
THE UNIVERSITY OF
MAINE

**Office of the Vice President for Research and Dean of the Graduate School**

# 2014-2015 Annual Report

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The Office of the Vice President for Research and Dean of the Graduate School
AY 2014 – 15 Annual Report, July 2015

i. Executive Summary

The 2014-15 academic year marked the first year since AY 1998-99 that research and graduate studies were administratively organized into one office. The reorganization brings synergy and focus to these two vital and strongly linked components of the University of Maine's land grant mission. During FY 2015 a total of $51,134,092 were received from extramural sponsors and were comprised of 370 awards. These results closely mirror FY 2014 with 363 awards and $51,169,551 received. Our average proposal success rate from FY 2005 – FY 2015 was approximately 68%. The FY 2015 proposal success rate was 76%, up from 63% in FY 2014. UMaine is consistently ranked among the top 125 public universities for research through the NSF Higher Education Research and Development (HERD) Survey. The most recent HERD survey reflects a steep increase in research expenditures at UMaine, from $77.6 million in FY13 to $101.2 million in FY 14. UMaine's Carnegie Classification remains in the *High Research Activity* category. In addition, the Graduate School continued to increase its student recruitment activities, focusing on professional graduate programs, in which the majority of losses in student enrollment in the Graduate School have occurred.

ii. Highlights

***Research Highlights***

- Restructured the OVPR and Graduate School with appointment of an Associate Vice President for Research and Graduate Studies (David Neivandt) and an Assistant Vice President for Graduate Studies and Senior Associate Dean (Scott Delcourt).
- A Grant Development Office within the OVPR was created in response to various grant support needs that faculty had communicated to the VPR through surveys and other means of feedback. The Director of Grant Development was hired (Jason Charland) to work in coordination with ORSP to support faculty grant seeking activities. The hiring of two additional grant development staff is underway with anticipated start dates of September 2015. Achievement highlights of the Grant Development Office include: created 5 funding opportunities calendars and 3 RFP analysis reports for targeted research areas, conducted 4 PIVOT workshops (2 each semester) for campus faculty; and advised faculty on 20 individual and multi-investigator grant submissions. Two graduate assistants were added to the department in May to assist with research communications and grant projects. Additionally, Jason staffed UMaine internal, limited-competitions for federal grants and helped to bridge the EPSCoR Directorship in partnership with Laurie Bragg for 9 months while a national search for a new EPSCoR director was conducted.
- Created and promoted an *Aging Initiative* at the flagship campus
    - Conducted 21 tours of related research facilities on campus for policy makers, research partners, and other stakeholders.
    - An internal seed grant funding competition was held to stimulate aging research on campus designed for faculty to conduct pilot studies aimed at increasing competitiveness in future federal grants. Funded 11 of the 18 proposals received.
    - Eastern Maine Health Systems (EMHS) and UMaine are entering into an MOU for jointly planning, designing and implementing research and development, as well as educational initiatives, to advance both organizations' interests in *Healthy Aging, Functional Movement Assessment*, and other projects.
    - Conducted outreach through visits to each UMS campus to discuss collaboration on projects relating to the UMaine Aging Initiative
    - In May, VP Kim was invited by Maine Senator Susan Collins to testify before the US Senate Special Committee on Aging to discuss UMaine's multidisciplinary research initiatives focused on helping older adults to age and thrive in place. The Committee testimony link on C-SPAN can be found here: http://www.c-span.org/video/?325850-1/hearing-tools-help-seniors-stay-homes

- Evaluated models for centralizing technician services on campus; an implementation plan is in development (Appendix A).
- Created a process and initiated 360 Reviews of the Directors of Research Institutes and Centers.
- Initiated development of a new of a Strategic Plan for UMaine Research.
- Proposed and implemented the UMS BOT's Research Reinvestment Fund (RRF) Award to UMS. During the next four years, funds will be used to enhance research infrastructure to support and advance the research enterprise system-wide. Supported activities will include: assistance to faculty preparing grant proposals, research release time for faculty, graduate research assistantship support, ORSP staffing increases, and the promotion of research collaboration across UMS.
- Established a committee to implement the use of Faculty Activity Reports (FAR) to streamline the application process for awards, post-tenure review reports, and other documents with overlapping content.

