current UMS measure: $17.73 - Peer/Industry standard: $19.00 - Periodic reporting recommended.	- Current UMS measure: 97,015 - Peer/Industry standard: 121,131 - Continue to meet/exceed peer/industry standards, strive to improve existing UMS performance, & establish specific goal for FY16.

sightlines
a G**O**RDIAN company

65

Density Factor

Density: Measures number of users per 100,00 GSF
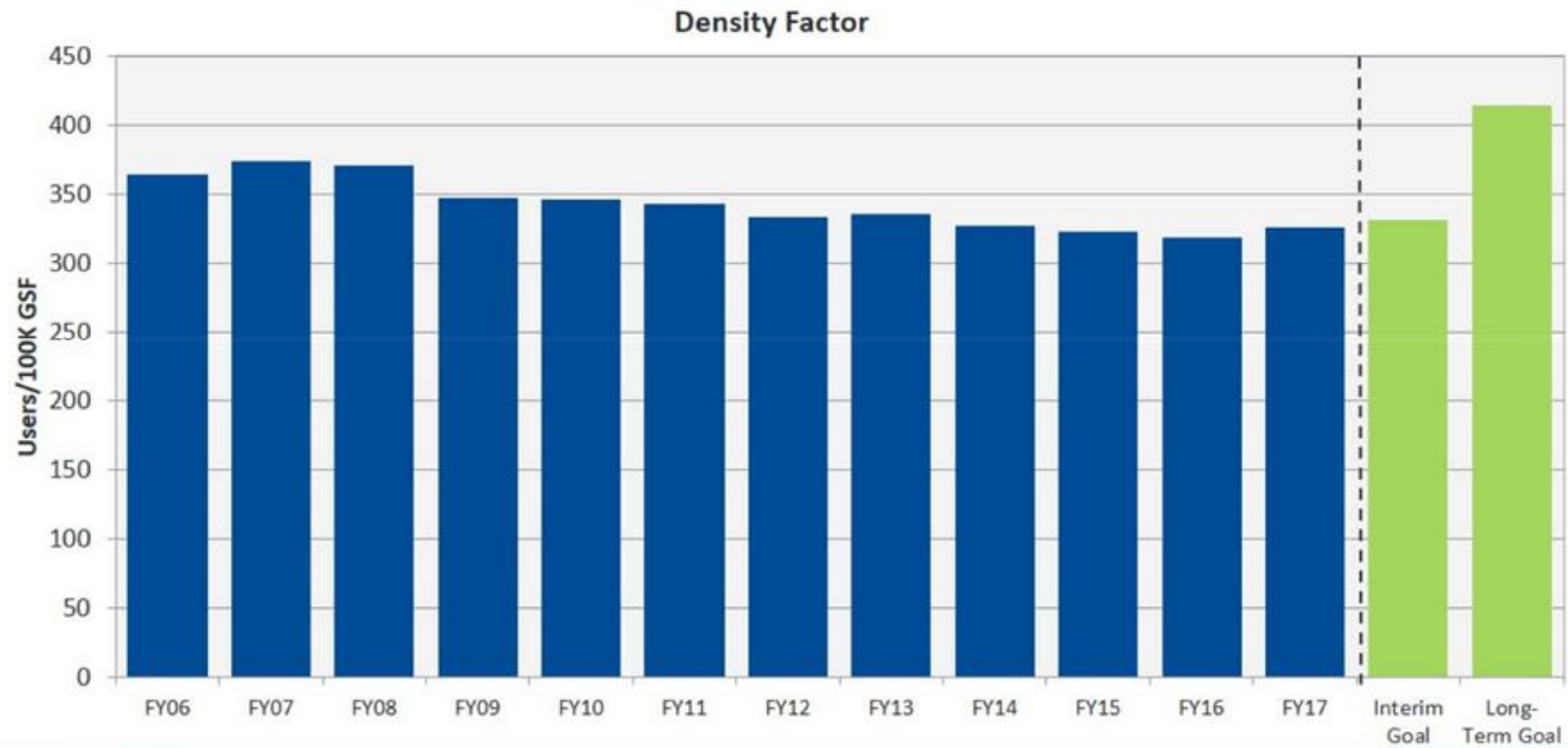
Net Asset Value
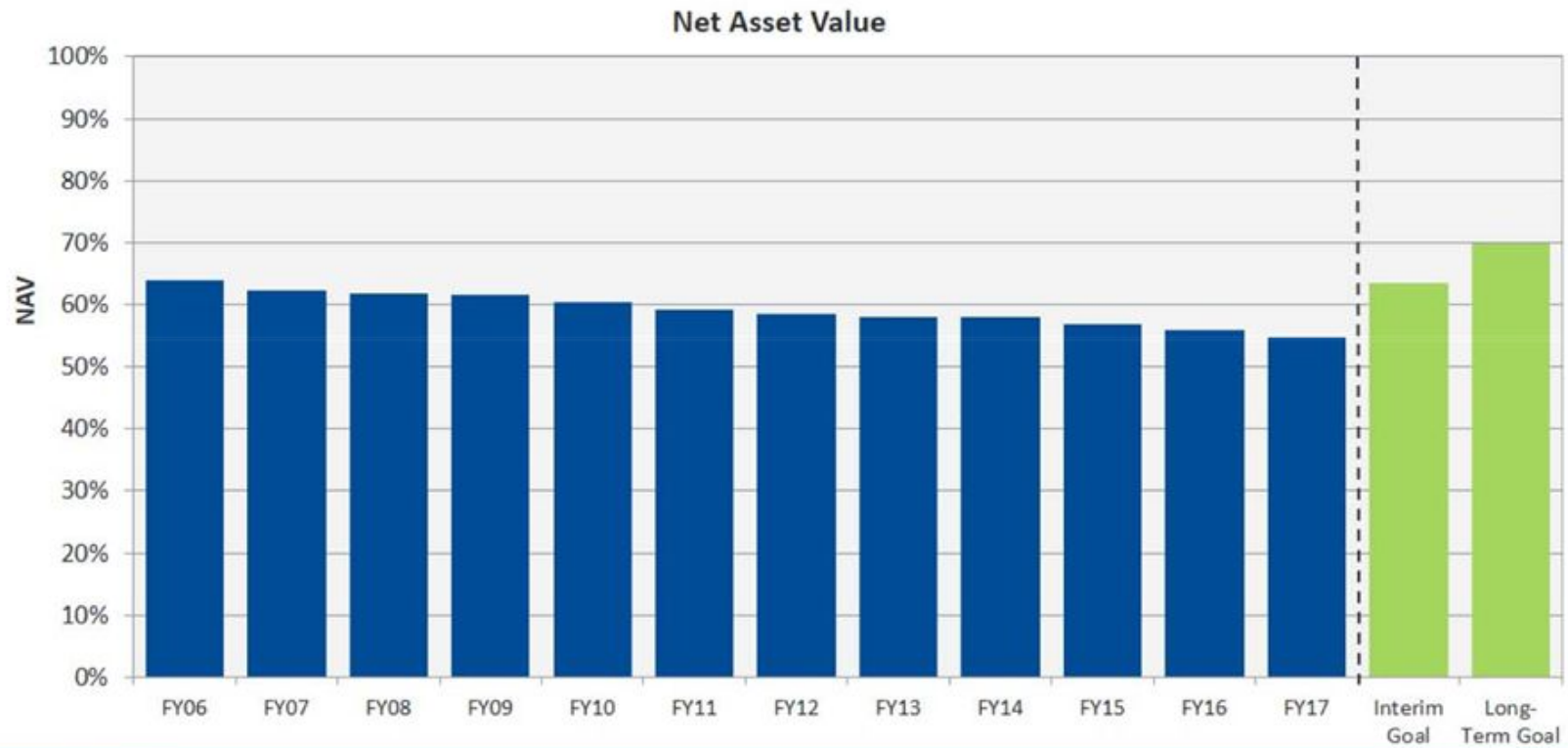
Facilities Operating Actuals as % of GIR

Maine System Facilities Operating Actuals - %GIR

sightlines
a G⊕RDIAN company
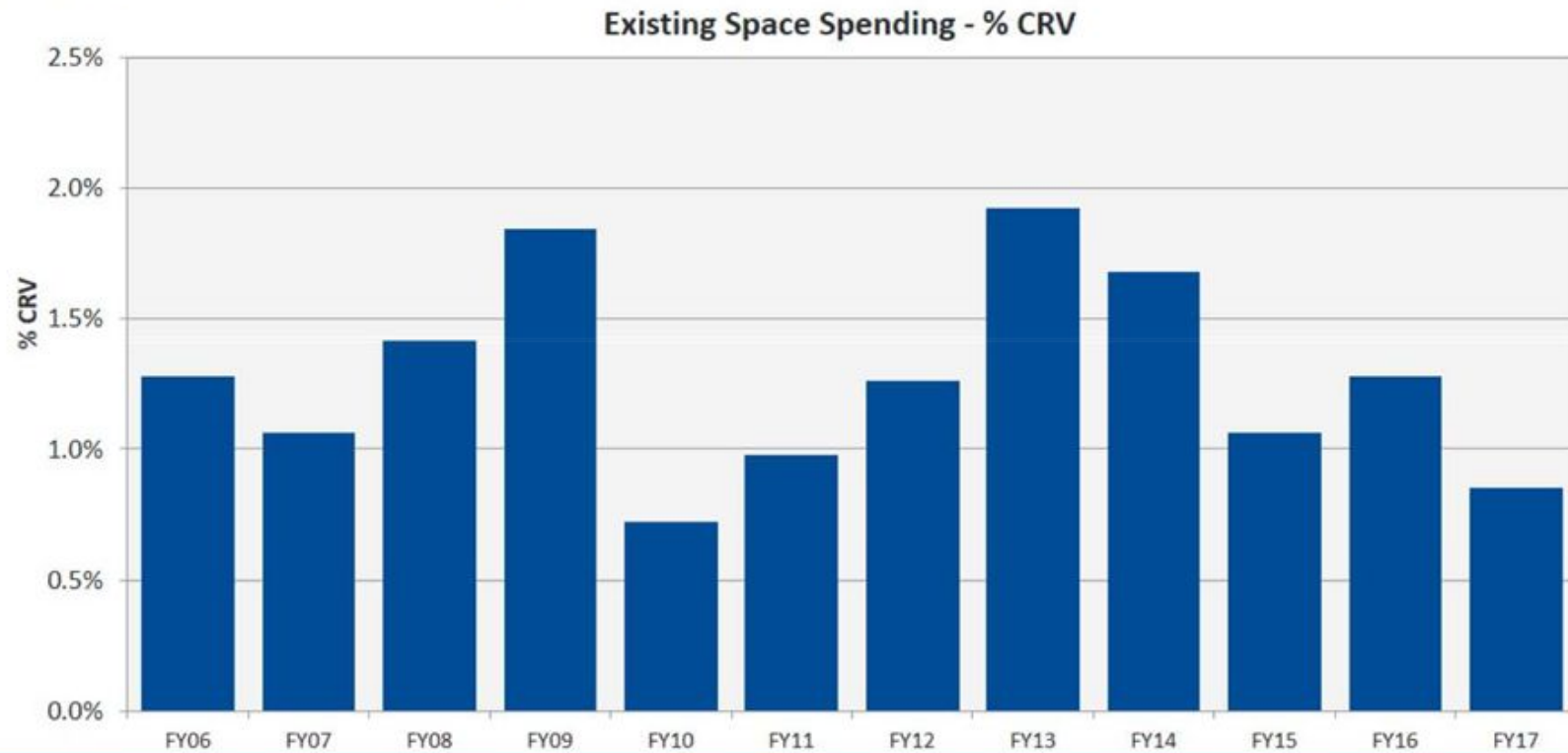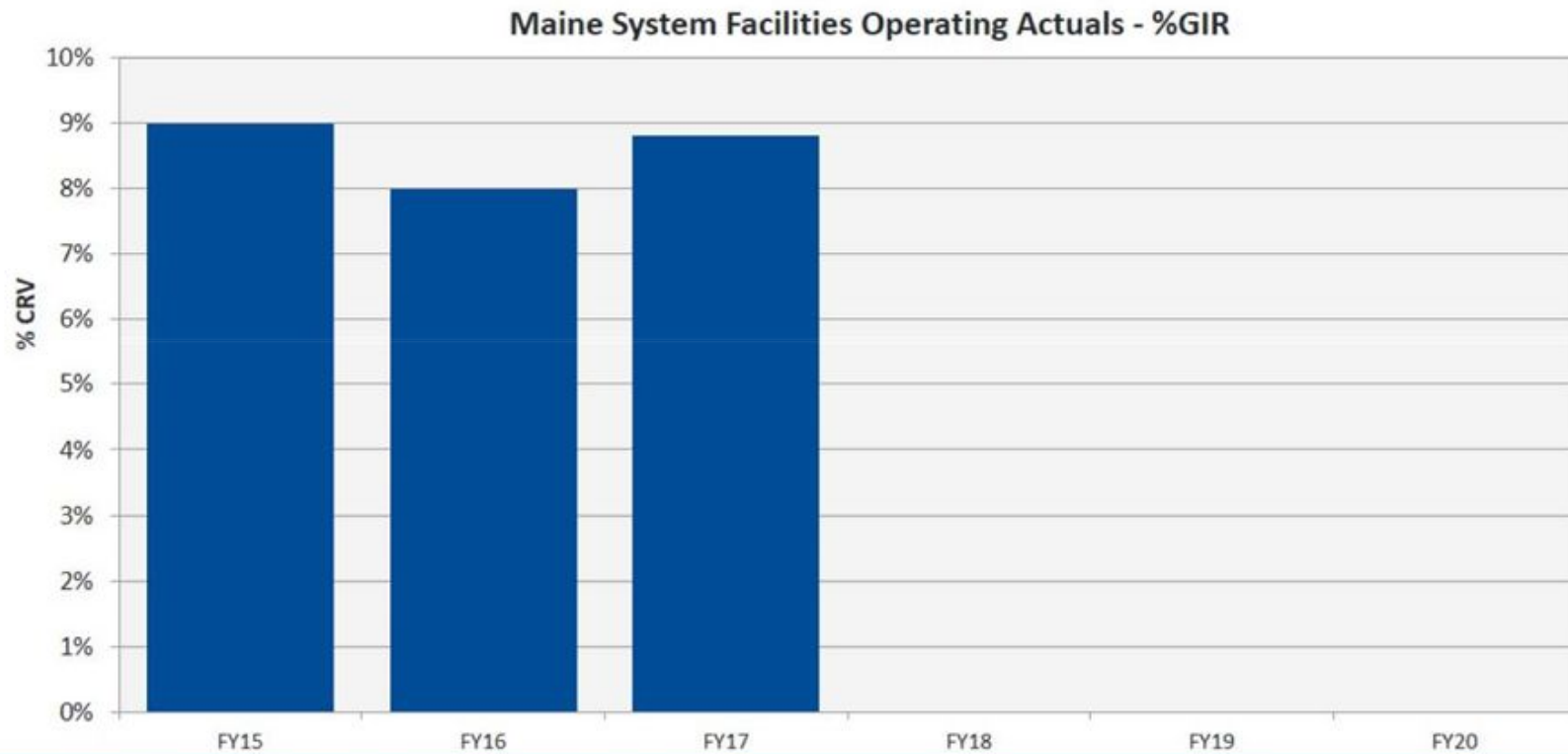
*This information will be tracked moving forward.

69

Energy Cost per GSF

Energy Cost per GSF

sightlines
a G⦿RDIAN company

70

Facilities Operating Actuals as % of CRV

Maine System Facilities Operating Actuals - %CRV

sightlines
a **GORDIAN** company

71
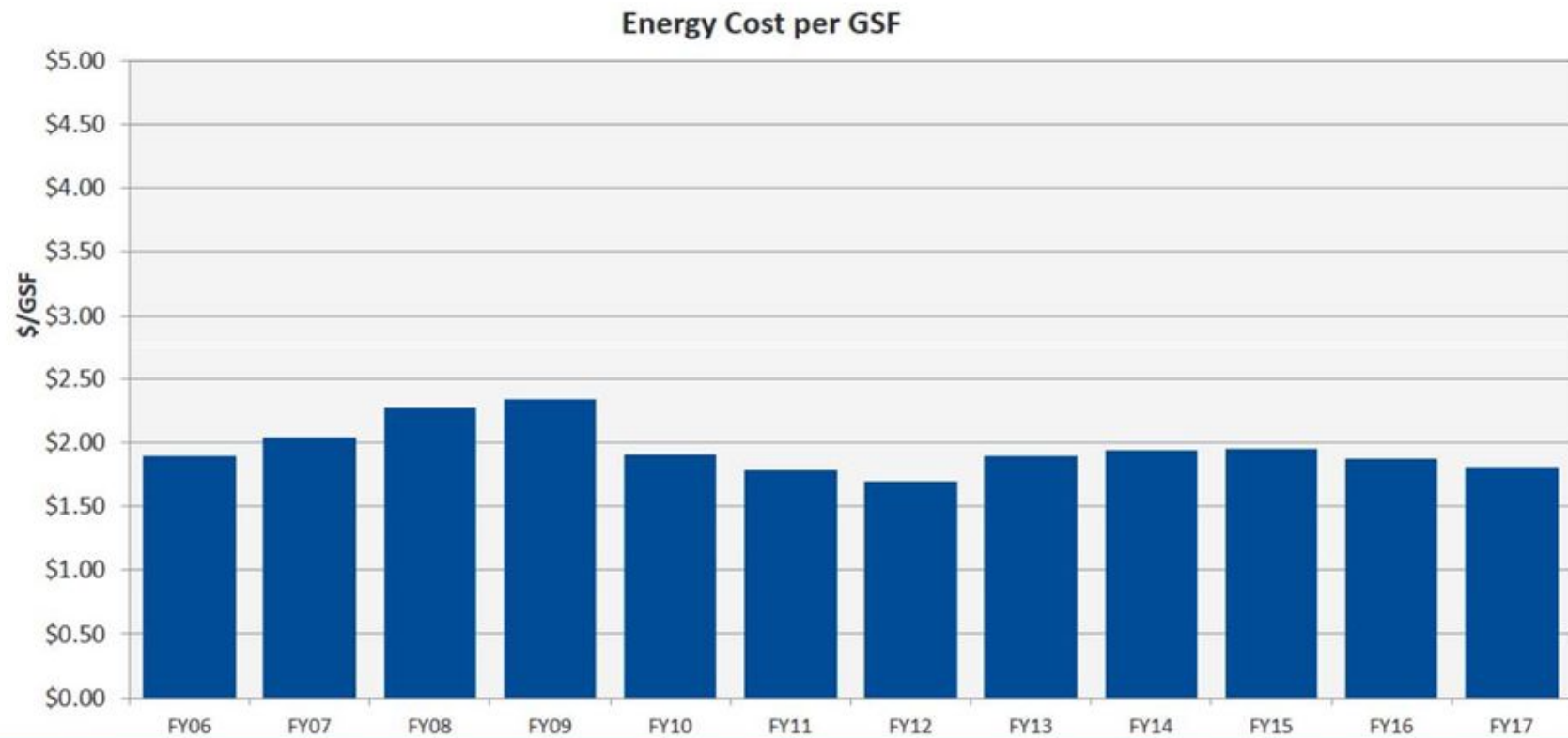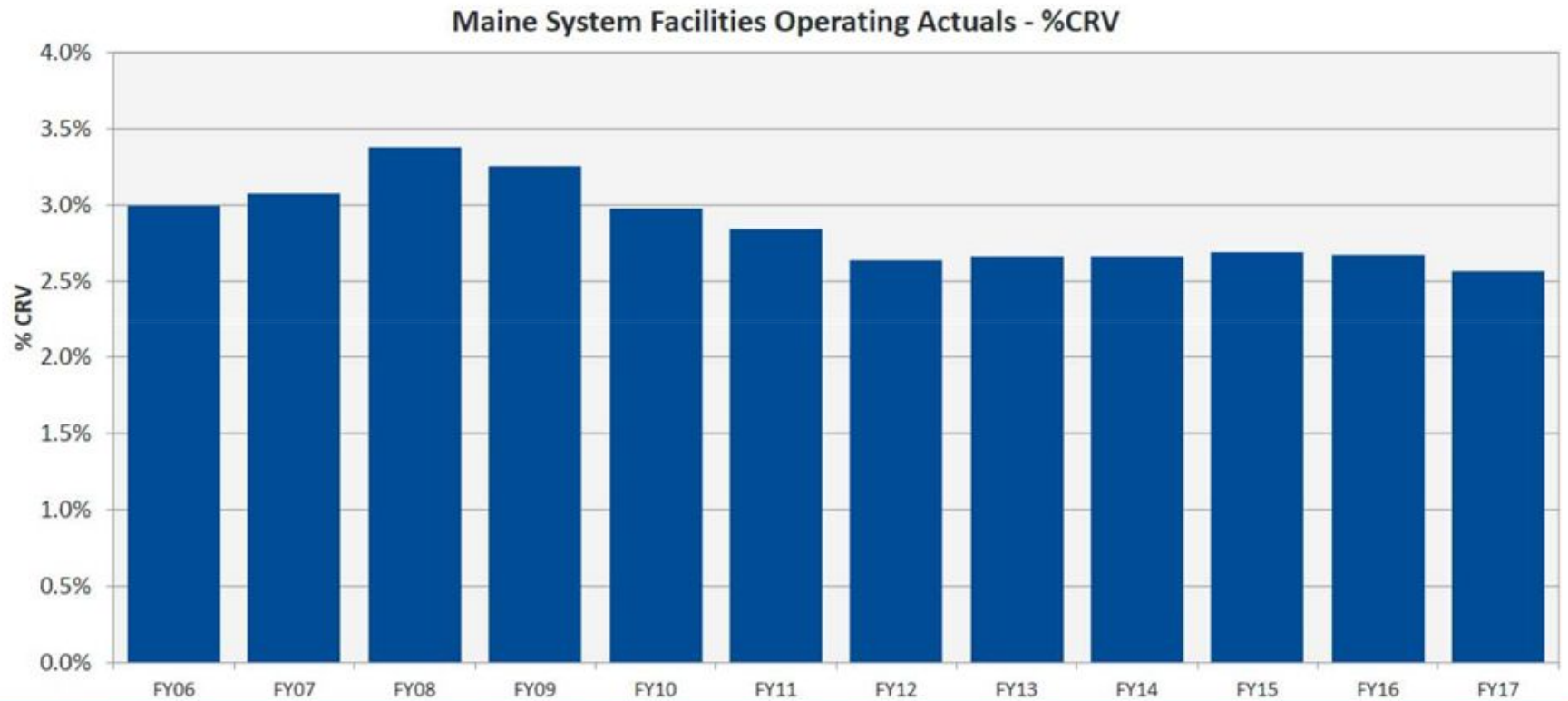
Facilities Operating Budget Actuals

Maine System Facilities Operating Actuals - $/GSF

Legend: Daily Service, Planned Maintenance, Utilities

sightlines
a G⊛RDIAN company

72

Planned Maintenance

Planned Maintenance - % of Budget
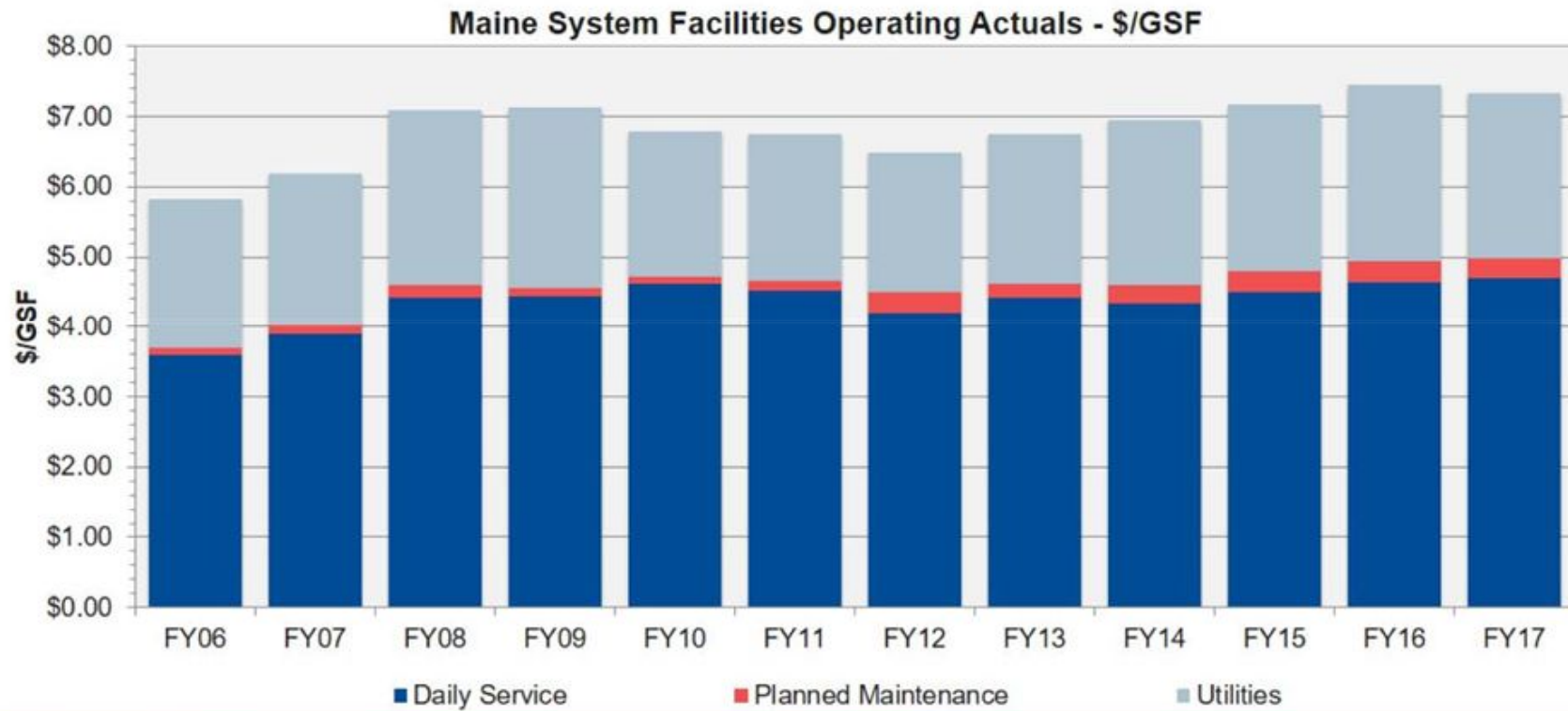
Maintenance Staffing
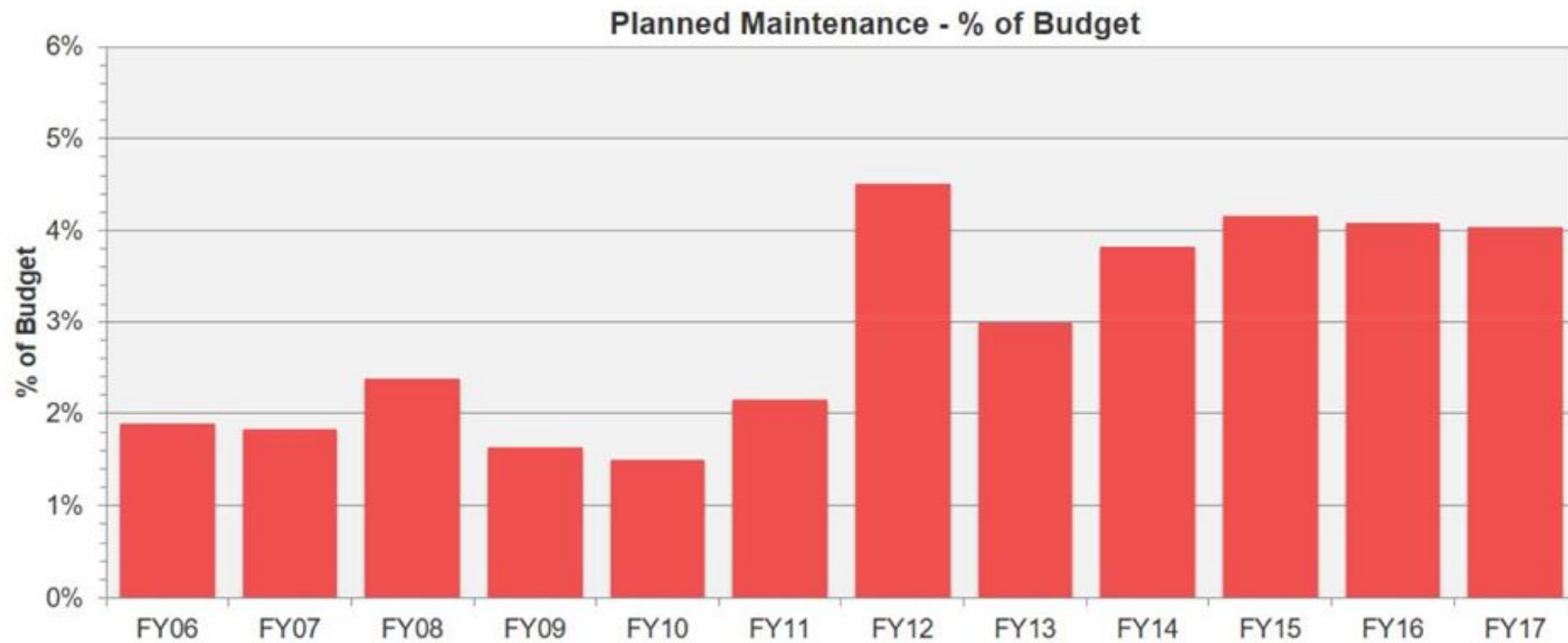
Maintenance Staffing

Custodial Staffing
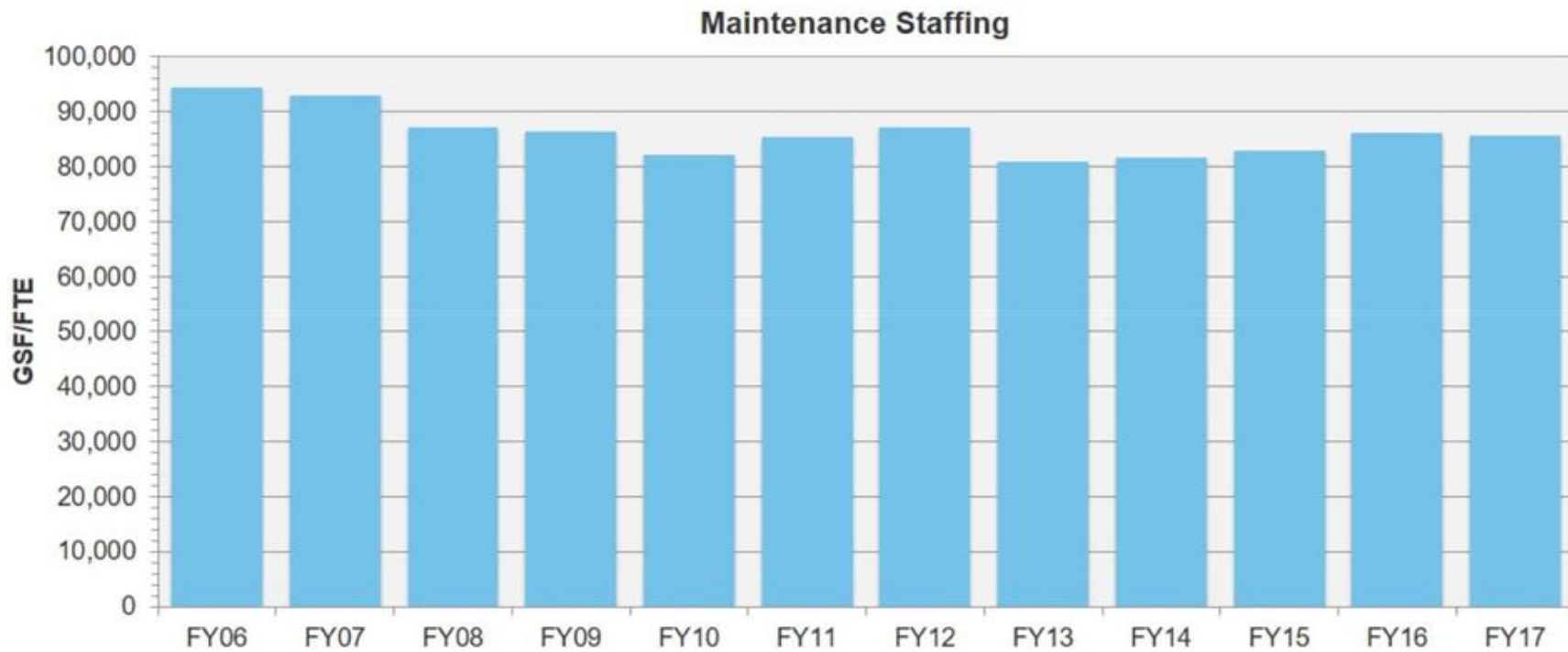
Custodial Staffing

Grounds Staffing

Energy Cost per MMBTU
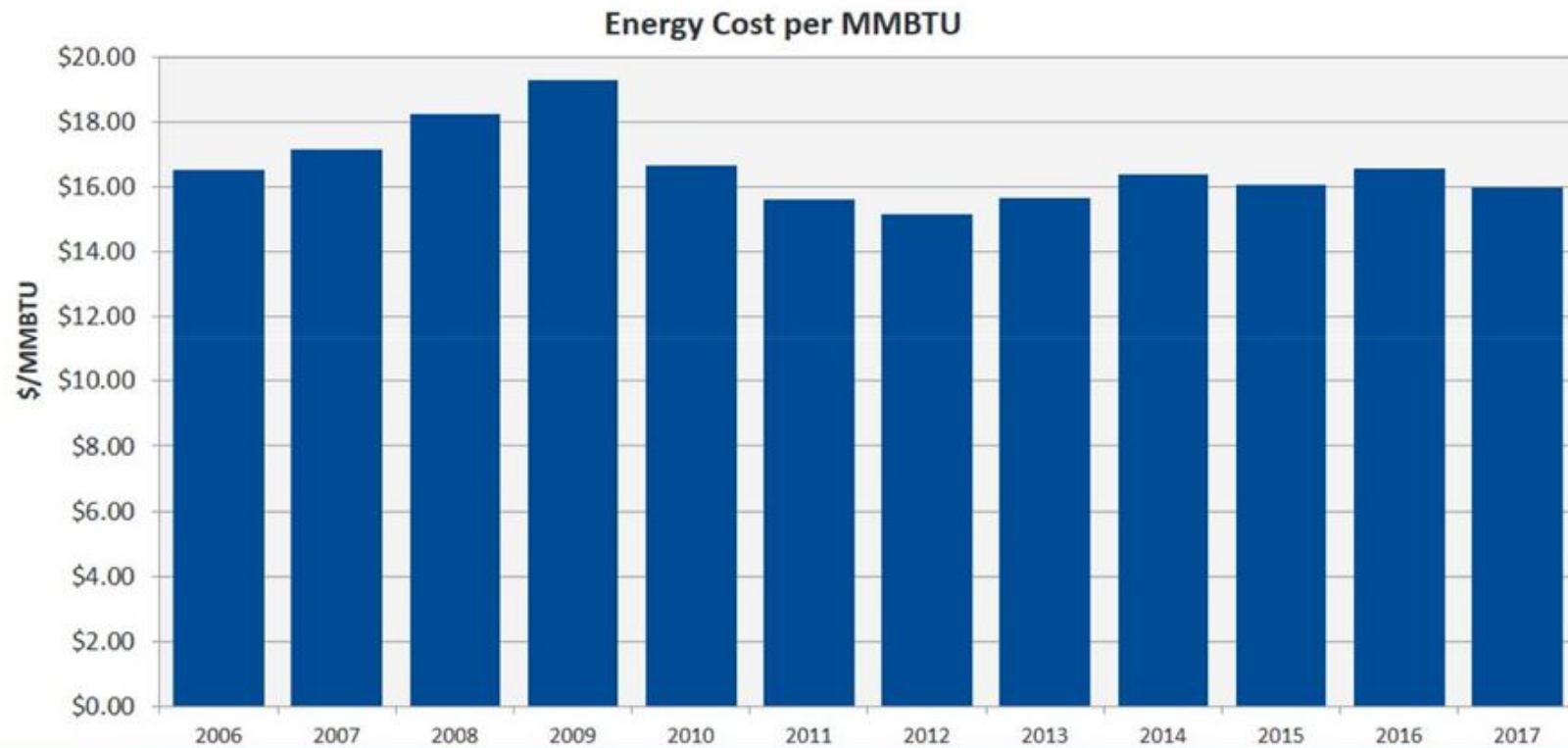
Energy Consumption

Fossil consumption stays at FY16 levels; electric also remains consistent

Energy Consumption

Fossil Fuels contain all heating fuel sources, including alternative sources (ie biomass, wood chips, etc.)

78
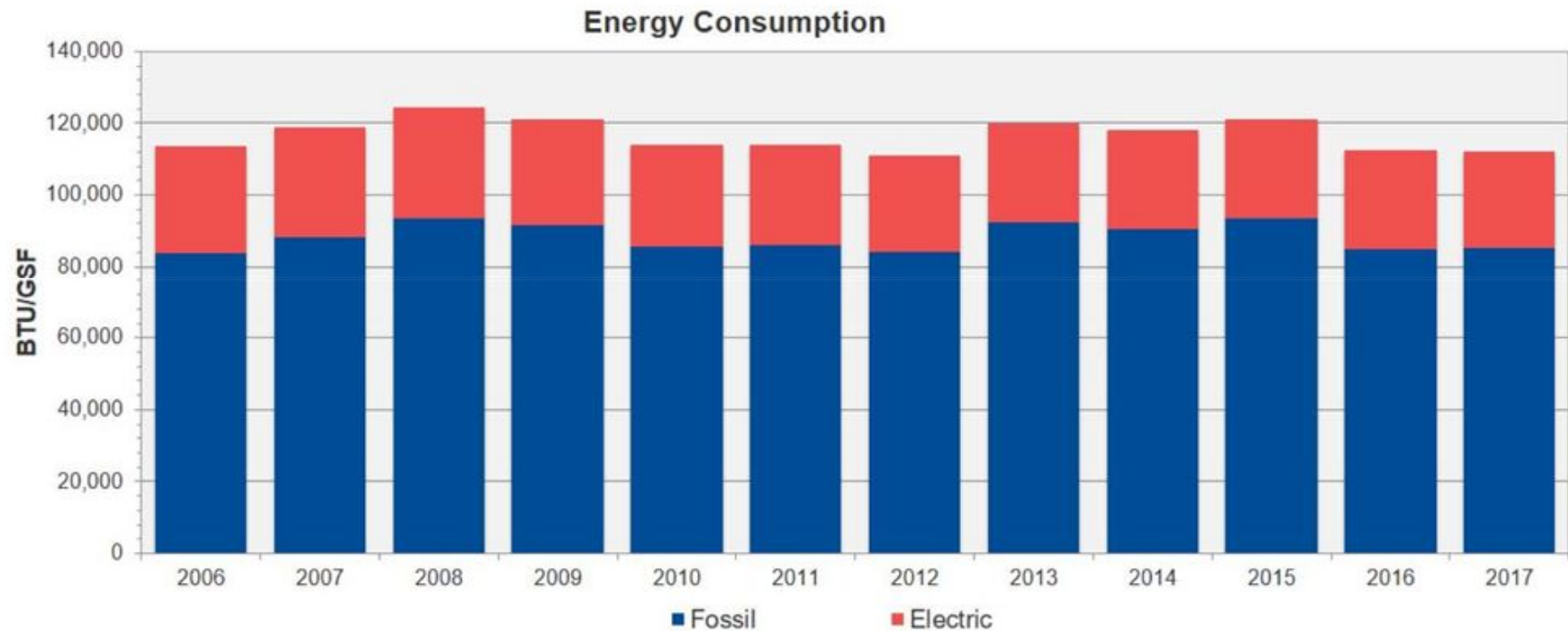
Emissions Summary

MTCDE/1,000 GSF — MTCDE/Student FTE

MTCDE = Metric Tons of Carbon Dioxide Equivalent

79

316
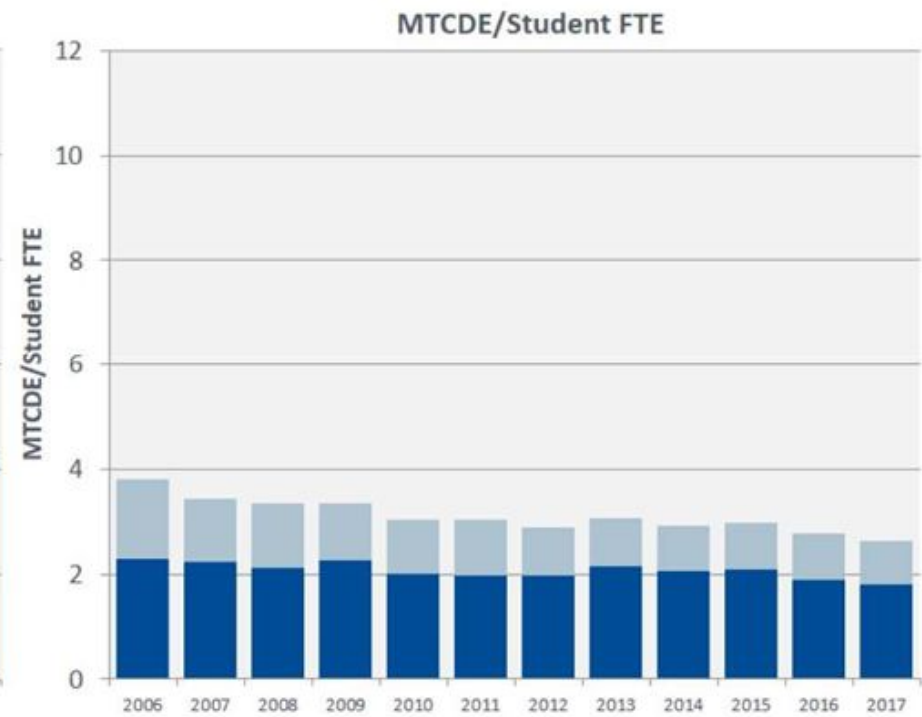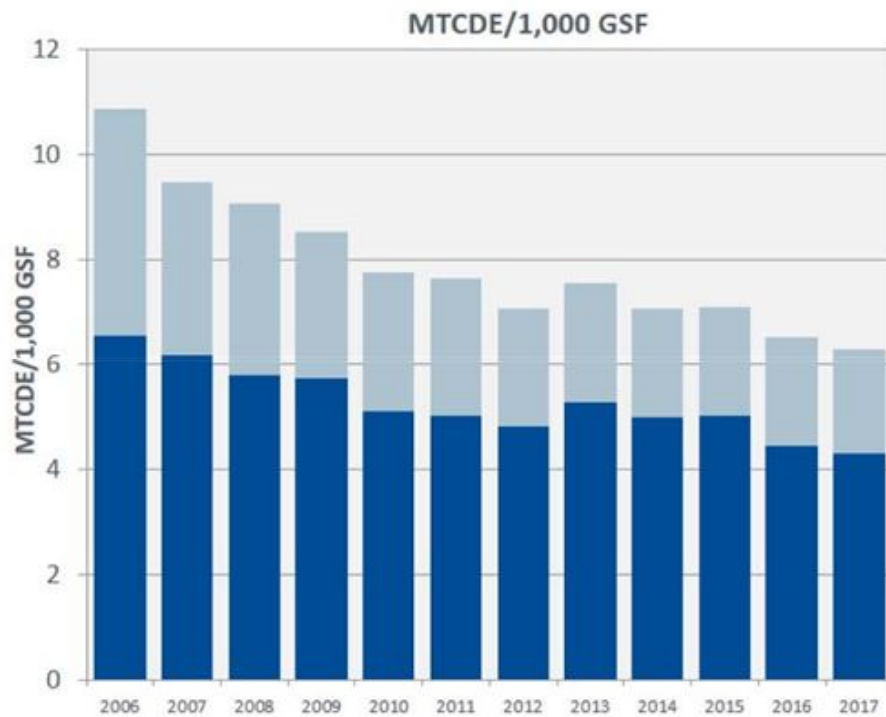
University of Maine System

Spring 2018 Enrollment Report

Robert Zuercher, UMS Senior Institutional Research & Planning Analyst
Justin Young, UMS Senior Institutional Research & Planning Analyst
February 22, 2018

Spring 2018 Enrollment Report – The University of Maine System

INTRODUCTION

The following report provides summary information regarding enrollment at the University of Maine System for the 2018 Spring Semester. All data reported is as of the census date, February 15, 2018.

Notes:
1. Some totals may not appear to sum correctly due to rounding (e.g., percentages).
2. USM graduate student figures include the University of Maine School of Law.

Data Source: PeopleSoft Database; the University of Maine System; 2/15/2018.

Spring 2018 Enrollment Report – The University of Maine System

TABLE OF CONTENTS

2

Spring 2018 Enrollment Report – The University of Maine System

HIGHLIGHTS

- Compared to Spring 2017, student credit hours saw an increase at the system level in Spring 2018. Undergraduate credit hours increased by 0.7%, while graduate credit hours increased by 5.1%. Increases in undergraduate student credit hours were largest at UMPI (10.4% higher than last spring), USM (2.6%), and UM (1.4%). Undergraduate credit hours declined compared to last spring at UMA (a drop of 5%), UMF (-1.3%), UMFK (-1.2%), and UMM (-5.0%). All institutions with graduate offerings saw increases in credit hours, ranging from a 36.9% increase at UMF (though such credits make up only 4.3% of their overall credit hours), a 6% increase at USM, and a 1.1% increase at UM.

- Overall Spring student credit hours remain below the levels seen five years ago, despite these one-year increases over last year. At the system level, undergraduate credit hours are 2.3% below their Spring 2014 levels, and graduate credit hours by 1.7%. Spring 2018 undergraduate credit hours are above their 2014 levels at UM (where they are 7.3% higher compared to five years prior) and UMFK (16.3% above, attributable in part to growth in Early College). Relative to Spring 2014, Spring 2018 graduate credit hours saw growth at UM (by 2.7%) and UMF (a 74% increase) and declined at USM by 7.7%.

- As a percentage of undergraduate student credit hours, those attributable to Early College now comprise 2.5% in Spring 2018. One year ago, Early College comprised just 1.8% of all undergraduate credit hours. In Spring of 2014, this figure was just 0.8% (2,104 credit hours, compared to 6,659 credit hours in Spring 2018). Put differently, Early College credit hours at the system level increased 38.9% over last spring, and 216.5% since Spring 2014.

- Changes in headcount as well as credit hours continue to be bifurcated between in-state and out-of-state. At the system level, credit hours among in-state students declined 2.2% since last spring and by 11.2% since Spring 2014. Among out-of-state students (who account for one fifth of all credit hours), student credit hours increased 16.5% since last spring and have grown by 52.4% in the past five years. Although credit hours attributable to NEBHE students fell by 2.8% over last spring, there is also five-year overall growth in the credit hours of NEBHE students (a 9.9% increase since Spring 2014).