- *Office of Research and Sponsored Programs*
    - Requested and managed an external peer review of UMaine research administration infrastructure by the National Council of University Research Administrators (NCURA). Three Task Forces comprising faculty and staff are currently determining the best means for implementing NCURA's recommendations. The task forces are focused in the areas of Enhancing Support Infrastructure, Information and Data Management, and Reducing Institutional Risk.
    - Performed an analysis of Grant and Contract Management in conjunction with USM. Work is ongoing to identify opportunities and technologies for improving and streamlining management through adoption of specialized software.
    - Improved ORSP office communications by developing a structure to allow information to flow efficiently among between ORSP groups (i.e. Director, Pre-Award, Post-Award, Compliance and Training), increasing opportunities for staff to participate fully in office affairs and improving meeting facilitation skills.
    - Directed ORSP staff to be trained extensively in LEAN Management techniques. To date, a total of eight ORSP staff members have received LEAN practitioner training, and one staff member has begun LEAN facilitator training.
    - Approved an office-wide ORSP LEAN Management initiative to use *ImageNow* to enable staff members to assign and perform tasks non-sequentially without disrupting workflow. ORSP worked with UMIT *ImageNow* support staff to create, name, and configure electronic workflow using *ImageNow* document queues with a database-generated placeholder for routing. In June, 2014 ORSP tasks were processed using hard copies. By April 2015, all processing of proposals was done electronically. Electronic processing increases efficiency and saves time because multiple staff can be working on the same project file simultaneously. In addition, files are now retained electronically as well.
    - In May, ORSP was asked to present at UMaine's first Lean Genius Award, a chance for all process improvement teams to share and learn from each other's improvements. The ORSP Project Create team was selected as UMaine's first Lean Genius recipient. The team was asked to present at the July 2015 BOT meeting.
    - Approved the training of one additional ORSP staff member (Kate Walters) to become a Certified Research Administrator (C.R.A,). When complete, this CRA training will increase the number of CRAs at UM to 7 (6 in ORSP; 1 in CE).

- *EPSCoR*
  - Hired a new EPSCoR director, Dr. Shane Moeykens.
  - Received a 5-year, $20 Million EPSCoR RII Track 1 Award: SEANET; received a positive AAAS review for Year 1 accomplishments.
  - Successfully completed two years of a $6 Million EPSCoR RII Track 2 "NEST" Award in cooperation with NH.
  - Received an award to co-host the 2015 National EPSCoR meeting with UNH.

- Created an 18-Month Implementation & Progress Monitoring Plan for the OVPR and Graduate School.

***Graduate School Highlights***

- Granted 69 doctorates, the second highest all-time total after the 2013-14 academic year total of 77.
- Approved a Master of Science degree program in Spatial Informatics.
- Developed a process for sharing teaching assistantships across graduate programs, so that students conduct their research in one department and teach in another (See Appendix A).
- Intensified graduate student recruitment activities, using an external company (Royall & Co.) for recruitment in the Education, Business Administration and Global Policy graduate programs. The Royall campaign for Global Policy was extremely successful raising total graduate applications from 12 to 100 in one year. Similarly, an "in-house" recruitment campaign for Communication Sciences and Disorders tripled the total applications over the previous three-year average. Total graduate applications for Fall 2015 increased by approximately 475 relative to Fall 2014 numbers.
- Working with the Division of Lifelong Learning, launched new on-line graduate degree programs in Business Administration, Social Work and selected areas of Education at a reduced tuition rate of 125% of the Maine resident rate.
- Explored the option of creating a separate Graduate School Commencement and invited Marilyn Zoidis, '71, '78G as the first distinguished alumni speaker.

iii. Serving Maine

**a.** Community Engagement

*Research*

A *Celebrating Scholarship* event was held on April 21, 2015 at the Collins Center for the Arts as an opportunity to showcase outstanding scholarship, artistic endeavors, and notable achievements in a variety of fields and disciplines. Eighty-four members of the UMaine faculty participated in this event designed to recognize the breadth and depth of their accomplishments over the past 5 years. This program is being planned as a biennial event.

*Graduate School*

Graduate students serve the community in multiple ways, through charitable works and donations, outreach and service activities, and teaching. One recent example is a K-12 STEM education initiative in collaboration with Cooperative Extension and the Climate Change Institute (see: https://umainetoday.umaine.edu/archives/springsummer-2015/wheres-chuck/).