- Women continue to comprise a larger share of the student population compared to men. At the graduate level, the headcount of women students increased by 4.9% over last spring (compared to an increase of 0.9% among men graduate students over a year ago). Compared to five years ago, the headcount of men graduate students has dropped by 7.6% but increased by 6.0% among women. The growth of women among graduate students mirror national enrollment trends.

- Over the past five years, enrollment among White students declined by 3.6%, and enrollments among American Indian/Alaskan Native dropped by 24.2%. At the same time, enrollments among Black/African American students increased by more than a third (34.4%) compared to five years ago, and by 11% among Asian students. Enrollments among Hispanic students increased by 48.7% since Spring 2014, and those who identified as two or more races saw an increase in enrollment 32.6% higher compared to five years ago.

- Distance Online credit hours continue to increase; over the past five Spring terms, they have increased by 27.6%. In Spring 2018, Distance Online credit hours comprised 91.4% of all Distance Education credit hours and 21.7% of all credit hours.

3

Spring 2018 Enrollment Report – The University of Maine System

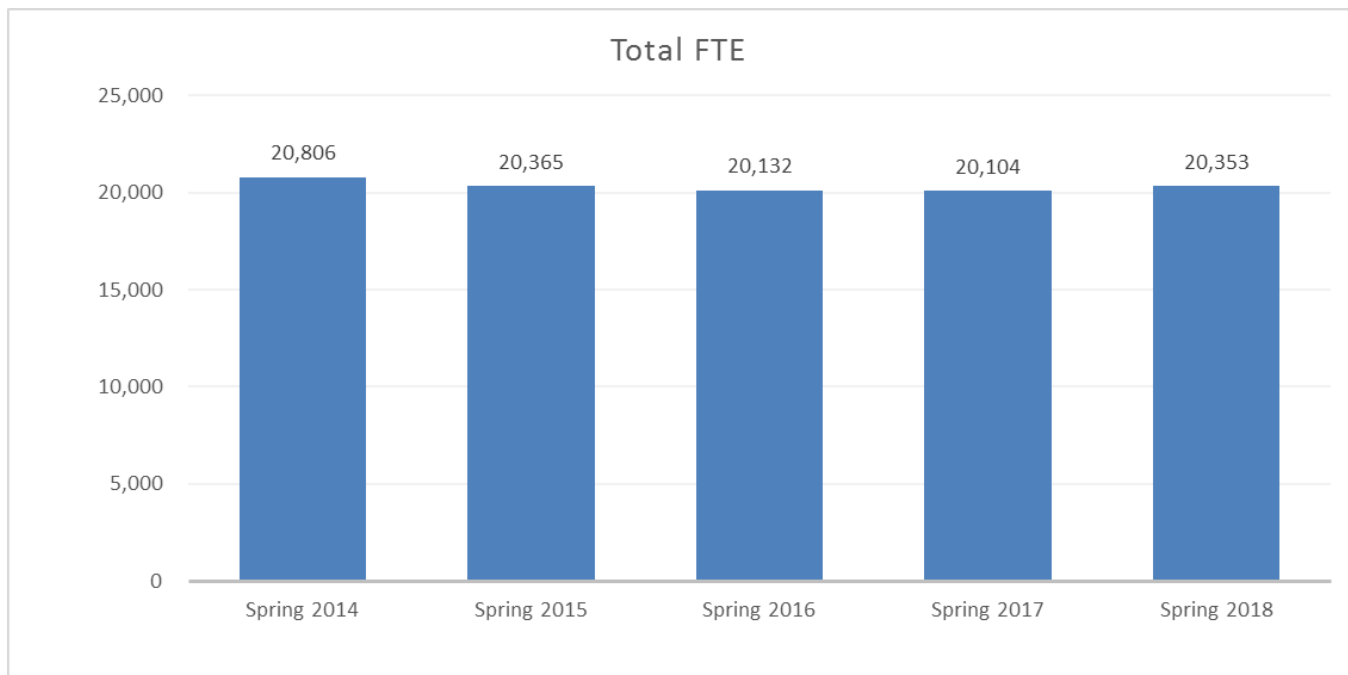**Headcount by Institution and Student Level**

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	Undergraduate	8,538	8,654	8,648	8,623	8,696	82.5%	0.8%	1.9%	
	Graduate	1,763	1,678	1,676	1,851	1,846	17.5%	-0.3%	4.7%	
	Total	**10,301**	**10,332**	**10,324**	**10,474**	**10,542**	**100.0%**	**0.6%**	**2.3%**	
UMA	Undergraduate	4,603	4,426	4,443	4,041	3,820	100.0%	-5.5%	-17.0%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**4,603**	**4,426**	**4,443**	**4,041**	**3,820**	**100.0%**	**-5.5%**	**-17.0%**	
UMF	Undergraduate	1,789	1,672	1,674	1,662	1,633	88.3%	-1.7%	-8.7%	
	Graduate	186	194	222	233	327	11.7%	40.3%	75.8%	
	Total	**1,975**	**1,866**	**1,896**	**1,895**	**1,960**	**100.0%**	**3.4%**	**-0.8%**	
UMFK	Undergraduate	1,058	1,240	1,402	1,494	1,482	100.0%	-0.8%	40.1%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**1,058**	**1,240**	**1,402**	**1,494**	**1,482**	**100.0%**	**-0.8%**	**40.1%**	
UMM	Undergraduate	800	779	715	716	675	100.0%	-5.7%	-15.6%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**800**	**779**	**715**	**716**	**675**	**100.0%**	**-5.7%**	**-15.6%**	
UMPI	Undergraduate	1,186	1,049	1,078	1,148	1,282	100.0%	11.7%	8.1%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**1,186**	**1,049**	**1,078**	**1,148**	**1,282**	**100.0%**	**11.7%**	**8.1%**	
USM	Undergraduate	6,244	5,776	5,511	5,552	5,562	77.2%	0.2%	-10.9%	
	Graduate	1,873	1,763	1,632	1,654	1,701	22.8%	2.8%	-9.2%	
	Total	**8,117**	**7,539**	**7,143**	**7,206**	**7,263**	**100.0%**	**0.8%**	**-10.5%**	
Total	**Undergraduate**	**24,218**	**23,596**	**23,471**	**23,236**	**23,150**	**85.7%**	**-0.4%**	**-4.4%**	
	Graduate	**3,822**	**3,635**	**3,530**	**3,738**	**3,874**	**14.3%**	**3.6%**	**1.4%**	
	Total	***28,040***	***27,231***	***27,001***	***26,974***	***27,024***	***100.0%***	***0.2%***	***-3.6%***	

Total Headcount

Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018
28,040	27,231	27,001	26,974	27,024

4
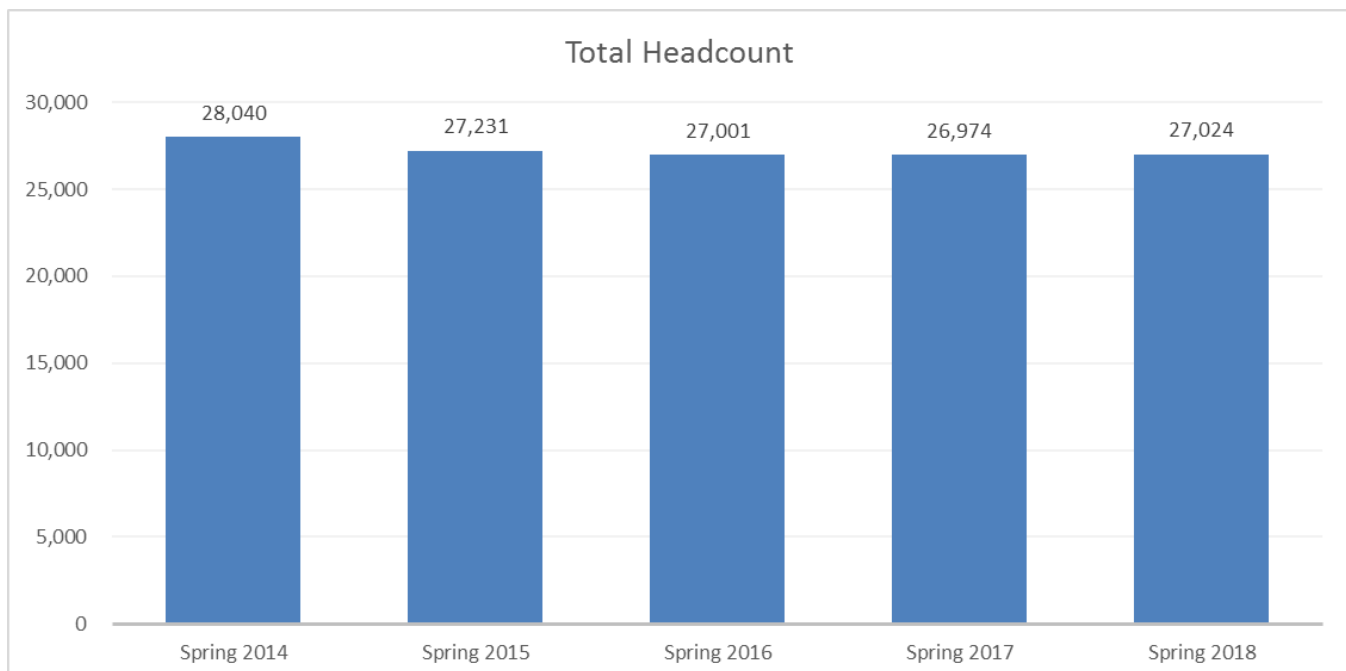
Spring 2018 Enrollment Report – The University of Maine System

FTE by Institution and Student Level

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
								1-year	5-year	
UM	Undergraduate	7,563	7,704	7,837	8,001	8,112	88.8%	1.4%	7.3%	
	Graduate	992	994	979	1,007	1,019	11.2%	1.2%	2.7%	
	Total	**8,555**	**8,699**	**8,817**	**9,008**	**9,131**	**100.0%**	**1.4%**	**6.7%**	
UMA	Undergraduate	2,592	2,481	2,463	2,167	2,059	100.0%	-5.0%	-20.5%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**2,592**	**2,481**	**2,463**	**2,167**	**2,059**	**100.0%**	**-5.0%**	**-20.5%**	
UMF	Undergraduate	1,633	1,537	1,522	1,522	1,502	92.6%	-1.3%	-8.0%	
	Graduate	69	70	87	88	121	7.4%	37.1%	74.0%	
	Total	**1,702**	**1,607**	**1,609**	**1,611**	**1,623**	**100.0%**	**0.7%**	**-4.7%**	
UMFK	Undergraduate	705	748	818	830	820	100.0%	-1.2%	16.3%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**705**	**748**	**818**	**830**	**820**	**100.0%**	**-1.2%**	**16.3%**	
UMM	Undergraduate	513	497	471	456	433	100.0%	-5.0%	-15.5%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**513**	**497**	**471**	**456**	**433**	**100.0%**	**-5.0%**	**-15.5%**	
UMPI	Undergraduate	801	717	709	722	797	100.0%	10.4%	-0.4%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**801**	**717**	**709**	**722**	**797**	**100.0%**	**10.4%**	**-0.4%**	
USM	Undergraduate	4,505	4,215	3,986	4,062	4,166	75.9%	2.6%	-7.5%	
	Graduate	1,432	1,402	1,260	1,249	1,323	24.1%	5.9%	-7.6%	
	Total	**5,937**	**5,617**	**5,246**	**5,311**	**5,489**	**100.0%**	**3.3%**	**-7.6%**	
Total	**Undergraduate**	**18,312**	**17,899**	**17,806**	**17,760**	**17,890**	**87.9%**	**0.7%**	**-2.3%**	
	Graduate	**2,494**	**2,466**	**2,326**	**2,344**	**2,463**	**12.1%**	**5.1%**	**-1.2%**	
	Total	*20,806*	*20,365*	*20,132*	*20,104*	*20,353*	*100.0%*	*1.2%*	*-2.2%*	

Note: The formula for calculating Fall FTE (for all institutions except UMF starting in Fall 2006) is as follows:
Fall Undergraduate Credit Hours/15 + Fall Professional (Law) Credit Hours/15 + Fall Graduate Credit Hours/9 = Fall FTE +
UMF: Fall Undergraduate Credit Hours/16 + Fall Graduate Credit Hours/9 = Fall FTE

5

Spring 2018 Enrollment Report – The University of Maine System

Credit Hours by Institution and Student Level

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	5-year	Trend Line
UM	Undergraduate	113,446	115,562	117,561	120,010	121,684	93.0%	1.4%	7.3%	
	Graduate	8,931	8,950	8,814	9,066	9,170	7.0%	1.1%	2.7%	
	Total	**122,377**	**124,511**	**126,374**	**129,076**	**130,854**	**100.0%**	**1.4%**	**6.9%**	
UMA	Undergraduate	38,877	37,211	36,940	32,504	30,888	100.0%	-5.0%	-20.5%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**38,877**	**37,211**	**36,940**	**32,504**	**30,888**	**100.0%**	**-5.0%**	**-20.5%**	
UMF	Undergraduate	26,128	24,590	24,358	24,359	24,031	95.7%	-1.3%	-8.0%	
	Graduate	624	628	781	793	1,086	4.3%	36.9%	74.0%	
	Total	**26,752**	**25,218**	**25,139**	**25,152**	**25,117**	**100.0%**	**-0.1%**	**-6.1%**	
UMFK	Undergraduate	10,578	11,221	12,266	12,450	12,298	100.0%	-1.2%	16.3%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**10,578**	**11,221**	**12,266**	**12,450**	**12,298**	**100.0%**	**-1.2%**	**16.3%**	
UMM	Undergraduate	7,696	7,448	7,059	6,843	6,501	100.0%	-5.0%	-15.5%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**7,696**	**7,448**	**7,059**	**6,843**	**6,501**	**100.0%**	**-5.0%**	**-15.5%**	
UMPI	Undergraduate	12,010	10,761	10,641	10,826	11,957	100.0%	10.4%	-0.4%	
	Graduate	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**12,010**	**10,761**	**10,641**	**10,826**	**11,957**	**100.0%**	**10.4%**	**-0.4%**	
USM	Undergraduate	67,579	63,226	59,792	60,931	62,489	82.5%	2.6%	-7.5%	
	Graduate	14,387	13,981	12,674	12,528	13,283	17.5%	6.0%	-7.7%	
	Total	**81,966**	**77,207**	**72,465**	**73,459**	**75,772**	**100.0%**	**3.1%**	**-7.6%**	
Total	**Undergraduate**	**276,313**	**270,019**	**268,616**	**267,922**	**269,848**	**92.0%**	**0.7%**	**-2.3%**	
	Graduate	**23,942**	**23,558**	**22,268**	**22,386**	**23,539**	**8.0%**	**5.1%**	**-1.7%**	
	Total	*300,255*	*293,577*	*290,884*	*290,308*	*293,386*	*100.0%*	*1.1%*	*-2.3%*	

Total Credit Hours

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018
	300,255	293,577	290,884	290,308	293,386

6
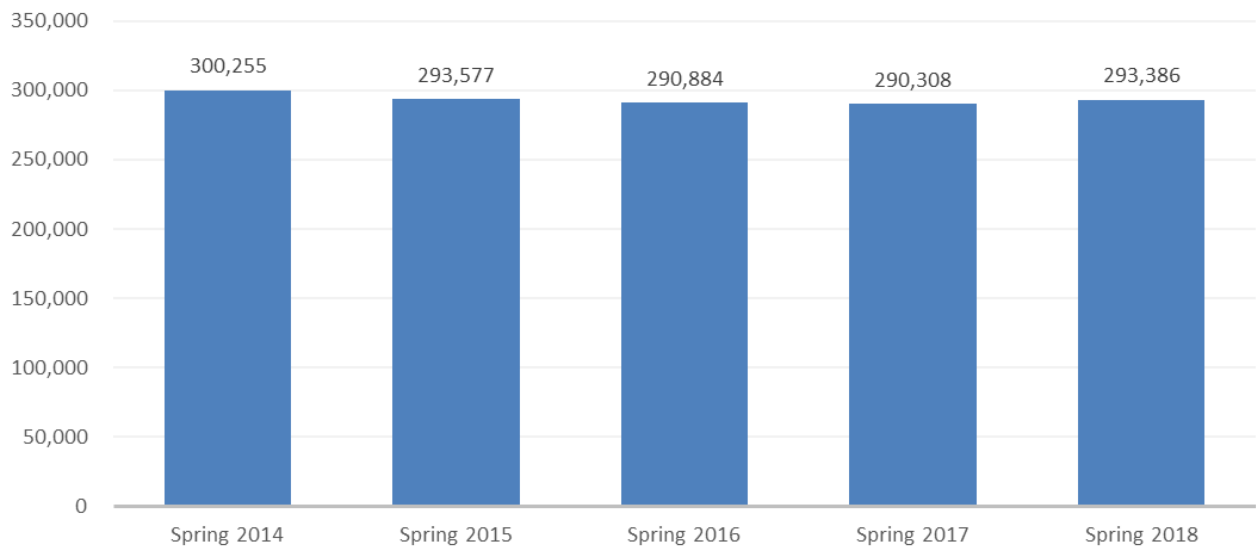
Spring 2018 Enrollment Report – The University of Maine System

Spring 2018 Early College Students by Institution and Primary Academic Plan

	Primary Academic Plan	Head Count	% Total Underg	FTE	% Total Underg	Credit Hours	% Total Underg
UM	Academ-e	135	1.6%	32.0	0.4%	480	0.4%
	Aspirations	13	0.1%	3.9	0.0%	59	0.0%
	UM Early College Total	**148**	**1.7%**	**35.9**	**0.4%**	**539**	**0.4%**
	UM Undergraduate Total	**8,696**	**100.0%**	**8,112.3**	**100.0%**	**121,684**	**100.0%**
UMA	Aspirations	236	6.2%	59.9	2.9%	899	2.9%
	Bridge-Year	17	0.4%	3.6	0.2%	54	0.2%
	UMA Early College Total	**253**	**6.6%**	**63.5**	**3.1%**	**953**	**3.1%**
	UMA Undergraduate Total	**3,820**	**100.0%**	**2,059.2**	**100.0%**	**30,888**	**100.0%**
UMF	Aspirations	5	0.3%	2.8	0.2%	44	0.2%
	UMF Early College Total	**5**	**0.3%**	**2.8**	**0.2%**	**44**	**0.2%**
	UMF Undergraduate Total	**1,633**	**100.0%**	**1,501.9**	**100.0%**	**24,031**	**100.0%**
UMFK	Aspirations	208	14.0%	63.7	7.8%	955	7.8%
	Dual Enrollment	237	16.0%	53.1	6.5%	797	6.5%
	UMFK Early College Total	**445**	**30.0%**	**116.8**	**14.2%**	**1,752**	**14.2%**
	UMFK Undergraduate Total	**1,482**	**100.0%**	**819.9**	**100.0%**	**12,298**	**100.0%**
UMM	Aspirations	70	10.4%	16.0	3.7%	240	3.7%
	UMM Early College Total	**70**	**10.4%**	**16.0**	**3.7%**	**240**	**3.7%**
	UMM Undergraduate Total	**675**	**100.0%**	**433.4**	**100.0%**	**6,501**	**100.0%**
UMPI	Aspirations	52	4.1%	13.1	1.6%	196	1.6%
	Dual Enrollment	322	25.1%	127.5	16.0%	1,913	16.0%
	UMPI Early College Total	**374**	**29.2%**	**140.6**	**17.6%**	**2,109**	**17.6%**
	UMPI Undergraduate Total	**1,282**	**100.0%**	**797.1**	**100.0%**	**11,957**	**100.0%**
USM	Aspirations	133	2.4%	38.5	0.9%	578	0.9%
	Dual Enrollment	103	1.9%	29.6	0.7%	444	0.7%
	USM Early College Total	**236**	**4.2%**	**68.1**	**1.6%**	**1,022**	**1.6%**
	USM Undergraduate Total	**5,562**	**100.0%**	**4,165.9**	**100.0%**	**62,489**	**100.0%**
Total	**Academ-e**	**135**	**0.6%**	**32.0**	**0.2%**	**480**	**0.2%**
	Aspirations	**717**	**3.1%**	**197.9**	**1.1%**	**2,971**	**1.1%**
	Bridge-Year	**17**	**0.1%**	**3.6**	**0.0%**	**54**	**0.0%**
	Dual Enrollment	**662**	**2.9%**	**210.3**	**1.2%**	**3,154**	**1.2%**
	Total Early College	*1,531*	*6.6%*	*443.7*	*2.5%*	*6,659*	*2.5%*
	Total Undergraduate	*23,150*	*100.0%*	*17,889.7*	*100.0%*	*269,848*	*100.0%*

Notes:
1. Early college majors obtained by academic plan.
2. Early college students appearing in both the aspirations and dual enrollment categories count as aspirations for the purpose of this analysis.

7

Spring 2018 Enrollment Report – The University of Maine System

Headcount of Early College and Undergraduate Students by Institution

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% Change 1-year	% Change 5-year
UM	Early College Total	97	146	140	118	148	25.4%	52.6%
	Undergraduate Total	8,538	8,654	8,648	8,623	8,696	0.8%	1.9%
	Early College as % of UG Total	**1.1%**	**1.7%**	**1.6%**	**1.4%**	**1.7%**	**0.3%**	**0.6%**
UMA	Early College Total	85	88	90	153	253	65.4%	197.6%
	Undergraduate Total	4,603	4,426	4,443	4,041	3,820	-5.5%	-17.0%
	Early College as % of UG Total	**1.8%**	**2.0%**	**2.0%**	**3.8%**	**6.6%**	**2.8%**	**4.8%**
UMF	Early College Total	6	3	9	2	5	150.0%	-16.7%
	Undergraduate Total	1,789	1,672	1,674	1,662	1,633	-1.7%	-8.7%
	Early College as % of UG Total	**0.3%**	**0.2%**	**0.5%**	**0.1%**	**0.3%**	**0.2%**	**0.0%**
UMFK	Early College Total	96	197	367	444	445	0.2%	363.5%
	Undergraduate Total	1,058	1,240	1,402	1,494	1,482	-0.8%	40.1%
	Early College as % of UG Total	**9.1%**	**15.9%**	**26.2%**	**29.7%**	**30.0%**	**0.3%**	**21.0%**
UMM	Early College Total	53	53	59	80	70	-12.5%	32.1%
	Undergraduate Total	800	779	715	716	675	-5.7%	-15.6%
	Early College as % of UG Total	**6.6%**	**6.8%**	**8.3%**	**11.2%**	**10.4%**	**-0.8%**	**3.7%**
UMPI	Early College Total	70	49	182	257	374	45.5%	434.3%
	Undergraduate Total	1,186	1,049	1,078	1,148	1,282	11.7%	8.1%
	Early College as % of UG Total	**5.9%**	**4.7%**	**16.9%**	**22.4%**	**29.2%**	**6.8%**	**23.3%**
USM	Early College Total	166	178	191	171	236	38.0%	42.2%
	Undergraduate Total	6,244	5,776	5,511	5,552	5,562	0.2%	-10.9%
	Early College as % of UG Total	**2.7%**	**3.1%**	**3.5%**	**3.1%**	**4.2%**	**1.2%**	**1.6%**
Total	*Early College Total*	*573*	*714*	*1,038*	*1,225*	*1,531*	*25.0%*	*167.2%*
	Undergraduate Total	*24,218*	*23,596*	*23,471*	*23,236*	*23,150*	*-0.4%*	*-4.4%*
	Early College as % of UG Total	*2.4%*	*3.0%*	*4.4%*	*5.3%*	*6.6%*	*1.3%*	*4.2%*

8
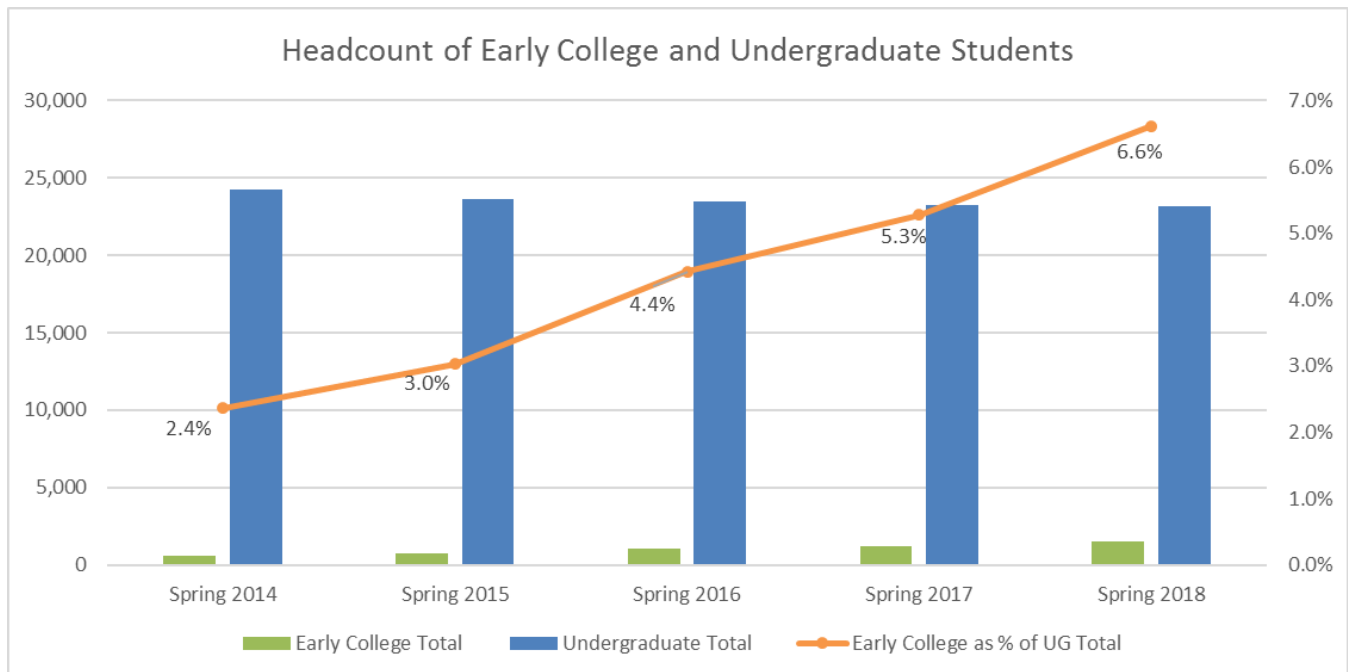
Spring 2018 Enrollment Report – The University of Maine System

Credit Hours for Early College and Undergraduate Students by Institution

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% Change 1-year	% Change 5-year
UM	Early College SCH	310	487	481	396	539	36.1%	73.9%
	Undergraduate SCH	113,446	115,562	117,561	120,010	121,684	1.4%	7.3%
	Early College as % of UG SCH	**0.3%**	**0.4%**	**0.4%**	**0.3%**	**0.4%**	**0.1%**	**0.2%**
UMA	Early College SCH	308	336	361	569	953	67.5%	209.4%
	Undergraduate SCH	38,877	37,211	36,940	32,504	30,888	-5.0%	-20.5%
	Early College as % of UG SCH	**0.8%**	**0.9%**	**1.0%**	**1.8%**	**3.1%**	**1.3%**	**2.3%**
UMF	Early College SCH	30	12	49	8	44	450.0%	46.7%
	Undergraduate SCH	26,128	24,590	24,358	24,359	24,031	-1.3%	-8.0%
	Early College as % of UG SCH	**0.1%**	**0.0%**	**0.2%**	**0.0%**	**0.2%**	**0.2%**	**0.1%**
UMFK	Early College SCH	376	761	1,490	1,655	1,752	5.9%	366.0%
	Undergraduate SCH	10,578	11,221	12,266	12,450	12,298	-1.2%	16.3%
	Early College as % of UG SCH	**3.6%**	**6.8%**	**12.1%**	**13.3%**	**14.2%**	**1.0%**	**10.7%**
UMM	Early College SCH	184	190	200	298	240	-19.5%	30.4%
	Undergraduate SCH	7,696	7,448	7,059	6,843	6,501	-5.0%	-15.5%
	Early College as % of UG SCH	**2.4%**	**2.6%**	**2.8%**	**4.4%**	**3.7%**	**-0.7%**	**1.3%**
UMPI	Early College SCH	246	177	680	1,171	2,109	80.1%	757.3%
	Undergraduate SCH	12,010	10,761	10,641	10,826	11,957	10.4%	-0.4%
	Early College as % of UG SCH	**2.0%**	**1.6%**	**6.4%**	**10.8%**	**17.6%**	**6.8%**	**15.6%**
USM	Early College SCH	650	716	759	698	1,022	46.3%	57.2%
	Undergraduate SCH	67,579	63,226	59,792	60,931	62,489	2.6%	-7.5%
	Early College as % of UG SCH	**1.0%**	**1.1%**	**1.3%**	**1.1%**	**1.6%**	**0.5%**	**0.7%**
Total	*Early College SCH*	*2,104*	*2,679*	*4,020*	*4,795*	*6,659*	*38.9%*	*216.5%*
	Undergraduate SCH	*276,313*	*270,019*	*268,616*	*267,922*	*269,848*	*0.7%*	*-2.3%*
	Early College as % of UG SCH	*0.8%*	*1.0%*	*1.5%*	*1.8%*	*2.5%*	*0.7%*	*1.7%*

9
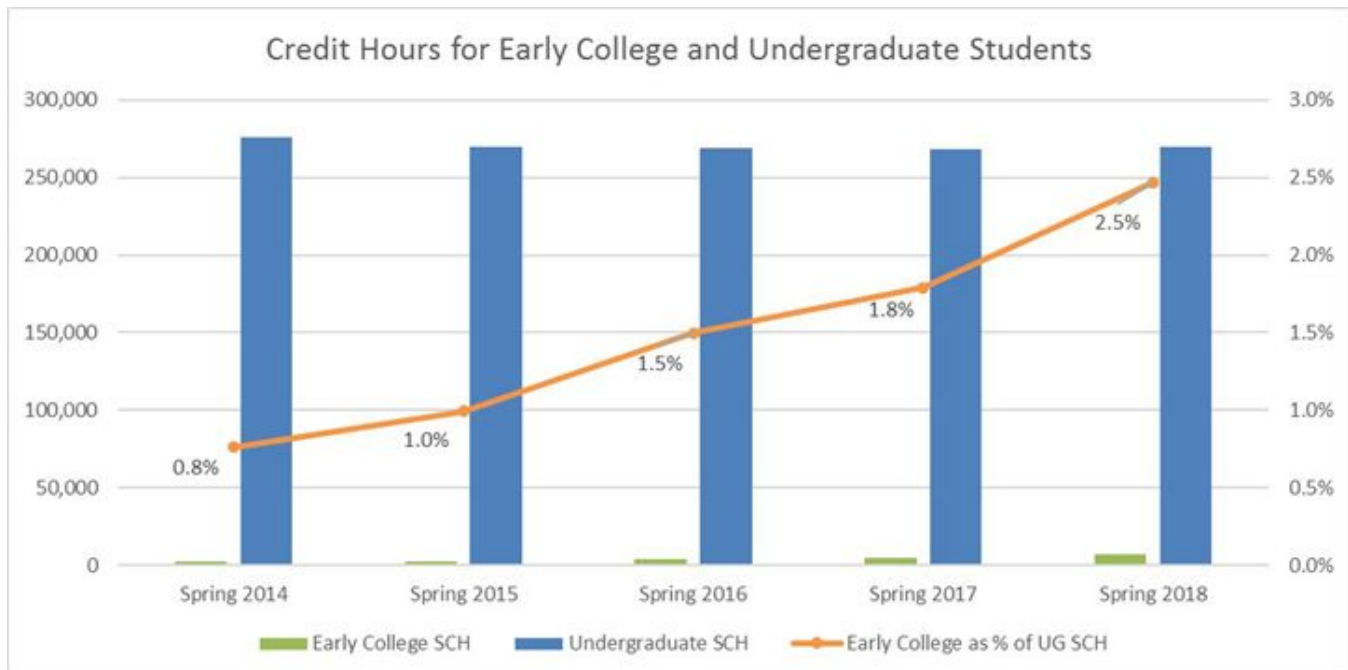
Spring 2018 Enrollment Report – The University of Maine System

Headcount by Degree Level

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
							1-Year	5-year	
Associate	1,274	1,050	830	686	568	2.1%	-17.2%	-55.4%	
Baccalaureate	20,695	20,313	20,126	19,749	19,595	72.5%	-0.8%	-5.3%	
Non-Degree Undergraduate	2,249	2,233	2,515	2,801	2,987	11.1%	6.6%	32.8%	
Graduate	2,787	2,777	2,662	2,767	2,913	10.8%	5.3%	4.5%	
Non-Degree Graduate	770	618	620	737	717	2.7%	-2.7%	-6.9%	
Law	265	234	241	231	237	0.9%	2.6%	-10.6%	
Non-Degree Law	0	6	7	3	7	0.0%	133.3%	0.0%	
Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

10
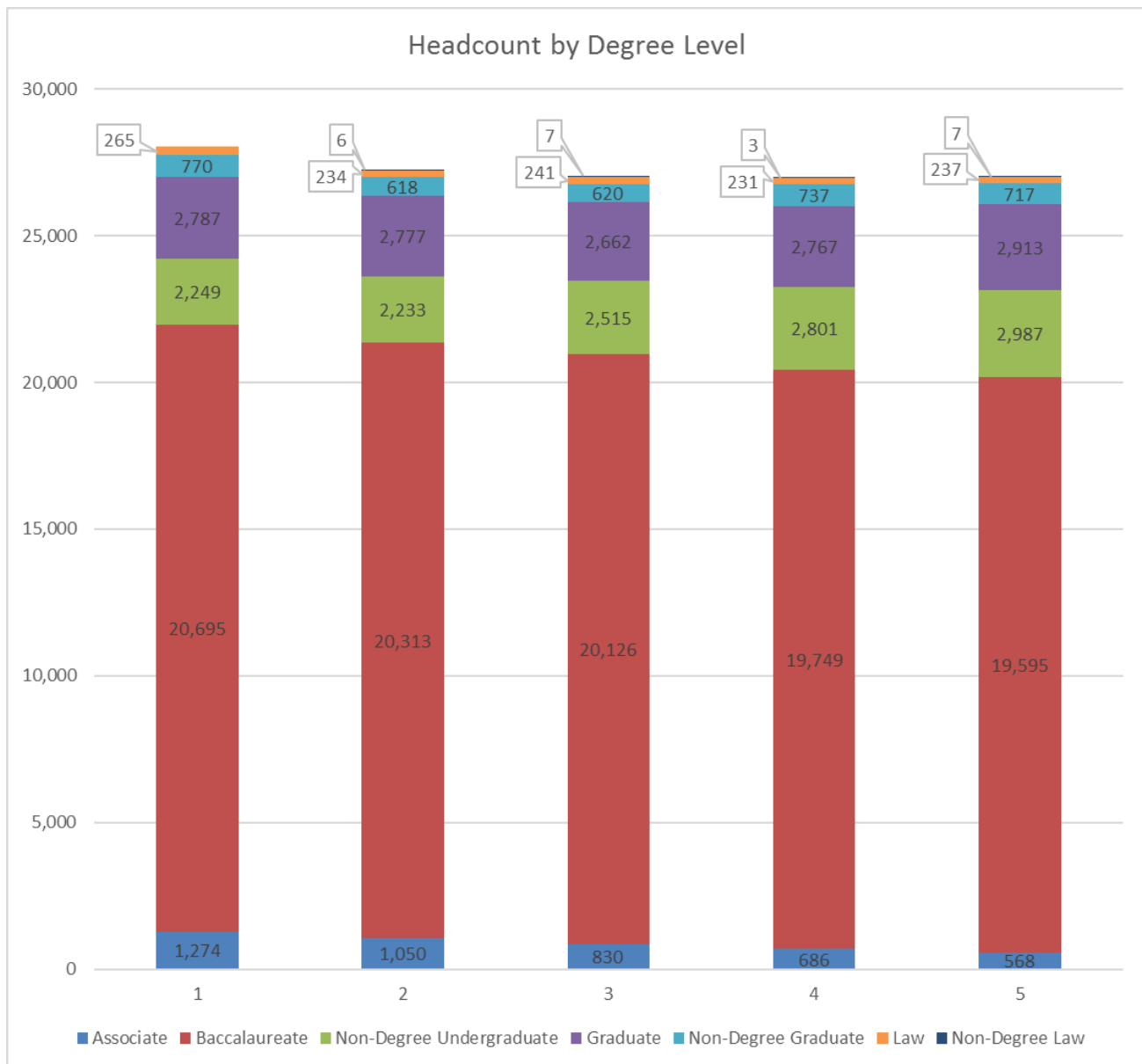
Spring 2018 Enrollment Report – The University of Maine System

FTE by Degree Level

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	% of Total	% Change		Trend Line
							1-Year	5-year	
Associate	847	738	584	465	398	1.8%	-14.5%	-53.1%	
Baccalaureate	18,227	17,851	17,623	17,692	17,765	81.4%	0.4%	-2.5%	
Non-Degree Undergraduate	833	888	1,073	1,287	1,154	5.3%	-10.3%	38.6%	
Graduate	1,959	1,978	1,932	1,939	1,995	9.1%	2.9%	1.8%	
Non-Degree Graduate	397	336	180	255	272	1.2%	6.7%	-31.4%	
Law	263	243	233	228	227	1.0%	-0.4%	-13.9%	
Non-Degree Law	0	4	4	1	2	0.0%	31.6%	0.0%	
Total	*22,526*	*22,037*	*21,629*	*21,867*	*21,812*	*100.0%*	*-0.3%*	*-3.2%*	
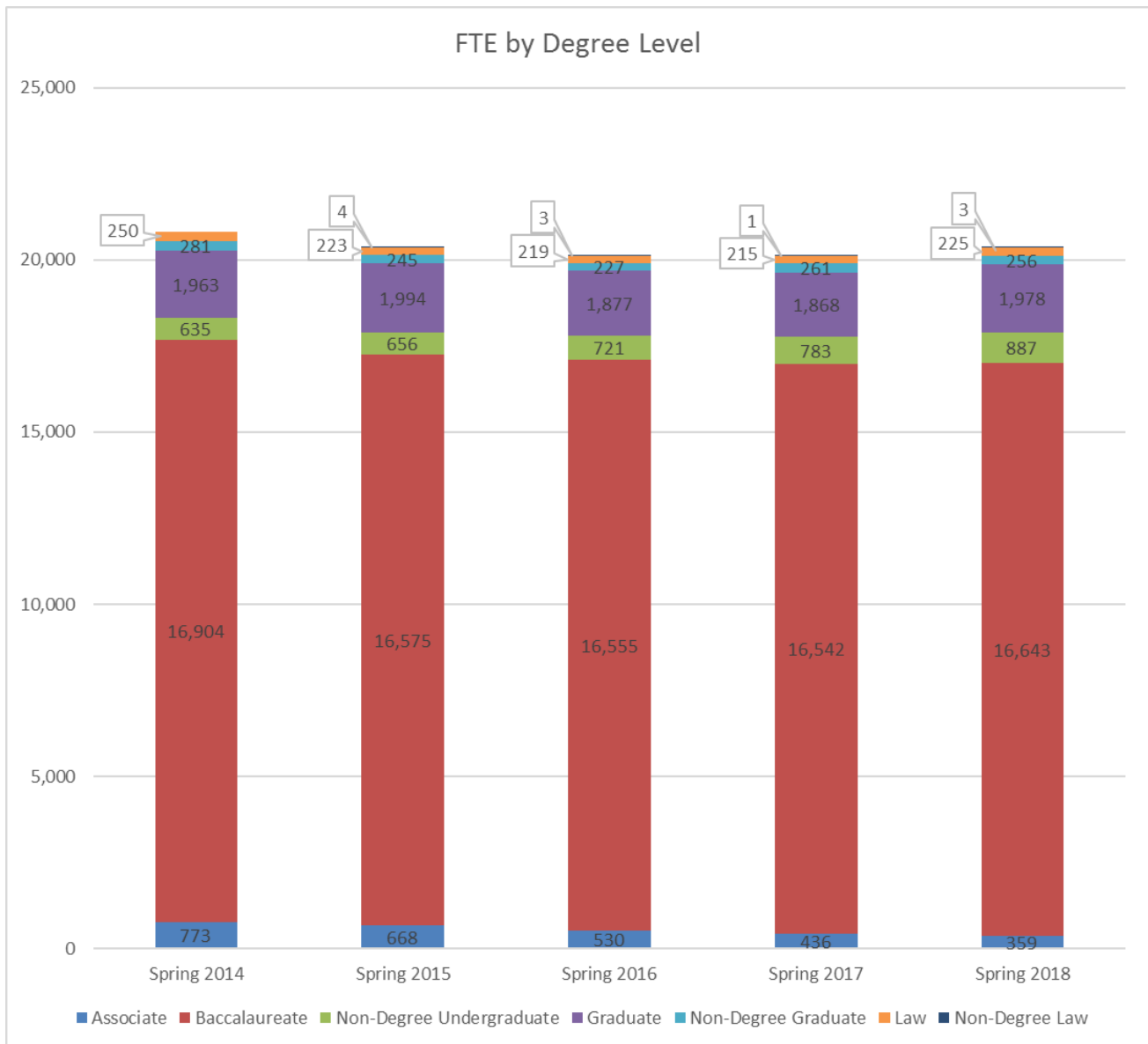
FTE by Degree Level

Spring 2018 Enrollment Report – The University of Maine System

Credit Hours by Degree Level

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
							1-Year	5-year	
Associate	11,596	10,016	7,954	6,533	5,382	1.8%	-17.6%	-53.6%	
Baccalaureate	255,174	250,142	249,837	249,639	251,142	85.6%	0.6%	-1.6%	
Non-Degree Undergraduate	9,544	9,861	10,825	11,751	13,324	4.5%	13.4%	39.6%	
Graduate	17,663	17,947	16,892	16,811	17,805	6.1%	5.9%	0.8%	
Non-Degree Graduate	2,531	2,204	2,040	2,349	2,307	0.8%	-1.8%	-8.9%	
Law	3,748	3,350	3,286	3,218	3,379	1.2%	5.0%	-9.8%	
Non-Degree Law	0	57	51	9	48	0.0%	433.3%	N/A	
Total	*300,255*	*293,577*	*290,884*	*290,310*	*293,386*	*100.0%*	*1.1%*	*-2.3%*	
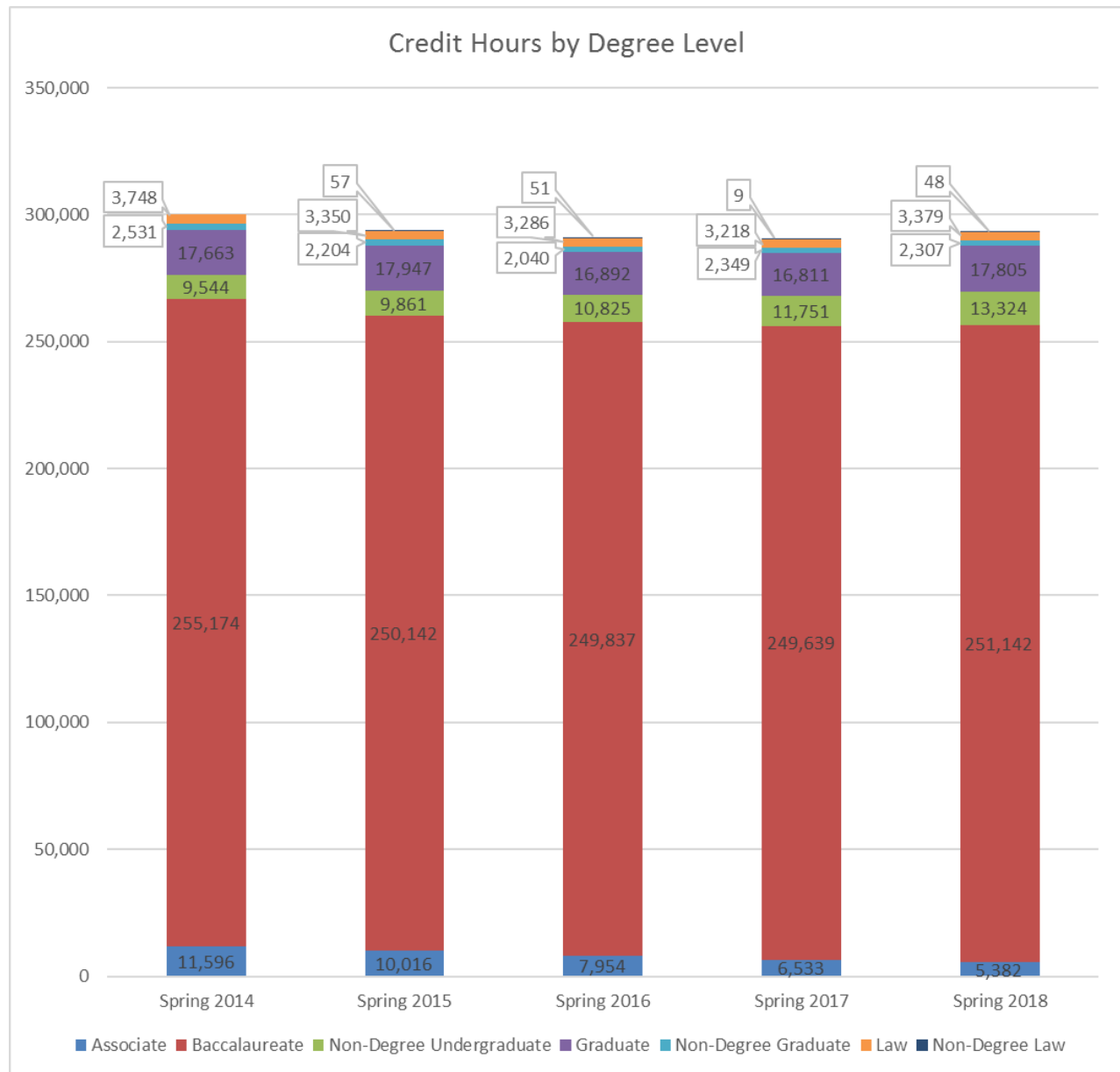
12

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Student Level and Tuition-Based Residency

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
								1-year	5-year	
Undergraduate	In-State	20,934	20,089	19,738	19,185	18,528	80.0%	-3.4%	-11.5%	
	Out-of-State	2,580	2,727	2,936	3,254	3,827	16.5%	17.6%	48.3%	
	NEBHE	704	780	797	797	795	3.4%	-0.3%	12.9%	
	Total	**24,218**	**23,596**	**23,471**	**23,236**	**23,150**	**100.0%**	**-0.4%**	**-4.4%**	
Graduate	In-State	3,172	2,959	2,864	3,026	3,138	81.0%	3.7%	-1.1%	
	Out-of-State	585	612	618	665	695	17.9%	4.5%	18.8%	
	NEBHE	65	64	48	47	41	1.1%	-12.8%	-36.9%	
	Total	**3,822**	**3,635**	**3,530**	**3,738**	**3,874**	**100.0%**	**3.6%**	**1.4%**	
Total	**In-State**	**24,106**	**23,048**	**22,602**	**22,211**	**21,666**	**80.2%**	**-2.5%**	**-10.1%**	
	Out-of-State	**3,165**	**3,339**	**3,554**	**3,919**	**4,522**	**16.7%**	**15.4%**	**42.9%**	
	NEBHE	**769**	**844**	**845**	**844**	**836**	**3.1%**	**-0.9%**	**8.7%**	
	Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

Notes:
1. The following table shows student residency based on the tuition rate.
2. Students enrolled under the New England Regional Student Program (NEBHE) pay 150% of in-state tuition, which may include out-of-state students and Canadian students.
3. Students with a tuition residency of Online are included with the out-of-state category.

13

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Institution and Tuition-Based Residency

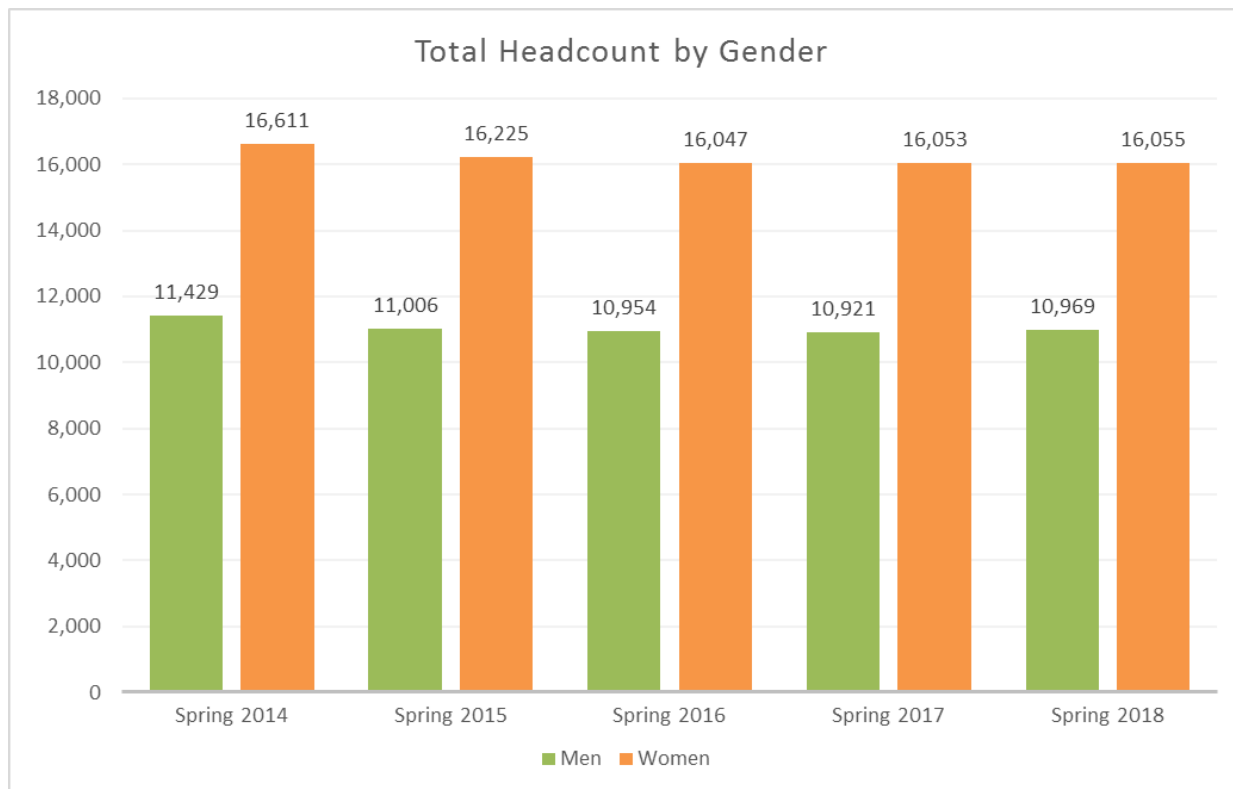|		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	In-state	7,891	7,598	7,430	7,317	6,962	66.0%	-4.9%	-11.8%	
	Out-of-state	1,942	2,193	2,313	2,570	2,990	28.4%	16.3%	54.0%	
	NEBHE	468	541	581	587	590	5.6%	0.5%	26.1%	
	Total	**10,301**	**10,332**	**10,324**	**10,474**	**10,542**	**100.0%**	**0.6%**	**2.3%**	
UMA	In-state	4,450	4,281	4,275	3,894	3,643	95.4%	-6.4%	-18.1%	
	Out-of-state	141	132	157	136	163	4.3%	19.9%	15.6%	
	NEBHE	12	13	11	11	14	0.4%	27.3%	16.7%	
	Total	**4,603**	**4,426**	**4,443**	**4,041**	**3,820**	**100.0%**	**-5.5%**	**-17.0%**	
UMF	In-state	1,693	1,598	1,621	1,624	1,686	86.0%	3.8%	-0.4%	
	Out-of-state	210	192	192	175	181	9.2%	3.4%	-13.8%	
	NEBHE	72	76	83	96	93	4.7%	-3.1%	29.2%	
	Total	**1,975**	**1,866**	**1,896**	**1,895**	**1,960**	**100.0%**	**3.4%**	**-0.8%**	
UMFK	In-state	964	1,103	1,250	1,327	1,304	88.0%	-1.7%	35.3%	
	Out-of-state	70	109	133	156	172	11.6%	10.3%	145.7%	
	NEBHE	24	28	19	11	6	0.4%	-45.5%	-75.0%	
	Total	**1,058**	**1,240**	**1,402**	**1,494**	**1,482**	**100.0%**	**-0.8%**	**40.1%**	
UMM	In-state	686	678	621	620	598	88.6%	-3.5%	-12.8%	
	Out-of-state	94	78	71	75	56	8.3%	-25.3%	-40.4%	
	NEBHE	20	23	23	21	21	3.1%	0.0%	5.0%	
	Total	**800**	**779**	**715**	**716**	**675**	**100.0%**	**-5.7%**	**-15.6%**	
UMPI	In-state	1,078	948	965	1,026	1,124	87.7%	9.6%	4.3%	
	Out-of-state	40	48	72	90	131	10.2%	45.6%	227.5%	
	NEBHE	68	53	41	32	27	2.1%	-15.6%	-60.3%	
	Total	**1,186**	**1,049**	**1,078**	**1,148**	**1,282**	**100.0%**	**11.7%**	**8.1%**	
USM	In-state	7,344	6,842	6,440	6,403	6,349	87.4%	-0.8%	-13.5%	
	Out-of-state	668	587	616	717	829	11.4%	15.6%	24.1%	
	NEBHE	105	110	87	86	85	1.2%	-1.2%	-19.0%	
	Total	**8,117**	**7,539**	**7,143**	**7,206**	**7,263**	**100.0%**	**0.8%**	**-10.5%**	
Total	**In-state**	**24,106**	**23,048**	**22,602**	**22,211**	**21,666**	**80.2%**	**-2.5%**	**-10.1%**	
	Out-of-state	**3,165**	**3,339**	**3,554**	**3,919**	**4,522**	**16.7%**	**15.4%**	**42.9%**	
	NEBHE	**769**	**844**	**845**	**844**	**836**	**3.1%**	**-0.9%**	**8.7%**	
	Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

Notes:
1. The following table shows student residency based on the student's tuition rate.
2. Students enrolled under the New England Regional Student Program (NEBHE) pay 150% of in-state tuition, which may include out-of-state students and Canadian students.
3. Students with a tuition residency of Online are included with the out-of-state category.

14

Spring 2018 Enrollment Report – The University of Maine System

Credit Hours by Institution and Tuition-Based Residency

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	In-state	92,756	90,270	89,459	87,822	83,384	63.7%	-5.1%	-10.1%	
	Out-of-state	23,142	26,826	28,610	32,774	39,122	29.9%	19.4%	69.1%	
	NEBHE	6,479	7,415	8,306	8,479	8,348	6.4%	-1.5%	28.8%	
	Total	**122,377**	**124,511**	**126,374**	**129,075**	**130,854**	**100.0%**	**1.4%**	**6.9%**	
UMA	In-state	37,583	35,983	35,523	31,326	29,385	95.1%	-6.2%	-21.8%	
	Out-of-state	1,204	1,130	1,337	1,096	1,380	4.5%	25.9%	14.6%	
	NEBHE	90	98	80	82	123	0.4%	50.0%	36.7%	
	Total	**38,877**	**37,211**	**36,940**	**32,504**	**30,888**	**100.0%**	**-5.0%**	**-20.5%**	
UMF	In-state	22,441	21,125	21,006	21,008	21,007	83.6%	0.0%	-6.4%	
	Out-of-state	3,168	2,907	2,873	2,679	2,687	10.7%	0.3%	-15.2%	
	NEBHE	1,143	1,186	1,260	1,465	1,423	5.7%	-2.9%	24.5%	
	Total	**26,752**	**25,218**	**25,139**	**25,152**	**25,117**	**100.0%**	**-0.1%**	**-6.1%**	
UMFK	In-state	9,262	9,464	10,173	10,043	9,893	80.4%	-1.5%	6.8%	
	Out-of-state	979	1,384	1,846	2,304	2,352	19.1%	2.1%	140.2%	
	NEBHE	337	373	247	103	53	0.4%	-48.5%	-84.3%	
	Total	**10,578**	**11,221**	**12,266**	**12,450**	**12,298**	**100.0%**	**-1.2%**	**16.3%**	
UMM	In-state	6,163	6,104	5,744	5,542	5,594	86.0%	0.9%	-9.2%	
	Out-of-state	1,249	991	985	1,008	695	10.7%	-31.1%	-44.4%	
	NEBHE	284	354	330	293	212	3.3%	-27.6%	-25.4%	
	Total	**7,696**	**7,448**	**7,059**	**6,843**	**6,501**	**100.0%**	**-5.0%**	**-15.5%**	
UMPI	In-state	10,566	9,427	9,188	9,199	9,892	82.7%	7.5%	-6.4%	
	Out-of-state	536	600	949	1,201	1,721	14.4%	43.3%	221.1%	
	NEBHE	908	734	504	426	344	2.9%	-19.2%	-62.1%	
	Total	**12,010**	**10,761**	**10,641**	**10,826**	**11,957**	**100.0%**	**10.4%**	**-0.4%**	
USM	In-state	72,271	68,211	63,583	62,885	63,719	84.1%	1.3%	-11.8%	
	Out-of-state	8,355	7,531	7,787	9,457	10,923	14.4%	15.5%	30.7%	
	NEBHE	1,340	1,465	1,096	1,117	1,130	1.5%	1.1%	-15.7%	
	Total	**81,966**	**77,207**	**72,465**	**73,459**	**75,771**	**100.0%**	**3.1%**	**-7.6%**	
Total	**In-state**	**251,041**	**240,584**	**234,675**	**227,825**	**222,873**	**76.0%**	**-2.2%**	**-11.2%**	
	Out-of-state	**38,633**	**41,369**	**44,386**	**50,519**	**58,880**	**20.1%**	**16.5%**	**52.4%**	
	NEBHE	**10,581**	**11,625**	**11,823**	**11,965**	**11,633**	**4.0%**	**-2.8%**	**9.9%**	
	Total	*300,255*	*293,577*	*290,884*	*290,309*	*293,386*	*100.0%*	*1.1%*	*-2.3%*	

Notes:

1. The following table shows student residency based on the student's tuition rate.
2. Students enrolled under the New England Regional Student Program (NEBHE) pay 150% of in-state tuition, which may include out-of-state students and Canadian students.
3. Students with a tuition residency of Online are included with the out-of-state category.

15

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Student Level and Gender

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
Undergraduate	Men	10,132	9,782	9,774	9,734	9,771	42.2%	0.4%	-3.6%	
	Women	14,086	13,814	13,697	13,502	13,379	57.8%	-0.9%	-5.0%	
	Total	**24,218**	**23,596**	**23,471**	**23,236**	**23,150**	**100.0%**	**-0.4%**	**-4.4%**	
Graduate	Men	1,297	1,224	1,180	1,187	1,198	30.9%	0.9%	-7.6%	
	Women	2,525	2,411	2,350	2,551	2,676	69.1%	4.9%	6.0%	
	Total	**3,822**	**3,635**	**3,530**	**3,738**	**3,874**	**100.0%**	**3.6%**	**1.4%**	
Total	**Men**	**11,429**	**11,006**	**10,954**	**10,921**	**10,969**	**40.6%**	**0.4%**	**-4.0%**	
	Women	**16,611**	**16,225**	**16,047**	**16,053**	**16,055**	**59.4%**	**0.0%**	**-3.3%**	
	Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

Total Headcount by Gender

Note: Gender assigned proportionally by institution starting in Fall 2016 for any unknowns represented in the source data.

16

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Institution and Gender

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	Men	5,128	5,166	5,206	5,244	5,259	49.9%	0.3%	2.6%	
	Women	5,173	5,166	5,118	5,230	5,283	50.1%	1.0%	2.1%	
	Total	**10,301**	**10,332**	**10,324**	**10,474**	**10,542**	**100.0%**	**0.6%**	**2.3%**	
UMA	Men	1,316	1,201	1,188	1,146	1,136	29.7%	-0.9%	-13.7%	
	Women	3,287	3,225	3,255	2,895	2,684	70.3%	-7.3%	-18.3%	
	Total	**4,603**	**4,426**	**4,443**	**4,041**	**3,820**	**100.0%**	**-5.5%**	**-17.0%**	
UMF	Men	655	610	627	629	605	30.9%	-3.8%	-7.6%	
	Women	1,320	1,256	1,269	1,266	1,355	69.1%	7.0%	2.7%	
	Total	**1,975**	**1,866**	**1,896**	**1,895**	**1,960**	**100.0%**	**3.4%**	**-0.8%**	
UMFK	Men	320	391	410	437	406	27.4%	-7.1%	26.9%	
	Women	738	849	992	1,057	1,076	72.6%	1.8%	45.8%	
	Total	**1,058**	**1,240**	**1,402**	**1,494**	**1,482**	**100.0%**	**-0.8%**	**40.1%**	
UMM	Men	269	247	244	208	213	31.6%	2.4%	-20.8%	
	Women	531	532	471	508	462	68.4%	-9.1%	-13.0%	
	Total	**800**	**779**	**715**	**716**	**675**	**100.0%**	**-5.7%**	**-15.6%**	
UMPI	Men	417	366	379	400	485	37.8%	21.3%	16.3%	
	Women	769	683	699	748	797	62.2%	6.6%	3.6%	
	Total	**1,186**	**1,049**	**1,078**	**1,148**	**1,282**	**100.0%**	**11.7%**	**8.1%**	
USM	Men	3,324	3,025	2,900	2,852	2,842	39.1%	-0.4%	-14.5%	
	Women	4,793	4,514	4,243	4,354	4,421	60.9%	1.5%	-7.8%	
	Total	**8,117**	**7,539**	**7,143**	**7,206**	**7,263**	**100.0%**	**0.8%**	**-10.5%**	
Total	**Men**	**11,429**	**11,006**	**10,954**	**10,916**	**10,946**	**40.5%**	**0.3%**	**-4.2%**	
	Women	**16,611**	**16,225**	**16,047**	**16,058**	**16,078**	**59.5%**	**0.1%**	**-3.2%**	
	Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

Note: Gender assigned proportionally by institution as of Fall 2016 for any unknowns represented in the source data.

17

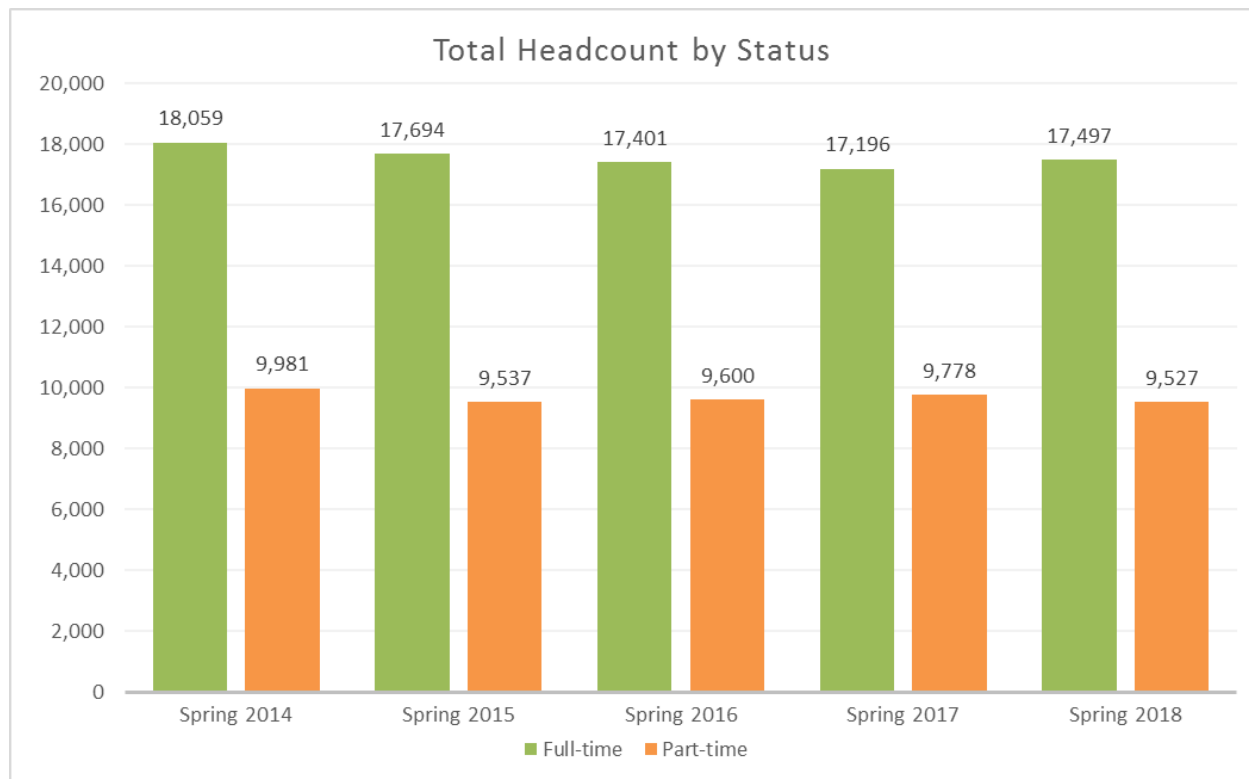# Spring 2018 Enrollment Report – The University of Maine System

Credit Hours by Institution and Gender

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	Men	63,321	64,477	66,115	67,179	68,093	52.0%	1.4%	7.5%	
	Women	59,056	60,035	60,259	61,897	62,761	48.0%	1.4%	6.3%	
	Total	**122,377**	**124,511**	**126,374**	**129,075**	**130,854**	**100.0%**	**1.4%**	**6.9%**	
UMA	Men	11,674	10,524	10,036	9,338	9,420	30.5%	0.9%	-19.3%	
	Women	27,203	26,687	26,904	23,166	21,468	69.5%	-7.3%	-21.1%	
	Total	**38,877**	**37,211**	**36,940**	**32,504**	**30,888**	**100.0%**	**-5.0%**	**-20.5%**	
UMF	Men	9,016	8,419	8,580	8,640	8,136	32.4%	-5.8%	-9.8%	
	Women	17,736	16,799	16,559	16,512	16,981	67.6%	2.8%	-4.3%	
	Total	**26,752**	**25,218**	**25,139**	**25,152**	**25,117**	**100.0%**	**-0.1%**	**-6.1%**	
UMFK	Men	3,329	3,735	3,847	3,896	3,738	30.4%	-4.1%	12.3%	
	Women	7,249	7,486	8,419	8,554	8,560	69.6%	0.1%	18.1%	
	Total	**10,578**	**11,221**	**12,266**	**12,450**	**12,298**	**100.0%**	**-1.2%**	**16.3%**	
UMM	Men	2,716	2,475	2,402	2,109	2,122	32.6%	0.6%	-21.9%	
	Women	4,980	4,974	4,657	4,734	4,379	67.4%	-7.5%	-12.1%	
	Total	**7,696**	**7,448**	**7,059**	**6,843**	**6,501**	**100.0%**	**-5.0%**	**-15.5%**	
UMPI	Men	4,693	4,016	4,076	3,967	4,746	39.7%	19.6%	1.1%	
	Women	7,317	6,745	6,565	6,859	7,211	60.3%	5.1%	-1.4%	
	Total	**12,010**	**10,761**	**10,641**	**10,826**	**11,957**	**100.0%**	**10.4%**	**-0.4%**	
USM	Men	34,371	31,748	30,329	30,083	30,321	40.0%	0.8%	-11.8%	
	Women	47,595	45,459	42,136	43,375	45,451	60.0%	4.8%	-4.5%	
	Total	**81,966**	**77,207**	**72,465**	**73,458**	**75,771**	**100.0%**	**3.1%**	**-7.6%**	
Total	**Men**	**129,119**	**125,393**	**125,385**	**125,212**	**126,576**	**43.1%**	**1.1%**	**-2.0%**	
	Women	**171,136**	**168,184**	**165,499**	**165,096**	**166,810**	**56.9%**	**1.0%**	**-2.5%**	
	Total	*300,255*	*293,577*	*290,884*	*290,308*	*293,386*	*100.0%*	*1.1%*	*-2.3%*	

Note: Gender assigned proportionally by institution as of Fall 2016 for any unknowns represented in the source data.

18

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Student Level and Status

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
Undergraduate	Full-time	15,946	15,626	15,447	15,253	15,420	66.6%	1.1%	-3.3%	
	Part-time	8,272	7,970	8,024	7,983	7,730	33.4%	-3.2%	-6.6%	
	Total	**24,218**	**23,596**	**23,471**	**23,236**	**23,150**	**100.0%**	**-0.4%**	**-4.4%**	
Graduate	Full-time	2,113	2,068	1,954	1,943	2,077	53.6%	6.9%	-1.7%	
	Part-time	1,709	1,567	1,576	1,795	1,797	46.4%	0.1%	5.1%	
	Total	**3,822**	**3,635**	**3,530**	**3,738**	**3,874**	**100.0%**	**3.6%**	**1.4%**	
Total	**Full-time**	**18,059**	**17,694**	**17,401**	**17,196**	**17,497**	**64.7%**	**1.8%**	**-3.1%**	
	Part-time	**9,981**	**9,537**	**9,600**	**9,778**	**9,527**	**35.3%**	**-2.6%**	**-4.5%**	
	Total	***28,040***	***27,231***	***27,001***	***26,974***	***27,024***	***100.0%***	***0.2%***	***-3.6%***	

Total Headcount by Status

19

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Institution and Status

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
UM	Full-time	8,125	8,330	8,382	8,379	8,486	80.5%	1.3%	4.4%	
	Part-time	2,176	2,002	1,942	2,095	2,056	19.5%	-1.9%	-5.5%	
	Total	**10,301**	**10,332**	**10,324**	**10,474**	**10,542**	**100.0%**	**0.6%**	**2.3%**	
UMA	Full-time	1,603	1,543	1,517	1,278	1,245	32.6%	-2.6%	-22.3%	
	Part-time	3,000	2,883	2,926	2,763	2,575	67.4%	-6.8%	-14.2%	
	Total	**4,603**	**4,426**	**4,443**	**4,041**	**3,820**	**100.0%**	**-5.5%**	**-17.0%**	
UMF	Full-time	1,684	1,574	1,583	1,564	1,557	79.4%	-0.4%	-7.5%	
	Part-time	291	292	313	331	403	20.6%	21.8%	38.5%	
	Total	**1,975**	**1,866**	**1,896**	**1,895**	**1,960**	**100.0%**	**3.4%**	**-0.8%**	
UMFK	Full-time	526	487	515	523	524	35.4%	0.2%	-0.4%	
	Part-time	532	753	887	971	958	64.6%	-1.3%	80.1%	
	Total	**1,058**	**1,240**	**1,402**	**1,494**	**1,482**	**100.0%**	**-0.8%**	**40.1%**	
UMM	Full-time	404	390	389	360	345	51.1%	-4.2%	-14.6%	
	Part-time	396	389	326	356	330	48.9%	-7.3%	-16.7%	
	Total	**800**	**779**	**715**	**716**	**675**	**100.0%**	**-5.7%**	**-15.6%**	
UMPI	Full-time	678	624	603	588	639	49.8%	8.7%	-5.8%	
	Part-time	508	425	475	560	643	50.2%	14.8%	26.6%	
	Total	**1,186**	**1,049**	**1,078**	**1,148**	**1,282**	**100.0%**	**11.7%**	**8.1%**	
USM	Full-time	5,039	4,746	4,412	4,504	4,701	64.7%	4.4%	-6.7%	
	Part-time	3,078	2,793	2,731	2,702	2,562	35.3%	-5.2%	-16.8%	
	Total	**8,117**	**7,539**	**7,143**	**7,206**	**7,263**	**100.0%**	**0.8%**	**-10.5%**	
Total	**Full-time**	**18,059**	**17,694**	**17,401**	**17,196**	**17,497**	**64.7%**	**1.8%**	**-3.1%**	
	Part-time	**9,981**	**9,537**	**9,600**	**9,778**	**9,527**	**35.3%**	**-2.6%**	**-4.5%**	
	Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*0.2%*	*-3.6%*	

20

Spring 2018 Enrollment Report – The University of Maine System

Credit Hours by Institution and Status

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
								1-year	5-year	
UM	Full-time	111,726	114,626	117,087	119,622	121,337	92.7%	1.4%	8.6%	
	Part-time	10,651	9,885	9,287	9,453	9,517	7.3%	0.7%	-10.7%	
	Total	**122,377**	**124,511**	**126,374**	**129,075**	**130,854**	**100.0%**	**1.4%**	**6.9%**	
UMA	Full-time	20,404	19,659	19,304	16,297	16,044	51.9%	-1.6%	-21.4%	
	Part-time	18,473	17,552	17,636	16,207	14,844	48.1%	-8.4%	-19.6%	
	Total	**38,877**	**37,211**	**36,940**	**32,504**	**30,888**	**100.0%**	**-5.0%**	**-20.5%**	
UMF	Full-time	25,502	23,959	23,785	23,801	23,550	93.8%	-1.1%	-7.7%	
	Part-time	1,251	1,259	1,354	1,351	1,567	6.2%	16.0%	25.3%	
	Total	**26,752**	**25,218**	**25,139**	**25,152**	**25,117**	**100.0%**	**-0.1%**	**-6.1%**	
UMFK	Full-time	7,883	7,254	7,719	7,779	7,508	61.1%	-3.5%	-4.8%	
	Part-time	2,695	3,967	4,547	4,671	4,790	38.9%	2.5%	77.7%	
	Total	**10,578**	**11,221**	**12,266**	**12,450**	**12,298**	**100.0%**	**-1.2%**	**16.3%**	
UMM	Full-time	5,794	5,485	5,463	5,064	4,867	74.9%	-3.9%	-16.0%	
	Part-time	1,902	1,963	1,596	1,779	1,635	25.1%	-8.1%	-14.1%	
	Total	**7,696**	**7,448**	**7,059**	**6,843**	**6,501**	**100.0%**	**-5.0%**	**-15.5%**	
UMPI	Full-time	9,536	8,739	8,458	8,229	8,930	74.7%	8.5%	-6.4%	
	Part-time	2,474	2,022	2,183	2,597	3,027	25.3%	16.6%	22.4%	
	Total	**12,010**	**10,761**	**10,641**	**10,826**	**11,957**	**100.0%**	**10.4%**	**-0.4%**	
USM	Full-time	64,800	61,214	57,133	58,687	61,974	81.8%	5.6%	-4.4%	
	Part-time	17,166	15,993	15,332	14,772	13,798	18.2%	-6.6%	-19.6%	
	Total	**81,966**	**77,207**	**72,465**	**73,459**	**75,771**	**100.0%**	**3.1%**	**-7.6%**	
Total	**Full-time**	**245,643**	**240,936**	**238,949**	**239,479**	**244,209**	**83.2%**	**2.0%**	**-0.6%**	
	Part-time	**54,612**	**52,641**	**51,935**	**50,830**	**49,177**	**16.8%**	**-3.3%**	**-10.0%**	
	Total	*300,255*	*293,577*	*290,884*	*290,309*	*293,386*	*100.0%*	*1.1%*	*-2.3%*	

21

Spring 2018 Enrollment Report – The University of Maine System

First-time Headcount by Institution and Tuition-Based Residency

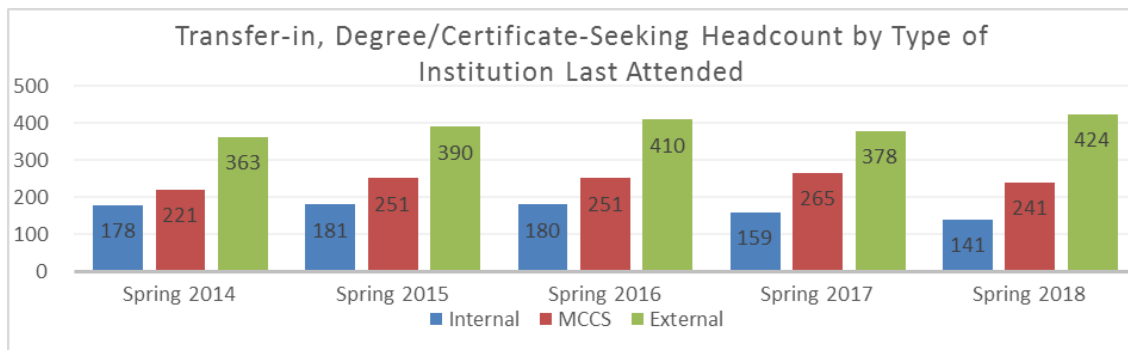|		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change		Trend Line
								1-year	5-year	
UM	In-state	31	32	31	21	25	64.1%	19.0%	-19.4%	
	Out-of-state	17	5	6	5	11	28.2%	120.0%	-35.3%	
	NEBHE	2	1	0	3	3	7.7%	0.0%	50.0%	
	Total	**50**	**38**	**37**	**29**	**39**	**100.0%**	**34.5%**	**-22.0%**	
UMA	In-state	152	126	142	115	97	95.1%	-15.7%	-36.2%	
	Out-of-state	4	3	1	4	5	4.9%	25.0%	25.0%	
	NEBHE	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**156**	**129**	**143**	**119**	**102**	**100.0%**	**-14.3%**	**-34.6%**	
UMF	In-state	9	9	9	12	6	100.0%	-50.0%	-33.3%	
	Out-of-state	0	0	0	1	0	0.0%	-100.0%	N/A	
	NEBHE	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**9**	**9**	**9**	**13**	**6**	**100.0%**	**-53.8%**	**-33.3%**	
UMFK	In-state	10	7	3	5	3	50.0%	-40.0%	-70.0%	
	Out-of-state	1	1	3	2	3	50.0%	50.0%	200.0%	
	NEBHE	1	0	0	0	0	0.0%	N/A	-100.0%	
	Total	**12**	**8**	**6**	**7**	**6**	**100.0%**	**-14.3%**	**-50.0%**	
UMM	In-state	12	9	8	7	3	100.0%	-57.1%	-75.0%	
	Out-of-state	1	0	0	0	0	0.0%	N/A	-100.0%	
	NEBHE	0	0	0	0	0	0.0%	N/A	N/A	N/A
	Total	**13**	**9**	**8**	**7**	**3**	**100.0%**	**-57.1%**	**-76.9%**	
UMPI	In-state	16	16	6	5	13	68.4%	160.0%	-18.8%	
	Out-of-state	1	0	4	3	6	31.6%	100.0%	500.0%	
	NEBHE	2	0	0	0	0	0.0%	N/A	-100.0%	
	Total	**19**	**16**	**10**	**8**	**19**	**100.0%**	**137.5%**	**0.0%**	
USM	In-state	22	23	32	37	27	84.4%	-27.0%	22.7%	
	Out-of-state	3	1	7	12	4	12.5%	-66.7%	33.3%	
	NEBHE	1	1	0	0	1	3.1%	N/A	0.0%	
	Total	**26**	**25**	**39**	**49**	**32**	**100.0%**	**-34.7%**	**23.1%**	
Total	**In-state**	**252**	**222**	**231**	**202**	**174**	**84.1%**	**-13.9%**	**-31.0%**	
	Out-of-state	**27**	**10**	**21**	**27**	**29**	**14.0%**	**7.4%**	**7.4%**	
	NEBHE	**6**	**2**	**0**	**3**	**4**	**1.9%**	**33.3%**	**-33.3%**	
	Total	*285*	*234*	*252*	*232*	*207*	*100.0%*	*-10.8%*	*-27.4%*	

Note: NEBHE includes Canadian students. Students with a tuition residency of Online are included with the out-of-state category.

22

Spring 2018 Enrollment Report – The University of Maine System

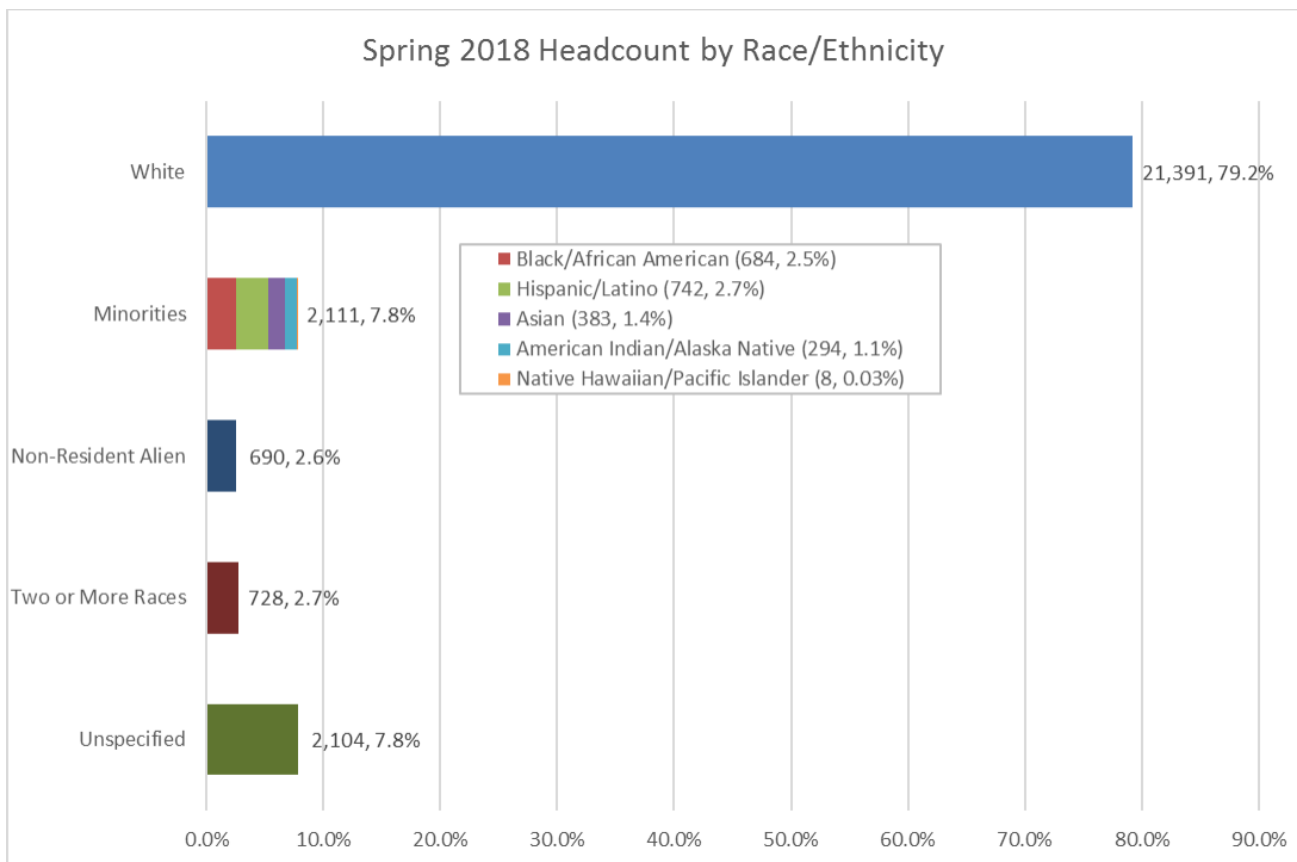**Transfer-in, Degree/Certificate-Seeking Undergraduate Headcount by Type of Institution Last Attended and Tuition-Based Residency**

		Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	1-year Change #	1-year Change %	Trend Line
Internal (UMS)	In-State	175	178	179	153	134	-19	-12.4%	
	Out-of-State	3	3	1	6	7	1	16.7%	
	Total	*178*	*181*	*180*	*159*	*141*	*-18*	*-11.3%*	
Maine Community College System	In-State	218	249	246	260	239	-21	-8.1%	
	Out-of-State	3	2	5	5	2	-3	-60.0%	
	Total	*221*	*251*	*251*	*265*	*241*	*-24*	*-9.1%*	
External (excluding MCCS)	In-State	280	323	316	305	325	20	6.6%	
	Out-of-State	83	67	94	73	99	26	35.6%	
	Total	*363*	*390*	*410*	*378*	*424*	*46*	*12.2%*	
Total	**In-State**	**673**	**750**	**741**	**718**	**698**	**-20**	**-2.8%**	
	Out-of-State	**89**	**72**	**100**	**84**	**108**	**24**	**28.6%**	
	Total	*762*	*822*	*841*	*802*	*806*	*4*	*0.5%*	

Transfer-in, Degree/Certificate-Seeking Headcount by Type of Institution Last Attended

Spring 2018 Transfer-in, Degree/Certificate-Seeking Undergraduate Headcount by Type of Institution Last Attended, Tuition-Based Residency, and Institution

		UM	UMA	UMF	UMFK	UMM	UMPI	USM	Total
Internal (UMS)	In-State	18	45	13	8	4	15	31	134
	Out-of-State	2	2				1	2	7
	Total	*20*	*47*	*13*	*8*	*4*	*16*	*33*	*141*
Maine Community College System	In-State	25	62	6	25	2	13	106	239
	Out-of-State	0	1	0	0	0	0	1	2
	Total	*25*	*63*	*6*	*25*	*2*	*13*	*107*	*241*
External (excluding MCCS)	In-State	74	77	16	17	8	19	114	325
	Out-of-State	37	25	4	8	4	6	15	99
	Total	*111*	*102*	*20*	*25*	*12*	*25*	*129*	*424*
Total	**In-State**	**117**	**184**	**35**	**50**	**14**	**47**	**251**	**698**
	Out-of-State	**39**	**28**	**4**	**8**	**4**	**7**	**18**	**108**
	Total	*156*	*212*	*39*	*58*	*18*	*54*	*269*	*806*

Note: Students with a tuition residency of Online are included with the out-of-state category.

23

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Race/Ethnicity

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	1-year Change #	1-year Change %	5-year Change #	5-year Change %	Trend Line
White	22,194	21,538	21,411	21,514	21,391	79.2%	-123	-0.6%	-803	-3.6%	
Black/African American	509	530	578	612	684	2.5%	72	11.8%	175	34.4%	
Hispanic / Latino	499	511	575	640	742	2.7%	102	15.9%	243	48.7%	
Asian	345	344	345	376	383	1.4%	7	1.9%	38	11.0%	
American Indian / Alaskan	388	354	326	300	294	1.1%	-6	-2.0%	-94	-24.2%	
Hawaii / Pacific Islands	15	16	11	11	8	0.0%	-3	-27.3%	-7	-46.7%	
Non-resident alien	760	810	785	698	690	2.6%	-8	-1.1%	-70	-9.2%	
Two or more races	549	604	611	660	728	2.7%	68	10.3%	179	32.6%	
Unspecified	2,781	2,524	2,359	2,163	2,104	7.8%	-59	-2.7%	-677	-24.3%	
Total	*28,040*	*27,231*	*27,001*	*26,974*	*27,024*	*100.0%*	*50*	*0.2%*	*-1,016*	*-3.6%*	

Spring 2018 Headcount by Race/Ethnicity

- White: 21,391, 79.2%
- Minorities: 2,111, 7.8%
  - Black/African American (684, 2.5%)
  - Hispanic/Latino (742, 2.7%)
  - Asian (383, 1.4%)
  - American Indian/Alaska Native (294, 1.1%)
  - Native Hawaiian/Pacific Islander (8, 0.03%)
- Non-Resident Alien: 690, 2.6%
- Two or More Races: 728, 2.7%
- Unspecified: 2,104, 7.8%

24

Spring 2018 Enrollment Report – The University of Maine System

Headcount by Age Range

Age Range	Spring 2014		Spring 2015		Spring 2016		Spring 2017		Spring 2018		% Change		Trend Line
	#	% of Total	#	% of Total	#	% of Total	#	% of Total	#	% of Total	1-year	5-year	
Under 18	420	1.5%	504	1.9%	733	2.7%	959	3.6%	1,231	4.6%	28.4%	193.1%	
18-19	5,718	20.4%	5,527	20.3%	5,460	20.2%	5,676	21.0%	6,034	22.3%	6.3%	5.5%	
20-21	6,271	22.4%	6,357	23.3%	6,360	23.6%	6,265	23.2%	6,261	23.2%	-0.1%	-0.2%	
22-24	4,946	17.6%	4,609	16.9%	4,597	17.0%	4,460	16.5%	4,221	15.6%	-5.4%	-14.7%	
25-29	3,455	12.3%	3,329	12.2%	3,169	11.7%	3,290	12.2%	3,091	11.4%	-6.0%	-10.5%	
30-34	2,107	7.5%	2,095	7.7%	1,931	7.2%	1,928	7.1%	1,856	6.9%	-3.7%	-11.9%	
35-39	1,492	5.3%	1,329	4.9%	1,402	5.2%	1,344	5.0%	1,323	4.9%	-1.6%	-11.3%	
40-49	2,150	7.7%	2,043	7.5%	2,001	7.4%	1,786	6.6%	1,767	6.5%	-1.1%	-17.8%	
50-64	1,334	4.8%	1,266	4.6%	1,199	4.4%	1,129	4.2%	1,090	4.0%	-3.5%	-18.3%	
65+	129	0.5%	155	0.6%	144	0.5%	128	0.5%	148	0.5%	15.6%	14.7%	
Unknown	18	0.1%	17	0.1%	5	0.0%	9	0.0%	2	0.0%	-77.8%	-88.9%	
Total	28,040	100%	27,231	100%	27,001	100%	26,974	100%	27,024	100%	0.2%	-3.6%	

Spring 2018 Headcount by Age Range
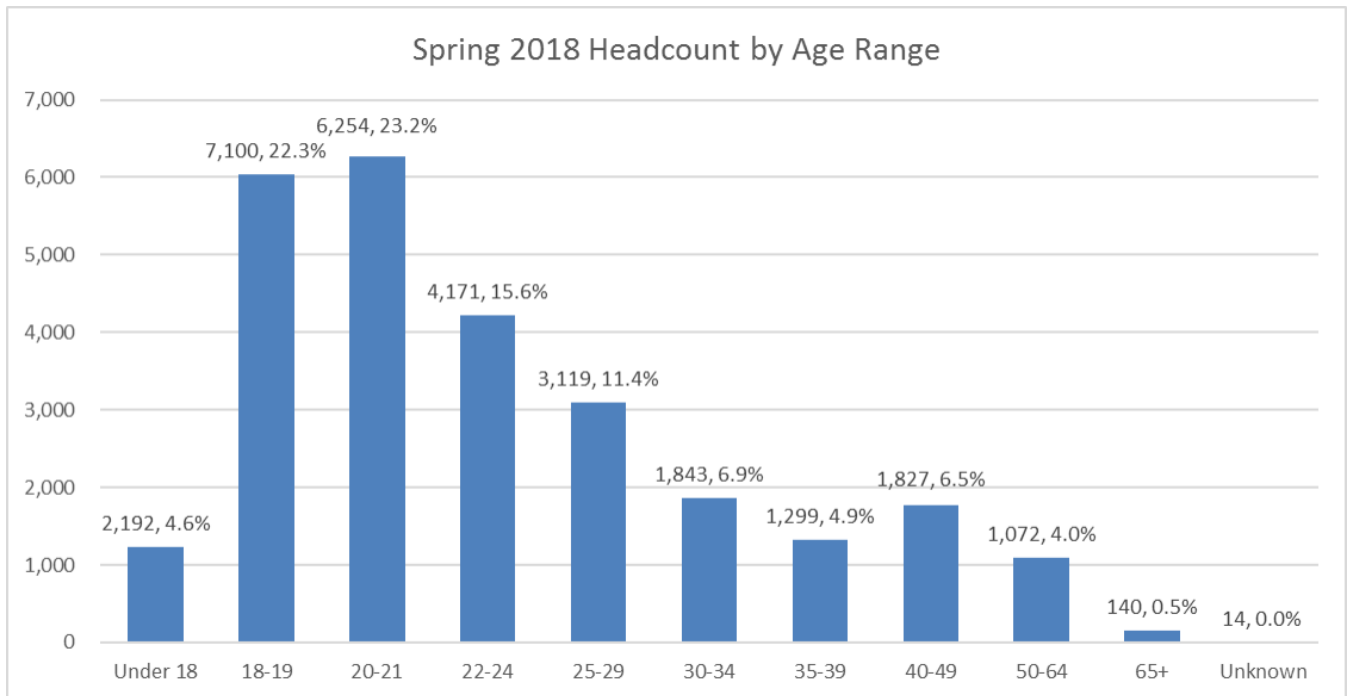
Five-Year Enrollment Change by Summarized Age Ranges

		Under 18	18 - 24	25 - 39	40 - 64	65 and over	Unknown	Total
Spring 2014		420	16,935	7,054	3,484	129	18	28,040
Spring 2017		959	16,401	6,562	2,915	128	9	26,974
Spring 2018		1,231	16,516	6,270	2,857	148	2	27,024
1-Year Change	#	272	115	-292	-58	20	-7	50
	%	28.4%	0.7%	-4.4%	-2.0%	15.6%	-77.8%	0.2%
5-Year Change	#	811	-419	-784	-627	19	-16	-1,016
	%	193.1%	-2.5%	-11.1%	-18.0%	14.7%	-88.9%	-3.6%

25

Spring 2018 Enrollment Report – The University of Maine System

Spring 2018 Headcount Residency (Based on Original Home Address)

Headcount of In-State Students by County

County	Headcount	% of Total In-State
Cumberland	4,551	21.6%
Penobscot	2,916	13.9%
York	2,318	11.0%
Kennebec	2,162	10.3%
Aroostook	1,831	8.7%
Androscoggin	1,458	6.9%
Oxford	769	3.7%
Knox	719	3.4%
Washington	707	3.4%
Hancock	685	3.3%
Somerset	671	3.2%
Waldo	555	2.6%
Sagadahoc	529	2.5%
Franklin	472	2.2%
Lincoln	440	2.1%
Piscataquis	245	1.2%
Unknown	14	0.1%
Total In-State	*21,042*	*100.0%*