**b.** Economic Development

Graduate students support economic development through their research, internships, and post-graduate employment in Maine's industry, non-profit sector, and government. An excellent example of the economic impact of our graduate students is the formation of a new company, Revolution Research, by UMaine Ph.D. candidate Nadir Yidirim and his business partner Alex Chasse**.** Formation of the company

was aided by a $225,000 National Science Foundation grant to refine their process of making eco-friendly foam insulation from cellulose fibers and organic polymers.

Additional accomplishments include:

- Investment of $396,467 in competitive seed grants in Aging Research and Technology for the UMaine Aging Initiative. Eleven multidisciplinary projects were approved for pilot funding (ranging between $10,000 and $50,000) and awardees will be required to submit a grant proposal to a federal funding agency by June 2016 to expand and sustain the pilot work. There are nineteen different faculty members involved as principal investigators and/or collaborators and the awarded projects span eight academic departments, four colleges, and three research centers.
- Reorganization of the former Environmental Chemistry Lab to develop the Sawyer Water Research Lab under the leadership of Dr. Jasmine Saros. This facility will work closely with faculty and off-campus researchers to test samples and generate revenue. The initial investment was to assist in reorganization, renovation and improvement to ensure the efficiency and efficacy of the facility.
- $5M of MEIF was invested over five years as cost share for the $20M SEANET project with NSF EPSCoR. This project includes 15 other institutions, approximately 55 faculty members, 23 graduate students and 38 undergraduate students.
- Investment of $857,127 in start up funds for faculty during the 2014-2015 academic year. These investments also supported the Signature and Emerging areas of excellence identified during the last academic year.
    - Four faculty in Forestry & Agriculture
    - Four faculty in Biotechnology
    - One faculty in Environmental
    - Three faculty in Information Technology
- Investment of nearly $40,000 in improvements in technology and repairs to equipment in research labs.

**c.** Workforce Development

The combined offices of the VPR and Graduate School perform extensive workforce development activities. An excellent example of the extent and impact of UMaine's workforce development activities are those of the Maine EPSCoR office. In AY 15, as a component of the $20 million, 5 year NSF SEANET project, Maine EPSCoR at the University of Maine has been engaged in Broadening Participation activities for over 8,106 students, individuals and professional educators. In Collaboration with the University of Maine's Cooperative Extension and 4H, curriculum and informal educational tools introducing the concepts of sustainability science, aquaculture and SEANET research goals were developed and pilot tested throughout the state with a variety of audiences. Internship opportunities with University faculty, government agencies, and the University of Maine's Foster Center for Student Innovation were developed and provided to 68 high school and undergraduate students.

Over the past four years, over 97% of students entering into the graduate program in Communication Sciences and Disorders have graduated on schedule, with 98% graduating within a year of their planned graduation date. For those graduating in the 2010-2011 academic year, 100% found employment within a year, 95% of those graduating in the 2011-2012 academic year found employment within a year. 100% of our 2012-2013 and 2013-2014 graduates found employment.

**d.** Collaborations with UMS and sister campuses

*Research*

During the spring semester both VP Kim and AVP Neivandt traveled to each campus of the University of Maine System to foster collaboration on the Aging Initiative. Each visit involved meetings with top administrators, a tour of academic and research related areas, and a meeting with key faculty. Discussion topics were centered on learning and identifying research areas on aging at each campus and how to better coordinate those efforts.

*Graduate School*

There are several graduate programs that involve other UMS campuses: the Graduate School of Biomedical Sciences and Engineering (USM is a partner), the Cooperative Ph.D. in Biological Sciences (USM is a partner), and the MAT in French (USM is a partner). The most recent collaboration involves the M.Ed. program in Instructional Technology, now offered cooperatively through the University of Maine, the University of Southern Maine and the University of Maine at Farmington. The Graduate School has also appointed faculty from every other System campus (except UM-Fort Kent) to Graduate Faculty status at UMaine so that they can participate in graduate programs:

| Campus | Full Graduate Faculty (GF) | Associate GF | External GF | Instructor |
|---|---|---|---|---|
| UM-Augusta | | | | 1 |
| UM-Farmington | | | 4 | |
| UM-Machias | | | 4 | |
| UM-Presque Isle | | | 1 | |
| USM | 5 | 1 | 18 | 1 |

**iv. Financial Sustainability**

*Research*

- Provided $133,190 in bridging funds to faculty in between funded projects.
- Secured and implemented the Research Reinvestment Funds from UMS
    - Creates two Grant Development Specialist positions
    - Creates positions for an Administrative Specialist, Subaward Officer and Grant Accountant within ORSP.
    - Supports 22 graduate student stipends
    - Provides $900,000 in competitive seed grant funding to encourage collaborations among UMS campuses
- Secured a $2,056,400 increase in UMaine's MEIF budget for FY16. These funds will be used to support and expand the research enterprise. A few examples of support areas include:
    - Will support a shared technician pool to:
        - Provide salary support and training for technicians not currently active in projects
        - Prevent layoffs and loss of specialized technicians
    - Will support 23 new startup packages for faculty starting in the 2015-16 academic year.

*Graduate School*

**a.** Student Credit Hour Production

While the instructional costs for most graduate classes are budgeted within academic colleges, the Graduate School does assume instructional costs for all credit hours offered for INT601 (Responsible Conduct of Research) and UGR 501 (Principles and Practices of Mentoring Undergraduate Research).

**b.** Collaborations with Enrollment Management

The primary collaborations between Enrollment Management and the Graduate School involved the campaign with Royall & Co. for Business Administration (BUA), Education (EDU), and Global Policy (GPL) and the International Study Center run by Study Group. These efforts resulted in 102 applications and 12 enrollments in AY 14-15. In addition, the Graduate School conducted a pilot "in-house" campaign for the MA program in Communication Sciences and Disorders (CSD). While both the Royall and CSD campaigns were successful in terms of increasing overall number of applications over the previous year (below - Royall numbers in parentheses), the Royall campaign did not produce the anticipated increase in the number of applications, given that application fees were waived (more than a third of the applications were incomplete), nor a high number of confirmed students with the exception of the Global Policy program. In contrast, the CSD campaign tripled the number of applications, and all applicants paid application fees. The differential success between these two campaigns based on completed applications and yield suggests enrollment management strategies should target more committed applicants.

**Fall 2014 - 2015 (includes Summer 2014)**

| Program | Apps | Admits | Confirms |
|---|---|---|---|
| BUA | 41 | 26 | 13 |
| CSD | 89 | 37 | 16 |
| EDU | 81 | 50 | 32 |
| GPL | 12 | 8 | 2 |
| **Total** | **223** | **121** | **63** |

**Fall 2015 - 2016 (includes Summer 2015)**

| Program | Apps | Admits | Confirms |
|---|---|---|---|
| BUA | 123 (88) | 28 (18) | 13 (2) |
| CSD | 236 (0) | 38 (0) | 16 (0) |
| EDU | 199 (99) | 67 (13) | 45 (6) |
| GPL | 100 (88) | 38 (31) | 12 (8) |
| **Total** | **658 (275)** | **171 (62)** | **86 (16)** |

c. Research Funding

During FY 15 a total of $51,134,092 were received from extramural sponsors and were comprised of 370 awards. These results essentially mirror FY 14 with 363 awards and $51,169,551 received. The most recent NSF Higher Education Research and Development survey reflects a steep increase in research expenditures at UMaine, from $77.6 million in FY13 to $101.2 million in FY 14.

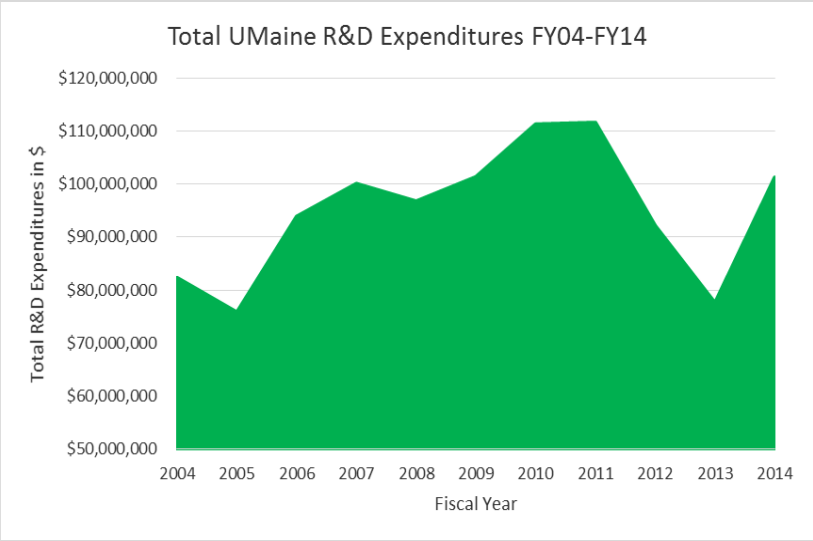


***Figure 1.*** *Total UMaine higher education R&D expenditures as reported by the NSF HERD report from FY04-FY14. R&D expenditures have increased sharply since FY13. Data for FY 15 will be available at the end of calendar year 2015.*