Percentage of In-State Students by County
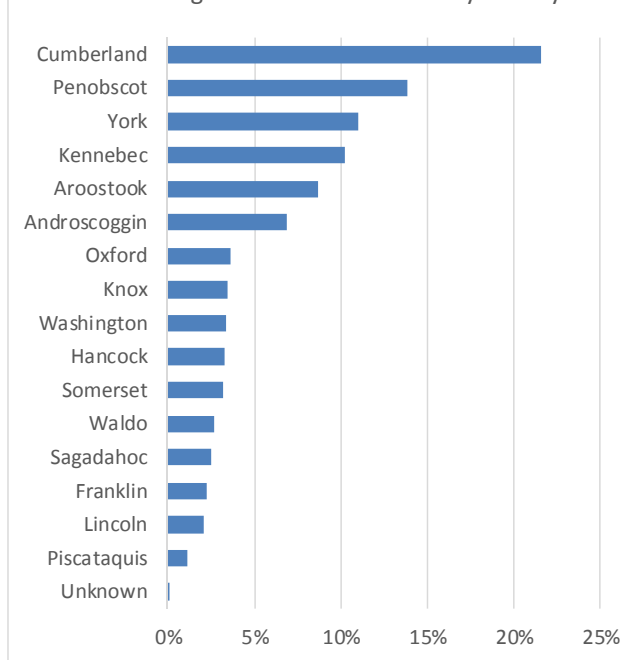
Headcount of Out-of-State Students by State

State	Headcount	% of Total Out-of-State
Massachusetts	1,761	32.5%
New Hampshire	639	11.8%
Connecticut	598	11.0%
New York	335	6.2%
New Jersey	280	5.2%
Vermont	252	4.6%
California	165	3.0%
Pennsylvania	160	3.0%
Rhode Island	143	2.6%
Florida	118	2.2%
Other States	972	17.9%
Total Out-of-State	*5,423*	*100.0%*

Headcount of International Students

Country	Headcount	% of Total International
Canada	123	22.8%
China	74	13.7%
India	30	5.6%
Nepal	26	4.8%
Saudi Arabia	22	4.1%
United Kingdom	19	3.5%
Iran	16	3.0%
France	14	2.6%
Jamaica	14	2.6%
Austria	9	1.7%
Bangladesh	9	1.7%
Other Countries	183	34.0%
Total International	*539*	*100.0%*

Headcount Residency Totals

	Headcount	% of Total
Total In-State	21,042	77.9%
Total Out-of-State	5,423	20.1%
Total International	539	2.0%
Total Unknown	20	0.1%
Total	*27,024*	*100.0%*

26

Spring 2018 Enrollment Report – The University of Maine System

Spring 2018 Distance Education Credit Hours by Mode and Institution

	UM	UMA	UMF	UMFK	UMM	UMPI	USM	Total	% of Total
Distance ITV	0.0	1,738.0	0.0	0.0	120.0	0.0	0.0	*1,858.0*	**0.6%**
Distance Online	17,778.0	17,872.0	1,008.0	6,110.0	2,473.0	2,756.0	15,669.0	*63,666.0*	**21.7%**
Distance Onsite	404.0	2,009.0	114.0	0.0	0.0	340.0	0.0	*2,867.0*	**1.0%**
Distance Video Conference	91.0	831.0	42.0	0.0	99.0	90.0	141.0	*1,294.0*	**0.4%**
Total Distance Education	**18,273.0**	**22,450.0**	**1,164.0**	**6,110.0**	**2,692.0**	**3,186.0**	**15,810.0**	**69,685.0**	**23.8%**
Traditional Campus Course	112,580.5	8,438.0	23,953.0	6,188.0	3,809.0	8,771.0	59,961.0	*223,700.5*	**76.2%**
Total Credit Hours	*130,853.5*	*30,888.0*	*25,117.0*	*12,298.0*	*6,501.0*	*11,957.0*	*75,771.0*	*293,385.5*	*100.0%*

Spring 2018 Percentage of Credit Hours by Mode
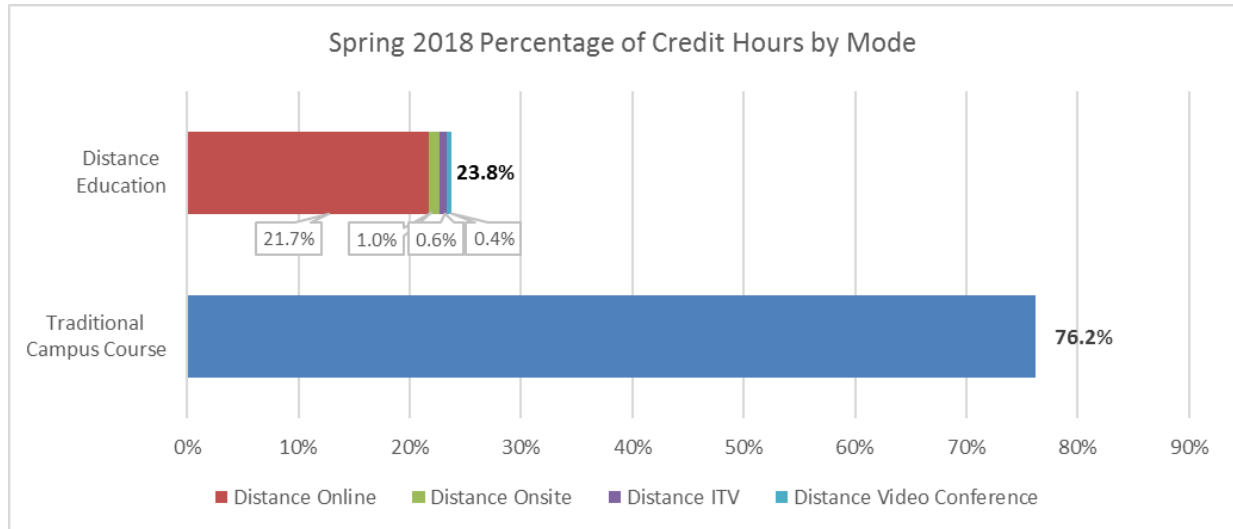
Total Semester Credit Hours by Mode

	Spring 2014	Spring 2015	Spring 2016	Spring 2017	Spring 2018	% of Total	% Change 1-year	% Change 5-year	Trend Line
Distance ITV	5,862.0	4,664.0	3,916.0	2,949.0	1,858.0	**0.6%**	-37.0%	-68.3%	
Distance Online	49,890.0	54,396.5	56,877.0	58,966.5	63,666.0	**21.7%**	8.0%	27.6%	
Distance Onsite	4,096.0	3,141.0	3,467.0	2,523.0	2,867.0	**1.0%**	13.6%	-30.0%	
Distance Video Conference	2,087.0	2,101.0	2,424.5	1,408.0	1,294.0	**0.4%**	-8.1%	-38.0%	
Total Distance Education	61,935.0	64,302.5	66,684.5	65,846.5	69,685.0	**23.8%**	5.8%	12.5%	
Traditional Campus Course	238,319.8	229,274.3	224,199.3	224,461.5	223,700.5	**76.2%**	-0.3%	-6.1%	
Total Credit Hours	*300,254.8*	*293,576.8*	*290,883.8*	*290,308.0*	*293,385.5*	*100.0%*	1.1%	-2.3%	

27

Spring 2018 Enrollment Report – The University of Maine System

Spring 2018 Distance Education Credit Hours by Mode and Degree Level

		Credit Hours	% of Subtotal	% of Total
Distance ITV	**Associate**	264	14.2%	0.4%
	Baccalaureate	1,471	79.2%	2.1%
	Non-Degree Undergraduate	123	6.6%	0.2%
	Subtotal	**1,858**	**100.0%**	**2.7%**
Distance Online	**Associate**	2,276	3.6%	3.3%
	Baccalaureate	50,997	80.1%	73.2%
	Non-Degree Undergraduate	5,025	7.9%	7.2%
	Graduate	4,430	7.0%	6.4%
	Non-Degree Graduate	939	1.5%	1.3%
	Subtotal	**63,666**	**100.0%**	**91.4%**
Distance Onsite	**Associate**	552	19.3%	0.8%
	Baccalaureate	1,211	42.2%	1.7%
	Non-Degree Undergraduate	783	27.3%	1.1%
	Graduate	273	9.5%	0.4%
	Non-Degree Graduate	48	1.7%	0.1%
	Subtotal	**2,867**	**100.0%**	**4.1%**
Distance Video Conference	**Associate**	111	8.6%	0.2%
	Baccalaureate	848	65.5%	1.2%
	Non-Degree Undergraduate	166	12.8%	0.2%
	Graduate	147	11.4%	0.2%
	Non-Degree Graduate	22	1.7%	0.0%
	Subtotal	**1,294**	**100.0%**	**1.9%**
Total Distance Education	**Associate**	3,203	*4.6%*	
	Baccalaureate	54,527	*78.2%*	
	Non-Degree Undergraduate	6,097	*8.7%*	
	Graduate	4,850	*7.0%*	
	Non-Degree Graduate	1,009	*1.4%*	
	Total	***69,685***	***100.0%***	***100.0%***

28

University Services:
Information Technology

STATE OF IT REPORT - 2017

4 *Overview of US:IT*

System Upgrades & Enhancements 12

15 *Team Highlights*

US:IT STATE OF IT REPORT 2017   2

W E L C O M E

From the Desk of the Chief Information Officer

David Demers, Ph.D.
Chief Information Officer

Hello and welcome to the University Services:Information Technology division's annual State of IT report. In this report, we hope to inform the University of Maine System community with an overview of the US:IT Organization, updates on major projects and service enhancements completed or undertaken this past year, partnerships facilitated and a vision of the future for the US:IT team.

Our division continues to strive to support the 'One University' concept by providing reliable, secure and robust technological solutions that enhance teaching and learning, create operational efficiencies and accommodate the business goals of each campus constituency. Information contained in this report was contributed by numerous staff within US:IT and the success metrics reported highlight the ongoing dedication and commitment of the entire US:IT team to deliver exemplary customer service to each campus we support. In this report we also outline the collaborations, partnerships and activities we will continue to pursue in order to enhance the technology and information services landscape for the University of Maine system.

It should also be noted that the past year was one of leadership transition for US:IT. Dick Thompson, who retired as CIO in September 2017, was the driving force behind the IT unification effort. This monumental task positioned US:IT to be on the leading edge for the University of Maine System to drive new efficiencies and realize savings in order to combat rising costs and shrinking budgetary allocations. Through his stewardship and leadership, US:IT emerged to serve as a model of success for other units to follow. I am grateful to Dick for his contributions and his strength in seeing this initiative through. It is my goal to continue to build upon this success. To do so will require continued collaboration and teamwork throughout the division as well as with the students, faculty and staff we serve on each campus. I truly look forward to working together as a group to achieve this goal.

OVERVIEW OF US:IT

Structure, Leadership and Staffing

The University Services: Information Technology division consists of more than 200 US:IT employees organized into the following functional areas:

- Support Services
- Classroom Technology
- End User Technology
- Information Security
- Enterprise Computing and Applications
- Campus Academic and Business Solutions
- Web Technologies
- Network Services
- Data Center Operations
- Advanced Computing Group
- Project Management
- Data Analytics and Reporting Technology Services
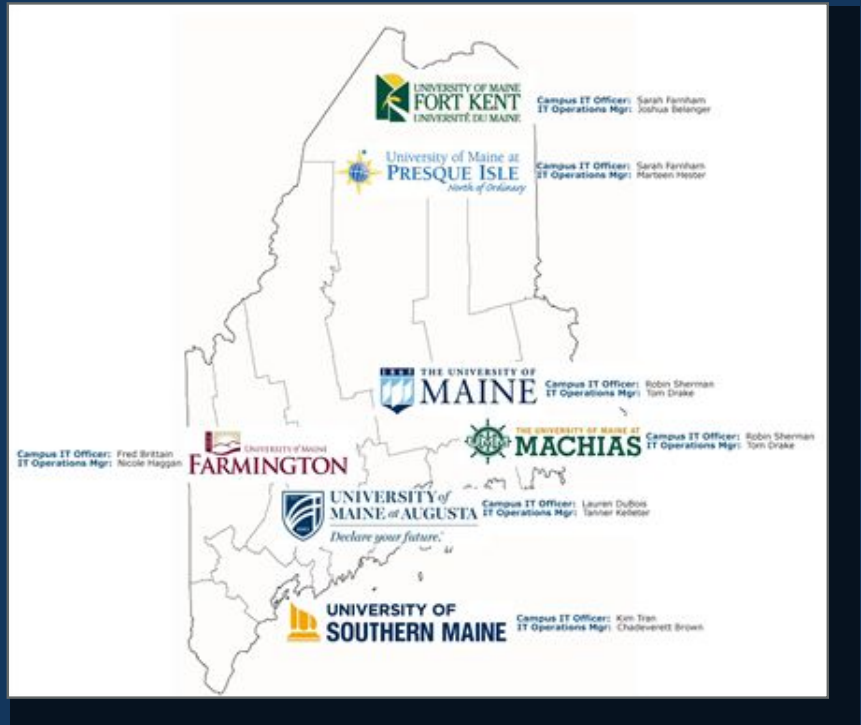
In addition, each campus in the University of Maine System has a designated Campus Information Technology Officer as well as a Campus Operations Manager. These roles are charged with providing each campus with strategic and operational level IT support through collaboration and engagement.

A full organizational chart for US:IT is now available at:

www.maine.edu/its/

US:IT STATE OF IT REPORT 2017   4
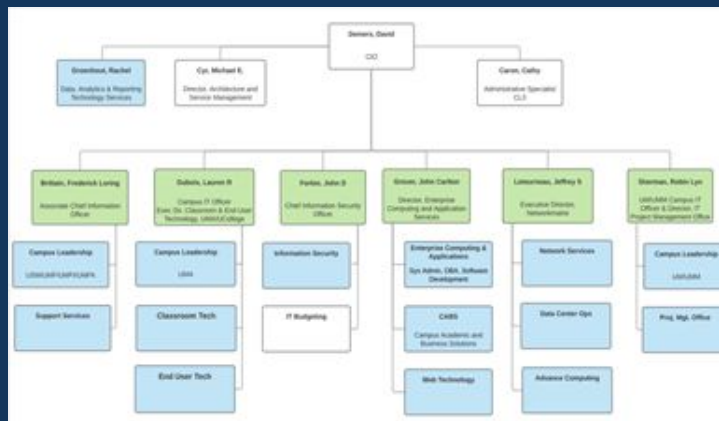
OVERVIEW OF US:IT

Support Services

The University Services:Information Technology division supports greater than 100 unique services across a dozen categories:

- Accounts, Access, & Passwords
- Business Applications
- Computers, Hardware, & Printing
- E-mail, Calendaring, & Listserv
- Educational Tools, Online Learning, & Classroom Technology
- Help & Training
- Networks, Telephones, & Communications
- Project Management, & Consulting
- Safety & Security
- Servers, Backup, & Monitoring
- Software & Applications
- Web Development & Hosting

In 2016, US:IT formed a cross-disciplinary team entitled IT Portfolio Management chaired by Kim Tran, Campus IT Officer for USM. One of the goals for this group was the publication of a shared UMS Service Catalog. A service catalog is an industry standard offering that provides the client community a menu of services offered, self-service offerings, links to documentation and training, and contact information. In summer of 2017, this group released the very first Service Catalog for IT in the University of Maine System. Beyond providing customer-oriented access to IT Services, it also supports management of IT's portfolio of service as well as identification of duplicative services.

At this time there are 85 public-facing services in the catalog with numerous more internal to IT. The project will continue to be refined with documentation linked to services and incident response tracking as the product matures. From September through November 2017, the service catalog had 8,950 views from across all the campuses and the intensity of visits has been climbing as the university community becomes more familiar with the facility.

The service catalog is available at https://itservices.maine.edu

UMS Information Technology Services

- Accounts, Access & Passwords
- Business Applications
- Computers, Hardware, & Printing
- E-mail, Calendaring, & Listserv
- Educational Tools, Online Learning & Classroom Technology
- Help & Training
- Networks, Telephones, & Communications
- Project Management, & Consulting
- Safety & Security
- Servers, Backup, & Monitoring
- Software & Applications
- Web Development & Hosting

US:IT Service Catalog

 # Public Services
85

 # Service Catalog Views (Sep'17-Nov'17)
8,950

Help Desk

FIGURE A

ability for issues to be resolved upon first contact. At present, roughly 90% of calls are resolved immediately (Figure B).

When tickets are unable to be resolved upon first contact, speed of resolution is an area where US:IT must continue to focus. With an increase in call volume in August in particular, the fall semester starts with a backlog of work before classes begin (Figure C). Various IT units will need to shift vacations to earlier times in the summer to ensure availability for an earlier peak period.

Help Desk Calls

Total # Calls in 2017
51,160

% Answered by Students
59.9%

% Calls Resolved on First Contact
90%

The US:IT operates multiple, integrated help desks across all the campuses and some additional locations. Telephones are managed such that the local help desk will receive the call first and if nobody is available, the client can opt to reach assistance from another location. The change to campus-first answering was made in summer of 2016 in response campus feedback about remote assistance not being as reliable. With the current model, approximately 93% of the total volume of 51,160 calls were answered locally over the past calendar year.

Student labor plays an integral part of the IT Support Services operation. In 2017, roughly 60% of calls placed to the IT Help Desk were handled by student workers (Figure A). Students, primarily located at UM, UMF and USM, play a significant role in after hours and weekend support as well.

A key metric for a robust Help Desk operation is the percentage of calls resolved on first contact. Training of support staff and the introduction of a statewide, real-time chat tool amongst support staff have steadily increased the

FIGURE C

FIGURE B

Through the initial State of IT report, seven new positions were created within IT Support Services. The purpose of these positions was to enhance quality of service and coverage. All of these positions are filled with six (6) at campuses and one (1) Analyst position charged with tracking effectiveness, process improvement, creating documentation and ensuring we are leveraging staff seamlessly from one campus to another. The result of these positions has resulted in extended support desk hours by adding second shift regular staffing to oversee existing student labor and making phone support available to all the campuses on weekends and until 9:00 PM during the week. This totals approximately twenty

four additional hours per week of service desk availability. The additional staff have also stabilized gaps where we have frequent turnover in entry-level positions, areas where staffing is limited, and illness and vacation has previously had a profound impact. Staff are regularly deployed to assist at other campuses as needed. These new staff have also provided assistance in moving legacy services to the appropriate enterprise teams and have facilitated support for computer desktop initiatives at the campus level.

As a trial, the help desk was made available 24x7 during the first two weeks of the spring semester of 2017. This was heavily advertised at all the campuses and yielded only six calls over the entire period after midnight and minimal volume between 9:00 PM and 12:00 AM. The experiment suggested the demand does not align with cost and the strategy will be re-evaluated.

Annual Budget

The US:IT budget is comprised of compensation and benefits for US:IT employees, non-compensation annual expenses and annual revenue offsets. The consolidated US:IT budget is almost entirely recharge-based, with the rational cost for services and support charged back to individual University of Maine System campuses. This arrangement provides a cost-effective model for delivering a blend of campus-specific and shared IT services for each member campus; this model is also leveraged by other UMS shared services organizations, including human resources, strategic procurement, general counsel, internal audit and finance.

Since 2017, the US:IT budget has experienced modest growth to keep pace with contractually-mandated salary and annual licensing increases. As shown in Figure (D), the FY18 budget increased by a total of 5.1% to $23.739M over the FY17 budget ($22.580M). The projected FY19 budget includes a 4.5% increase over the FY18 budget for a total of $24.843M.

The annual US:IT budget is allocated into several categories, including:

- 69% for compensation (salary & benefits)
- 31% for non-compensation expenses

Figure E provides the breakdown of the budget with the majority of non-compensation expenses allocated to 'Supplies & Services' and 'Maintenance'.

The projected FY19 budget has a similar allocation pattern (Figure F) to the FY18 budget. The $1.104M increase includes allocations required to fund necessary support positions and negotiated salary increases ($375K) and several non-compensation expenses which represent recently acquired software platforms as well as hardware and software expense reinstatements that were subsidized through other sources in the FY18 budget.
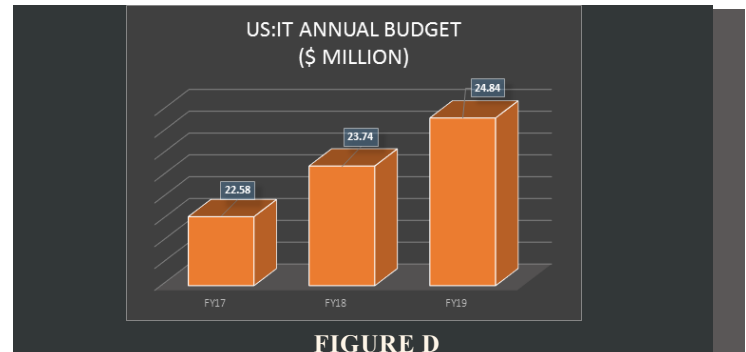
FIGURE D
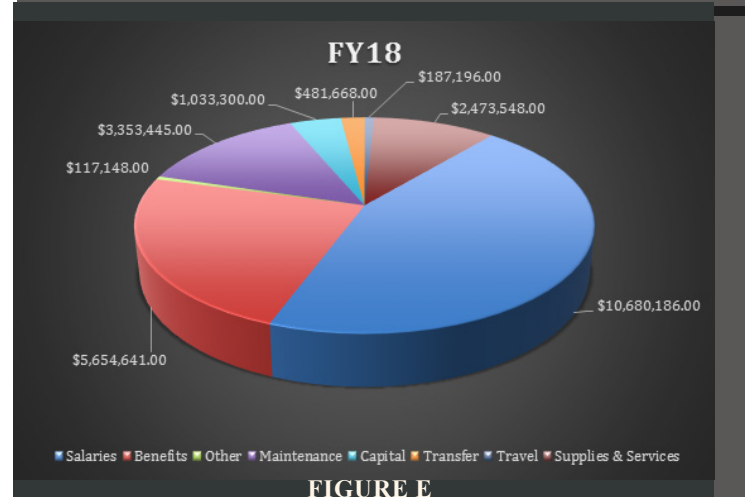
FIGURE E
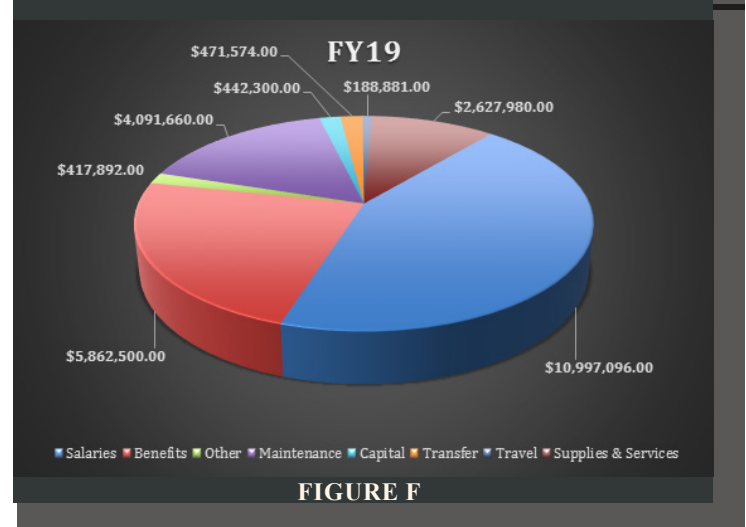
FIGURE F

Capital Investments

In 2015, the State of IT Report presented to the Board of Trustees outlined several capital investment projects designed to enhance IT infrastructure, delivery systems and improved services to all University of Maine System constituencies in support of the One University initiative.

The Board of Trustees fully endorsed the initiatives presented and authorized $20M in bond investments to support modernization of classroom technology, rebuilding wireless infrastructure and improvements in the MaineStreet ERP environment. Allocations were made to these projects as shown in Figure G. Updates on these projects are presented in the following sections of this report

FIGURE G
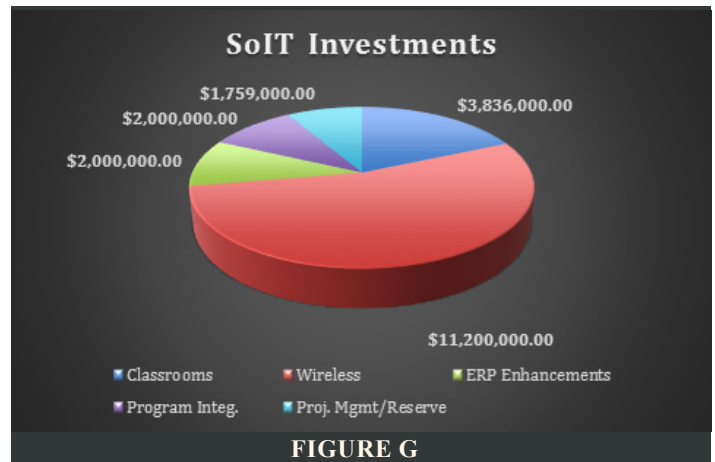
PROJECT MANAGEMENT

Highlights and Metrics

The Project Management Office (PMO) continues to provide guidance to the UMS community throughout an IT project's lifecycle; from the initial project request through project completion. As the services the PMO delivers continue to mature, the value of applying project management methodology throughout the project lifecycle is fully realized, resulting in increased demand, support and adoption by project teams. Figure H demonstrates the increased reliance and demand for project management services for new initiatives from 2013 through 2017.

During 2017, the PMO completed fourteen (14) projects and initiated ten (10) new projects (Figure I). The following list represents some examples of the new projects.

New Projects

- *MaineStreet HRMS upgrade*
- *Blue (course evaluation system for UM, UMM, USM, and UMPI)*
- *EAB Campus/Guide (UMA, UMPI, and UMM)*
- *Taskstream (assessment, accreditation, and e-portfolio system for UM and UMA)*
- *UMF website upgrade*

Completed Projects

- *MaineStreet Financials upgrade*
- *Transfer Equivalency Guides*
- *UMA Website upgrade*
- *EAB SSC-Foundation*
- *learn.maine.edu website upgrade*
- *AiM upgrade*
- *Access Control*

FIGURE H
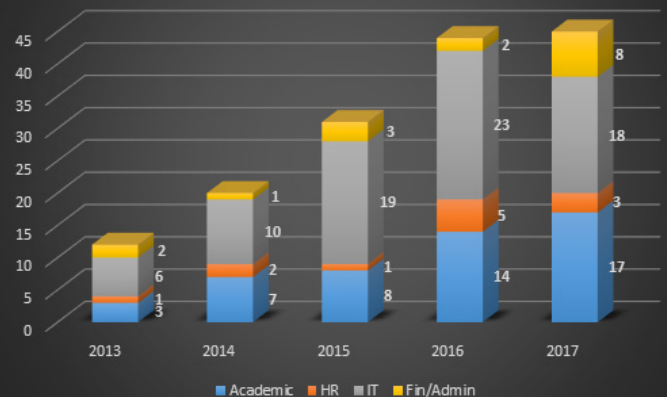
FIGURE I
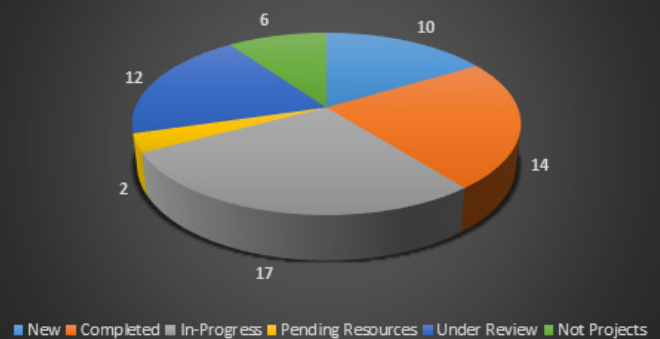
In addition to providing project management services for projects requested at the campus and system levels, the PMO provided substantial support for the bond-funded Classrooms for the Future, Wireless Infrastructure, and MaineStreet Improvements projects.

2017 PROJECT UPDATES

CLASSROOMS FOR THE FUTURE

The US:IT Classroom Technology team assists in the design, installation, support and maintenance of audio visual technology in the classrooms, conference rooms, and event spaces for the University of Maine System. In the past year, the Classroom Technology team has been heavily involved in the 167 classroom installations and upgrade projects underneath the Classroom for the Future project. The team has also completed an additional 24 projects with campus based funding. There has been a concerted effort by the Classroom team with the Campus IT Officer's to change/shift the culture around using consistent, uniform technology in all campus spaces.

The work completed through the Classrooms for the Future project during the Summer of 2016 and 2017 has made a positive impact on the teaching and learning spaces. The funds provided allowed for coordinated efforts of the Classroom for the Future team, the Facilities staff on the various campuses, and the instructional designers, to significantly improve the classroom experience. A 4-point classroom assessment rubric was utilized to establish a baseline measure of teaching technology
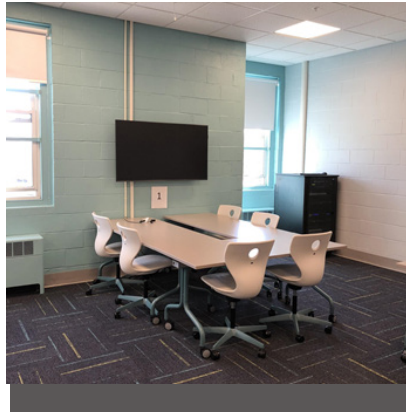
capacity through evaluation of several practical categories including functionality, finishing, environment, displays & cameras, audio and accessibility. Prior to the upgrades performed over the past year, the average room scored 2.27 on the 4-point scale. Following upgrades completed over the past year, average room scores improved to 3.1. A breakdown of these improvements by campus are shown in Figure J. Additional breakdown of improvements in each of the functional categories are provided in Figure K.
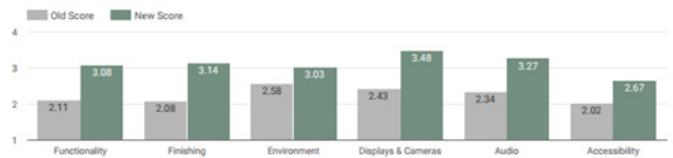

Figure K

In addition to the quantitative measure of improvements made through the classroom investments, qualitative feedback obtained from students and faculty using these newly renovated spaces indicates the positive impact of the initiative. A sampling of feedback is provided below.

Faculty Feedback

"Made me more focused on teaching instead of trying to get technology to work."

"I can teach while looking at the students not having to turn my back or to the side."

"Very versatile for group work."

"Much more pleasant environment."

"Make all classrooms like these rooms."

"I like that the projector and sound system can be controlled with one button. The projector provides a good quality picture."

"I like that this room has reliable equipment."

"Better teaching experience for myself and students."

Student Feedback

"It makes it feel more realistic and like you are sitting in the same room as everyone."

"more of a comfortable experience"

"I like how there are outlets on the table, it makes it easy to bring a laptop for work and not worry about where we are going to plug it in."

"This has made me realize how many opportunities are available to us students now compared to just a short time ago."

"Instant access to my Professors when I have questions."

"Easy to use remote and comfortable chairs."

US:IT Classroom Technology 2017 Summary

149 Rooms Upgraded

2.27 Old Average Score Upgraded Rooms

3.1 New Average Score of Upgraded Rooms

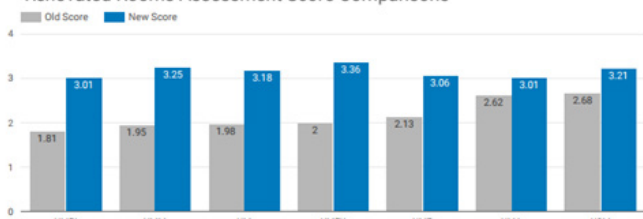Renovated Rooms Assessment Score Comparisons

Figure J

After Action Reviews (AARs)

AARs were completed on Summer 2017 classroom upgrades for all 7 campuses. Participants were eager to share positive feedback from faculty and students on updated classroom spaces. Areas for process improvement include enhancing communications with campus staff during the upgrade process, better coordination with Facilities to ensure timely completion of facilities related work, more detailed documentation on scope and addressing furniture and technology installation delays on campuses.

The CFTF team has modified processes as a result of feedback from the campuses. Facilities' tasks and timelines are now incorporated into the project plan. Campuses are now asked to provide room requests no later than January so quotes can be obtained and equipment/furniture orders can be placed earlier to avoid delays. The team is also working with campuses to identify a point person (project coordinator) on each campus who can be involved from the initial walk-through stage until room completion. These project coordinators will also be involved in a weekly update meeting to improve communication.

WIRELESS INFRASTRUCTURE

This project represents an effort to upgrade wireless service and associated cabling and equipment at all campuses to bring wireless capacity to gigabit speeds to support learning and living spaces. As shown in Figure L, in 2015, virtually all wireless access points deployed on UMS campuses were either beyond their serviceable lifespan or out of current standards. The goal of this project is to maximize the number of deployed access points that are at current standards. This past year, wireless infrastructure upgrades resulted in the majority of access points deployed system-wide being at current standards.

FIGURE L
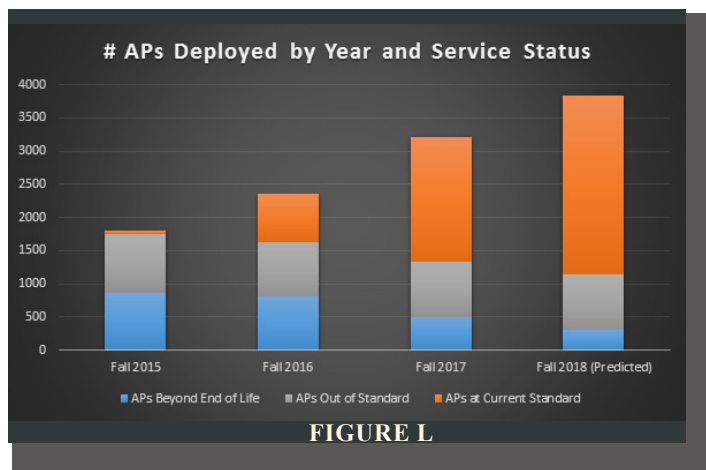
Over the past year, eleven residence halls were upgraded with new infrastructure and wireless networks. In addition, upgrades to nine classroom buildings have been completed since June 2017 or are currently in progress. Focus for this project is shifting from residence halls that needed to be completed during summer break to academic buildings on the larger USM and UMaine campuses as shown in Figure M.

FIGURE M
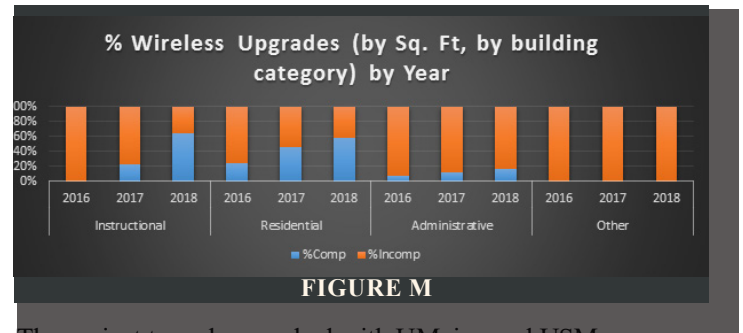
The project team has worked with UMaine and USM leadership to prioritize classroom buildings. Major upgrades are underway in Bailey Hall at USM and Boardman and Bryand Global Sciences at UMaine. Estimates and project plans are underway for several other classroom buildings as indicated in Table N.

MAINSTREET IMPROVEMENTS

The primary goal of this project is to engage with stakeholders (staff, faculty and students) to identify ways to improve their MaineStreet experience. This includes bringing MaineStreet functions to mobile platforms as well as achieving support for the One University initiative by operationalizing business process improvements to create seamless, portable access to information.

To help ensure the project achieves its goals, the project team engaged with BerryDunn, inc. for business analysis services including the development of student and faculty surveys, conducting on-campus focus group sessions, peer institution consultations, and to catalog identified requirements.

Surveys were distributed to faculty and students in 2017 during June and September to collect input about MaineStreet functionality/requirements.

BerryDunn conducted focus groups at all campuses during the week of September 18, 2017. While focus group attendance was lower than anticipated, the discussions provided additional insights into the issues faced by faculty and students when working in MaineStreet. The results of these sessions were consolidated with the results of the two surveys.

STUDENT REQUIREMENTS	FACULTY REQUIREMENTS
• Mobile-friendly access • Improved navigation • Better grades, courses and schedule view • Simplified course enrollment • Push notifications for holds, billing, and grades • Dashboard view of relevant information	• Improved navigation • Notifications of student activity • Ability to email all students • Add notes to advisee's profile • Streamline/simplify course catalog logic • Simplify grade uploads

Wireless Infrastructure Building Upgrades by Campus

TABLE N

Campus	Allocation	Buildings		
University of Maine	$2,889,600	Fogler Library Shibles Bennett Rogers Jenness Bryand Global Boardman Aubert Crosby Lab	Little Nutting Fernald Neville Barrows Murray Hall[4] Donald P Corbett Estabrook Core	Sculpture Building Dunn Colvin Hall Murray Hall Class of 1944 Lord Hitchner Winslow
University of Maine at Machias	$403,200	Science Torrey / Merrill Library	Kilburn Powers Reynolds	Dorward[3] Sennett[3]
University of Southern Maine	$5,017,600	Drawing Studio Print Studio Academy Building Wishcamper John Mitchell Cen Law Building Bailey	Payson-Smith Science Abromson Luther-Bonney Glickman Library Masterton Hall Corthell	Brooks Dining Costell Complex Woodbury Sullivan Complex Wishcamper JMC
University of Maine at Augusta	$560,000	Lewiston Katz Jewett	Randall Eastport Camden Belfast	Civic Center College Center
University of Maine at Farmington	$1,444,800	Mantor Library Dakin Black Mallett Lockwood	Purington Stone Scott North Scott West	Scott South Roberts Learning Center[3]
University of Maine at Presque Isle	$515,200	Park Emerson	Merriman Folsom-Pullen	
University of Maine at Fort Kent	$369,600	Powell The Lodge	Crocker Old Model School[3]	Cyr[3]

Notes:

[3] **Insufficient funding for entire building; minimal upgrades to support Classrooms for the Future**

[4] **Partial upgrade due to building limitations**

MAINSTREET IMPROVEMENTS (CONT'D)

There were two related developments during 2017 impacting the nature of the project. Campuses have engaged with EAB for their Guide mobile app which will address some of the needs expressed through the surveys for students. The second development is that Oracle is putting more effort into making their PeopleSoft product mobile friendly and now nearly all student self-service components are mobile friendly in the newest releases of their software. This improved support by Oracle most likely alleviates the need to invest in a product to provide mobile interfaces and will allow focus, instead, on accelerating testing and implementation of newer releases of PeopleSoft modules.

MaineStreet Use Statistics

|	Portal	Campus Solutions	HR/HCM	Financials	CS Reporting
Users	63251	59177	15664	3435	704
Batch Jobs		371324	241095	138435	44475
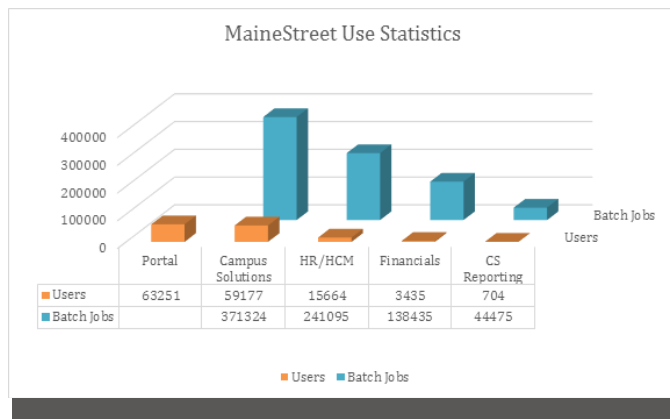
DATA CENTER SERVER MIGRATIONS

The consolidation of IT in 2012 offered a significant opportunity to streamline our operations and reduce costs by deduplicating services, reduce the number of servers and amount of storage needed for the university and to house those servers in well maintained, secure data centers.

Migrating servers from campus locations to the Orono datacenter has continued to be high priority work for the System Administration and Data Center Operations groups. In 2017, migration of all servers from University of Maine Farmington hardware to the Orono data center was completed. The Farmington IT Support Services, Web Technologies, System Administration, and Data Center Operations teams worked together to migrate 22 servers to the Orono data center and to decommission 27 other servers, for an 80% overall reduction in deployed servers.

Similar work is underway with USM and UMaine legacy servers.

SYSTEM UPGRADES AND ENHANCEMENTS
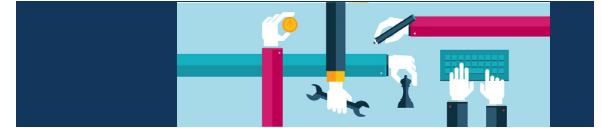
WEBSITES/PORTAL

A thrust of Web Technology has been to move campus websites from highly customized (but hard to support) website software, often hosted on aging campus infrastructure, to a robust and common framework hosted in a central data center. Such migrations come along with numerous support options, features and functionality sought by campuses for their external-facing websites, including enhanced campus branding, ADA compliance and mobile device friendliness.

Through 2017, Web Technologies partnered with campuses and departments in upgrade and redesign projects to ensure their web presences were up-to-date, performing well, meeting needs, and generating desired outcomes. Over the past year, the Web Technology team completed 5 major website projects including 3 full redesigns (UMM, UMA and University College), migration of USM's website framework to the Orono data center, and implementing a Web Accessibility tool. Web Technologies also participated in a number of upgrades to several other websites.

Web Technologies also manages the myCampus portal which has seen a nearly 30% growth in use over last year.
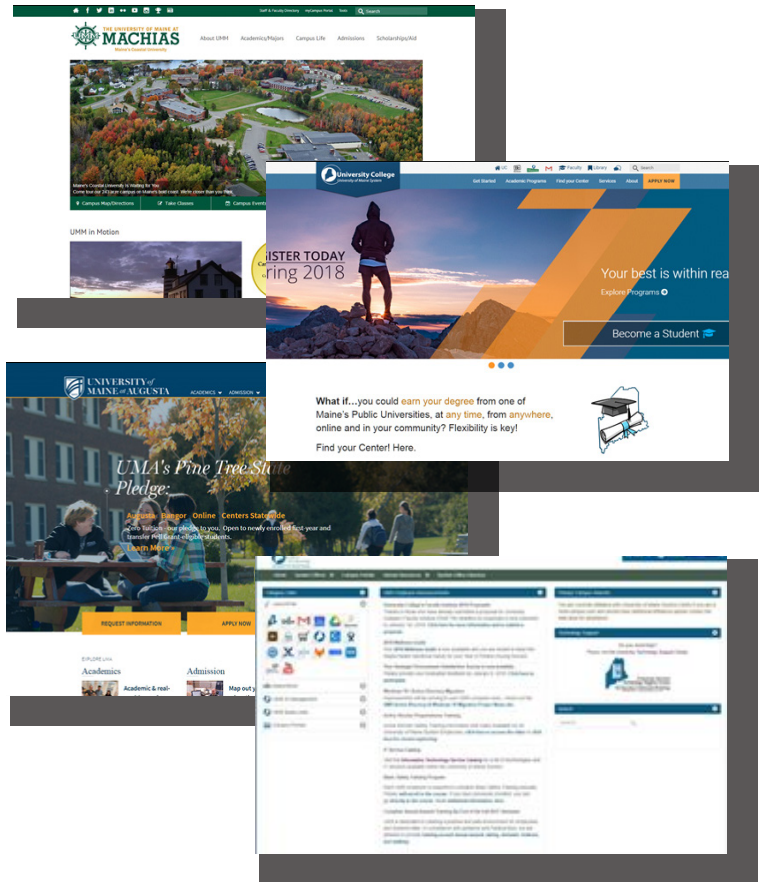
Campus Portal Usage

 # Distinct Users

59,877

Total # Pages

229,106

 # Sessions in 2017

5,684,239

 # Page Views

10,580,219

ACTIVE DIRECTORY

Migration of Windows computers to the new University Active Directory is almost complete on the UMF and UMFK campuses. Windows migration has begun at UMaine, UMM, and UMPI. Macintosh computer migrations are underway on the UMaine, UMM, UMF and UMA campuses and have been completed at the UMFK campus.

WINDOWS 10

In February 2018, US:IT's End-user Technology area will pilot, and shortly thereafter deliver, a standard and secure Windows 10 deployment for new computers including commonly-used software and services. This will free IT Support Services staff at campuses from maintaining separate Windows 10 development and support processes and tools.

MAINESTREET FINANCIALS

- Go-live: October 2016;
  Post go-live tasks completed Jan. 2017

- Transaction Volume

  - Payment vouchers   164,886
  - Purchase Order docs   63,124
  - GL Journals   75,018
  - Employee Expenses   24,772
  - AP Payments   112,206
  - HR Journal postings   5,225
  - Chartfield combos   170,000(+)

IMAGENOW

- Upgrade: October 2017
  (Version 7.1.5-1664)
- 2017 DocumentsVolume: 836,606
- Total Pages Stored: 7,658,757

BLACKBOARD

- Upgraded: July 2017
  Release 3100.0.3-rel.51+917ccd3
- # Active Courses: 8,630
- # Enrollments: 100,901

KALTURA

- Go-live: April 2017.
- # Media Entries: 4,251
- # Media Files Played: 62,000
- # Minutes of Video: 17,000
- Monthly bandwidth: 2533 GB
- Storage Used   33,942GB

BOX

- Go-live: Jan 2017
- # of Files Stored: 5,400,000
- Storage Used: 23TB
- # Session Logins: 60,500

PARTNERSHIPS

MAINEREN

As stated in the 2016 State of IT report, UMS and USNH released a joint RFP to replace much of the optical networks in Maine (MaineREN) and New Hampshire (I-Beam). The RFP was awarded to Integration Partners of NH with Ciena 6500 selected as the optical network platform. Throughout 2017, equipment was installed at twenty one (21) locations across Maine, New Hampshire and Massachusetts. While the project time-line has been delayed to some extent due to challenges with the quality of fiber cables UMS leases between Waterville and Portland, all equipment has been fully deployed and configured, successfully passed all tests both pre and post an extended burn-in period. The transition of production services to this new platform began during the Winter 2017 break with completion anticipated by the end of Spring 2018 break.
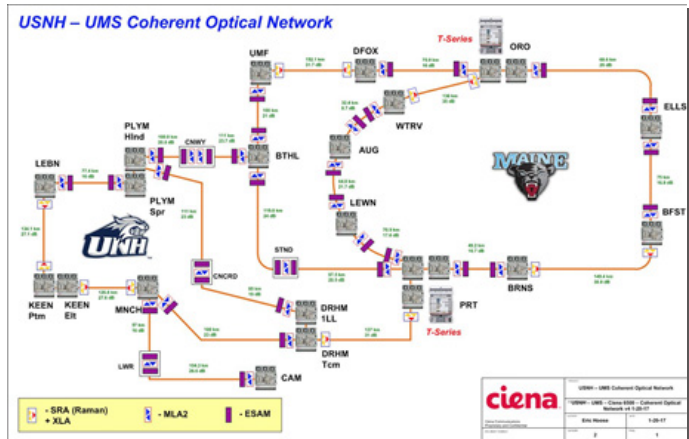
MSLN-MLTI WIFI

2017 proved to be a very productive year for the Maine School and Library Network (MSLN). Once again Maine has been rated among the top states for Internet connectivity for K-12 schools in terms of connectivity, fiber optic availability and affordability by Education SuperHighway. In late 2017 UMS released an RFP for

data transport (broadband) services for both UMS and MSLN locations throughout Maine This RFP will result in the award of some 760 data transport circuits across multiple transport service providers . While awards will not be made until January 2018, it is already clear that the consortium-based contracting for services will once again yield benefits to the entire K-20 (and public library) community.
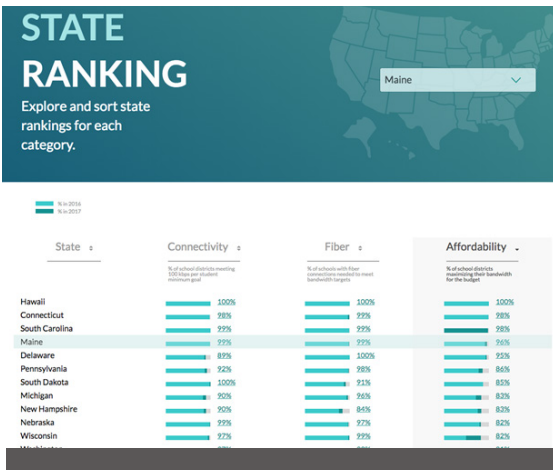
2017 also saw the passage of LD-256 which stabilizes state funding for MSLN. The bill received overwhelming support not only from the K12 schools and public libraries who receive direct benefit from MSLN, but also from much of the telecommunications industry, the Office of the Public Advocate, and the Maine State Library. Sponsored by Representative Martin Grohman of Biddeford, the final version of the bill changed the MTEAF's assessment from a percentage-of-retail-sales based to a fixed-surcharge based assessment. Modeled after how the E-911 system is funded, the MTEAF will restore state-level funding for MSLN to just under $4.0M or roughly to the level available in 2011-2012.

Networkmaine's support of the WiFi networks at two hundred and fifty (250) middle and high schools as part of the Maine Learning Technology Initiative (MLTI) was scheduled to end in June 2017. We had hoped that discussions with the Maine Department of Education (MDoE) would lead to UMS and MDoE collaborating, much like we do with MSLN and Internet connectivity, to support the WiFi networks in Maine's K-12 schools moving forward. MDoE has decided to take another approach.

MDoE has decided that it will no longer provide WiFi networks as part of it learning technology initiative. Networkmaine as agree to support the existing WiFi environments through FY19, under contract with Systems Engineering in Portland, to provide a transition period to schools so that they have time to explore, identify funding and deploy their own WiFi networks to replace what has been provided through the state for the past sixteen (16) years.

NEREN (NORTHEAST RESEARCH AND EDUCATION NETWORK)

NEREN is a consortium of non-profit organizations that provide a fiber-optic network connecting and unifying the research and education communities in New York and New England. NEREN owns and operates a regional Research and Education Network (REN) that ties together in-state fiber initiatives, like MaineREN, effectively creating an open network that links the members not only to one another but also to facilities throughout the region and globe. UMS continues its involvement and support of NEREN with Dr. Bruce Segee and Mr. Jeff Letourneau serving on its board of directors with Mr. Letourneau currently serving as the Chairman.

In 2017, NEREN has focused on expanding its footprint in response to the expressed needs of its members. The first, and by far the largest effort, expands the NEREN network into New York City to the Manhattan Landing (MAN LAN). MAN LAN is the largest peering point among regional, national and international research and education networks in the United States. By expanding to MAN LAN, NEREN is able to provide its member institutions, and their researchers, cost-effective high-performance interconnectivity with their collaborators around the world. Initially UMS will be sharing a 100 Gbps wave to MAN LAN with UNH, Dartmouth and UVM.

Similarly, NEREN has acquired dark fiber assets from its current point of presence in Cambridge, MA to One Summer Street in Boston. This location is the largest multi-tenant, mission-critical telecommunications and data center facility in New England at which more than 75 Internet content providers, access networks and cloud service providers co-locate. With a NEREN presence in this facility, its members will have very cost-effective direct network connections to some of the largest and most popular services on the Internet.

Participating in these initiatives is part of US:IT's strategy towards shielding UMS, along with MaineREN and MSLN participants, from any negative outcomes from the recent FCC order eliminating Network Neutrality protections in the US.

OTO FIBER

Initially formed through an inter-local agreement between the Town of Orono, the City of Old Town and the University of Maine System in 2015, Old Town - Orono Fiber Corporation (OTO Fiber) is incorporated as a non-profit public benefit corporation created to establish, design, install, maintain and make available an open and competitive basis telecommunications infrastructure within the City of Old Town and the Town of Orono that enables high speed Internet service in the two municipalities.

With the award of a Northern Borders Regional Commission grant in 2015, OTO Fiber set off to create a proof-of-concept open-access fiber to the premise (FttP) network of at least 6 miles spanning the two municipalities. In 2017 OTO Fiber received it 501(c)3 status from the IRS and shifted its attention away from these startup efforts to the creation of the envisioned FttP network.

In September 2017 OTO Fiber released an RFQ for a consultant to design up to twelve (12) miles of fiber optic infrastructure across the two municipalities. The RFQ resulted in four (4) respondents with a contract awarded to Tilson Technologies of Portland, ME. The network design effort is expected to be completed with construction of the network beginning in spring of 2018. OTO Fiber's expects to have the pilot FttP network available to retail Internet Service Providers in the fall of 2018.

NNENIX

In late 2016, Northern New England Neutral Internet Exchange (NNENIX) was formed as a non-profit corporation to establish a neutral Internet eXchange Point (IXP) that enables its members, educational institutions, and the general public to benefit from the opportunity to voluntarily interconnect for the purpose of exchanging traffic between the users of each network. While over 850 IXPs exist across the globe, the closest IXP to Maine, and the rest of northern New England, is in Boston.

Over the past year, through the generous donation of equipment and services from various companies, NNENIX has established its first point of presence (PoP) in Portland, ME. UMS and Bowdoin College are charter members of NNENIX with a number of Maine based ISPs and national entities including Akamai, Google, NetFlix, and Hurricane Electric committed to participate. With the aggregation of demand that an IXP creates, it is expected that NNENIX will help create opportunities, price points, and options in Maine's broadband marketplace previously unavailable north of Boston.

TEAM HIGHLIGHTS

INFORMATION SECURITY OFFICE

Information Security continues to be in the forefront of US:IT activities. The Information Security Office (ISO) maintains a detailed report on the state of the UMS information security, which examines threats and measures US:IT employs to reduce the risk to the UMS and its Universities. That report provides a set of strategies to continue improvement.

While the overall number of breaches to higher education institutions has declined in the past few years, the threat continues. Most higher education attacks are aimed at personal information, with a growing trend toward more espionage. Phishing continues to be a leading means to gain access, specifically to steal credentials.

To address Information Security threats, members throughout US:IT are engaged in activities every day that keep attacks in check. At the center of the efforts, four individuals in the ISO work to keep security practices honed. This office is responsible for policy, standards and practices; awareness and training; and consulting with departments to meet compliance standards (including, but not limited to FERPA, HIPAA, and PCI). Several major functions and services have been routinized in the past few years. Information Security analysts review threats from several sources including reports from a 24-7 intrusion detection system. The team regularly scans systems for vulnerabilities and alerts US:IT staff of needed patching. The team responds to incidents appropriately using in-house diagnostics to analyze the extent of any security breach as well as contracted support for external investigations that may exceed our capabilities. The ISO has developed a security awareness program, participates in UMS compliance programs and provides a set of services to meet established requirements as well as increase the security posture.

To provide the most efficient and effective information security program, the Information Security Office in conjunction with their US:IT colleagues applies controls and protections commensurate with the risk. An iterative approach is applied such that higher risk assets are identified by data or criticality and then assessed against foreseeable threats based on vulnerabilities. Controls are then applied to manage the risk and the assets are reassessed. A combination of controls employ a mix of people, technology and process. An appropriate balance is required to maintain the strategy of "defense in depth."
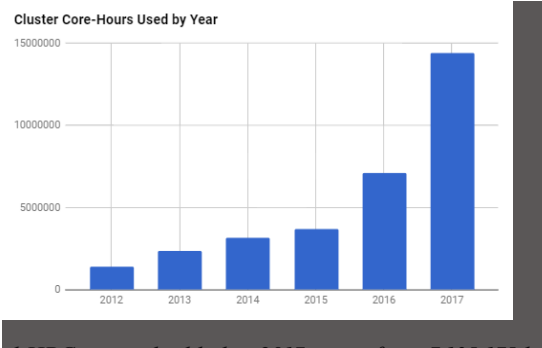
We have identified a number of strategic improvements aimed to suitably enhance current efforts. Among these, we propose better phishing mitigation approaches, a comprehensive revision of the Information Security Policy and Standards, and staff augmentation. In-depth technical defense strategies are also actively being explored.

ADVANCED COMPUTING GROUP

The Advanced Computing Group at the University of Maine was established in 2013 to provide computing infrastructure and support for the research needs of the state of Maine. The ACG provides complete computing power packages to advance research, education, and Maine into the 21st century. Services include: High Performance Computing (HPC), Cloud Computing with virtual machines (VM), data storage and high resolution visualization technology (vWALL).

In 2017, 20 new compute nodes were purchased resulting in the addition of 560 cores to the HPC cluster and a 29% increase in processing power. Additionally, 512 GB of high speed memory was purchsed to boost overall memory capacity for nodes utilized for genomics research. 2 new file servers were purchased to test a new 672 TB Ceph Storage cluster.

Over the past year, ACG completed a successful pilot of a new Virtual Computer Laboratory service for classes at the University of Maine and the University of Maine at Augusta. This initiative is designed to provide remote access to virtualized workstations through a regular web browser. Additional testing of this platform will continue into the Spring 2018 term. Additionally, a collaboration between ACG and the UMaine Forestry Department culminated in a forestry mapping program that was featured as part of the NSF-funded Northeast Cyber Team Program.

Information Security Controls			
	Prevention	Detection	Response
People	Background Checks Confidentiality Agreements Training & Awareness Phishing Exercises	Self-Reporting i.e. phish@maine.edu	Incident Response Teams
Technology	Firewalls Antivirus Access Controls Vulnerability Scanning	Intrusion Detection Systems Central Logging and Alerting Network Tools	Forensic Tools
Process	Control Consulting Contractor review	Threat Advisories (REN-ISAC, MS-ISAC, Infragard, FBI, Homeland Security, etc)	Incident response program

Cluster Core-Hours Used by Year

**Total HPC usage doubled in 2017 going from 7,135,175 hours in 2016 to 14,421,763 hours in 2017

SCHOLARSHIP AND DEVELOPMENT
Presentations and Professional Development

US:IT promotes ongoing professional development and training and encourages staff to accept and seek out opportunities to represent UMS at conferences and other events. The lists below represent some of these opportunities in 2017.

Staff Professional Development Opportunities

Event	Description
NERCOMP	Classroom Design for Teaching and Learning, Rethinking Academic Technology
Extron	AV Associate Training
Microsoft Higher Education Conference	Education Initiatives and Networking
Windows10 Deployment Workshop	Training on servicing model and deployment for IT staff and administrators.
JAMF	User Conference
Trainings	How To: Configuration Management for Macs in the Enterprise, Introducing: Centralized Apple TV Mgmt, Why DEP is Replacing Imaging (and Why it's a Good Thing), Managing iOS11 and macOS High Sierra Upgrades, Collaborating with Git, JavaScript: The Good Parts Master Class, Windows 10 Deployment Best Practices: Upgrade App Integration & Network Security, AT and APPS to Support Students in Higher Ed, iOS and Google
USM Class	Python Programming COS/ITT184
Boston Academy	Smartsheet Essentials
RMC Project Management Learning Solutions	Crash Course for IT Professionals
Project Management Institute	Conflict, Collaboration and Consciousness, Managing Remote Teams for Success, Gravitas: Making a Powerful Impact, How to Manage Conflict with Product Owners, Agile Requirements Gathering, PMP Exam Prep
Husson University PM Program	Building and Improving Your Organization's Agility
Educause	Annual Conference 2017, Security Professionals Conference 2017
UMS Office of Organizational Effectiveness	Facilitator Training
SIGUCCS Mentoring Program	Mentor
North America Network Operators Group	Gathering of network operator peers.
Internet2	Global Summit, Regional Principals Meeting
2017 MLTI Student Conference	STEM Related Workshops
New England Peering Forum	Internet Peering Collaboration
NetApp Insight	Customer conference related to data storage solutions.
National Science Foundation	Campus Cyberinfrastructure PI and Cybersecurity for Cyberinfrastructure PI Workshop
State E-Rate Coordinators Association	Fall Meetings
USAC	Fall E-Rate Training
Internet2	TechEx Conference
NEREN	Advancing Regional Collaboration and Research IT Collaboration Seminar
Juniper	Informational Event
Cisco	Connect New England
Bangor Information Security Professionals	Multiple Sessions
National Electrical Code	Recertification Course

Staff Presentations & Publications

Event	Description
Educause	Classrooms for the Future Sessions
University College Annual Faculty Institute	Active Learning Simulator/Space
New England Celebration of Women in Computing Conference	GIT Control
ITSS Staff Training	UAD Training (packaging, management, imaging, admin)
The Quilt	Executive Committee Retreat, Visit to FCC, Winter Members Meeting, CEO Roundtable
FCC's Broadband Deployment Advisory Committee	Nominated by State Educational Technology Directors Assoc.
FocusMaine Initiative	Interview on how to make Maine's economy more competitive with high-speed broadband infrastructure.
American Library Association Legislative Day	Met about library policy priorities including Network Neutrality.
Cisco Blog Article	Interview regarding MLTI Wireless
SuperComputing 2017	Volunteer, Social Media Communications Director
Assoc. of Computer Technology Educators of Maine (ACTEM)	Presented on Maine Learning to Mod Through Minecraft Project
ACTEM and Maine Technology Directors Meeting	Presented on E-Rate and WiFi
ACTEM	Exhibitors
Educause	Presentation at Annual Conference - Centrally Led, Widely Dispersed: Creating an Identity and Approach for a Unified IT Organization That Propels the Mission, Annual Conference Proposal Reviewer
Penn State College of Liberal Arts	Customer Experience Framework Development and Training Delivery to the IT Department

FUTURE DIRECTIONS
Governance and Strategic Planning

SHARED GOVERNANCE

As noted in the Educause "Higher Education IT Governance Checklist" (March, 2017), IT Governance serves as an essential organizational process which facilitates robust, effective IT strategy to best meet the needs of the academy. This is accomplished by aligning decisions with institutional mission and needs, improving communication within the IT organization as well as with the larger community, ensuring stakeholder input and buy-in for policy, budget and project decisions and by integrating risk management into the decision making process.

In establishing a revised IT Governance structure for the University of Maine System, several key principles and goals have been defined. These principles and goals are aligned with an overall vision for US:IT Governance which is:

- *US:IT Governance will facilitate communication to further stakeholder engagement resulting in greater collaboration and consensus for IT project prioritization.*

The key outcomes for successful US:IT Governance are:

- *Greater Transparency: through enhanced information dissemination and dialogue with stakeholders*
- *Greater Accountability: US:IT assumes responsibility for supporting and executing decisions endorsed and/or derived through governance*
- *Greater Stewardship: US:IT ensures efficient and responsible use of technology resources supporting the University of Maine system and member campuses*

A revised US:IT Governance structure will be established in 2018 and the various committees will be charged to achieve the following goals:

- *Balance needs of campuses with cost-effective technology solutions*

- *Provide robust communication to clarify system-wide IT vision for supporting the University and the mission of member campuses*
- *Create opportunities for enhanced collaboration to improve efficiency and impact of technology solutions and services*
- *Establish policies and practices to ensure effective Information Technologies and Services are afforded to all members of the University of Maine system and community*
- *Create evaluation criteria for new services and solutions to be offered to member campuses*
- *Provide mechanisms to encourage and support innovation*
- *Provide robust analysis for total cost of service delivery*
- *Provide consistent, predictable project request cycle coordinated with annual University budget cycle*

The basic framework of the US:IT Governance structure will encompass various cross-disciplinary teams, all working and communicating together to fulfill the core outcomes of the governance initiative. The basic structure is depicted in Figure O.

The Executive Information Services Council serves as the final decision-making authority for IT-supported initiatives. This group will serve to ensure strategic alignment of IT initiatives and services with the University of Maine System mission. The EISC will receive recommendations and proposals for consideration from two Strategic Councils:

Strategic Academic Technology Council
- *Defines and recommends strategic approaches to leveraging IT resources to support the Academic and Research needs of the University of Maine System and member campus*

Strategic Information Services Council
- *Defines and recommends strategies and approaches to key IT-related issues and services to best serve and support the needs of the University of Maine System and member campuses*

FIGURE O
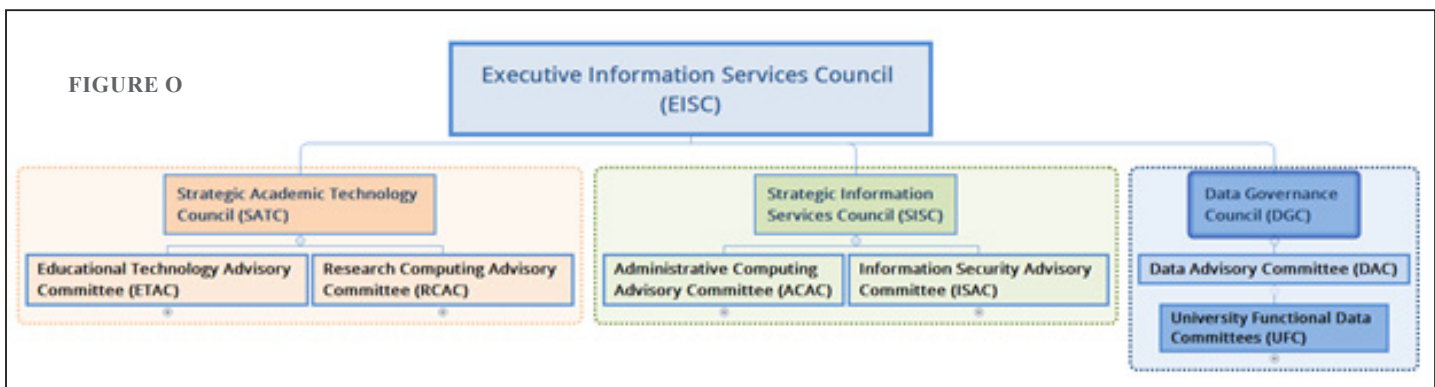
Each Strategic Council will be responsible for receiving, reviewing and endorsing project proposals from supporting advisory committees. The advisory committees supporting the Strategic Academic Technology Council include:

Educational Technology Advisory Committee
- *Provide strategic direction and plan for meaningful and innovative use of technology solutions with broad benefit to member campuses; Identify opportunities for collaboration to enhance teaching, learning and assessment through technology*

Research Computing Advisory Committee
- *Provides strategic direction and planning to provide robust research computing infrastructure to meet the needs across the University of Maine System and member campuses. Identifies collaboration opportunities to promote and leverage existing and emerging research computing infrastructure throughout the state.*

The advisory committee supporting the Strategic Information Services Council include:

Administrative Computing Advisory Committee
- *Recommends and endorses standards for IT architecture and identifies opportunities for shared business processes to drive efficiency and efficacy across the University of Maine System for supported platforms and applications.*

Information Security Advisory Committee
- *Provides leadership and direction for the University of Maine System Information Security Program; recommends initiatives, strategies and establishes priorities for Information Security infrastructure and compliance needs of the University*

US:IT will seek full implementation of this revised governance structure during the Spring and Summer 2018 months to coincide with and inform the annual budget planning cycle.

STRATEGIC PLANNING

US:IT has established a goal of developing a comprehensive strategic plan prior to the start of the Fall 2018 semester. It is anticipated that the US:IT strategic plan will provide a 3-5-year roadmap designed to enhance the technology and information support and services the unified US:IT division provides to the campus and system communities. The plan will also serve to inform effective budget and resource planning while providing US:IT teams with discrete, annual deliverables.

The strategic planning development cycle will include defining shared mission, vision and values statements for the US:IT organization, preliminary analysis of existing services and assessment of efficacy, identification of new opportunities, defining goals & key performance indicators, and determining resource needs for accomplishing each goal. Objectives incorporated into the strategic plan will be defined according to the 'SMART' framework (Specific, Measurable, Attainable, Relevant and Time-bound).

To support the development of the strategic plan, several US:IT task forces have been established to conduct preliminary analysis and assessment of current service and support efforts. These task forces include:

- **US:IT Mission, Vision, Values Task Force**: *To define the shared mission and vision for US:IT and the core values to which we aspire.*

- **US:IT Core Services Task Force**: *To catalog and review all supported services; categorize each service by use and adoption at each campus.*

ENHANCED COMMUNICATION

During the latter half of 2017, US:IT Leadership has embraced the concept of fostering enhanced internal communication as well as communication and dissemination with the wider UMS community. To this end, several venues and initiatives have been devised to provide greater opportunity for US:IT staff to engage with colleagues, peers and campus stakeholders to build upon previously established foundations for professional development and training. These include, but are not limited to:

- **US:IT Summit**: annual division-wide training and professional development day for US:IT Staff

- **Lunch and Learn Series**: weekly series offering opportunity for US:IT staff to share learning opportunities with colleagues.

- **CIO Open Forum**: monthly all US:IT staff meeting to provide updates on current projects as well as address current issues facing US:IT

- **US:IT Website Enhancement Task Force:** Provide recommendations and suggestions on essential services, features and information to be included on the US:IT Website

- **US:IT Service Outage Task Force:** Provide recommendations on strategies and best practices for informing the UMS community on planned and unplanned system outages.

Summary

Overall, 2017 proved to be a highly productive and effective year as the unified US:IT team continued its ongoing evolution. Based on the success experienced over the past year, US:IT is well positioned to promote and provide transformative, strategic leadership in the use of technology and information to support the mission of the University of Maine System and each campus community. We value and appreciate the ongoing support of our colleagues throughout the University of Maine System and look forward to serving the entire community in the years to come.

UMS Research Reinvestment Fund (RRF) Annual Report of Activities

UMS Board of Trustees Meeting
March 18 & 19, 2018

Executive Summary

The objective of the UMS Research Reinvestment Fund (RRF) is to strengthen research, development and commercialization activities that are tied to Maine businesses and industries that are critical to the future of Maine. The RRF program focused the first three years of its activities filling the commercialization pipeline by establishing a portfolio of research and development projects with strong commercialization potential. In its fourth year of funded activities the RRF program has placed a far greater emphasis on accelerating research commercialization. This report highlights notable outcomes of new and cumulative activities within the three funded initiatives of the RRF program established by the UMS Board of Trustees:

I. Competitive Grant Funding to UMS Researchers Initiative

- Since 2015, the RRF Program has received 389 proposals from UMS researchers spanning all seven campuses. A total of 133 projects have been competitively selected by the RRF Advisory Board for awards totaling $5.1M. As the State's flagship university for research, UMaine spearheaded 119 of these projects, with other system campuses taking the lead on 14 projects and being actively involved as Co-Investigators on another 28 projects. Funded projects primarily reside in the Aquaculture and Marine Sciences, Biotechnology, and Environmental Technologies sectors.

- RRF funded grantees have submitted 131 follow-on grant applications to funding agencies, of which 49 were selected for awards, bringing in a total of $14,758,416 in external funding. The management of the competitive grant program as well as direct support to grantees in their pursuit of follow on grants is provided by professional staff from the Office of the Vice President for Research and Dean of the Graduate School (OVPRDGS).

- Establishing collaborations amongst campuses and with non-UMS facilities is a required component of funded RRF grant projects and as a result, a total of 151 external entities were included as project partners, many of which reside within the private sector and are Maine-based businesses.

II. Infrastructure Support to the Business Development Enterprise Initiative

- The Office of Innovation and Economic Development (OIED) has focused its business development activities on sector specific strategies for the forestry and marine/aquaculture industries. Grants totaling nearly $5 million were awarded in the past two years to develop a roadmap for the forest economy and implement emerging technologies in that sector. Two companies announcing plans to expand cross-laminated timber manufacturing in Maine, with nearly $50 million invested, were directly related to this work. These companies are expected to create approximately 200 jobs.

- Through the Alliance for Maine's Marine Economy, OIED is a convener of private industry and public sector efforts to develop and implement new technologies and provide infrastructure for growth. As a result of winning a $7 million state bond RFP, the Alliance has recently awarded funds for capital projects for such as seafood and lobster processing, fish aquaculture and seaweed production. These funds also leveraged an additional $7+ million in additional investment.

- Five projects involving 14 faculty, staff and students are part of the new Maine Innovation, Research and Technology Accelerator (MIRTA). These projects have high potential for successful commercialization as start-ups or licenses to existing Maine companies. Funded by the Research Reinvestment Fund, the accelerator is an intensive 16-week program and guides participants through customer discovery, market analysis, intellectual property analysis, and business model development that will result in a commercialization plan with a strategy for bringing their research to market.

- An effort to help grow and create jobs across the state of Maine, the Innovate for Maine Fellows program helps early-stage, scaling and growing innovation-based companies throughout Maine connect with talent while at the same time demonstrating to students that there are opportunities to do meaningful and exciting work in the state. The program prepares students to collaborate with

1

companies on innovation projects that accelerate company growth and give students a paid, meaningful, hands-on internship experience.

- To date, the program has served 168 companies with 162 Fellows representing 29 colleges and universities.

- In addition, RRF funded graduate and undergraduate students participated in projects with strong commercial application and private sector partners gaining direct hands on experience connecting their education to problem solving to career.

III. **Infrastructure Support to the Research Enterprise Initiative**

- RRF funding has enhanced the capacity of units within the OVPRDGS to serve faculty and researchers across the UMS research enterprise in their pursuit of external funding.

- The Office of Research Administration (ORA) at UMaine now handles grant administration for the Orono, Machias, and Fort Kent campuses of UMS. During FY 2017 a total of $56,926,782 was received by the flagship from extramural sponsors, a 13% increase over that of FY 2016 ($50,369,625). The number of proposals submitted was significantly greater than the previous year (573 vs. 500 in FY 2016, a 15% increase).

- The Grant Development Office (GDO) oversees the RRF internal grants program, provides direct grantwriting assistance to individuals and teams, and develops and delivers grantsmanship training for faculty and staff. Since FY 2015, the GDO has had a direct hand in securing $24,344,279 in external funding and has conducted 41 separate grantwriting offerings to 784 faculty, staff, graduate and undergraduate students.

- Grant writing projects currently underway with support of the GDO that will have statewide impact include:

  - $8,000,000 proposal to the Harold Alfond Foundation to support the Engineering Education and Design Center;

  - $12,500,000 proposal to NSF for an INCLUDES scale up project related to increase diversity in STEM;

  - and a $20,000,000 proposal to NSF EPSCoR in collaboration with Bigelow Laboratory for Ocean Science, other UMS campuses, and industry partners to investigate environmental DNA (eDNA) technical applications in the context of the economic future of Maine's coast.

Plans for the upcoming year:

- Increase faculty education/grant writing support for commercialization, industry partnership, and large grants.

- Continue competitive grant programs to develop new research, commercialization, and workforce development projects and enhance criteria related to private sector engagement, investment, and advancement outcomes.

- Compete an additional round of Phase II Accelerator Grants that provides faculty release time and funding for consultants to accelerate commercialization outputs.

- Conduct targeted outreach to University of Southern Maine for research, development, and commercialization collaborations.

2

Table of Contents

I.   Competitive Grant Funding to UMS Researchers Initiative

The competitive grants program supported by RRF provides funding for research, development, and commercialization projects to seed larger initiatives that are tied to advancing aspects and sectors of Maine's economy. Measurable outcomes of seed grant investments include: the attraction of additional extramural funding, the provision of meaningful hands on experiences for undergraduate and graduate students within the UMS, and the movement of basic and applied research to commercialization. Several of the funded research and development initiatives within the RRF portfolio have generated new and impactful private sector engagements, investments and advancements between commercial businesses and the UMS research community. By creating collaborations and partnerships with the private sector, economic and workforce development activities are being accomplished in designated economic sectors that benefit the State of Maine and beyond. Final funding decisions for the RRF competitive grants programs are made by the RRF Advisory Board whose membership is comprised of faculty and administrators from UMS campuses as well as representatives from the private sector and the Maine Technology Institute (MTI) (See Appendix A for a current membership roster of the RRF Advisory Board). The RRF Competitive Grants program is managed and administered by the Grant Development Office within OVPRDGS.

Composition of the RRF grant portfolio and new programs
Since June 2015, the RRF Program has received 389 proposals from UMS researchers spanning all seven campuses. Of these applications, a total 133 projects have been competitively selected by the RRF Advisory Board for awards totaling $5.1M in grant funding. As the State's flagship university for research, UMaine spearheaded 119 of these projects, with other system campuses taking the lead on 14 projects and being actively involved as Co-Investigators on another 28 projects. Funding programs created by the RRF Advisory Board include Seed Grants (4 rounds, 41 funded projects), Planning Grants (rolling basis, 13 funded projects), Graduate Assistantship Grants (3 rounds, 34 funded projects), Undergraduate Assistantship Grants (3 rounds, 35 funded projects), and Interdisciplinary Undergraduate Research Collaboratives (1 round, 4 funded projects).

Special emphasis on research commercialization for Year 4 competitive grant programs
A new RRF Phase II Accelerator program was launched in winter 2017 with the goal of identifying projects within the existing RRF funding portfolio that could achieve measurable commercial outputs after a 16 week time frame (Spring 2018 semester) with an infusion of technical assistance and funding. Potential outputs from the Phase II Accelerator program include starting a company, licensing UMS technology to an existing company, filing a patent, or forming an extended research collaboration with an external partner. Five accelerator projects were selected by the RRF Advisory Board for the pilot of this program. Project teams commenced activities in January 2018, weekly coaching sessions with Accelerator staff have been established, and deliverables are expected by May 2018. (See Appendix B for a listing of the grants and abstracts).

The solicitation for the fourth round of RRF Seed Grants (Fall 2017) placed a strong emphasis on commercialization. A total of 39 applications were received from UMS researchers, of which the RRF Advisory Board selected 10 for funding, along with 1 additional Accelerator grant. (See Appendix C for a listing of the grants and abstracts).

Lastly, in addition to the established graduate and undergraduate assistantships that enable UMS students to perform impactful research, development, and commercialization projects, a new student award program was created to foster interdisciplinary collaborations fueled by the work of teams of undergraduates under the supervision of faculty. The past rounds of the Interdisciplinary Undergraduate Research Collaboratives (IURC) program funded 4 teams of UMS undergraduate student researchers. In the third round competition of the RRF Student Awards (Fall 2017) a total of 45 applications were received from UMS researchers, of which the RRF Advisory Board selected 22 for funding. These awards were comprised of: 9 Graduate Assistantships; 9 Undergraduate Assistantships; and 4 Interdisciplinary Undergraduate Research Collaboratives (See Appendix D for a listing of the grants and their abstracts).

Stimulation of Grant Activity: Follow-On Grant Submissions and Awards
To date, RRF funded grantees have submitted 131 follow-on grant applications to external funding agencies, of which 49 were funded totaling $14,758,416 in additional external research dollars.

Table I: Follow-On Grant Submissions and Awards

Report Year	Submitted	$Submitted	Awarded	$Awarded	$Matched	Planned	$Planned
1	3	$7,175,212	1	$9,948	0	0	0
2	63	$23,599,816	17	$8,402,299	$8,050,000	7	$4,450,000
3	65	$41,752,629	31	$6,346,169	$2,071,124	62	$18,335,227
Total	**131**	**$72,527,65**	**49**	**$14,758,416**	**$10,121,124**	**69**	**$22,785,227**

4

Private Sector Investment, Engagement and Advancement in Maine Economic Sectors

In recognition of the fact that successful commercialization of University-based research requires engagement and relationship building with external partners, applicants to the RRF are required to collaborate with private sector businesses and other key stakeholders to accelerate UMS lead technology transfer activities that benefit Maine industries and enhance Maine's economic well-being. As a result of this programmatic focus on external engagement, *a total of 151 external entities have served as project partners (several on multiple projects), many of which reside within the private sector and are Maine-based businesses.* As shown in Chart I, funded projects primarily reside in the Aquaculture and Marine Sciences, Biotechnology, and Environmental Technologies sectors. Funded projects in the Education, Forestry and Agriculture, and Composites and Advanced Materials Technologies sectors have also shown signs of growth.

Chart I: Economic Sector Breakdown for RRF Funded Projects
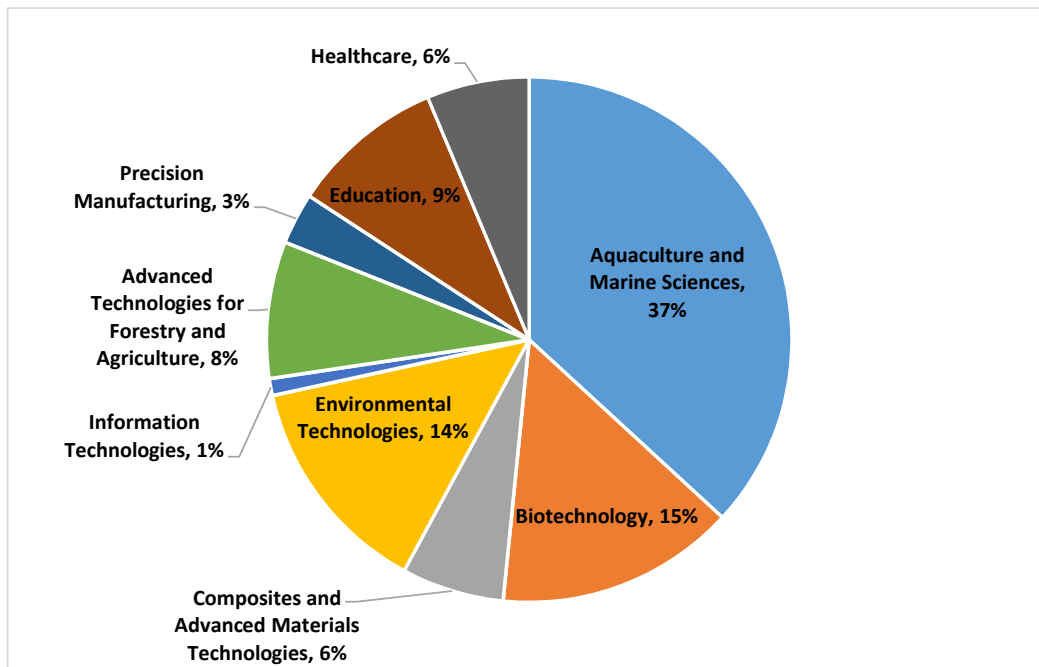
Examples of private sector relationships that have been stimulated by RRF program support include:

- Sappi North America
- IDEXX
- Hodgdon Yachts
- Lyman Morse
- Hinckley Yachts
- Saber
- Thermwood Corporation
- Elder Technology Labs
- Mobility Technologies
- Specialty Materials
- Pemaquid Oyster Company
- AquaLine

- Constellation Consortium
- Fiberlean Technologies
- Betulium
- Acadia Harvest
- Maine Coast Sea Vegetables
- Maine Fresh Farms
- Cooke Aquaculture
- American Unagi
- Mook Sea Farm
- Thermoelectric Power Systems LLC
- Maine Marine Composites, Stryker Orthopedic

- Ready Seafood Company
- Innovation Natural Resource Solutions LLC
- General Dynamics Bath Iron Works.
- Stora Enso
- Innovasea Systems Inc.
- Beacon Analytical Systems
- Twin Rivers Paper Company

5

Exemplar Seed grants that embody the mission of RRF:

Liquid-Infused Paper Substrates for Biomedical Applications
RRF funded a 12 month Seed Grant project for $83,233
Industry Sector: Forestry/Biotechnology
PI: Caitlin Howell (Chemical and Biomedical Engineering, UMaine)
Engagement: SLIPS Tech, Inc., Sharklet Technologies, Inc, Sappi-Warren Release Papers
Private Sector Investment: $93,300 in committed funding from Sappi North America to continue the project
Advancement: Patentability and commercial assessment pending

Unmanned Aerial Systems: Supporting development / training on UAV applications for Maine businesses and state agencies
RRF funded a 12 month Seed Grant project for $99,363
Industry Sector: Education/Aviation
PI: Thomas Abbott (University of Maine at Augusta)
Engagement: Civil Air Patrol, Maine Forest Service
Advancement: Infrastructure development for Unmanned Aircraft Systems operational center for UAS certification

UNIVERSITY of MAINE at AUGUSTA

Sustainable Bio-conservation Technology for Aqua-feed Production and Waste Management
RRF funded a 12 month Seed Grant project for $92,487
Industry Sector: Aquaculture
PI: Andrei Alyokhin (UMaine)
Engagement: Acadia Harvest Inc., Franklin, ME
Federal Investment: $44,024 NSF SBIR small business subaward from commercial partner – Acadia Harvest Inc; $64,110 proposal submitted to NOAA Sea Grant; $500,000 planned to USDA
Advancement: As a result of this project, Acadia Harvest has opened a pilot plant that now employs three people in Waldoboro.

Development of Intrac™: A Weight Bearing and Fitness Tracking System for Assistive Devices
RRF funded a 12 month Seed Grant project for $82,899
Industry Sector: Precision Manufacturing/Healthcare
PI: Vincent Caccese (UMaine)
Engagement: Mobility Technologies (in the process of forming)
Federal Investment: Submitted $950,000 NIH STTR small business proposal to commercialize the technology
Advancement: This project will help support and fund a new small Maine tech business in Brunswick, ME.

Novel Fire Resistant Low Formaldehyde Emitting Fiberboard Panels Made from Deadwood, Residuals and Nanocellulose
RRF funded a 12 month Seed Grant project for $100,000
Industry Sectors: Forestry/Advanced Materials
PI: Mehdi Tajvidi (UMaine), Douglas Bousfield (UMaine)
Engagement: FiberLean Technologies; Composite Panel Association; Betulium; USDA
Federal Investment: $322,528 funding proposal submitted to the US Endowment for Forestry and Communities
Advancement: Industry partnerships established for potential technology transfer

ACCELERATED OUTPUT
LIQUID INFUSED PAPER SUBSTRATES FOR NEW BIOMEDICAL APPLICATIONS
PRINCIPAL INVESTIGATOR: DR. CAITLIN HOWELL

Dr. Caitlin Howell joined the UMaine faculty ranks as an Assistant professor of Chemical and Biomedical Engineering in spring of 2016, where she brought with her a research background in biological surface interactions along with industry connections and a drive for commercialization. She submitted and was awarded her first RRF Seed Grant in 2017 in the amount of $83,233 for *Liquid Infused Paper Substrates for New Biomedical Applications*. This critical seed funding allowed her to conduct the necessary basic research to prove her concept, and demonstrate the game-changing advantages that her technology enabled in the Point of Care (POC) paper diagnostics market to Sappi-Warren Release Papers research unit. The demonstration was a great success, and in the Fall of 2017 Sappi-Warren committed an additional $93,000 in funding to support ongoing research and development of this innovative technology that has the potential to revolutionize the paper-based medical diagnostics industry, a market estimated to be worth $2.2 Billion. Along the way, Dr. Howell also managed to involve ten different students on this project (8 undergraduate, 1 graduate, and 1 high school student), and in doing so providing them invaluable educational and research experiences on a technology that has immense commercial potential.

In recognition of her work in this area, and to further accelerate the commercialization of her paper diagnostic technology, Dr. Howell's project was selected for the Spring 2018 RRF Phase II Accelerator Program. As part of this program, her research team will be involved in the customer discovery process and meet with actual customers to explore the most promising pathways for integrating their release-paper microfluidic platforms into current and future POC medical diagnostic devices. In addition, the ongoing partnership with Sappi-Warren will be leveraged to explore potential technology transfer pathways to transition this UMaine supported technology into the marketplace.
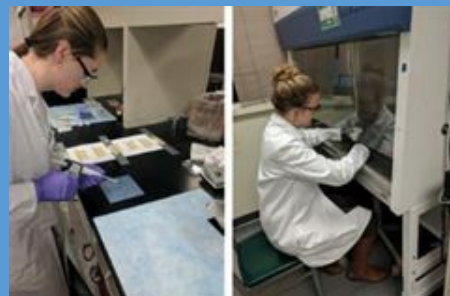
Undergraduate bioengineering students Abby Weigang (left) and Chloe Lilly (right) conducting experiments as full time co-op students supported by this project

6

371

ACCELERATED OUTPUT

PROTOTYPE DEVELOPMENT FOR DETECTION OF WINE AND BEER SPOILAGE YEASTS

PRINCIPAL INVESTIGATOR: DR. LAURIE CONNELL

In 2013, Dr. Laurie Connell first developed the idea to apply technology she developed to track harmful marine algal blooms to solve a very different problem detecting microorganism contamination in the beer and wine industry. Dr. Connell's team prepared a commercial development plan to address technical, market and funding challenges on the pathway to introducing this new product. With support from a $25,000 Maine Technology Institute technology transfer grant, the team spoke with more than fifty companies to understand their need for a better solution to current methods. This early market research lead to a RRF Seed Grant for $68,361 in the Fall of 2015, which supported early product development and testing with Allagash Brewing Company. This RRF grant was also leveraged as match for additional MTI technology transfer funding for technical development. During this period, one of the largest producers and distributors of wine in the world (Constellation Consortium) was contacted to explore interest in this technology. This outreach proved successful as it led to a partnership and additional funding from Constellation Consortium in the amount of $78,000 for continued product development at UMaine. Additionally, the research team commenced work with a Maine based company (Beacon Analytical Systems) for prototype development and eventual product manufacturing.

Dr. Connell's project was selected for the Spring 2018 RRF Phase II Accelerator Program and in the recent Round 4 Seed Grant competition as well. This funding will support ongoing activities related to final product commercialization and sales efforts. Specifically, the team is now poised to develop a license agreement and initiate beta testing with Constellation Consortium and Beacon Analytical, finalize patent protection, and obtain ISO product certification to facilitate initial product sales.

InstaProbe

Prototype instrument for detecting wine and beer spoilage utilizing proprietary florescent probe technology developed by UMaine researchers.

Phase II Accelerator Program:

To facilitate commercialization activities a new RRF Phase II Accelerator program was approved by the RRF Advisory Board and commenced in January of 2018. This program is designed to capitalize on previously funded RRF projects, and advance selected projects from basic and applied research and development stages to a stage that can realize measurable commercialization outputs in the short term. The Accelerator is an intensive 16-week program that includes five teams (one per selected Accelerator project) that will guide the participants through market analysis, intellectual property analysis, and business model development that will result in a commercialization plan with a strategy for bringing the research to market. Possible outputs will include starting a company, licensing to an existing company, filing a patent, or forming an extended research collaboration. Through weekly learning cycles, teams will determine how to position and develop their research for commercialization success. Technical assistance for the Phase II accelerator teams is provided by professional staff from the Office of Innovation and Economic Development (OIED) and the Office of the Vice President for Research and Dean of the Graduate School (OVPRDGS)

Public Engagement, Publication, and Student Involvement

RRF related student involvement, public engagement, and publications have increased dramatically since the beginning of the program. In particular, 322 students were involved in RRF-related research activities in Year 3 alone, averaging 3 students per funded project. Table II summarizes publication, presentation, and student involvement outcomes.

Table II. Publications, Presentations and Student Involvement

RRF program year 2015:
Publications: -
Presentations given: 1
Student participants: -

RRF program year 2016:
Publications: 32
Presentations given: 36
Student participants: 35

RRF program year 2017:
Publications: 84
Presentations given: 152
Student participants: 322

Total:
Publications: 116
Presentations given: 189
Student participants: 357

7

ACCELERATED OUTPUT

BEEHIVE ACTIVITY MONITORING SYSTEM
PRINCIPAL INVESTIGATOR: DR. NURI EMANETOGLU

Bees pollinate up to 80% of US crops, including blueberries and other crops important to the Maine economy. However, the last decade has seen an increasing rate of beehive colony collapse disorder, which resulted in a 44% loss of the honey bee colonies nationwide during the 2015-2016 season. To contend with this growing problem, there is an increasing need within the agricultural industry for beehive activity monitoring systems that can provide real-time and actionable information to the farming community at an affordable price.

To address this critical need, a team of researchers and students lead by Dr. Nuri Emanetoglu at UMaine have developed an innovative approach for monitoring colony collapse disorder that utilizes Doppler radar. Their research first began in 2015 with the support of a Maine Department of Agriculture grant for $25,355, which allowed the team to build and deploy two early stage radar systems for feasibility testing. The success of this early work was then leveraged to secure an RRF Undergraduate Assistantship award for $6,970 to construct five beta systems for further system development, testing and refinement at beehives located at UMaine. By the end of Summer of 2017, the team had successfully demonstrated that their concept was technologically sound as well as affordable at $100/unit, which is considerably less than other commercially available units. Dr. Emanetoglu subsequently met with OIED staff in the Fall of 2017 to file an invention disclosure and initiate the patent protection process and commercialization of their technology.

Dr. Emanetoglu and his team were selected to be part of the Spring 2018 RRF Phase II Accelerator Program, where they are now focused on accelerating the commercialization of their beehive activity monitoring system through small business formation and/or establishing a licensing agreement to Maine based companies. Undergraduate researchers are actively involved in this project.

Impactful Student Research Experiences
The following are representative examples of funded RRF projects in which UMS students have played a key role in advancing research, development, and commercialization projects important to Maine's economy:

Increasing the Value of Maine's Lobster Fishery by Improving Shell Quality and Meat Yield
Industry Sector: Aquaculture and Marine Sciences
PI: Rick Wahle (UMaine)
Undergraduate Student: Abby Shaughnessy
Description: This project supported UM Marine Science major and Honors College student Abby Shaughnessy to undertake preliminary experiments that informed proposal development for a larger grant from NOAA. Abby successfully executed 7 week-long trials including an experiment over the course of the summer that involved research on a total of 168 lobsters. The rearing chambers and all lobsters were supplied by Ready Seafood. Abby's senior capstone and Honors College thesis is on track to be completed in May 2018.

Before Pangea Geoheritage Corridor
Industry Sector: Education
PI: Douglas Reusch (University of Maine at Farmington)
Undergraduate Student: Bryce Neal
Description: The goal of this project is to conduct geological research in the western Maine mountains (the Rumford allochthon) to uncover the nature and history of Maine's continental crust, and ultimately produce an improved geologic map of this area based on a modern evaluation of lithologic and structural data. This project will support the student's senior year research project, in which he will utilize drone-acquire images to produce a detailed outcrop map of ledges on the southwest side of Bald Mountain and near the summit of adjacent Saddleback Mountain. This outcrop mapping will constitute an important component of the Bryce's professional development.

Low-Cost Breathing Simulator for Medical Training
Industry Sector: Biotechnology
PI: Caitlin Howell (UMaine)
Undergraduate Student: Jordan Tremont
Description: In this work, a low-cost, adaptable breathing and auscultation simulator was designed and developed based on clinical data and quantitative fluid-flow modeling. This project supported Jordan's research (B.S. Bioengineering, UMaine 2018) as she builds her skillset in medical simulation technologies in preparation for a career in biomedical engineering. The immediate result will be proof-of-concept for a new approach to creating low-cost medical simulations. The longer-term result has been the creation of a new student led start-up company (Zephyrus) that is seeking to commercialize the technology funded by this project.

8

SmilePartners: Oral Health as an Economic Development Strategy
Industry Sector: Healthcare
PI: Becca Boulos (University of Southern Maine)
Graduate Student: Lyvia Gaewsky
Description:
SmilePartners is a collaborative initiative that has partnered with local organizations to provide dental care to residents of Greater Portland. Specifically, residents who do not have access to care due to lack of insurance, high out-of-pocket costs for treatment, and those that are unfamiliar with the dental system. This project is supporting Lyvia's research as she will be assisting with launching the SmilePartners cohorts, conducting literature reviews, and researching employer sponsorship development. The goals are to provide participants the confidence needed to save for dental care, to navigate the dental system independently, and to have oral health restored to preventative status and maintained through a newly created dental home.

An Integrated Approach to Realizing the Value of Maine's Forest Resources
Industry Sector: Forestry and Agriculture
PI: Adam Daigneault (UMaine)
Graduate Student: Erin Huss
Description: This project aims to develop a more systematic method to integrate the myriad market research associated with the forest products industry within the University of Maine System. Researchers at the University of Maine's School of Forest Resources and the University of Southern Maine's Maine Center for Business and Economic Research are collaborating to develop an integrated approach to realizing the value of Maine's forest resources. Erin has begun to develop the spatial database with information related to land use and land cover (including conservation areas), historical forest product harvests and prices, forest growing stock by species, mill locations, employment, land values and taxation rates, recreation sites and water quality.

Field and Laboratory Trials to Examine Growth and Survival of a New Bivalve Culture Candidate in Maine: Arctic Surfclams, Mactromeris polynyma
Industry Sector: Aquaculture and Marine Sciences
PI: Brian Beal (University of Maine at Machias)
Undergraduate Students: Alex McCarthy, Rory Morgan
Description: This project funded two undergraduate students who worked at the Downeast Institute (DEI), the Marine Science Field Station of the University of Maine at Machias. The students became familiar with the culture and

STUDENT INVOLVEMENT

MODELING BACTERIAL CIRCULATION ON MAINE MUDFLATS

PRINCIPAL INVESTIGATOR: DR. DAMIAN BRADY
GRADUATE STUDENT: GABRIELLE HILLYER

Dr. Damian Brady applied for Research Reinvestment Funding to support a graduate student on his research project studying the impact of bacteria in mudflats on the Medomak River in Waldoboro, Maine. The levels of bacteria in the mudflats can have a profound impact on clamming activity. Data for his project has been collected by a Lagrangian Drifter, which was designed by Gabrielle Hillyer, the RRF-supported graduate student, and NOAA's Jim Manning. The funding for the drifter design and materials also came from support through the RRF program. These "bucket drifters" are packed with scientific instruments that take the measure of the tides— which helps to better understand the dynamics of the estuary's ability to flush out harmful bacteria that can close clam flats for a mandatory nine-day period. The drifter has been deployed over 25 times, which has provided a wealth of data in variable situations.

Gabby Hillyer takes readings from her bucket drifters.

Much of the project's emphasis has been on engaging key stakeholders. Gabby Hillyer has been working closely on her drifter deployments with commercial clammer Glen Melvin (Chair of the Waldoboro Shellfish Committee). Before even beginning data collection, Hillyer interviewed eight clammers who had expertise in the area.

9

ACCELERATED OUTPUT

THE MAINE FOREST ECOSYSTEM STATUS AND TRENDS (ForEST) APP
PRINCIPAL INVESTIGATOR: DR. ERIN SIMONS-LEGAARD

An outbreak of eastern spruce budworm expanding south from Quebec is a major threat to Maine's forest economy, leading to a potential outbreak that could cause annual losses of nearly $400,000 and 600 jobs from the forest products sector. In addition, recent stakeholder meetings with forest managers in Maine have identified a lack of spatial information about forest resources as a key barrier to the planning and prioritization of management actions. In order to maintain a leading role in a global forest economy, forest landowners and managers need access to timely, affordable and relevant geospatial data to improve decision making and capitalize on emerging markets.

To combat these growing threats and address the needs within a critical economic sector in Maine, Dr. Erin Simons-Legaard and her research team in the school of forestry at UMaine utilized support from a RRF Seed Grant (Spring 2016 for $75,748) to develop an innovative web-based resource mapping system called the Maine Forest Ecosystem Status and Trends (ForEST) App. Their unique approach utilizes machine learning methods for analyzing remote sensing Landsat data and is capable of producing superior decision making results at substantially lower cost than currently available products. As a result of this seed grant, the research team was able to leverage this work and secure additional funding from the USDA in the amount of $96,147 for further development and refinement of the ForEST App. The App now has a fully functional back end hosted on a server maintained by the UMaine Advanced Computing Group and the core functionality of the web interface is complete, with data visualization, navigation, and downloadable features.

Dr. Legaard and her team were selected to be part of the Spring 2018 RRF Phase II Accelerator Program, where they are now poised to evaluate the commercialization potential of the ForEST App as well as a larger suite of remote sensing products.

maintenance of Arctic surfclam larvae and juveniles, and participated in routine hatchery operations involving cleaning tanks, rearing algae, spawning adults, and rearing surfclam larvae and juveniles. Students worked closely with Downeast Institute personnel on a daily basis, and met weekly with DEI's Executive Director, Dianne Tilton, where they discussed the economic and workforce development aspects of the work. Students also participated in their own research projects where they engaged in laboratory and field trials to examine features associated with survival and growth of cultured surfclam juveniles. Since the RRF project was funded, additional funds were secured from NOAA. This award will extend activities to five commercial field sites in eastern Maine over the next two years. The ultimate goal is to discover commercial-scale methods to grow cultured surfclams to a commercial size.

Northern Maine Wood Turtle Population Survey
Industry Sector: Education
PI: David Putnam (University of Maine at Presque Isle)
Undergraduate Student: Gannon Pratt
Description: The goal of this project was to conduct field surveys on the endangered wood turtle (*Glyptemys*

insculpta) along the rivers and streams of northern Maine's working forest. This project funded an undergraduate research assistant, Gannon Pratt, who assisted with the field survey and compiled the results which he will present at a regional conference in the spring of 2018. In addition to supporting Gannon, this work also involved thirteen undergraduate students from two UMS campuses who participated in the fieldwork, and two undergraduate students from Mongolia who contributed to the single most productive day of the wood turtle survey. The students forged relationships with Maine Department of Inland Fisheries and Wildlife biologists, private forestland owners/managers, and Department of Environmental Protection personnel that will provide a supportive professional network when they enter the job market.

Visible and Infrared Imaging Spectroscopy for High Resolution Mapping and Health Assessment of Maine's Forest and Agricultural Resources
Industry Sector: Forestry and Agriculture
PI: Peter Nelson (University of Maine at Fort Kent)
Graduate Student: To be recruited
Description: A graduate student will be recruited in spring 2018 to scale up existing airborne imaging spectroscopy data

combined with high resolution ground-based spectral measurements applied to multiple vegetation, agricultural and forest targets. The goal is to integrate ground-based spectral scanning/chemical analysis and data mining of hyperspectral images into a pipeline for detection of specific, user-generated targets (eg. specific plants, pathogens, stress signals, etc.) for Maine's economically important natural resource sectors and elsewhere for competitive research applications. This project leverages existing collaborations between UMFK and UMaine researchers and with NASA.

10

375

II.   Infrastructure Support to the Business Development Enterprise Initiative

The Research Reinvestment Fund provides funding to support UMS capacity to serve in the areas of business partnerships, technology transfer and commercialization leading to economic development. The RRF funding supplements existing programs and is integrated with the Maine Economic Improvement Fund and other similar programming. In addition to funding specific projects through grants, the supported programs help faculty gain experience, and add capacity to expand UMS's contribution to the overall economic development ecosystem of the state.

RRF is a tool that coincides with and is leveraged by several campus and statewide initiatives aimed at strengthening the economic development ecosystem. These include the following:

- *Targeted Initiatives by UMaine and UMS Administration*. The *Commercialization Working Group (CWG)* was a year-long effort initiated by UMaine's President Susan Hunter to "move to an enhanced level of leadership focus and modernized policies, processes and structure" as they relate to industry engagement and the commercialization of research. CWG's efforts culminated in the launch of the UMaine *Innovation and Economic Development Council* (IEDC), which first met in January 2018 and has established short and long-term goals in five key areas to promote growth in commercialization and business development.

- *Maine Technology Institute (MTI)*: MTI is an industry-led, Maine state-funded, nonprofit corporation offering funding to Maine private companies, universities and non-profit organizations to support R&D leading to commercialization. UMS has historically been an integral partner to MTI and works directly with many MTI funded companies. MTI also provides funding on a competitive basis to UMS commercialization projects. RRF funds are sometimes leveraged as matching funds for MTI grants. The 2017 MTI Strategic Plan calls for increased and more systematic collaboration between MTI and UMS.

- *State Support for R&D*: In June 2017, Maine citizens voted to support a $50M R&D bond to be administered by the Maine Technology Institute and distributed on a competitive basis through the Maine Technology Asset Fund (MTAF). UMS was a partner on nearly $10 million of MTAF proposals submitted with industry partners in the state.

- *Private Support*: The Harold Alfond Foundation has demonstrated interest in supporting commercialization of research through recent gifts to UMaine and UMS. The Foundation gave its first significant R&D gift to UMaine to support the Alfond W2 Ocean Engineering Lab and has demonstrated interest through recent gifts in supporting to UMS's efforts to bring research products to market. In addition, Alfond funded $100k to UMaine for developing best practices for accelerating commercialization.

In addition to current state development initiatives, the following drivers unique to the UMS ecosystem merit consideration:

- UMaine, through external grants, state-bonds and private funding, has strategically invested in people and facilities – such as the Advanced Structures and Composites Center, the Advanced Manufacturing Center, the Process Development Center and the Aquaculture Research Center, which directly relate to the Maine economy and allow for companies to access resources and research results to be developed further along the commercialization continuum.

- Trends in grant program availability and expectations have prompted faculty to consider commercialization and industry engagement to increase proposal competitiveness, look for alternate sources of funding, and pursue learning opportunities.

- The collaboration between University of Southern Maine and UMaine Office of Innovation and Economic Development (OIED) has begun to introduce efficiencies in technology transfer and is increasing opportunities for collaboration among faculty and access UMS resources among the business community.

11

Commercialization Working Group Outcomes

The Commercialization Working Group developed deliverables and outcomes that provide specific guidance and best practices that, while directed at commercialization in general, are directly applied to RRF funded projects and target the acceleration of economic development. The September 2017 CWG final report summarized the results of the group's work and outlined next step recommendations. The CWG work plan included four interrelated areas of focus:

1. *IP Portfolio Review*: CWG arranged for an external assessment of a portion UMaine's intellectual property assets for the purpose of developing action plans to advance those with the highest potential. This activity also tested the process and effectiveness of using contracted services for IP evaluation.

Outcomes: About 25% of the technologies evaluated were recommended for continued investment; about 25% were recommended against further investment; the remaining reports recommended investment with some reservations. The faculty response to the reports was generally positive; investigators appreciated the tangible feedback, which sparked further discussion and motivated greater faculty participation. This portfolio review was used to shape project specific RRF grant applications with stronger commercialization objectives.

2. *Research Foundation or Other Structure*: Assessment and recommendations for the development of an independent entity, such as a research foundation, to facilitate the movement of IP to market.

Outcomes: It was recommended that UMS should fully establish The University of Maine System R&D Foundation to support commercialization of research. The benefits of an independent foundation include:
- More flexible and specialized talent recruitment, retention, and compensation practices;
- More nimble product sales and payment practices;
- A vehicle for non-traditional, opportunistic investments and research and commercialization efforts; and
- Positioning UMaine/UMS for continued growth of institutional infrastructure.

Several technologies in the RRF funded portfolio could be accelerated to the market with an R&D Foundation capable of doing a start-up, limited production and early product sales.

3. *Stakeholder Feedback*: Surveys, interviews and focus groups were completed to assess the experiences and recommendations of Maine businesses and faculty. Focus groups were held in Jan/Feb 2017.

Outcomes:
- University leadership needs to develop and communicate a ***clear vision*** for commercialization and innovation and a plan for realizing that vision should be articulated.
- Maine business and industry partners highlighted the need for improved ***communication and marketing of services, improved service delivery, and a wider array of services***
- The faculty highlighted the need for ***clear policies, additional resources, and aligned incentives*** supportive of commercialization and innovation. Current challenges include:
    - Inconsistent understanding of the importance of public-private partnership to the land-grant mission;
    - Inconsistent understanding of the resources the university has in place to support commercialization;
    - Inconsistency in the recognition of knowledge transfer activities in the incentive structures (e.g., promotion and tenure criteria);
    - Insufficient resources (e.g., release time, monetary rewards, human resources) to support faculty engagement in commercialization activities;
    - Insufficient marketing of UMaine R&D resources to potential industry or agency partners.

4. *Best Practices*: CWG examined practices unique to UMS and at peer and aspirational institutions, identifying the following priority areas for initiating growth:

- Faculty engagement & incentives, including policy, IP revenue allocation, internal funding/incentive programs
- Tenure and promotion criteria
- Information sharing, communication
- IP evaluation and marketing
- Structure for ongoing prioritization, resource allocation

12

Innovation and Economic Development Council (IEDC)

One outcome of the CWG was the establishment of the Innovation and Economic Development Council to advise the President. It is charged with building a campus culture that supports commercialization activities, establishing priorities and carrying out initiatives to enhance and increase technology commercialization, industry engagement and economic development. IEDC began meeting in January 2018 and has established five priority areas with associated short- and long-term goals based on the CWG work. This council is made up of UMaine administrators, faculty, and staff and includes UMS Chief of Staff James Thelen. IEDC is reviewing and recommending improved practices and policies that are systemwide and thus will include systemwide involvement.

As indicated, RRF funding enhances and is leveraged by activities underway to expand UMS commercialization capacity in ways that go beyond the technology-specific project support.

IEDC Year 1-2 Priorities:

Culture
- Articulate a vision for commercialization at UMaine/UMS;
- Build a culture of innovation by creating a sense of urgency, building guiding coalitions and ambassadors, removing barriers and creating short-term wins.

Policy
- Update policies for compliance and risk mitigation;
- Create policies that incentivize faculty and enhance service to industry partners.

Organizational Structure
- Identify and enable existing staff to efficiently support commercialization (***including existing professional staff***); engage contractors and plan for new employees where needed to expand capacity;
- Operationalize an independent research foundation to enhance business development and commercialization.

Industry Engagement
- Revamp and enhance the process and options for companies to engage in sponsored research; provide tools and training for faculty;
- Create materials and systems for marketing research capacity.

Internal Resources
- Provide training and programs (***such as the RRF accelerator***) to enable faculty and staff to engage in commercialization;
- Adopt administrative tools and systems to enhance service to stakeholders;
- Advise the development and administration of institutional funding mechanisms (***such as RRF seed grants***) to accelerate commercialization, build the project pipeline and increase collaboration among campuses and with industry partners.

RRF – Integral to Support the Business Development Enterprise

RRF has served not only to increase the research capacity of UMS, but also to support project development at various points along the technology readiness continuum, attract industry partners and additional funding, accelerate commercialization and grow the business development infrastructure, with special emphasis on sectors critical to Maine's economy. This section of report outlines the following:

- The commercialization status of RRF grants, by sector;
- New technologies and commercialization outcomes
- Sector-specific response
  - Forest Products
  - Aquaculture
- Internal support: Innovation and commercialization initiatives
  - Faculty, staff and graduate student commercialization training
  - Technology acceleration grants and programming
  - One University – institutional collaboration
  - Tools and systems for service and efficiency

13

New Technologies, Licensing and Commercialization Outcomes

UMaine saw growth in the number of projects, licensing revenue and invention disclosures in FY17. Licensing revenue in FY18 through February 2018 is already much higher than for the entire year of FY17.

Number of Maine Projects since FY16

The University of Maine System continues to build on existing industry engagement mechanisms including company funded R&D and product development contracts. These projects provide companies with access to UMS faculty, staff and facilities. Projects with Maine companies with formal contracts totaled for each fiscal year:

- FY16: 233
- FY17: 271
- FY18: (through February 2018 only): 104

License Revenue

License revenue was $186,148 for FY17. License revenue to-date in FY 2018 exceeds $550,000. UMaine's technology pipeline has been filling up over the last 10 years, recognizing that many new technologies take an average of 10 years from lab invention to marketable technology. UMaine technology transfer manages more than 125 active commercialization projects, which range from initial patent application, ongoing R&D, early prototypes and field trials, initial market trials, and startup formation to licenses with mature companies.

Invention Disclosures and Patents

- In FY17, 26 notifications of new inventions were received and evaluated for technical readiness, commercialization potential and patentability, compared to 15 in FY16.
- 6 new U.S. patents were issued
- 5 new provisional patent applications were filed
- 7 non-provisional U.S. or PCT applications were filed

Commercialization Progress of RRF Funded Grants

UMaine OIED worked closely with the majority of RRF seed grant applicants and recipients. This work includes implementing intellectual property protection, developing commercial development plans, identification of commercial partners and leveraging additional investment funding from other sources in an effort to accelerate and advance commercial development.

The following are examples of which are progressing towards commercialization and leveraging RRF for industry engagement and business development.

Forest Products & Agriculture

2017 Seed Grant: Cross-Laminated Timber Demonstration Building Design and Cost Analysis
PI*:* James Beaupre
Engagement*:* Led to engagement with multiple land owners and municipalities; facilitated 2018 announcements by two companies, **LignaTerra** and **Smartlam**, to build CLT manufacturing facilities in Maine. Planning is underway for a Maine-based demonstration building to utilize manufactured CLT panels.
Advancement: Seed grant used as match for $455,000 EDA Mass Timber Commercialization Center (see table below). Both companies are progressing toward site selection and capital acquisition. UMaine continues to improve business attraction packages for CLT and other forest products in collaboration with communities and regional economic development leaders.

14

Biotechnology

2017 Seed Grant: Variable and High Porosity Nanocellulose Solid Forms for Biomedical Applications
PI: Michael Mason (UMaine Department of Chemical and Biological Engineering)
Engagement: UMaine School of Forest Resources, **Colorado Limb Consultants**
Advancement: Executive-level discussions began in January 2108 with large a device provider (facilitated by results of CWG portfolio assessment) on non-CNF devices of this type, with expectation of evaluation / sponsored research in CNF devices.

2015 Seed Grant: (*relates to above): Development of additively manufactured highly porous implantable devices that promote post-surgical wound healing and a biological transcutaneous seal: Testing of implant material and internal pore geometry in a porcine model*
PI: James Weber (Food and Agriculture, UMaine)
Engagement*:* **Stryker Orthopedic**
Additional Investment: Stryker Orthopedic in-kind funding
Advancement: Department of Defense proposal pending.

2017 Seed Grant: Cellulose Nanofibers: A Novel Adjuvant for Veterinary and Medical Applications
PI: Deborah Bouchard (UMaine, Aquaculture Research Institute)
Engagement: **Benchmark Animal Health**
Advancement: Currently under evaluation by Benchmark for a license option and funded research; UMaine will pursue funding and industry collaborations outside the Benchmark field of use in 2018.

2016 Seed Grant: Liquid-Infused Paper Substrates for New Biomedical Applications
PI: Caitlin Howell (Biomedical Engineering, UMaine)
Engagement: **SLIPS Tech**, **Sharklet Technologies**, **SAPPI Fine Paper North America**
Advancement: SAPPI sponsorship research; patentability and commercial assessment pending; RRF Accelerator participant.

Healthcare

2017 Seed Grant: Development of Intrac™: A Weight Bearing and Fitness Tracking System for Assistive Devices
Industry Sector: Healthcare
PI: Vincent Caccese (UMaine, Department of Mechanical Engineering)
Engagement: UMaine School of Social Work and Center for Community Inclusion and Disability Studies, USM Lewiston, Occupational Therapy Programs, **Mobility Technologies**
Advancement: Product line expansion for UMaine licensee and SBIR awardee Mobility Technologies.

2017 Seed Grant (relates to above): Eco-Sno Co-Design Project
Industry Sector: Healthcare
PI: Elizabeth DePoy (UMaine School of Social Work and Center for Community Inclusion and Disability Studies)
Engagement: UMF, Outdoor Recreation Business Administration, UMaine School of Social Work and Center for Community Inclusion and Disability Studies, UMaine Center on Aging. **Mobility Technologies**.
Advancement: Product line expansion for UMaine licensee and SBIR awardee Mobility Technologies.

Composites & Advanced Materials

2017 Seed Grant: Application of low-cost bio filled thermoplastics to 3D printed marine tooling
PI: Douglas Gardner (UMaine, Advanced Structure and Composite Center)
Industry Sector: Composites & Advanced Materials
Engagement: UMaine, School of Forest Resources, UMaine, ASCC, **Lyman Morse, Hinckley Yachts**, **Hodgdon Yachts**, **Sabre**, & **Thermwood Corporation**
Advancement: Used to leverage $300,000 from Oakridge National Laboratory; industry-sponsored projects continuing.

2017 Seed Grant: Turning Maine's Wood Fiber Resource into Renewable Food Packaging Systems
Industry Sector: Forest Products & Agriculture; Composites & Advanced Materials
PI: Mehdi Tajvidi (UMaine School of Forest Resources)
Engagement: UMaine, Department of Chemistry, UMaine ASCC, **Synthesis Group Minerals Technologies,** UMaine School of Food and Agriculture, USDA Forest Products Lab

15

Advancement: Leveraged grants from P3Nano, technology of interest to multiple licensees, including opportunities for Maine industry. Discussions underway.

2017 Seed Grant: Novel Fire Resistant Low Formaldehyde Emitting Fiberboard Panels Made from Deadwood or Wood Residuals and Nanocellulose
Industry Sector: Forestry/Composites
PI: Mehdi Tajvidi (Forest Resources, UMaine)
Engagement: Early discussions underway with a large global end-user, a Maine sawmill and large potential end-user licensees in building products and consumer goods.
Advancement: Patent application filed

2015 Seed Grant: Development of Structural Wood Plastic Composite Timber for Innovative Marine Applications
Industry Sector: Forestry/Composites/Aquaculture
PI: Douglas Gardner (Advanced Structures and Composites Center, UMaine)
Engagement: **Innovasea**
Advancement: Discussions underway to secure material supply agreement between Innovasea and a multi-national UMaine license & development partner.

Aquaculture

2015 Seed Grant: *Energy Recovery Dehumidification (ERDH) for energy efficient increased drying capacity of high quality sea vegetables*
Industry Sector: Marine/Aquaculture
PI: Peter Van Walsum (Chem & Bio Engineering/Forest Bioproducts Research Institute, UMaine)
Engagement: Nyle Corporation, Brewer Maine
Advancement: Discussions with three Maine sea vegetables companies. Nyle Corporation has expressed interest in developing commercial units for sale to Maine seaweed processors.

2015 Seed Grant: Sustainable Bio-conservation Technology for Aqua-feed Production and Waste Management
Industry Sector: Marine/Aquaculture
PI: Andrei Alyokhin (Biology and Ecology, UMaine)
Engagement: **Acadia Harvest**
Advancement: Additional Investment: Federal Small Business Innovation Research (SBIR) grants Phase I & II ($40,000 to UMaine) from USDA and NSF. Start-up/UMaine incubator tenant.
Acadia Harvest is in the process of building an aqua-feed rearing facility to implement this technology in Waldoboro, Maine.

Environmental/Food Technologies

2015 Seed Grant: Prototype Development for Detection of Wine and Beer Spoilage Yeasts
Industry Sector: Food and Beverage, Environmental Science
PI: Laurie Connell (Marine Sciences, UMaine)
Engagement: Allagash Brewing, Portland, Maine; Constellation Brands, NY; Beacon Analytical System, Saco, Maine
Advancement: Additional Investment: Maine Technology Institute ($28,360); Constellation Consortium ($77,082).
Partnership (license options) with Saco, ME, company Beacon Analytical Systems for future manufacturing of reagent kits. Estimated initial entry to market second half of 2018. Participating in the MIRTA RRF Accelerator.

TECHNOLOGY COMMERCIALIZATION: CELLULOSE NANOMATERIALS

Cellulose nanomaterials are a class of naturally derived particles with unique and highly desirable properties that have been known for decades, but due to the difficulty and expense of production, the materials have not been available to industry in quantities required for product development and commercialization. The UMaine Process Development Center generated a patent-pending solution to provide a cost-effective, scalable production technology for one class of these materials, cellulose nanofibrils (CNF). CNF is valued for its strength and barrier properties, among other characteristics, making it a perfect additive for pulp, paper and packaging applications. Other applications in composites, building materials, food, and biomedical applications are also in development. UMaine has supplied CNF to hundreds of companies and research institutions around the world and has licensed the production technology to several commercial partners, with more licenses underway for production and product applications.

16

Innovation & Commercialization Initiatives

OIED has been working on several initiatives to grow and accelerate innovation, industry engagement and commercialization activities at UMaine and at the other UMS campuses. These initiatives involve growing the pipeline of faculty, staff and students engaged in commercialization by providing them with the tools and training they need as well as by supporting acceleration of their projects. Several of the current and future, planned activities come from the efforts of the Commercialization Working Group (CWG). The improvements in these program areas are consistent with the UMS BOT priorities and the Research Reinvestment Fund Initiative. A summit was held in January 2018 to report out findings from the CWG and to present proposed activities.

Commercialization Training

Prior to the Research Reinvestment Fund initiative, commercialization training was provided in an ad hoc manner, mostly by working individually with faculty and staff who were involved in industry engagement and by encouraging them to attend incubator or community workshops.

Many faculty and staff are unsure of how to get started with commercialization and industry engagement opportunities. In order to grow activity, more faculty, staff and students need support and training to participate in industry engagement and commercialization opportunities, and thus OIED looked at ways to create a more systematic approach to training. OIED reviewed best practices at other universities to develop a comprehensive approach to meet the needs of UMS faculty and staff. Based on our experience in supporting faculty commercialization, in hosting workshops and events, and the survey of best practices, OIED has created a three-tiered approach with increasing levels of formality and commitment by the participants.

The first level is *Innovators MeetUp*, a regular, monthly, informal peer networking event. These discussions cover topics such as identifying commercial partners for your research, working with or creating a startup, licensing agreements, encouraging graduate student commercialization, and funding sources for projects. Some will include a guest such as a Maine Technology Institute representative or an industry representative to present research collaboration opportunities.

The second level is a more comprehensive training program. Working with the OVPRDGS office, OIED launched an Introduction to Commercialization workshop, encouraging RRF grant recipients as well as faculty and soft-money researchers hired within the past five years at UMaine to attend. In addition, OIED has developed a workshop series, UMaine/UMS Innovates, which will include two tracks: one for those who want to pursue a start-up company to commercialize their research and one for working with industry partners. Financial incentives are under development to encourage participation in the full series.

The third professional development level is the Maine Innovation, Research and Technology Accelerator (MIRTA). This initiative, described below, has the dual benefit of moving technologies closer to commercialization while also training faculty, staff and students in the commercialization process.

Timeline for activities:

Fall 2017:
Introduction to Commercialization workshop offered three times

Winter 2018:
MIRTA launched in January 2018 with first cohort of five RRF projects

Spring 2018:
Introduction to Commercialization provided at UMS campuses, first peer networking sessions

Summer 2018:
UMaine/UMS Innovates series starts with videoconferencing and local workshops

17

Commercialization Acceleration

As stated in its purpose, RRF provides infrastructure, planning and seed grants, and student assistantships in applied research and development that impacts Maine's economy and enables UMS faculty, professional staff and students to partner with private sector companies to accelerate commercialization. Figure 1 shows the distribution of seed grants awarded through 2018 along the research commercialization continuum.

However, the current timeline for commercialization can be long without focused attention to moving both the business/economic and research aspects of a project forward, and commercialization assistance has historically been provided on an individual project basis, which can be inefficient. UMaine OIED, working with the UMaine OVPRDGS office, has developed a new program within RRF to accelerate and streamline this process. RRF seed grant recipients, along with any recipients of undergraduate and graduate student awards, were invited to apply for participation in the accelerator pilot.

Figure 1- Seed grants through FY18   *Connell project was selected for funding in both the 1st and 4th rounds

MIRTA is designed to advance selected projects from basic and applied research and development stages to a stage that can realize measurable commercialization outputs in the short term. The accelerator is an intensive 16-week program and guides participants through customer discovery, market analysis, intellectual property analysis, and business model development that will result in a commercialization plan with a strategy for bringing their research to market.

The teams meet with OIED staff to develop a work plan and homework to make measurable progress toward commercialization every week. Through these weekly cycles, teams will determine how to position and develop their research for commercialization success. Each team is also matched with a group of mentors who provide advice at key points of the accelerator. At least one person from each team is required to dedicate at least 20 hours per week to participation in the accelerator and executing their commercialization work plan. RRF funds are used for prototyping, meeting with potential customers, market analysis and intellectual property protection. In addition, OIED staff worked with the Maine Technology Institute to open a special MTI seed grant round for the participants in the accelerator, using the RRF funds as match in their MTI proposals, which, if awarded, will allow the teams to continue their commercialization work after the accelerator ends. Possible outputs include starting a company, licensing to an existing company, or forming an extended research collaboration.

18

The current spring 2018 cohort consists of five teams:

Beverage (Wine and Beer) Spoilage Detector
Near real-time instrument for detection of microorganisms to avoid ruined product.
PI: Laurie Connell, School of Marine Sciences, with Connell Lab staff Corey Hirn and Leslie Astbury
RRF: 2015 Seed Grant and 2018 Seed Grant
Other funding: MTI seed grants, industry contract
IP: Patent application in process
Industry partners: Beacon Analytics, Saco, Maine; Constellation, NY; Allagash Brewing, Portland, Maine
Possible outcomes: license to industry partner

Low-Cost Geoinformatics for Forests
Near real-time mapping of forest characteristics for improved forest management.
PI: Erin Simons-Legaard, Kasey Legaard, Aaron Weiskittel, all from School of Forest Resources and staff from UMaine Advanced Computing Group
RRF: 2016 Seed Grant
IP: Software licensing
Industry relationships: Maine forest landowners
Possible outcomes: license to end users or start-up company

Microfluidics Platform Technology for Biomedical Applications
Lower cost and environmentally-friendly point of care diagnostics
PI: Caitlin Howell, biological engineering, with staff Matt Talbot, and students Amber Boutiette and Bailey Corliss
RRF: 2016 Seed Grant
Other funding: Industry contracts
IP: Patent analysis in process
Industry Partners: SAPPI, Westbrook, Maine
Possible outcomes: license to already identified existing Maine companies and a start-up

Early Diagnosis and Treatment of Peripheral Neuropathy
Device to detect neuropathy much earlier than current methods.
PI: Kristy Townsend, School of Biology & Ecology; Rosemary Smith, electrical engineering; students Magdalena Blaszkiewicz and Michael Small
RRF: Round 1 & Round 2 Undergraduate Assistantship
IP: Patent analysis in process
Industry relationships: Mount Desert Island Biological Laboratory, Bar Harbor, Maine
Possible outcomes: start-up company or license to an existing company

Bee Hive Activity Monitoring System
Monitoring system that is an early warning tool against colony collapse disorder.
PI: Nuri Emanetoglu, electrical engineering; Herbert Aumann, electrical engineering; Frank Drummond, School of Biology & Ecology; student Berkay Payal.
RRF: Round 1 Undergraduate Assistantship
Other funding: National Science Foundation
IP: Provisional patent application in process
Industry relationships: State of Maine apiarist
Possible outcomes: start-up company or license to an existing company

19

The combination of commercialization training, RRF awards and MIRTA (Accelerator Training) creates a stronger pipeline and pathway leading to increased ongoing industry R&D projects, commercialization and economic development. The pathway builds upon existing OIED business development and start-up supports including licensing, business incubation and entrepreneurship support (figure 2), with the goal of increased licensing, industry collaborations, and jobs created and retained.
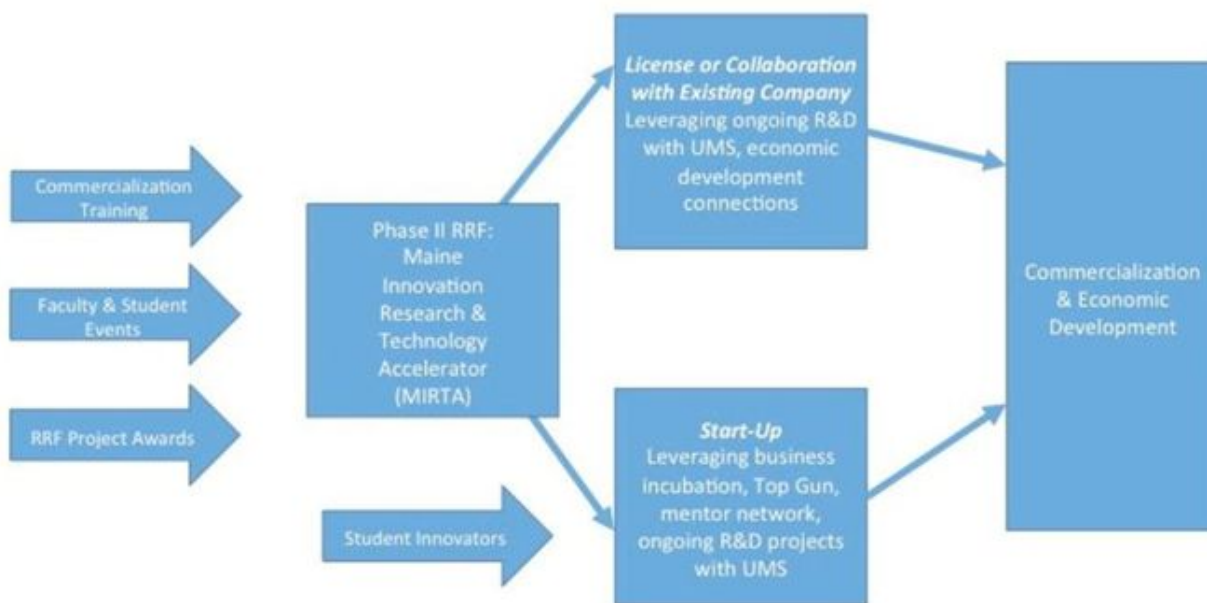

Figure 2 Research Commercialization Supports

Timeline for activities:

Fall 2017:
RFP for MIRTA released

Spring 2018:
MIRTA taking place January-May

Fall 2018:
RFP released and pre-proposal support for next round of MIRTA

Business Development Infrastructure – Responding to Maine's Most Pressing Needs and Opportunities

OIED has limited resources, but has built programs and access to UMS resources and assets. By connecting with the Maine economic development ecosystem including companies, trade associations, state agencies and local communities, OIED facilitates both opportunistic connections and strategic collaborations. Since the RRF program began, there have been several significant developments in the Maine economy that changed the climate and opportunity for business development. RRF operational funds supplement the existing resources to increase engagement and accelerate commercialization.

In addition, UMaine's Commercialization Working Group that was tasked to assess activities related to technology commercialization and industry engagement completed its work and identified several areas for improvements to grow industry engagement and commercialization. Because of these two developments, OIED has focused its efforts to grow the business development enterprise infrastructure on 1) sector partnerships and 2) systems and processes to grow industry engagement.

20

Forest Sector Focus

Maine Forest Economy Growth Initiative

The Maine Forest Economy Growth Initiative (MEFGI) is one of the most comprehensive economic development efforts in the history of Maine. With the closure of six pulp and paper mills in Maine in just a two-year period, Maine has seen not only the economic disaster from the businesses and jobs lost in those communities, but also the loss of markets for nearly 25% of the annual wood harvest. The Maine congressional delegation, working with the US Department of Commerce, initiated the Economic Development Assessment Team (EDAT) process during the summer of 2016 to develop opportunities and federal program assistance to revitalize the forest economy and the communities most affected by the closures, while pursing economic opportunities to take advantage of the available wood and the brownfield sites left from the closed mills. The EDAT process led the Maine Forest Products Council, the Maine Professional Loggers Association, the Maine Woodland Owners, the Maine Development Foundation and the University of Maine to form a unique collaboration between the private companies, trade associations and the public sector to develop a *Vision and Roadmap for Maine's Forest Economy.* Several EDA, USDA, DOE grants have been awarded in Maine and to UMaine to specifically focus on industry support, forest species supply, modeling emerging technology commercialization, workforce assessment, community and stakeholder engagement, and business attraction and recruitment. MEFGI is run by an industry-led executive committee and seven subcommittees that include private sector companies, trade associations, land owners, state agencies, and communities (see Appendix E for more information on the Vision and Roadmap for Maine's Forest Economy).

CLT R&D AND RRF EFFORTS HELP WITH BUSINESS ATTRACTION

In February 2018, two companies with a desire to manufacture Cross-Laminated Timber (CLT) announced plans to locate manufacturing in Maine, one in Millinocket and the other in a location to be determined. These opportunities were a direct result of multi-year R&D projects by UMaine's Advanced Structures and Composites Center, an RRF grant to develop a CLT demonstration project, a site-location information package developed by OIED staff, and the relationships developed between UMaine and these companies.

Since the Advanced Structures and Composites Center began researching mass timber innovations using Maine wood species, OIED business development staff helped convene the Roadmap advisory group and a variety of industry partners including construction companies, architects and sawmill owners to develop a strategy to attract CLT manufacturing to Maine to commercialize these technologies. Staff also worked with Maine & Company, the Department of Economic and Community Development, Our Katahdin and other partners to implement the strategy. The two announcements represent an estimated $50 million investment in the state with the potential to create 200 jobs and demonstrate how the process is working.

UMaine and USM are partners in the formation of this statewide project. UMS faculty and staff participate in all of the committees and our expertise is sought in all facets of the programs as illustrated in figure 3. UMS faculty and staff serve as PIs/Co-PIs on multiple grants funding different elements of the vision and roadmap for Maine's forest economy. In addition, EDA also funded a roadmap for Maine's Bioproducts Sector to advance biobased manufacturing, marketing Maine's biobased assets to investors in new technologies and processes, and providing technical assistance to Maine forest products manufacturers and users in the implementation of new biobased technologies. It is anticipated that the cost analysis, technology assessment and market research component of the project could place one or more mills into the production of cellulosic sugars, with 195 or more jobs created.

Phase one of the broader vision and roadmap for Maine's forest economy has focused on examining global market opportunities, wood fiber availability and transportation. Phase two will focus on analyzing subsectors of opportunity, combined heat power energy opportunities, evaluation and demonstration of emerging technologies, and developing a marketing plan for the business starts, expansion and attraction for Maine. The USM EDA University Center, managed by USM Center for Business and Economic Research (CBER) has been in place for more than 20 years. The most recent grant now includes UMaine as a formal partner, with an expanded mission to include technology transfer and industry support- focused on the forest sector. The Center partners with UMaine's School of Forest Resources, the Margaret Chase Smith Policy Center and OIED in this five-year grant awarded in 2016, focused on providing market analysis, workforce analysis and technology development support for the forest products industry.

The RRF efforts of UMaine including the Office Innovation and Economic Development and individual RRF grants to specific technologies are directed at this overall strategic effort.

21

UMS External Awards Aligned with this Forestry Sector Effort

Agency	Title	Applicant	UMS PIs	Amount
EDA	Bioproducts Roadmap	Biobased Maine & UMaine	Ward (UM), Pendse (UM), Wallace (USM)	$519,000
EDA	University Center	USM/UMaine	Wallace (USM), Ward (UM), Kelly (UM), Shaler (UM), Rubin (UM)	$582,000
EDA	Forestry Roadmap Phase I	UMaine & Maine Forest Products Council	Weiskittel (UM), Ward (UM), Beaupré (UM)	$996,000
EDA	Forestry Roadmap Phase II (pending)	UMaine & Maine Forest Products Council	Weiskittel (UM), Ward (UM), Beaupré (UM)	$1,000,000
MTI	Forestry Roadmap Phase I	UMaine & Maine Forest Products Council	Weiskittel (UM), Ward (UM), Beaupré (UM)	$250,000
MTI	Forestry Roadmap Phase II (pending)	UMaine & Maine Forest Products Council	Weiskittel (UM), Ward (UM), Beaupré (UM)	$250,000
EDA	Mass Timber Commercialization Center	UMaine	Edgar (UM), Herzog (UM), Beaupré (UM), Shaler (UM)	$455,000
DOE	Northeast Combined Heat and Power Center	UMaine & UNH	Dvorak (UM), Ellis (UM), Dunning (UM)	$2,000,000

RRF Awards Aligned with this Forestry Sector Effort

RRF Type	Title	PI and Partners
RRF Seed Grant 2017	Cross-Laminated Timber Demonstration	Beaupré (UM), Shaler (UM), Nagy (UM), Wallace (USM)
RRF Seed Grant 2017	Application of Low-Cost Bio Filled Thermoplastics to 3D Printed Marine Tooling	Gardner (UM), Crandall (UM), Anderson (UM), Lyman Morse, Hinckley Yachts, Hodgdon Yachts, Sabre, Thermwood Corporation
RRF Seed Grant 2017	Nanocellulose Forms for Biomedical Applications	Mason (UM), Tajvidi (UM), Colorado Limb Consultants
RRF Seed Grant 2017	Renewable Food Packaging (using nanocellulose)	Tajvidi (UM), Bousfield (UM), Gramlich (UM), Gardner (UM), Nayak (UM), Synthesis Group Minerals, USDA Forest Products Lab
RRF Seed Grant 2016	forEST Application	Simons-Legaard (UM), Legaard (UM), Weiskittel (UM), Maine Forest Service, US Forest Service
RRF Seed Grant 2016	Detecting and Assessing Spruce Budworm Forest Defoliation over Maine	Rahimzadeh (UM), Weiskittel (UM), Nelson (UMFK), University of New Brunswick, University of Quebec
RRF Seed Grant 2015	Structural Wood Plastic Composite Timber for Marine Applications	Gardner (UM), Han (UM), Innovasea, Stora Enso
RRF Seed Grant 2015	Fire Resistant, Low Formaldehyde Emitting Fiberboard	Tajvidi (UM), Bousfield (UM), USDA Forest Products Lab

Adding Capacity for Strategic Outreach and Rapid Response

Leveraging federal funding with state match is fundamental to increasing industry engagement and commercialization. Utilizing the EDA University Center grant and the EDA Mass Timber Commercialization Center grant, UMaine has hired a new forestry business development manager to reach out to industry partners to build R&D relationships, collaborate on emerging technology opportunities, and attract new business to the state. In addition, the DOE Combined Heat Power Combined (CHP) will offer real solutions to today's energy issues: supporting economic development through improved energy efficiency, increased energy resiliency, and lower energy costs. The team of experts at the University of Maine and the University of New Hampshire will be working together to promote cost-effective energy systems in both states.

Aquaculture/Marine Sector Focus - The Alliance for Maine's Marine Economy

In 2015, the Darling Marine Center and OIED used an RRF planning grant, *Building Campus and Community Connections to Advance Research Development and Communication for Maine's Marine Economy,* to organize a group of Maine's private and nonprofit marine and aquaculture related organizations to apply for a $7 million State of Maine Marine Jobs and Economy Bond. The outcome was the formation of the Alliance for Maine's Marine Economy, and the successful award of $7 million in funds matched by more than $7 million for capital construction and equipment located at both companies and non-profit organizations, including UMaine and UMM's marine field station, the Downeast Institute. The goal of the bond and the resulting Alliance is to spark economic development in the marine sector. Much like the forest sector losses of mills and the industry's response to alternative uses, the commercial fisheries sector has seen reduction in wild catches and catch limits on historically economically important species. At the same time, new markets and emerging technologies in the aquaculture sector are creating significant new opportunities for Maine's working waters and waterfronts.

The Alliance is a 10-year project with continually expanding participation of private companies. The Alliance is in the formative stage of developing a vision and road map for the Maine's marine economy parallel to the forest economy project. Currently, USM's EDA Center with trade associations and UMaine staff is leading a workforce assessment (See Appendix F for 2017 Highlights).

The Alliance builds on the long history of UMS support of the marine/aquaculture sector. This effort brings strategic focus to the historic and current activities and better positions UMS to respond to needs. UMS resources at Orono, Machias and the Darling Marine Center are seeing modernization at a critical time in this sector's evolution. Bond funded improvements at the Darling Marine Center and the UMM Downeast Institute directly support aquaculture businesses, while the new Orono-based FishLab will focus on aquatic animal health and disease challenges faced by both wild fisheries and aquaculture. In addition, the Focus Maine partnership has selected aquaculture as a target for their business development activities, which align with UMS aquaculture R&D and business incubation programs at the Darling Marine Center, the Center for Cooperative Aquaculture Research and the UMM Downeast Institute. A review of RRF funded R&D and commercialization shows a concentration of efforts for this sector as well.

> **AQUACULTURE R&D AND RRF EFFORTS HELP WITH BUSINESS ATTRACTION**
>
> In early 2018, two companies announced their plans for commercial production of Atlantic Salmon using land-based recirculation systems. This technology is very similar to the land-based technology utilized at the UMaine Center for Cooperative Aquaculture Research in Franklin, Maine. Both companies have reached out to UMaine for assistance with workforce and future R&D. RRF funded grants are already addressing needs such as alternative feed production and rapid detection of egg fecundity. The two companies plan to employ hundreds, and the combined investments in Bucksport and Belfast are expected to near $750 million.
>
>

23

RRF Seed Grants Aligned with this Aquaculture/Marine Sector Effort

RRF Type	Title	PI and Partners
RRF Seed Grant 2018	Supporting Maine's Sea Scallop Aquaculture Industry	Morse (UM)
RRF Seed Grant 2018	Shellfish Nursery Upweller	Goupee (UM)
RRF Seed Grant 2018	Lobster Golf Ball Production	Beaupré (UM)
RRF Seed Grant 2018	Predicting Bad Eggs: Survival Rates of Fish Embryos for Aquaculture	Jayasundara (UM)
RRF Seed Grant 2017	Cellulose Nanofibers for Veterinary & Medical Applications (aquaculture)	Bouchard (UM), Bricknell (UM)
RRF Seed Grant 2017	Improving Maine's Coastal Infrastructure Upgrade Decisions	Brady (UM), Strong (UM), Wilson (USM), Maine DEP, Portland Water District, Friends of Casco Bay
RRF Seed Grant 2016	Advancing Algal and Invertebrate Aquaculture	Brawley (UM), Kogson (UM), Redmond (UM), Maine Coast Sea Vegetables, Maine Fresh Sea Farms, Wholesale Marine Worms
RRF Seed Grant 2016	Forecasting Value of American Lobster Settlement Index	Wahle (UM), Beal (UMM), Brady (UM), NOAA
RRF Seed Grant 2015	Effects of Ocean Acidification on Reproduction in American Lobsters	Hamlin (UM), Bouchard (UM), McRae (UM), MDI Biological Laboratory
RRF Seed Grant 2015	Increased Drying Capacity of High Quality Sea Vegetables	Van Walsum (UM), Nayak (UM), Belding (UM), Martinez (USM)
RRF Seed Grant 2015	Sustainable Aqua-Feed Production and	Alyokhin (UM), Bernard (UM), Acadia Harvest
RRF Seed Grant 2015	A Novel Approach to Prevent Super-Chill in Atlantic Salmon	Bricknell (UM), Bouchard (UM), USDA National Cold Water Marine Aquaculture Center, Cooke Aquaculture
RRF Seed Grant 2015	Development of Tools for Measuring the Costs of Feeding and Food Utilization in Eastern Oysters	Rawson (UM), University of New England, Maine Aquaculture Innovation Center

Serving all sectors with small resources requires efficiency

Both of these statewide initiatives have required focused attention from UMaine's and USM's industry engagement and economic development efforts and have led to opportunities to accelerate the technology commercialization in these sectors. It is notable that RRF grants to UMS institutions see a concentration of forest and marine applications. The concentration of economic development partners and industry participation involved in these two initiatives allow OIED to perform business development more efficiently and robustly.

Systems and Processes to Grow Business Development

Enhanced Industry Engagement

The contracting process is often a source of delay and tension between universities and industry partners. By Q2 2018, UMaine will launch a new process for engaging with industry that provides information upfront and a menu of options appropriate for the project. In addition, information will be made available to both industry and faculty that clearly explains the process and expectations for both parties. This new model of engagement is expected to reduce the time required to negotiate and execute projects, and increase the satisfaction of internal and external collaborators.

24

Integrated, Accessible Real-Time Information Management System

OIED is in the process of selecting a new system for customer relationship management (CRM) software to streamline industry project management, intellectual property management and business development. Faculty and staff who work on industry projects will be able to view their projects and track contacts with Maine companies. In addition, OIED will be able to use this information to reach out strategically to companies who already have a UMS connection to share information on other UMS R&D resources that may be of assistance.

These contacts, along with the targeted list of companies from historical activity that was developed last year, future MTI grant recipients and applicants, and companies in the targeted forestry products and aquaculture/marine sectors form the core of OIED's business outreach strategy. Formal outreach is underway to promote three types of potential interactions: supporting company R&D needs, marketing UMS technology transfer and developing workforce through internships and fellowships.

Timeline for activities:

Fall 2017:
Phase one implementation of forestry sector vision and roadmap, formal outreach with forestry sector, outreach with aquaculture sector to identify needs, OIED review of new systems for industry engagement

Spring 2018:
Formal outreach program to MTI grant recipients and companies with existing relationships, implementation of new industry contract templates, forestry business development staff hired and ongoing business outreach

Summer/Fall 2018:
Implementation of CRM business development system, Phase two coordination of forestry sector innovation and economic development, ongoing coordination of aquaculture sector innovation and economic development

Outreach to UMS Campuses

As part of the One University initiative, OIED has been tasked with expanding technology transfer and commercialization capacity throughout UMS and expanding industry engagement and partnerships. UMaine and the University of Southern Maine entered into a memorandum of understanding for shared business development services and commercialization initiatives between the campuses. Over the last year, the collaboration has led to regular, systematic intercampus collaboration on economic development initiatives. USM provided dedicated office space to OIED in March 2017, with the expectation that the collaboration will continue and expand.

Under USM direction, OIED assumed responsibility for USM intellectual property management, patent licensing, industrial contracting and activities related to increasing and enhancing commercialization at USM. This generated efficiencies by eliminating a ½ FTE and made additional services and resources available to USM. It also increased the awareness of both teams of the capabilities and resources available at each campus, and introduced opportunities to promote collaboration among faculty. Activities this year include the migration of the USM intellectual property portfolio and related agreements into the OIED IP management system, and assistance with USM contract negotiation and execution as requested. Additionally, OIED conducted outreach to a number of USM faculty to promote commercialization of their work and to facilitate the next stages of product development. Armed with a better understanding of USM and UMS needs, a goal for spring and summer 2018 is to identify staffing requirements to address business development needs at USM.

To date, outreach at the other UMS campuses has focused on innovation internship opportunities. An effort to help grow and create jobs across the state of Maine, the Innovate for Maine Fellows program helps early-stage, scaling and growing innovation-based companies throughout Maine connect with talent while at the same time demonstrating to students that there are opportunities to do meaningful and exciting work in the state. This program provides students from all of the System campuses with Innovation Engineering training, exposure to entrepreneurial events, and connects them with Maine's most exciting, growing companies and business leaders. The program prepares students to collaborate with companies on

25

innovation projects that accelerate company growth and give students a paid, meaningful, hands-on internship experience. To date, the program has served 168 companies with 162 Fellows representing 29 colleges and universities.

In spring 2018, OIED staff is working with several faculty and staff across the System to recruit students for the Innovate for Maine program. Additionally, staff is visiting some of the campuses to engage with students and faculty around industry partnerships, with a focus on internship opportunities. In addition, we are exploring partnerships with USM to provide the Innovate for Maine model for new internship programs they are developing.

OIED staff met with the Chief Academic Officers of the UMS campuses in summer 2017 to share information about how OIED can directly support innovation efforts at their campuses, including industry contracting and intellectual property management. In addition to continued general outreach and internship engagement, future plans include connecting with UMS faculty who participated in projects that received RRF awards to help explore commercialization opportunities for their work. In addition, there are plans to offer training and workshops on all campuses. OIED also plans to leverage the new UMS Academy to provide online training for faculty, staff and students at the UMS campuses.

<u>Timeline for activities:</u>

Summer 2017:
Meeting with Chief Academic Officers regarding innovation support

Spring 2018:
Intern recruiting and outreach visits on campus, Introduction to Commercialization provided at UMS campuses

Summer/Fall 2018:
Plan for regular outreach activities/support developed with UMA, UMF, UMFK and UMPI; innovation and commercialization workshops provided both on campus and via new UMS Academy system

Conclusion

This report of activities is obviously much broader than the activities supported by RRF funding. The RRF funding provides a tool and extra resources to focus on priorities. Challenges remain for the System to continue to grow in the research and economic development space as outlined in the report of the Commercialization Working Group activities. While the initial RRF program focused on research & development in the seven MEIF sectors plus healthcare, business and tourism, it is clear that economic development requires attention to workforce development as well.

The UMaine Office of Innovation and Economic Development has been charged with collaborating with USM to expand commercialization and private sector engagement. As USM has been assessing their strengths and capabilities, they have introduced the concept of "social innovation" into the lexicon, which has stimulated robust discussion on how to identify and accelerate these projects. This topic was discussed at the January 2018 Innovation Summit hosted by Chancellor Page.

UMS provides OIED with $200,000 year in RRF funds to support staff for technology transfer, commercialization and coordination to other campuses. The actual expenditures were less than that amount, with unspent funds returned to the System. Use of these funds going forward requires an updated strategy mindful of USM's social innovation concept, needs of the other campuses, sector strategies and priorities identified to grow commercialization and industry engagement.

26

III.   Infrastructure Support to the Research Enterprise Initiative

Grant Development Office
The Grant Development Office (GDO) is a unit within the OVPRDGS that provides proposal development support for large grant applications; high profile programs with system wide and statewide impact; signature areas of excellence; proposal resubmissions; and early career faculty grant submissions. Services to faculty and researchers include grant writing support, review and critique of proposal narratives, funding opportunity searches and alerts, project management of inter-institution proposal writing teams, and conducting a variety of grant writing workshops. The GDO aims to enhance grant-seeking activities and facilitate internal and external collaborations to promote a culture of research excellence and extra-mural funding success. RRF funding supports three FTE professional staff positions to provide hands-on support to faculty pursuing external funding and building research, development, and commercialization initiatives. As part of the program enhancement activities that the RRF Advisory Board approved for Years 4 & 5, a Large Center Development Associate positon was created to increase grant writing activity for multi-year multi-million dollar research commercialization grants involving multiple internal and external stakeholders.

Examples of grant writing projects currently underway include: $8,000,000 proposal to the Harold Alfond Foundation to support the Engineering Education and Design Center; $12,500,000 proposal to NSF in April 2018 for an INCLUDES scale up project related to increase diversity in STEM; and a $20,000,000 proposal to NSF EPSCoR in August 2018 in collaboration with Bigelow Labs, other UMS campuses, and private sector partners to investigate environmental DNA (eDNA) in the context of Maine's economic future.

The coordination of the RRF competitive grant program is facilitated by GDO staff. This includes the management of the InfoReady grant portal that houses program announcements, receives proposal submissions from UMS researchers, and enables RRF Advisory Board members to review and score applications. GDO staff also consult with applicants to review their internal proposals and work with grantees in their pursuit of the RRF program requirement of securing follow on grants.

GDO Testimonials
"You both brought a level of expertise and counsel that left me impressed and confident in our collective ability to meet the stringent requirements demanded by the NSF...From an organization that would not have been able to pull this off without your help, thank you."
~ Fred Brittain, Associate CIO-Multi-Campus Operations: UMS, COO: University of Maine at Farmington

"The Grant Development Office was an integral partner in the successful 2017 proposal to the US Department of Commerce's Economic Development Administration (EDA). This award, received by UMaine in September 2017, will enable much needed waterfront improvements to expand research, workforce development and business incubation capacity at UMaine's marine laboratory, Darling Marine Center. GDO staff worked closely with faculty and staff at the DMC and allied units to pitch the proposal concept to the EDA program officer in fall 2016, and shepherded the proposal through to successful submission in March 2017. This six-month process required coordinating science and support staff statewide. Without the GDO, successful submission of a proposal of this magnitude - $1.5M request, matched by $1.5M in state and internal funds - would have been much more difficult."
~Dr. Heather Leslie, Director, Darling Marine Center

"As a new faculty member, the Grant Development Office has been invaluable in helping me navigate the submission process in nearly every federal grant I have written so far. Luke Doucette and Jason Charland took the time to understand my research interests and capabilities when I first arrived, and since then have frequently contacted me with calls that fit my research program. With these RFPs or others that I find, Luke has always been available to help me understand the dense language and numerous requirements when I need it, and even drafts packages for me with all the components I will need to write, saving me hours of time that I can then spend improving upon my proposal itself. He then reads through what I have written and makes helpful comments, often using his own extensive grant writing experience, particularly with the Department of Defense, to add more targeted language or streamline a concept description.

Beyond this, the workshops that the team has put on for us faculty to increase our knowledge of the various federal funding mechanisms has definitely increased and diversified the number of proposals that I have submitted. I appreciate having such a proactive Grant Development Office on campus, and am certain that my productivity is significantly increased because of them."
~Dr. Caitlin Howell, Assistant Professor of Chemical and Biomedical Engineering, University of Maine

27

"Thanks so much, you folks are awesome. I've written dozens of small grants in the past and it is generally like submitting to a "dark hole". Not so with your office, and much appreciated!"
**~Dr. Patsy Thompson Leavitt, Assistant Professor of Nursing, University of Southern Maine**

Proposal Submissions
With regard to impact on grant proposal submissions, since its inception in FY2015 the GDO has provided consultative assistance to faculty and researchers in the submission of 183 proposals to sponsors requesting a total of $146,772,619. Of the proposals submitted, 44 are still pending a decision and 29 have been funded for a total $24,344,279.

The following list represents notable funded grants the GDO staff had a direct hand in supporting during FY2017/2018:
1. "Technology Maturation of Wireless Harsh-Environment Sensors for Improved Condition-Based Monitoring of Coal-Based Power Generation", US Department of Energy/National Energy Technology Laboratory, PI: Mauricio Pereira da Cunha, Award: **$2,500,000**
2. "Investing in Waterfront Infrastructure to Power Maine's Economy Through Applied Research & Development, Workforce Training, and Business Incubation", US Department of Commerce Economic Development Administration, PI: Heather Leslie, Award: **$1,500,000**
3. "Interstitial Fluid Analysis: Feasibility Study for Use in Threat Exposure Monitoring", Department of Defense - Defense Threat Reduction Agency, PI: Rosemary Smith, Award: **$2,100,000**
4. "CAREER: Sound Production by Flow Induced Elastic Wave with Application to Phonation", National Science Foundation, PI: Xudong Zheng, Award: **$513,000**
5. "Youth Aspirations and Labor Market Perceptions in Rural Communities", USDA Agricultural and Food Research Initiative, PI: Mindy Crandall, Award: **$458,000**
6. "Collaborative Research: Predicting Controls of Partitioning Between Dissimilatory Nitrate Reduction to Ammonium (DNRA) and Dinitrogen Production in Marine Sediments", National Science Foundation, PI: Jeremy Rich, Award: **$480,000**
7. "Maine Mass Timber Commercialization Center", US Department of Commerce Economic Development Administration, i6 Regional Innovation Strategies Program, PI" Steve Shaler, Award: **$1,000,000**

Although many factors affect proposals submitted and awarded, since the GDO's inception both Total Dollar Value of Awards Received and Number of Proposals Submitted have trended in a positive direction.

28
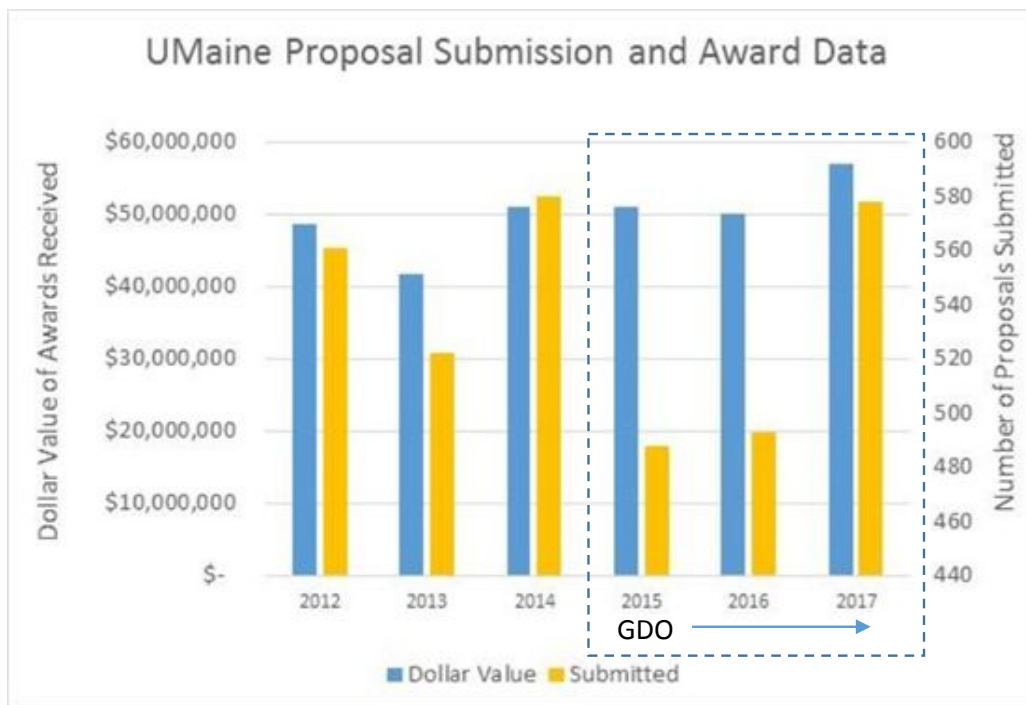
Grantsmanship Training

The GDO has conducted 41 separate training sessions which have provided grant writing and professional development services to 784 faculty, staff, graduate and undergraduate students. Training and professional development offerings include workshops on writing competitive proposals to selected Federal programs as well as outreach and support for faculty commercialization training, new researcher orientation, guest lectures, and facilitation of grant writing groups. A sampling of trainings offered is included below.

GDO co-sponsored NSF Grant Writing Workshop

Faculty Commercialization Workshops: In collaboration with staff from OIED, the GDO provided 3 separate introductory workshops on research commercialization during the fall of 2017. The purpose of these workshops was to increase awareness of the different technology transfer pathways and services on campus that research faculty and staff can leverage to commercialize their research. A total of 29 people attended these workshops (19 Faculty, 9 Staff, 1 Graduate Student). Expansion of this offering to USM is planned.

Grants 101 Workshops: The GDO partners with the Fogler Library to conduct a two hour basic grantsmanship training called "Grants 101". The workshop is offered twice per semester covering such topics as: grant seeking strategies, how to analyze an RFP, and grant writing basics. Since FY2015, the GDO has provided a total of 17 workshops, which has included training to 367 members of the UMaine research community (164 Faculty, 119 Staff, 79 Graduate Students, 5 Undergraduate Students). Results from this project were presented at a national conference: Charland, J.C. and Bonnet, J.L. (2017). *Enhancing Grantsmanship Training Through Departmental Partnerships.* Concurrent session presented at the National Council of University Research Administrators (NCURA) Pre-Award Research Administration Conference, San Diego, CA, March 9, 2017.

USDA/AFRI Foundational Program Grant Writing Workshop: In partnership with Interim Associate Dean for Research, Jessica Leahy (College of Natural Sciences, Forestry, and Agriculture) the GDO has conducted multiple grant writing workshops and writing group sessions focused on the USDA AFRI Foundational Program. Early career faculty were targeted for this training to ensure their familiarity with this complex funding program. The workshop was inspired by Dr. Sonny Ramaswamy's (Director of the National Institute of Food and Agriculture) visit to UMaine encouraging the university to submit more grants to the foundational program. To date, 2 workshops and 2 writing sessions have been conducted and have trained 29 individuals (26 Faculty, 2 Staff, 1 Graduate Student). This training project will be presented at an upcoming regional NCURA conference in New Hampshire (Charland, J.C., Leahy J., and Doucette, L. (2018) *Preparing Early Career Faculty for Grantwriting Success for USDA NIFA/AFRI's Foundational Program.* Concurrent session presentation accepted for the NCURA Region 1 Spring Meeting, Portsmouth, NH, April 29 – May 2, 2018).

NIH Workshops: The GDO has conducted 2 workshops in 2017 focused on NIH programs designed to increase programmatic knowledge and agency mission requirements among the UMaine/UMS research community. As a result of these first workshop meetings, the GDO has also facilitated a follow-on writing group to provided further grant writing and development assistance to faculty pursuing NIH funding targets. A total of 50 faculty have been part of these workshops.

Department of Defense (DoD) Workshop and Outreach: In 2017, the GDO conducted the first ever workshop at UMaine focused on DoD funding opportunities. The workshop goals were designed to increase awareness of the different agencies within the DoD, what their respective funding programs included, how to craft a competitive proposal, and the importance of relationship building with program managers. A panel consisting of prior DoD awardees was available to share their experiences working with the military, as well as taking questions from the participants. This workshop was presented to a total of 34 attendees (21 Faculty, 7 Staff, 5 Graduate Students, and 1 Undergraduate Student).

NSF CAREER Workshops: Each spring, the GDO offers an NSF CAREER workshop to eligible UMaine junior faculty in disciplines supported by NSF. The workshop provides participants with an overview of the CAREER program, Broader Impacts activities on campus, and hosts a panel of successful NSF career recipients at UMaine. Since 2015, there have been 5 CAREER training workshops that have included 61 Faculty, and resulted in 25 submissions (this does not include current cohort of 14), and 4 successfully funded (Gill and Townsend 2017; Zheng 2016; Putnam 2015). The NSF CAREER award is one of the most prestigious NSF grants that faculty can receive and provides 5 years of dedicated funding linking the faculty's research and teaching together.

29

Office of Research Administration

The Office of Research Administration is a unit within the OVPRDGS that manages and administers extramural grants and contracts for UMaine, UMM, and UMFK. During FY 2017 a total of $56,926,782 was received from extramural sponsors, a 13% increase over that of FY 2016 ($50,369,625). The number of proposals submitted was significantly greater than the previous year (573 vs. 500 in FY 2016, a 15% increase). Indirect cost return for FY 2017 was considerably higher than FY 2016 ($8,768,079 vs. $8,041,760). UMaine is consistently ranked among the top 125 public universities for research through the NSF Higher Education Research and Development (HERD) Survey. UMaine's Carnegie Classification remains in the High Research Activity category.

Research Reinvestment Funds currently support three FTE staff and one graduate student at ORA. These positions detailed below enhance ORA's organizational capacity to process proposals, to review and negotiate new awards and to administer new and existing awards. This support reduces the administrative burden while increasing the investigator's ability to implement sponsored activities at the UMaine Orono, UMaine Machias and UMaine Fort Kent campuses. In addition, the UMaine ORA provides administrative support to select UMPI and UMS awards.

Megan Dill, a veteran UM employee, was hired in September, 2016 as a Grant Accountant. Megan's primary responsibility is entering into the MaineStreet Financial System the award budgets that are mutually agreed upon by UM and sponsors, giving investigators quicker access to sponsor funds. She has begun cross-training on the proposal review and submission process, thereby increasing ORA's ability to respond to high demand during sponsor driven proposal submission deadlines.

Shannon Johnson, a veteran UM employee, was hired in December, 2016 as Post Award Support Associate. She provides post award support to faculty and staff, including the processing of cost transfers, no cost extensions, change of investigator requests, reporting and award closeout. Her support allows the investigators to focus less time on administrative functions and more time on performing research.

Leisa Preble is an Administrative Specialist supporting both the Office of Research Administration and Research Compliance. Her continued support increases ORA and ORC efficiency by allowing staff to focus more on research administration and compliance related tasks and less on daily administrative tasks.

Dominic Piacentini, Graduate Assistant in ORA, works as a Grant & Contract Administrator and assists in the review and negotiation of grant and contract offers funded through extramural support. This includes the initial review through project account set-up. He also serves on internal ORA committees and is involved in special projects related to drafting guidance and policy. The importance of Dominic's role in award review cannot be understated. Awards are now processed in a timelier manner, which equates to project accounts being set-up sooner resulting in the office's ability to meet faculty and staff service expectations.

Associate Vice President for Research and Graduate Studies

David Neivandt, UMaine Associate Vice President for Research and Graduate Studies is supported 0.25 FTE by RRF funds to develop interdisciplinary and/or multidisciplinary research collaborations, serve as the faculty liaison for the ME EPSCoR office, administer faculty-related issues regarding graduate education, assist in moving key research and development areas forward, and make research connections between UMS campuses.

Activity highlights:
- Serves on the Operations Committee of the RRF Advisory Committee and co-led the development and implementation of the Seed Grant, Planning Grant, Graduate, Undergraduate Assistant, Phase II Accelerator, and Interdisciplinary Undergraduate Research Collaborative Grant competitions
- Serves as Executive Director of Maine's current NSF EPSCoR Track 1 award Sustainable Ecological Aquaculture (SEANET), a 5 year, $20M project (FY2014-2019)
- Aiding in the development of a new NSF EPSCoR Track 1 application in collaboration with Bigelow Laboratories with a thematic focus on Environmental DNA (eDNA). The proposal will be for a 5 year, $20M award (FY2019-2024).

30

Appendix A: RRF Advisory Board Members

Name	Title	Organization
Brian Beal	Professor of Marine Ecology	University of Maine at Machias
Martha Bentley	Director of Innovation Infrastructure	Maine Technology Institute (MTI)
Seth Berry	Vice President for International Business Development	Kennebec River Biosciences
Jason Charland (ex-officio)	Director of Grant Development	University of Maine
Doug Gardner	Professor of Forest Operations, Bioproducts and Bioenergy	University of Maine
Kody Varahramyan (Operations Committee)	Vice President for Research and Dean of the Graduate School	University of Maine
Mike Kinnison	Professor of Evolutionary Applications, School of Biology and Ecology	University of Maine
David Neivandt (Operations Committee)	Associate Vice President for Research	University of Maine
Kris Sahonchik	Director, Cutler Institute for Health and Social Policy	University of Southern Maine
Terry Shehata	Senior Policy Associate: Research and Economic Development/ MEIF Coordinator	University of Southern Maine
Rebecca Van Beneden	Director of the School of Marine Sciences	University of Maine
James Ward (Operations Committee)	Vice President of Innovation and Economic Development	University of Maine

31

Appendix B: Phase II Accelerator Grants

Principal Investigator	Partners	Project Title
Connell, Laurie (Marine Science, UMaine)	Maine Technology Institute	RRF Phase II Acceleration of beverage spoilage yeast test to market
Emanetoglu, Nuri (Electrical and Computer Engineering, UMaine)	Maine Technology Institute, Maine Agricultural Center	Bee Hive Activity Monitoring System: Phase 2
Howell, Caitlin (Chemical and Biomedical Engineering, UMaine)	Sappi North America	Patterned Release Paper Microfluidics as a Platform Technology in Biomedical Applications: Customer Discovery
Simons-Legaard, Erin (Forest Resources, UMaine)	UMaine Advanced Computing Group	Investing in Maine's future forest with high-value, low-cost geoinformatics
Townsend, Kristy (Biology and Ecology, UMaine)	Mount Desert Island Biological Laboratory	Early Diagnosis and Treatment of Peripheral Neuropathy
Visselli, Anthony (ASCC)	U.S. Department of Energy, National Renewable Energy Laboratory, Cianbro, Stantec	Design of Floating Wind Turbine Concrete Hull

1. Title: RRF Phase II Acceleration of beverage spoilage yeast test to market
PI: Connell, Laurie
Abstract: Our handheld, point-of-use (POU) instrument will provide the only near-instantaneous solution to detect certain environmental microbes from complex matrices with minimal sample preparation. The system is based on prior-art developed at UMaine funded through Federal, State, and Private sources. The initial target application is the detection of spoilage yeasts during wine or beer production, which provides an exceedingly attractive opportunity to commercialize this device. We have two strong private partners, Constellation Consortium (CC), as an end user, and Maine-based Beacon Analytical Systems (BAS) as a kit manufacturing and distribution partner. Potential sales for the wine spoilage yeast detection are estimated at $1million globally within five years. The prototype employs a new detection scheme that is ~200x more sensitive than previous methods and has the added benefit of using fewer reagents. An additional and highly desirable quality is discrimination between live-dead organisms, critical for wine and beer production management. The project requires further assistance in the steps to move toward market and production. This project will focus on 1) determination of appropriate licensing agreements; 2) test and assign appropriate disposable kit components; 3) develop supply streams; 4) determine kit price; 5) build prototype (already designed) for Beta testing; 6) Complete paperwork required for patent submission. Work 1-3 will be done in coordination with BAS.

2. Title: Bee Hive Activity Monitoring System: Phase 2
PI: Emanetoglu, Nuri
Abstract: A Doppler radar based bee activity monitor has been developed, which is placed closed to the hive entrance, without disturbing the bees. Based on a 10.5 GHz motion detector, the unit measures the total energy in the return signal due to Doppler signals from flying bees and records it. The activity indices derived from these measurements are compared with past activity levels of all hives in the apiary, as well as weather conditions, to infer bee colony health. The studies of Summer 2017, funded with an RRF Undergraduate Assistantship and an NSF REU grant, have proven the concept. An invention disclosure was filed with UMaine at the end of November. Two undergraduate students (one electrical engineering, one biology) are writing their honor's theses on the design and verification of the prototypes. The prototypes cost less than $100/unit, highly competitive with commercial systems, which cost more than $500. To bring this prototype to market, the following need to be done: (a) Market research and customer discovery, identifying potential customers' needs; (b) put instrument into a form factor that is usable by bee keepers, as identified in (a); (c) the radio links with the base station need to be completed; (d) secure funding for commercialization, once an appropriate strategy (start-up vs. licensing) is identified.

3. Title: Patterned Release Paper Microfluidics as a Platform Technology in Biomedical Applications: Customer Discovery
PI: Howell, Caitlin
Abstract: The purpose of this project is to identify and contact potential customers to explore and identify the most promising pathway(s) to the integration of release-paper microfluidic platforms into current and future point-of-care (POC) medical diagnostic devices. An ongoing industry-university collaboration between the Release Paper Group at Sappi North America and the Howell Lab in the Department of Chemical and Biomedical Engineering has identified

32

the breakthrough potential of patterned release paper, currently used primarily to add texture to fabrics, as a low-cost method of producing microfluidic channels for a wide range of applications in healthcare and pharmaceuticals. The next steps will be to reach out to potential customers such as IDEXX, Alere, and Katahdin Analytical Services to further develop this technology in a market-compatible direction. The project stands to significantly benefit Sappi North America (which currently employs 1,300 Mainers) and will enable the company to expand into a growing market and will demonstrate how academic-industrial partnerships can be used to help local industries innovate and grow.

4. Title: Investing in Maine's future forest with high-value, low-cost geoinformatics
PI: Simons-Legaard, Erin
Abstract: The forest products industry contributes nearly $8.5 billion annually to Maine's economy, and by some estimates this contribution could more than double with value-added processing, biodiversity offsets, forest carbon trading, and other ecosystem service credits. Realization of this potential will require adaptation of forest management strategies. Forest managers in Maine have identified a lack of spatial information on both timber and non-timber forest resources as a barrier to the planning and prioritization of management actions. Satellite remote sensing data are capable of providing near-real time mapping of forest attributes that are key to management decisions. The utility of available commercial products is limited, however, due to cost of production and reliability shortcomings. We have developed machine learning algorithms for application in remote sensing and geoinformatics that are highly adaptive and uniquely capable of addressing characteristic shortcomings of other methods. With computationally efficient software implementations that are currently under development, we plan to produce better data at lower cost than is currently available through commercial vendors. Our machine learning approach can produce a variety of products of high relevance to forest management problems, including tree species composition; intensity and time since last harvest/disturbance; estimates of volume, biomass, and carbon; and additional ecosystem services like wildlife habitat suitability. These products would provide an array of options for annual sales, and a number of forest products companies have already expressed interest in their purchase.

5. Title: Early Diagnosis and Treatment of Peripheral Neuropathy
PI: Townsend, Kristy
Abstract: We propose the creation and commercialization of a transdermal, microelectrode array for measuring nerve conduction of free nerve endings in the skin during the progression to diabetic neuropathy, in order to provide earlier and non-invasive detection and diagnosis; as well creation of an accompanying microneedle device for subdermal drug delivery using microfluidics, in order to provide therapeutic treatments to halt and reverse the neuropathy. Currently, peripheral neuropathy, or the dying-back of nerves in the skin and distal extremities, is a devastating condition affecting around 50% of diabetics, those treated with certain drugs (chemotherapy agents, antibiotics), and that also increases with aging. This painful and uncomfortable condition is met with no therapeutic options to halt or reverse the neurodegeneration. In addition, diagnosis of the condition occurs quite late in the disease process when large myelinated nerves die-back. Thus, earlier diagnosis and improved therapies to re-grow peripheral nerves would be a major advancement in the treatment of peripheral neuropathies, and that is the goal of the current project.

6. Title: Design of Floating Wind Turbine Concrete Hull
PI: Anthony Viselli (Advanced Structures and Composites Center, UMaine)
Sector: Engineering, Composite Technology
Partners: U.S. Department of Energy, National Renewable Energy Laboratory, Cianbro, Stantec
Abstract: The RRF funding will be used to complete final design engineering efforts of two VolturnUS floating concrete hulls that support 6MW offshore wind turbines. Offshore wind is Maine's largest untapped renewable resource with 156 GW of capacity within 50 miles of shore. Floating turbine technology is required to harness this huge resource because of the deep waters in the Gulf of Maine. The New England Aqua Ventus project consists of two x 6 MW units 2.5 miles South of Monhegan Island. This will be the first floating wind project in the US, and will position Maine to lead in a global industry expected to exceed $146 Billion in the US in the next decade1. The unique VolturnUS concrete hull technology developed and patented by UMaine has been shown to achieve a competitive commercial cost of electricity to 7.7 cents/kWh. The proposed project will leverage a $37M DOE grant in 2019 in addition to $123M of private investment to construct the demonstration project. The project will connect to the grid in 2020, create 1,500 Maine jobs, and allow the construction of larger commercial farms which will potentially bring billions of dollars to Maine and create thousands of Maine jobs.

33

Appendix C: Round 4 Seed Grants

Principal Investigator	Partners	Project Title
Beaupre, James (Foster Center for Student Innovation, UMaine)	Cape Seafood	Lobster Shell Golf Ball Production and Initial Beta Market Launch
Connell, Laurie (Marine Sciences, UMaine)	Beacon Analytical Systems, Constellation Consortium	Development Toward Commercialization of a Rapid Test for Beverage Spoilage Yeasts
Dagher, Habib (Advanced Structures and Composites Center, UMaine)	U.S. Department of Energy, National Renewable Energy Laboratory, Cianbro, Stantec	Maine-Based Construction and Assembly of Aqua Ventus Floating Hull
Giudice, Nicholas (Vemi Laboratory, UMaine)	Iris Network	Gaming Application for Multimodal Skill Acquisition (GAMSA): Improving Navigation and Independence for Blind and Visually Impaired People
Goupee, Andrew (Mechanical Engineering, UMaine)	Aquaculture Innovation Center, Pemaquid Oyster Company, Darling Marine Center	Optimization and Automation of a Shellfish Nursery Upweller
Howell, Caitlin (Chemical and Biomedical Engineering, UMaine)	Zephyrus Technology, Denham Ward (Maine Medical Center Research Institute)	Augmented reality respiratory simulators for combined visual and haptic medical training in low-resource settings
Jayasundara, Nishas (Marine Sciences, UMaine)	Cooke Aquaculture, Center for Corporate Aquaculture Research	Predicting bad eggs: developing a high throughput respirometry system to portend growth, hatching, and survival rates of fish embryos for the aquaculture industry
Morse, Dana (Marine Sciences, UMaine)	Maine Aquaculture Cooperative, Rachel Lasley-Rasher (University of Southern Maine), Hugh Cowperthwaite (CEI)	Supporting the development of Maine's sea scallop aquaculture industry
Sheils, Martha (New England Environmental Finance Center, University of Southern Maine)	MaineDOT, GEI Consultants Inc.	Local Transportation Decisions for a Resilient Future
Vetelino, John (Electrical and Computer Engineering, UMaine)	Saint Joseph's Hospital, James Moreira (UMaine Machia), Steven Quackenbush (UMaine Farmington)	Sensor Development/Adaptation to Improve Healthcare: A Partnership Between the University of Maine System and Saint Joseph's Hospital

1. Title: Maine-Based Construction and Assembly of Aqua Ventus Floating Hull
PI: Habib Dagher (Advanced Structures and Composites Center, UMaine)
Sector: Engineering, Composite Technology
Partners: U.S. Department of Energy, National Renewable Energy Laboratory, Cianbro, Stantec
Abstract: The RRF funding will be used to develop construction procedures which allow for the 8,000 tons VolturnUS floating concrete offshore wind turbine hulls to be produced in Maine. Offshore wind is Maine's largest untapped renewable resource with 156 GW of capacity within 50 miles of shore. Floating turbine technology is required to harness this huge resource because of the deep waters in the Gulf of Maine. The New England Aqua Ventus project consists of two x 6 MW units 2.5 miles South of Monhegan Island. This will be the first floating wind project in the US, and will position Maine to lead in a global industry expected to exceed $146 Billion in the US in the next decade. The unique VolturnUS concrete hull technology developed and patented by

34

UMaine has been shown to achieve a competitive commercial cost of electricity to 7.7 cents/kWh. The project will connect to the grid in 2020, create 1,500 Maine jobs, and allow the construction of larger commercial farms.

2. Title: Augmented reality respiratory simulators for combined visual and haptic medical training in low-resource settings
PI: Caitlin Howell (Chemical and Biomedical Engineering, UMaine)
Sector: Biomedical, Biotechnology
Partners: Zephyrus Technology, Denham Ward (Maine Medical Center Research Institute)
Abstract: Simulation-based learning is becoming a newly adopted standard for training medical professionals, immersing students in complex 'real-life' scenarios to facilitate clinical knowledge application and hands-on skill development. However, current training simulators are expensive, prohibiting access to those with limited budgets and forcing an end-user compromise between price and realism. In this project, we will begin to address this need by developing a novel low-cost augmented-reality (AR) simulator for remote medical training of pediatric respiratory conditions. Building off a patent-pending, low-cost simulation system developed and undergoing commercialization by Zephyrus Simulation, LLC, we will develop an augmented reality overlay to enhance simulation realism and add new layers of information. The smart phone-compatible AR overlay will consist of a virtual patient with interactive display, in which students can select through a variety of anatomical and physiological modules while dynamically interacting with the patient, providing context for pediatric respiratory pathologies and 'real-life' patient scenarios. By leveraging the expertise of bioengineering, virtual reality, spatial learning, nursing, and medical simulation experts, our team will create a new set of affordable, portable and information dense teaching tools accessible to all types of medical trainees, particularly those in low-resource settings.

3. Title: Supporting the development of Maine's sea scallop aquaculture industry
PI: Dana Morse (Marine Sciences, UMaine)
Sector: Aquaculture
Partners: Maine Aquaculture Cooperative, Rachel Lasley-Rasher (USM), Hugh Cowperthwaite (CEI)
Abstract: Maine's opportunity in the ear-hanging technique of scallop aquaculture is clear: a large domestic market for scallops, a need to diversify our working waterfronts along with strong brand recognition of Maine seafood. Results from field trials of scallop ear-hanging production show great promise. Further, there is an established network of fishermen, shellfish farmers, scientists and regulators, extension and others that are poised for expansion. The principal bottleneck in this expansion of scallop farming in Maine is access to specialized equipment; specifically a drill and a scallop washer for biofouling control. This project will address the commercialization goals of the RRF by providing existing and new producers with access to such equipment through cooperative-use agreements, providing producers with technical support and extension services, and allowing farmers to bring product to market.

4. Title: Optimization and Automation of a Shellfish Nursery Upweller
PI: Andrew Goupee (Mechanical Engineering, UMaine)
Sector: Aquaculture, Engineering
Partners: Aquaculture Innovation Center, Pemaquid Oyster Company, Darling Marine Center
Abstract: Shellfish aquaculture is rapidly growing in the State of Maine. Oyster aquaculture alone in Maine has increased nearly five-fold from 2011 to 2016, with harvest values of approximately $6 million as of 2016. However, shellfish farming could be significantly improved through advancement of the nursery technologies currently being employed in Maine shellfish farming. Achieving rapid growth of juvenile shellfish during the nursery phase is critical for the economic success of the shellfish aquaculture operation, as stunted growth can lead to greater time and resources spent nurturing the shellfish and an increased time to get the animals to market. Current rearing of juvenile shellfish is undertaken by using a simplistic device, called an upweller, which passes seawater containing ambient phytoplankton through a layer of juvenile shellfish in order to feed the animals. To that end, this work aims to design, develop and test a low-cost, 'smart' upweller that provides optimal flow patterns for feeding the shellfish, in addition to making adjustments in response to monitored flow rates and food content in order to maximize shellfish growth.

35

5. Title: Lobster Shell Golf Ball Production and Initial Beta Market Launch
PI: James Beaupre (Foster Center for Student Innovation, UMaine)
Sector: Aquaculture, Manufacturing
Partners: Cape Seafood
Abstract: In an effort to accelerate the commercialization of the lobster golf ball technology developed at the University of Maine, a start-up enterprise will be nurtured and built at UMaine. This technology takes advantage of waste lobster shell from the Maine lobster processing industry. Such a start-up will increase the technology value by presenting a complete turnkey business built around the technology and significantly decrease the startup risk by establishing the initial production and sales systems. In addition, the project will be used to build new jobs and provide the workforce development training to sustain and grow the enterprise**.**

6. Title: Predicting bad eggs: developing a high throughput respirometry system to portend growth, hatching, and survival rates of fish embryos for the aquaculture industry.
PI: Nishad Jayasundara (Marine Sciences, UMaine)
Sector: Aquaculture
Partners: Cooke Aquaculture, Center for Corporate Aquaculture Research
Abstract: Aquaculture is a multibillion-dollar global industry that is valued at ~$130 million dollars in Maine. Atlantic salmon farming is the highest valued (over $50 million) finfish aquaculture in the State. Maine salmon is a major contributor to the national salmon production and has tremendous potential to be a leader in the billion dollar global salmon industry. However, a critical bottleneck in salmon and other finfish aquaculture industry is the unpredictability of embryo survival rates. Additionally, wild Atlantic salmon are reared in hatcheries as part of this Endangered Species' recovery plan. Early prediction tools to portend egg survival and larval growth rates can dramatically improve early-life resource investment strategies and broodstock selection in culturing of these fish. Here, we propose to utilize a high-throughput respirometry approach utilizing a low-cost instrument we have built to measure embryo metabolic rates as a predictor of embryo survival and rapid-growth. The positive link between embryonic metabolic rate (MR) with embryonic survival and growth is well established in various fish species. In collaboration with industry partners, we aim to measure MR in salmon embryos and link to fitness measures (hatching, survival, and growth rates) in eggs from commercial and conservation hatcheries.

7. Title: Sensor Development/Adaptation to Improve Healthcare: A Partnership Between the University of Maine System and Saint Joseph's Hospital
PI: John Vetelino (Electrical and Computer Engineering, UMaine)
Sector: Biotechnology
Partners: Saint Joseph's Hospital, James Moreira (UMM), Steven Quackenbush (UMF)
Abstract: The goal of this proposal is to develop a partnership between University of Maine System researchers and Saint Joseph's Hospital to develop/adapt and commercialize sensors to detect/monitor diseases and/or medical conditions to improve public healthcare. A pilot project focused on motion sensors for an aging population was chosen to initiate the UMS-SJH partnership. Personnel in this project include SJH physicians, associates, and caregivers, UMS researchers in sensors and aging, an entrepreneurship professor in business, and selected undergraduate and graduate students. Prototype motion sensors will be designed and fabricated at UM and evaluated at SJH. Since sensor "friendliness" is critical to the project's success, SJH will obtain input from aging urban population groups while UMF and UMM will obtain input from aging rural population groups. It is anticipated that commercial products will result with economic benefits to UMS and the greater Bangor area. In that regard, Fil-Tech, LLC has shown an interest in licensing the sensor technology associated with motion sensors for an aging population.

8. Title: Gaming Application for Multimodal Skill Acquisition (GAMSA): Improving Navigation and Independence for Blind and Visually Impaired People
PI: Nicholas Giudice (Vemi Laboratory, UMaine)
Sector: Healthcare Technology, It, Computer Science
Partners: Iris Network

Abstract: One of the biggest challenges to educational, vocational, and social success for blind and visually impaired individuals is the inadequacy of current tools for teaching travel skills and technologies supporting independent navigation. This problem impacts the 30,000 people in Maine (and 12 million across the country) with visual impairment and contributes to the unacceptably low educational and vocational success of this demographic. This project proposes a novel solution for training of O&M skills using an innovative gamification approach called GAMSA. BVI clients will reinforce and practice O&M skills learned from physical O&M trainers by playing the GAMSA app when instructors are not physically available. The core gaming app will be developed at the VEMI Lab and evaluated by O&M professionals at the Iris Network.

9. Title: Local Transportation Decisions for a Resilient Future
PI: Martha Sheils (New England Environmental Finance Center, USM)
Sector: Climate Science, Policy
Partners: MaineDOT, GEI Consultants Inc.
Abstract: It is a challenge for Maine's municipalities to respond to long-term impacts of sea level rise and increased precipitation that threaten their economic viability. This pilot project develops a technical assistance process to help municipalities make informed decisions about their transportation infrastructure, and explores how the framework can be developed into a marketable service for Maine's environmental technologies sector. The objective is to bring the state-of-the art decision making framework called Transportation Risk Assessment for Planning and Project Delivery tool that was developed by the Maine Department of Transportation for state roads, bridges and culverts, to the municipal level. The TRAPPD framework provides a new approach to making risk and priority decisions about transportation infrastructure by incorporating ecological, hydrologic, and structural characteristics of the roads, bridges and culverts. The tool assesses the risks that could adversely affect projects' budgets, timing and safety, making it a useful tool to help field engineers decide which assets to upgrade, and why. Working with one municipality, New England EFC and its partners will assist municipal staff with the application of the tool, examine its efficacy to augment existing planning actions, gauge its acceptance and value to the municipality, and examine the market value of the service for delivery by Maine's environmental technologies sector.

10. Title: Development Toward Commercialization of a Rapid Test for Beverage Spoilage Yeasts
PI: Laurie Connell (Marine Sciences, UMaine)
Sector: Food Science
Partners: Beacon Analytical Systems, Constellation Consortium
Abstract: Our handheld, point-of-use instrument will provide the only near-instantaneous solution to detect certain environmental microbes from complex matrices with minimal sample preparation. The system is based on prior-art developed at UMaine funded through Federal, State, and Private sources. We have completed experiments and market research that must be accomplished before market consideration and commercialization. The initial target application is the detection of spoilage yeasts during wine or beer production, which provides an exceedingly attractive opportunity to commercialize this device. Potential sales for the wine spoilage yeast detection are estimated at $1million globally within five years. The prototype employs a new detection scheme that is ~200x more sensitive than previous methods and has the added benefit of using fewer reagents. An additional and highly desirable quality is discrimination between live-dead organisms, critical for wine and beer production management.

37

Appendix D: Round 3 Student Grants

Track 1 – Graduate Assistantships

Principal Investigator	Partners	Project Title
De Urioste-Stone, Sandra (Forest Resources, UMaine)	Penobscot Nation, University of New Hampshire	An Interdisciplinary Approach to Explore Risks Associated with Winter Ticks
Gardner, Allison (Biology and Ecology, UMaine)	UMaine	Impacts of climate change on the geographic range expansion of ticks and tick-borne disease in Maine
Hayes, Daniel (Forest Resources, UMaine)	UMaine Fort Kent	Evaluating LiDAR Tools for Large-area Enhanced Forest Inventory Applications in Maine
Hejrati, Babak (Mechanical Engineering, UMaine)	Eastern Maine Medical Center	A Novel Robotic Glove for Hand Assistance of Older Adults in Activities of Daily Living
Nayak, Balunkeswar (Food and Agriculture, UMaine)	US Forest Service, Twin Rivers Paper	Value-addition of cellulose nanofibers (CNF) by developing food packaging materials and assessment on food safety – II
Nelson, Peter (Biological and Environmental Sciences, UMaine)	UMaine	Visible and infrared imaging spectroscopy for high resolution mapping and health assessment of Maine's forest and agricultural resources
Nelson, Sarah (Forest Resources, UMaine)	US Geological Survey, National Park Service	Connecting the dots: determining temporal mercury flux via aquatic insects to avian predators in Acadia National Park
Ross, Lauren (Civil and Environmental Engineering, UMaine)	Cianbro, Engineer Research and Development Center (Army Corps)	Design and Model Testing of Concrete Modular Floating Breakwaters for Increased Coastal Protection
Roth, Amber (Forest Resources, UMaine)	UMaine Presque Isle, UMaine Fort Kent, Irving, Department of Inland Fisheries and Wildlife	Sustainable management of commercial forests for wood products and a globally threatened bird species

1. Title: An Interdisciplinary Approach to Explore Risks Associated with Winter Ticks
PI: De Urioste-Stone, Sandra (Forest Resources, UMaine)
Sector: Ecology, Biology
Partners: Penobscot Nation, University of New Hampshire
Abstract: Our proposal develops an interdisciplinary approach to understand whether perceived zoonotic disease risk in key stakeholder groups aligns with realized transmission risk from an iconic wildlife reservoir (moose) in Maine. This study will use a "One Health" model (i.e., "an integrated, holistic approach to understanding the intersections between disease dynamics, environmental drivers, livelihood systems and veterinary and public health") to analyze health risk and risk perceptions of winter tick (Dermacentor albipictus) zoonotic pathogens in moose (Alces alces). Moose carry several pathogens that cycle between canids and ungulates; some, including tick-borne diseases, can pose risks to people and livestock. Keeping recreationists (e.g., hunters) and other stakeholder groups accurately informed about health risks is critical for public health and responsible wildlife management. The economic significance may be one of the most pressing ones in Maine, given the important of moose for tourism (moose draw visitors to and within Maine for viewing and hunting purposes) and to Wabanaki tribes.

2. Title: Impacts of climate change on the geographic range expansion of ticks and tick-borne disease in Maine
PI: Gardner, Allison (Biology and Ecology, UMaine)

38

Sector: Ecology, Climate Change
Partners: UMaine
Abstract: The goal of our project is to investigate causal ecological and physiological mechanisms by which climate may alter human risk of exposure to tick-borne disease in Maine, and integrate these data with climate change projections for the State of Maine to develop predictive tick-borne disease risk maps. The blacklegged tick first appeared in Maine during the 1980s, and its geographic range expansion has been associated with a concomitant increase in the incidence of tick-borne disease. Recently, 58% of Acadia National Park visitors identified increased risk of exposure to vector-borne disease as a top concern among the potential consequences of climate change. This study will assess the current geographic distribution of the blacklegged tick and its key hosts. We will conduct field-based assays to investigate the effects of temperature patterns (e.g., cold shocks versus extended periods of cold) on off-host tick survival. Finally, we will develop a predictive spatial model of Lyme disease risk by integrating the field-collected data with climate change projections for the State of Maine.

3. Title: Evaluating LiDAR Tools for Large-area Enhanced Forest Inventory Applications in Maine
PI: Hayes, Daniel (Forest Resources, UMaine)
Sector: Forestry, Computer Science
Partners: UMaine Fort Kent
Abstract: Maine's economy depends heavily on its forest resource base: it accounts for over 6% of the total GDP and has an estimated total annual economic impact of $8-10 billion. The sound, scientifically-based management of the forest resource requires a significant investment in inventory programs. While traditional, ground-based inventory is expensive and imprecise, recent advances in remote sensing technology are revolutionizing the way in which forests are measured and monitored. In particular, Light Detection and Ranging, or LiDAR, technology allows for the development of high quality, Enhanced Forest Inventory (EFI) information over large areas efficiently and at lower cost relative to field-based methods. There is a fast-growing need for leveraging the growing collection of LiDAR data across Maine for usable and reliable EFI data products to support management and decision-making in the state's forest industry. A significant obstacle has been that basic, supporting research on the topic is lacking in three main areas, including remote sensing, forest mensuration and computer science disciplines. The goal of this project is to evaluate available LiDAR data sets and modeling techniques for their comparative efficacy in generating geospatial EFI information products useful for sustainable forest management in Maine.

4. Title: A Novel Robotic Glove for Hand Assistance of Older Adults in Activities of Daily Living
PI: Hejrati, Babak (Mechanical Engineering, UMaine)
Sector: Biotechnology, Aging
Partners: Eastern Maine Medical Center
Abstract: One of the major hand functions necessary for performing activities of daily living (ADL) and having independence in life is object manipulation, which is defined as the ability to grasp, lift, and release an object. The ability to grasp and release can deteriorate due to aging or aging-related conditions such as Parkinson disease, stroke, and arthritis. It has been reported that after the age of 60 years, there is a rapid decline in hand-grip strength by as much as 20-25%, and hand response latency increases about three times in older adults. The objective of this proposal is to design and fabricate a novel multi-fingered soft robotic glove for performing ADL by using Ionic Polymer-Metal Composites materials for the first time. The proposed soft robotic glove will be portable, unobtrusive, maneuverable, and capable of generating sufficient power to assist with grasping and releasing tasks in real-world settings such as home and community.

5. Title: Value-addition of cellulose nanofibers (CNF) by developing food packaging materials and assessment on food safety – II
PI: Nayak, Balunkeswar (Food and Agriculture, UMaine)
Sector: Forestry, Advanced Materials
Partners: US Forest Service, Twin Rivers Paper
Abstract: This application proposes funding request for research-based training of a RRF supported Doctoral student at UMaine. The student will continue engage in research and training in cross-disciplinary areas including food process engineering, cellulose nanocomposites and polymer science. The research component of this

39

proposal focuses on the antimicrobial behavior of CNF modified packaging materials in reducing bacterial adhesion and biofilm formation However, the complete and long-term scope of this research is to design CNF based films and coatings for various types of food products (low, medium and high moisture) to improve shelf-life during storage.

6. Title: Visible and infrared imaging spectroscopy for high resolution mapping and health assessment of Maine's forest and agricultural resources
PI: Nelson, Peter (Biological and Environmental Sciences, UMaine)
Sector: Forestry, Information Technology
Partners: UMaine
Abstract: Our goal is to integrate ground-based spectral scanning/chemical analysis and data mining of hyperspectral images into a pipeline for detection of specific, user-generated targets (e.g. specific plants, pathogens, stress signals, etc..) for Maine's economically important natural resource sectors and elsewhere for competitive research applications. A graduate student would improve this hyperspectral image processing capacity using existing imagery synergized with our current spectroradiometric and UAV-image acquisition capacity. The image processing would focus target sites with existing imagery from NASA contacts connected to key economically important crops, specifically forest resources flown by G-LIHT last year. The student would help develop new and better algorithms for mapping, utilizing to the very sensitive cameras and co-located additional datasets with high resolution reference data, which enables detecting problems (e.g. insects or disease) or positive signals (exceptional growth) in which managers could then act to either mitigate disease or stress or expand certain treatments found to be exceptionally beneficial.

7. Title: Connecting the dots: determining temporal mercury flux via aquatic insects to avian predators in Acadia National Park
PI: Nelson, Sarah (Forest Resources, UMaine)
Sector: Marine Science
Partners: US Geological Survey, National Park Service
Abstract: Mercury (Hg) is a globally distributed contaminant that biomagnifies through food webs and is highly toxic to fish, wildlife, and people, leading to fish consumption advisories in every US state. As a result of its widespread distribution, Hg is a serious concern for protected areas such as many national parks in the US, including Acadia National Park. The Dragonfly Mercury Project (DMP) enlists park staff or community partners who lead teams of citizen scientists in collection of dragonfly larvae for analysis in national parks, providing data for national-scale assessment of this neurotoxic pollutant. Although spatially extensive, the scope of the current research does not allow us to answer a key question for resource managers and human consumers: Do elevated concentrations of Hg in dragonfly larvae translate into their foodwebs and does this vary in time? This proposed research would broaden the temporal dimension of this research, determine the effects of life-history on concentrations in dragonfly larvae, and provide the opportunity to link with a project investigating bird diets and macroinvertebrates at Acadia National Park, which is scheduled to begin in summer 2018.

8. Title: Design and Model Testing of Concrete Modular Floating Breakwaters for Increased Coastal Protection
PI: Ross, Lauren (Civil and Environmental Engineering, UMaine)
Sector: Engineering, Advanced Materials
Partners: Cianbro, Engineer Research and Development Center (Army Corps)
Abstract: Sea level rise combined with stronger and more intense storms enhances coastal vulnerability. Confounding this general pattern, the Gulf of Maine is the most rapidly warming body of water on the planet, making Maine's coast uniquely susceptible to storm damage in the future. This study aims to investigate the design and testing of modular mobile concrete floating breakwater systems for coastal infrastructure protection from increased wave hazards generated by extreme windstorms along the US coast. Floating mobile breakwaters are an attractive engineering method to mitigate storm hazards as they are less intrusive to the environment and offer a more cost effective adaptation measure for coastal protection in a changing climate as sea levels rise in the near future.

9. Title: Sustainable management of commercial forests for wood products and a globally threatened bird species
PI: Roth, Amber (Forest Resources, UMaine)
Sector: Ecology, Forestry
Partners: UMaine Presque Isle, UMaine Fort Kent, Irving, Department of Inland Fisheries and Wildlife
Abstract: The Rusty Blackbird is a species of special concern in Maine and is globally threatened, having declined by more than 85% since the 1970s. Rusty Blackbirds nest in stunted or regenerating spruce-fir (softwood) stands in or near shallow wetlands across northern North America. Our goal is to provide guidance to landowners managing commercial forests with Rusty Blackbird breeding habitat. Our primary objective is to evaluate the effects of a range of silvicultural practices, from naturally regenerated stands to intensively managed planted stands, on Rusty Blackbird nest site selection and nest survival. This research fills an important gap in our understanding of best management practices for Rusty Blackbird breeding habitat in intensively-managed commercial forests.

Track 2 – Undergraduate Assistantships

Principal Investigator	Partners	Project Title
Beal, Brian (Marine Sciences, UMaine Machias)	Downeast Institute, Darling Marine Center	Field Trials to Examine Growth and Survival of a New Bivalve Culture Candidate in Maine: Razor clams, Ensis leei
Chapkis, Wendy (Women and Gender Studies and Sociology, University of Southern Maine)	All Art Media	Querying the Past Student Research Assistantship
Flanagan, Sara (Education and Human Development, UMaine)	UMaine	Responsive Reading: Improving Reading in Adolescents and Adults, Track 2
Gordon-Messer, Susannah (CI2Lab, University of Southern Maine)	N/A	Beyond the Tides: An Environmental Augmented Reality Game
Howell, Caitlin (Chemical and Biomedical Engineering, UMaine)	Zephyrus Simulations, LLC	Haptic Feedback Sensor Suite for AR-Enhanced Medical Simulators
Legaard, Kasey (Forest Resources, UMaine)	UMS Advanced Computing Group	Leveraging machine learning and high-performance computing to deliver the spatial data needed by Maine's forest industry
McGreavy, Bridie (Communication and Journalism, UMaine)	UMaine	Interdisciplinary Research for Decision Making about Dams in Maine
Roe, Judith (Biology, UMaine Presque Isle)	Department of Inland Fisheries and Wildlife	Undergraduate Capstone: Genetics of Freshwater Snails of Northern Maine
Strong, Aaron (Marine Sciences, UMaine)	Sea Grant, NOAA	Assessing the Economic Value of Maine's Coastal Tourism: The Ecosystem Services across Acadia National Park

1. Title: Field Trials to Examine Growth and Survival of a New Bivalve Culture Candidate in Maine: Razor clams, Ensis leei
PI: Beal, Brian (Marine Sciences, UMaine Machias)
Sector: Aquaculture
Partners: Downeast Institute, Darling Marine Center
Abstract: Thanks to funding over the past two years from the Maine Technology Foundation and Maine Aquaculture Innovation Center, razor clams, Ensis leei, have become a new culture candidate in Maine. Work at UMM's Marine Science Field Station at the Downeast Institute (DEI) has progressed on the hatchery phase of this deep-burrowing, suspension-feeding bivalve. Because this species commands $4-5 per pound from wild harvests, we are interested in undertaking commercial-scale production of juveniles. We are proposing pilot-scale nursery and field studies during May-August 2018 to examine factors affecting growth and survival of cultured razor clam

41

juveniles. The proposed work will be conducted in eastern Maine with our partner, the Downeast Institute and supported by a student researcher. The undergraduate student selected from the University of Maine at Machias will become a SEA Fellow, and participate in the public research forum to be held at the Darling Center in August 2018.

2. Title: Querying the Past Student Research Assistantship
PI: Chapkis, Wendy (Women and Gender Studies and Sociology, University of Southern Maine)
Sector: Northeast Humanities, New Media
Partners: All Art Media
Abstract: The purpose of this project, "Querying the Past: Maine LGBTQ History," is to preserve and make available the often-hidden history of LGBTQ Maine. The project involves the use of a variety of media including digital applications. Over the past two years, working with the Jean Byers Sampson Center for Diversity in Maine/USM Special Collections, and community partners, the project has collected two dozen audio oral histories with key figures in Maine's LGBTQ community and more than two hours of filmed material. In addition, student researchers have explored and analyzed material cultural artifacts in the Sampson Center's LGBTQ Collection. All of these materials are (or are being) digitized with an eye to using them as content in future online applications**.**

3. Title: Responsive Reading: Improving Reading in Adolescents and Adults, Track 2
PI: Flanagan, Sara (Education and Human Development, UMaine)
Sector: Education, Computer Science
Partners: UMaine
Abstract: Secondary students with or without a disability may lack the needed reading skills to exit high school prepared for competitive employment and daily living (e.g., paying bills, reading directions). The National Assessment of Education Progress suggests that approximately 28% of 8th graders in Maine are not meeting basic grade-level standards. Maine recognizes adult illiteracy as a state-wide concern for employment. Illiterate adults earn between 30 and 42% less than literate adults, are less likely to make gains in employment or have meaningful employment, and are less likely to go onto postsecondary education. Reading skills can be improved and supported through instructional technology, such as literacy software. The objective of this research is to develop Responsive Reading to remediate beginning reading in secondary students and adults using an age-appropriate software. Existing apps and software for beginning reading are heavily targeted towards young children in theme (e.g., Sesame Street) and features (e.g., excessive sound and animation).

4. Title: Beyond the Tides: An Environmental Augmented Reality Game
PI: Gordon-Messer, Susannah (CI2Lab, University of Southern Maine)
Sector: Climate Change, Computer Science
Partners: N/A
Abstract: Beyond the Tides is a student developed, location based, augmented reality (AR) game that educates Mainers on effects of climate change on oceans including rising sea levels, rising temperatures and increased ocean acidification. In a chose-your-own adventure style game, players take on different occupations (ex. builder, city planner, lobster boat captain) to see how their job decisions, economic futures and lifestyles will be changed as a result of climate change.
During the game, players interact with virtual characters, objects, and data as they move around their real-world location. At the end of the game, the player is provided a list of community engagement ideas, projects and local organizations working to combat climate change.

5. Title: Haptic Feedback Sensor Suite for AR-Enhanced Medical Simulators
PI: Howell, Caitlin (Chemical and Biomedical Engineering, UMaine)
Sector: Biotechnology
Partners: Zephyrus Simulations, LLC
Abstract: Simulation has become a useful tool in medical training, allowing students to realistically interact with a simulated patient in a safe, controlled environment. A significant component of simulation-based training is the opportunity for students to dynamically interact and communicate with a simulated patient, so they can run

42

through iterative clinical cycles of assessment, planning, intervention, and reevaluation. Current methods for providing students with this dynamic feedback require human actors (inconvenient), high fidelity manikins (expensive), or videos (non-immersive), thus, the requirements for creating these dynamic training environments do not currently meet the budgetary and personnel constraints of many low-resource, rural medical facilities. In this project, undergraduate student Daniel Lesko (Bioengineering Class of 2019) will work with an interdisciplinary team of Bioengineering, Electrical Engineering, Nursing, and Spatial Information faculty members, as well as a start-up commercial partner (Zephyrus Simulations, LLC) to design a cost-effective haptic sensor suite to monitor student interactions with a medical simulation manikin. The result will provide students with real-time, dynamic feedback while being immersed in a simulation experience

6. Title: Leveraging machine learning and high-performance computing to deliver the spatial data needed by Maine's forest industry
PI: Legaard, Kasey (Forest Resources, UMaine)
Sector: Computer Science, Forestry
Partners: UMS Advanced Computing Group
Abstract: Forest managers in Maine cite a lack of spatial information about forest resources (both timber and non-timber) as a key barrier to the planning and prioritization of management actions. Available commercial products are typically priced at levels that are viewed as too expensive by Maine landowners. More critically, available products suffer from systematic error originating from mapping algorithms or imperfections in reference data available to train mapping algorithms. To address the reliability shortcomings of current data products available to forest industry and forest researchers, we developed a machine learning method that is capable of minimizing both total and systematic error in estimates of forest attributes from satellite imagery. We would specifically like a student to lead the continued effort of producing map output from trained GA-SVM models.

7. Title: Interdisciplinary Research for Decision Making about Dams in Maine
PI: McGreavy, Bridie (Communication and Journalism, UMaine)
Sector: Energy, Communications
Partners: UMaine
Abstract: The goal of our project is to advance research that analyzes stakeholder needs for information, perceptions about dams, and news media coverage to support decision making about dams in Maine and New England. We will complete the following objectives to reach this goal: (1) expand collaborative partnerships with key dam stakeholders in
Maine; (2) understand how stakeholders perceive and make decisions about dams; (3) and analyze news media coverage about dam decision making.

8. Title: Undergraduate Capstone: Genetics of Freshwater Snails of Northern Maine
PI: Roe, Judith (Biology, UMaine Presque Isle)
Sector: Biology, Ecology
Partners: Department of Inland Fisheries and Wildlife
Abstract: There are ~40 species of freshwater snails in Maine. These snails have been inventoried occasionally over the past 150 years, and Ken Hotopp of Appalachian Conservation Biology has spearheaded a project to determine the current distribution of species in the Fish River Lakes system in northern Maine. One project goal is to compare this inventory with historical records of local naturalists who collected shells and documented observations in northern Maine lakes since the late 1800s. The presence of certain snail species can indicate the health of important natural resources.

9. Title: Assessing the Economic Value of Maine's Coastal Tourism: The Ecosystem Services across Acadia National Park
PI: Strong, Aaron (Marine Sciences, UMaine)
Sector: Ecology, Tourism
Partners: Sea Grant, NOAA
Abstract: Ecosystem services provide a paradigm for using biophysical and social science to investigate and optimize the management of Acadia National Park. By quantifying the full suite of values provided to humans in

43

a system across various uses, ecosystem services provide a framework for a data-driven balance of diverse stakeholder priorities critical to economically beneficial management. Since May 2017, we have led a project to quantify the ecosystem services of Schoodic Peninsula and how they have changed since the development of Schoodic Woods. Preliminary results show that Schoodic Woods has increased both recreational and business opportunities in the area, as well as altered patterns of biodiversity. Building upon work this past summer and fall at Schoodic, we propose here to fully quantify the value of ecosystem services throughout ANP focusing on its greatest contributors: tourism, recreation, biodiversity and wildlife habitat, carbon storage, and water quality.

Track 3 – Interdisciplinary Undergraduate Research Collaboratives

Principal Investigator	Partners	Project Title
Blais, Joline (New Media, UMaine)	UMaine Presque Isle, SYRA	Maine Ag Data Monitoring App--Undergrad Interdisciplinary (Track 3)
Jayasundara Nishad (Marine Science, UMaine)	UMaine	High throughput predictive bioenergetics through statistical machine learning for big-data to assess biological responses to environmental stressors
King, Benjamin (Molecular and Biomedical Sciences, UMaine)	UMaine	Muscular Dystrophy Genomics Research Collaborative
Leslie, Heather (Darling Marine Center, UMaine)	UMaine Machias, University of Southern Maine	Track III: Coastal Ecosystem Science for Maine's Marine Economy & Coastal Communities

1. Title: Maine Ag Data Monitoring App--Undergrad Interdisciplinary (Track 3)
PI: Blais, Joline (New Media, UMaine)
Sector: Agriculture, Computer Science
Partners: UMaine Presque Isle, SYRA
Abstract: The goal of this project is to test hardware sensors for environmental monitoring in Maine year round agricultural systems including controls that integrate seamlessly with Maine farmer's production needs. We are seeking funding for 3- 4 undergraduate students across disciplines through an Interdisciplinary Undergraduate Research Collaboratives Program to test remote sensor hardware and provide supplemental support for the RRF Graduate Track proposal for "Maine Ag Data Monitoring App". This is a research and development project with urgent and direct application to Maine farm's through the Maine Technology Institute's Sustainable Year Round Agriculture (SYRA) Cluster Initiative. The SYRA Project Team has approached UMaine Electrical Engineering and UMaine New Media and Bill Seretta from the Maine Food Systems Innovation Challenge to collaborate on the program. Project will begin in September and end in April 2019.

2. Title: High throughput predictive bioenergetics through statistical machine learning for big-data to assess biological responses to environmental stressors
PI: Jayasundara Nishad (Marine Science, UMaine)
Sector: Biology, Data Science
Partners: UMaine
Abstract: The goal of this research is to build a team of undergraduates to integrate biological sciences with big-data statistical approaches to develop a commercializable statistical tool that can predictively compute the capacity of an organism to maintain energy homeostasis when exposed to toxicants and other stressors (e.g., temperature). Once developed, the tool can be used as a predictive toxicity screening method, a critical need as highlighted by the US national toxicology program, especially in their grant solicitations. Undergraduates trained through this project will get direct hands-on experience in method development and experimental design in metabolic research, and big-data analytical methods. These will directly contribute to their further training as scientists and will significantly improve their analytical skills on big-data, a highly sought after attribute in the current job market.

3. Title: Muscular Dystrophy Genomics Research Collaborative

44

PI: King, Benjamin (Molecular and Biomedical Sciences, UMaine)
Sector: Healthcare, Genomics
Partners: UMaine
Abstract: Muscular dystrophy is a large group of debilitative diseases that result in weakened skeletal muscle and affect approximately 250,000 individuals in the US. Our interdisciplinary research collaborative seeks to discover the molecular mechanisms dysregulated in one form of muscular dystrophy by applying developmental biology, genomics and computational methods to characterize a novel zebrafish model developed at UMaine using CRISPR-Cas9. In one form of muscular dystrophy, individuals with mutations in GMPPB (GDPmannose pyrophosphorylase B) have variable muscular dystrophy phenotypes and ages of onset ranging from birth to adulthood and we hypothesize that this and other dystroglycanopathies are the result of defects in neuromusculoskeletal development. We propose to identify the molecular mechanisms that contribute to impaired muscle function in the novel zebrafish mutant bycomputationally modeling how networks of genes are dysregulated together to find critical regulatory genes.

4. Title: Track III: Coastal Ecosystem Science for Maine's Marine Economy & Coastal Communities
**PI:** Leslie, Heather (Darling Marine Center, UMaine)
Sector: Marine Science
Partners: UMaine Machias, University of Southern Maine
Abstract: Coastal ecosystems are of great value. They provide food and clean water, protection from coastal storms, and also are home to some of the most productive ecosystems on the planet, fueling seafood and tourism industries valued at more than $5B per year in Maine alone. To ensure a continued flow of benefit from healthy marine ecosystems to the communities and local economies that depend on them, we need knowledge of how these systems work. We also need to build capacity of the next generation of coastal ecosystem scientists, managers, and citizens. This Undergraduate Research Collaborative focused on Coastal Ecosystem Science will catalyze innovative ecosystem science of direct benefit to Maine's marine economy and coastal communities. It will also contribute to developing the next generation of marine scientists and managers, by enhancing the technical, communication, and collaborative skills of the students, researchers, and industry professionals engaged in these projects.

45

Appendix E: Vision and Roadmap for Maine's Forest Economy

Roadmap and Vision for Maine's Forest Sector
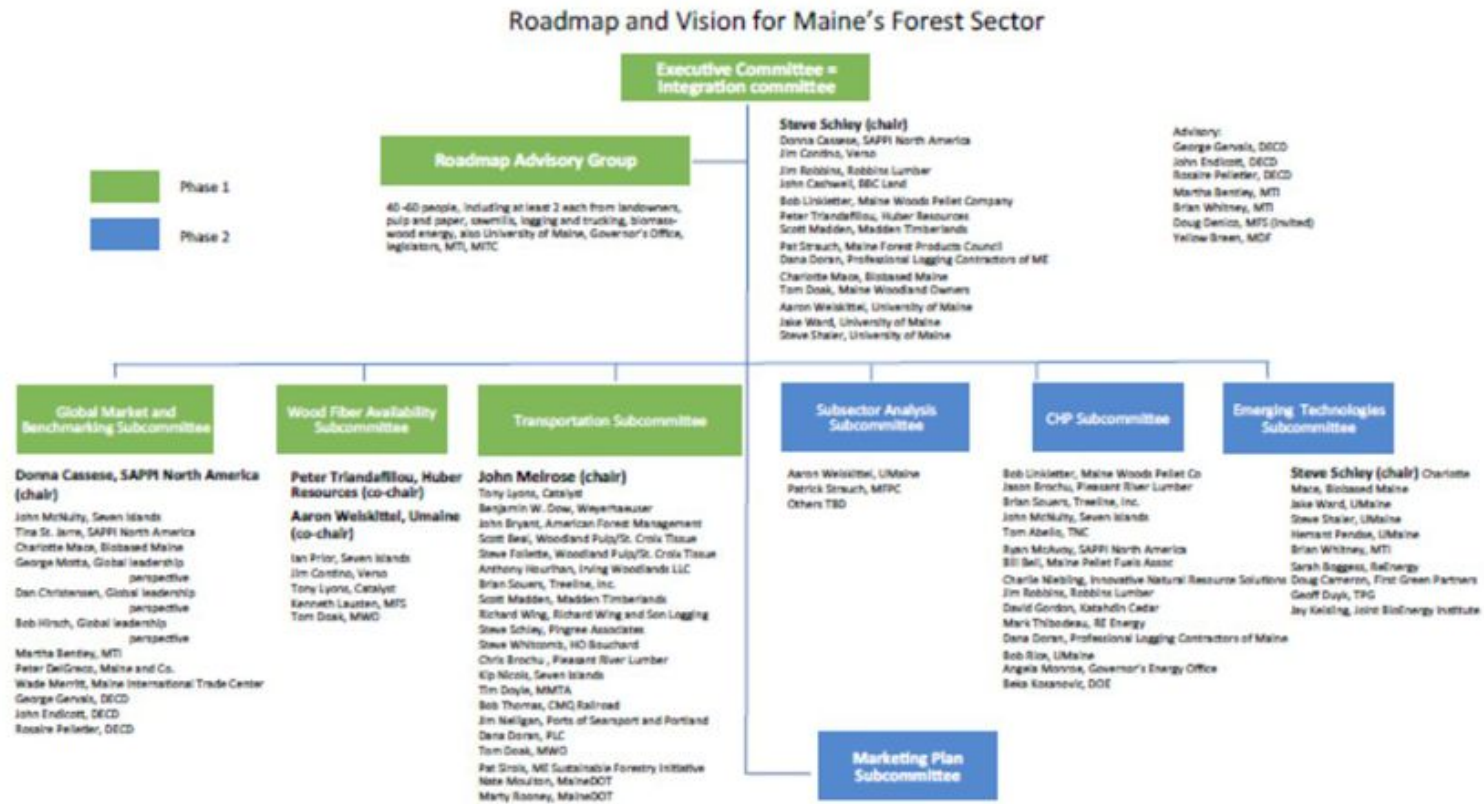
Appendix F: Alliance for Maine's Marine Economy 2017 Highlights

Looking ahead

The capital investments enabled by the bond and matching funds is just the beginning. By leveraging existing capacity and working together to pursue new resources, the Alliance is:

- Catalyzing targeted infrastructure and workforce development investments that facilitate business development
- Accelerating product innovation
- Assessing and preventing risks to resource health
- Forecasting changes in product supply

Alliance partners have identified additional projects and contracts that will attract at least another $50M of additional private sector and federal grant dollars over the next 10 years, above and beyond the state bond funds. Together, this evolving portfolio of investments and expanded infrastructure and workforce capacity will ensure that Maine marine industries are able to innovate and adapt their business strategies to new opportunities and challenges as they emerge.

As part of this project and in recognition of the central role of Maine's public universities in Maine's marine economy, the University of Maine System has committed more than $2.3M in internal funds to this important effort.

An invitation to all

The Alliance is open to all individuals, businesses and organizations that share the commitment to a future Maine where healthy marine ecosystems and coastal communities support a diversity of traditional fisheries, aquaculture and other marine-dependent industries.

To learn more about the Alliance, visit umaine.edu/alliance.

Keri Kaczor, Alliance Coordinator
keri.kaczor@maine.edu • 207.832.0343

Dr. Heather Leslie, Alliance Chair
heather.leslie@maine.edu • 207.350.2713

THE UNIVERSITY OF MAINE

Alliance for Maine's Marine Economy
2017 Highlights

Our motivation

Maine's ocean and coastal resources are the foundation of our coastal communities, contributing vital jobs and shaping our culture. Mainers pride themselves on the distinctiveness of their local communities, the prominence of owner-operated small businesses, and the rural and pristine character of much of our coast. Maine fishermen land the highest-value annual catch, including our iconic lobster fishery, of all East Coast states. Yet, Maine's marine environment and its marine markets are changing. Rising ocean temperatures and ocean acidification, shifting abundances of species, and fluctuating markets are creating both opportunities and challenges. Blessed with an incredibly productive marine ecosystem, clean water, access to an array of private, public and nonprofit research institutions, and a culture of ingenuity and hard work, Maine's marine economy has great promise for continued advancement. Commercial fishing and aquaculture industries, together with the increasing activity in seafood processing and value-added market development for Maine-based marine products, signal incredible potential for sustainable economic growth in the next decade.

Our mission

The Alliance for Maine's Marine Economy is a network of more than 20 Maine-based organizations dedicated to a vibrant marine economy for Maine. Our mission is to ensure that Maine seafood, fishing and aquaculture industries, and the natural and innovation ecosystems on which they depend are healthy and benefit Maine people.

Our partners

The University of Maine System (including the following UMaine entities): Darling Marine Center, Maine Sea Grant, School of Marine Sciences, Aquaculture Research Institute, Cooperative Extension, School of Food and Agriculture, Lobster Institute, Center for Cooperative Aquaculture Research, The Office of Innovation and Economic Development and the UM-Machias marine field station)

Maine Coast Fishermen's Association

Maine Aquaculture Association

Cape Seafood

Maine Aquaculture Innovation Center

Maine Lobster Dealers' Association

Maine Lobstermen's Association

Downeast Lobstermen's Association

Gulf of Maine Research Institute

University of New England

Maine Department of Marine Resources

Maine Technology Institute

Bigelow Laboratory for Ocean Sciences

Coastal Enterprises, Inc.

Island Institute

Maine Center for Coastal Fisheries

Downeast Institute for Applied Marine Research & Education

Maine Fair Trade Lobster

Cooke Aquaculture

Accomplishments to date

Since the Alliance's founding in May 2016, we have undertaken a transformative, ten-year, $14+ million initiative to foster development in Maine's marine sectors. Capital investments in public and private infrastructure will benefit the entire sector. On behalf of the state of Maine, the Maine Technology Institute (MTI) manages the finances of the Marine Economy and Jobs bond, and in partnership with the Alliance for Maine's Marine Economy, invested in seven capital projects and awarded eight competitive capital grants in 2017.

Top left: Seed ropes - mussel seed collected on coiled, pegged grow-out ropes to be used in breakthrough mussel raft technology at Pemaquid Mussel Farms, LLC. (Credit: Carter Newell)

Top right: Newly constructed submersible mussel raft without buoys, ropes, or nets. (Credit: Carter Newell)

Projects in 2017

The Alliance, working with the Maine Technology Institute, is enabling the following investments via the state bond funds and additional matching funds:

- $500,000 (match $800,000) for expansion of Maine Fair Trade Lobster, a seafood processing plant in Prospect Harbor (Hancock County)

- $150,000 (match $182,000) for lobster processing equipment at Cape Seafood in Saco (York County)

- $500,000 (match $1,200,000) for a feed barge for a new locally managed aquaculture facility in Downeast Maine owned by Cooke Aquaculture USA (Washington County)

- $650,000 (match $650,000) for improvements to the waterfront infrastructure at UMaine's Darling Marine Center in Walpole to support applied research, development and business incubation (Lincoln County)

- $2,000,000 (match $2,000,000) for the addition of laboratory and business incubation space at the marine science field station of the University of Maine at Machias, the Downeast Institute, in Beals (Washington County)

- $125,000 (match $125,000) for instrumentation to support Bigelow Laboratory's analytical services for Maine's wild-harvest and farm-raised seaweed industries (Lincoln County)

- $1,150,000 (match $1,650,000) for construction of an Aquatic Animal Health Facility at UMaine with high-level biosafety capabilities to study fish pathogens and help minimize health risks to Maine's wild and farmed fish stocks (Penobscot County)

Developing innovative lobster processing equipment will create new lobster products, customers and markets allowing Cape Seafood to process more lobster and employ more workers in Maine.

New technology will extend the shelf-life of fresh Maine lobster meat enabling Maine Seafood Ventures to generate revenue, create jobs and expand markets and production. (Credit: Curt Brown)

The Maine Technology Institute, in partnership with the Alliance, initiated a competitive Marine Economy Capital Grants Program:

- $44,328 (match $204,972) to Blue Hill Bay Mussels, LLC to commercialize remote settlement, a proven hatchery technology (Hancock County)

- $66,574 (match $75,000) to Coastal Enterprises, Inc. to increase the sustainable supply, quality, and diversity of farm raised sea scallops (Multiple locations)

- $100,000 (match $100,000) to Community Shellfish LLC to develop a dynamic and innovative aquaculture venue to grow shellfish on the Medomak River (Lincoln County)

- $400,000 (match $1,650,000) to Maine Seafood Ventures to expand markets for fresh Maine lobster by implementing the latest High-Pressure Processing technology (York County)

- $336,000 (match $1,897,228) to Mook Sea Farm to build a multi-purpose, state-of-the-art oyster facility (Lincoln County)

- $250,400 (match $540,000) to Pemaquid Mussel Farms LLC to continue development of submersible mussel raft technology to increase production of cultured mussels (Lincoln County)

- $180,000 (match $697,000) to Springtide Seaweed, LLC for the creation of a new aquaculture seaweed exchange to expand seaweed production (Knox County)

- $400,000 (match $1,150,000) to Shucks Maine Lobster Inc. to expand a lobster processing facility (Cumberland County)

For information on the Marine Capital Grants Program, visit the Maine Technology Institute at www.mainetechnology.org

The University of Maine System Workforce Development Infrastructure Bond (LD 836)

Why Invest in Maine's Public Universities? Our Economy Depends on It.

The University of Maine System is on the right track:

- **$82 million** in annual savings through reforms and right-sizing
- **36% increase** in out-of-state enrollments in the last five years
- **$80+ million** in investments already this fiscal year to advance affordability through early college, financial aid and adult degree completion scholarships

However, the current condition and capacity of our facilities is costing us students, which Maine simply cannot afford. LD 836 will:

✓ **Produce More of the Skilled Workers Maine Needs**
Maine employers say University of Maine System graduates are their top talent — they just need more of them. This investment increases our capacity and enrollment to directly support state workforce needs in:

Engineering **Nursing** **Computer Sciences**

✓ **Reverse Demographic Declines and Grow Our Future Workforce**
Campus appearance is among the top 5 factors influencing college choice. This investment modernizes our facilities so we can keep Maine kids here and compete for out-of-state students — *who pay more and often stay and work in Maine.*

✓ **Enhance the University of Maine System's Fiscal Stability**
One University reforms and right-sizing have improved financial stability. This investment will further reduce repair and operating costs, decrease our facilities' footprint and increase tuition revenue.

Nearly **½** of the System's buildings **haven't had a major upgrade in over 50 years.**

THE $75 MILLION BOND PACKAGE WILL:

- Add capacity for STEM education, including computer science & cybersecurity
- Expand nursing simulators & allied health training labs
- Improve spaces on all campuses that support student success, recruitment & retention, career development & job placement
- Bring jobs and new investments to our local communities

All for less than the State now spends to construct a new high school.

Our universities and those who depend on them — students, employers, and communities — can't wait.

Just like roads and bridges, our campuses are critical public infrastructure, essential to Maine's economic prosperity. This investment in University workforce development infrastructure must be a top priority *now* for Maine's legislators.

FMI: Samantha Warren, Director of Government & Community Relations, University of Maine System: 632-0389 (cell) / samantha.warren@maine.edu

www.maine.edu/invest

The University of Maine System Workforce Development Infrastructure Bond (LD 836*)

Why invest in Maine's Public Universities? Our economy depends on it.

Maine's economic success is built upon a strong public university system. The state's people and prosperity depend upon a skilled workforce – produced by Maine's public universities. But the current condition and capacity of our facilities is costing us students, which Maine simply cannot afford.

$75 million in State investment in University of Maine System workforce development infrastructure will:

Produce More of the Skilled Workers Maine Needs: From rural nursing homes and hospitals to Main Street banks and small businesses to global high-tech manufacturers, Maine employers say University of Maine System graduates are their top talent – they just need more of them.

For less than the State now spends to construct a new high school, this investment will build capacity and enrollment in programs that directly support Maine's workforce needs at all University campuses, leading to more graduates prepared for Maine jobs in the increasing number of high-demand fields that require a four-year or advanced degree.

Proposed projects, largely through cost-effective renovations to existing facilities, will:

- Add capacity for STEM education, including computer science and cybersecurity;
- Expand nursing simulators and allied health training labs;
- Improve non-academic spaces that support student success, recruitment and retention, career development and job placement;
- Bring jobs and new investments to our local communities.

Grow Maine's Economy and Reverse Demographic Declines by Attracting Students/Future Workers: Campus appearance and quality are key factors in choosing a college and staying through degree completion. As the University of Maine System works to keep Maine kids here and attract more out-of-state students who pay more and often stay in the state to live and work after graduation, our campuses must be competitive with peers in the region. Modernization of facilities will improve recruitment and retention and is necessary now to ensure our continued growth in out-of-state enrollment (up 36 percent in the past five years to now nearly 6,000 students) essential to the economic health of Maine and its public universities.

Enhance the System's Fiscal Position: Nearly half of the System's 550 buildings have not been meaningfully renovated in at least 50 years (less than 20 percent of our competitors' facilities have gone that long without upgrades). This makes our space more costly to maintain and renovate, and presents safety and accessibility concerns. Public investment, which will spur private and other giving, will build upon the System's improved financial stability (brought about by One University reforms and right-sizing that have resulted in $82 million in annual savings) by further reducing repair and operating costs, decreasing our facilities' footprint and increasing tuition revenue.

This much-needed investment in University of Maine System workforce development infrastructure must be a top priority now for Maine's legislators. Just like roads and bridges, our campuses are critical public infrastructure essential to our state's prosperity. University facilities and the Maine students, employers and communities who depend upon them cannot wait for a future Legislature to act.

LD 836, An Act To Authorize a General Fund Bond Issue To Build Maine's Workforce Development Capacity by Modernizing and Improving the Facilities and Infrastructure of Maine's Public Universities would authorize a $75 million University of Maine System workforce development infrastructure general obligation bond question go to voters, likely in November of 2018. The last System bond was authorized in 2013.

UMS Collaboration

Cross-listing (native credit)
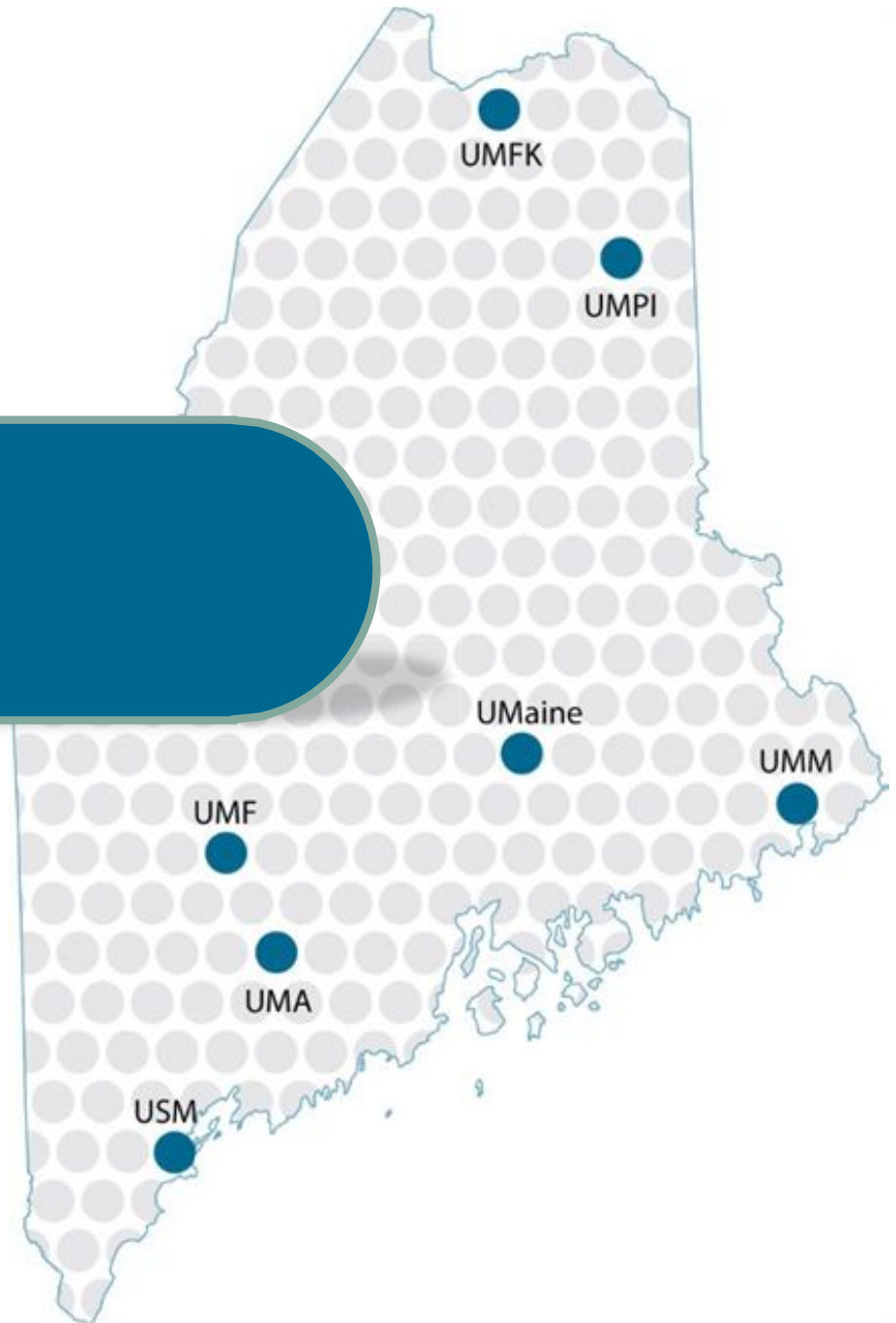
Student Challenges

Sally Student
Home University 1

- Application
- Financial-Aid/Loans
- Degree Plan
- Enrollment/Schedule
- Bill
- Support Services
- Coursework/Learning

Sally Student
One Course at University 2

- Application
- Financial-Aid/Loans
- Enrollment/Schedule
- Bill
- Support Services
- Coursework/Learning

2

Student Challenges

Sally Student

- Re-apply

- Coordinate Financial-Aid/Loans

- Serendipitously discover opportunities

- Manually manage enrollment/schedule

- Pay for tuition and fees at different rates

- Manually request and manage the transfer of credit back to Home University

- Have to find and work with support services at each University

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

3

Student-Centered Solution

Cross-listing (native credit): one university (**Host** institution) provides instruction for another university (student's **Home** institution). The Home institution enters the Host institution's course in the system, as if the course is 'native'.

Course sections allow us to:

- Strengthen a student's academic program by including a course or courses not taught by the Home institution

- Resolve course scheduling conflicts that delay timely program completion

- Allow UMS universities to partner in the creation of innovative new programs that Home institutions could not create individually

- Utilize existing faculty, facilities, or resources more efficiently.

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

4

Student-Centered Solution

- **Academic Process/Governance:** Essentially the same – coordination of governance is still being considered for shared programs.

- **Faculty Administration:** Faculty are added as instructors of record at each participating institution

- **Course Management:** Courses are adding during the normal schedule billing process and are tagged in a way that automates:
  - billing, financial aid, revenue sharing, and reporting

- **LMS (Black Board) Administration:** Enrollment from all participating institutions are merged into corresponding course sections

- **Student Issues:** Petitions, grievances, and behavioral issues are the responsibility of the Home institution

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Revenue Sharing Concept

TUITION
In-state & Out-of-state
SERVICE FEES
Technology
DE
PROGRAM/COURSE
Lab Fee
Course Fee
Program Fee

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

6

Outstanding Issues

- **Finance:** Concept worked out, but details are still being resolved.
  - Complete
    - Single student bill (solves many student issues)
    - Automated revenue sharing among institutions
  - Pending Recommendations
    - Possibility of a single tuition rate for cross-listed courses in collaborative programs?
    - Possibility of differential, or course based fees, to support the flexibility provided to students through course cross-listing?

- **LMS (Black Board) Administration:** For a seamless experience for faculty and students, the course enrollment must be managed automatically. UMS-IT has a custom program to automatically manage merged sections; however they are working through details to modify it for this purpose.

Outstanding

- **Academic Governance:** A separate project is in progress to work out the details for academic governance of multi-campus programs.

- **Schedule/Catalog Processes:** The processes for building a new term schedule and adding courses to the course catalog must be modified.

- **Admin Functions (Grading):** Share sections would still be split in the student information system, so functions like grading would not be merged.

Most importantly: After all the details have been drafted, we need to communicate to the larger community, get feed back, make adjustments, and repeat as necessary.

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

Where We Are Now

- **Cross-System Sub-Committee:** Work group who is currently implementing our student system pilot test for next Fall.

- VCAA office is leading CAOs and administrative program integration teams in the development of guidelines for multi-campus programs and cross-listing.

- **Finance:** A Finance and Administration workgroup are finalizing the details of the revenue-sharing model.

- **UMS-IT:** Is making necessary adjustments to their custom merge utility.

- **Faculty/Academics:** Many faculty are excited for the opportunities this approach brings to expand or create new innovative programs. We received 43 pre-proposals through the PIF process, 21 we invited to submit a full proposal.

- Course cross-listing will be essential to the shared, online Master's programs currently under consideration.

Maine's Public Universities
UNIVERSITY OF MAINE SYSTEM

9