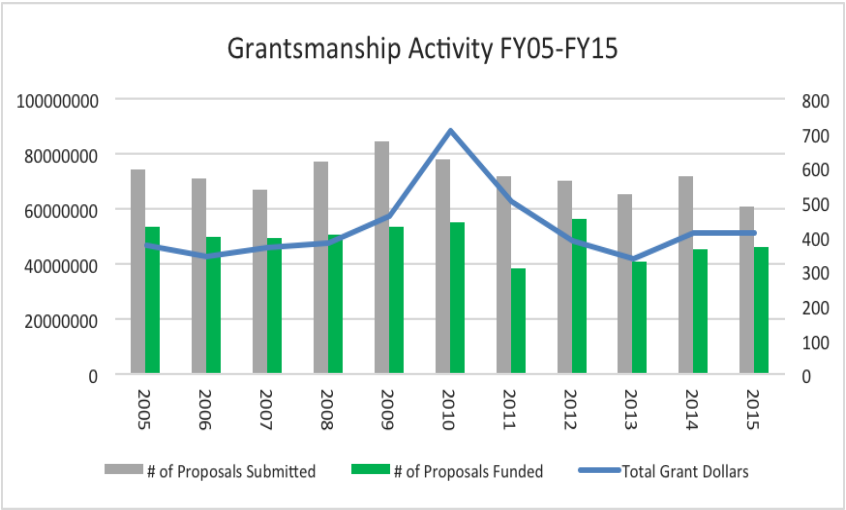


***Figure 2.*** *UMaine grantsmanship trends over the last decade that include number of proposals submitted, number of proposals funded, and total grant dollars received. The spike in FY 10 represents American Recovery Reinvestment Act (ARRA) funding that also resulted in the dip seen in FY 13. Total grant funding has increased modestly since that dip and has hovered at approximately $51M during the last two fiscal years.*

*Signature and Emerging Areas*

A modification to the Proposal Automated Routing System (PARS) was implemented in November 2015 to allow principal investigators to track the alignment of their grant proposals with signature and emerging areas of excellence. Investigators could choose one or more area and could also indicate that the proposal did not fall into any of the areas. The table below illustrates the initial results of this pilot tracking project.

**Grant Activity by Signature and Emerging Area**

| Signature Areas | # Proposals | Request Amount | # Awards | Award Amount |
|---|---|---|---|---|
| 1. Forestry & the Environment | 46 | $7,772,672 | 15 | $2,186,474 |
| 2. Marine Sciences | 64 | $17,539,945 | 14 | $498,901 |
| 3. Honors College | 4 | $149,626 | 2 | $79,590 |
| 4. STEM Education | 38 | $21,802,138 | 11 | $354,109 |
| 5. Climate Change | 37 | $5,539,854 | 10 | $1,019,041 |
| 6. Advanced Materials for Infrastructure & Energy | 23 | $31,141,731 | 6 | $760,758 |
| 7. College of Engineering | 28 | $9,605,810 | 7 | $254,097 |
| Not associated with a Signature Area | 93 | $22,569,126 | 24 | $1,306,394 |
| **Totals** | **333** | **$116,120,902** | **89** | **$6,459,364** |

| Emerging Programs | # Proposals | Request Amount | # Awards | Award Amount |
|---|---|---|---|---|
| 1. Graduate School of Biomedical Science & Engineering (GSBSE) | 16 | $3,522,655 | 5 | $287,880 |
| 2. Northeastern Americas: Humanities Research & Education | 2 | $40,000 | 0 | $0 |
| 3. Changing Ecosystems & Climate — Impact on Animal & Human Health | 39 | $13,577,041 | 8 | $930,331 |
| 4. Data Science & Engineering | 26 | $15,138,389 | 5 | $158,798 |
| 5. Sustainability Solutions & Technologies | 52 | $8,872,047 | 8 | $225,271 |
| 6. Aging Research | 18 | $3,771,499 | 6 | $63,956 |
| 7. Finance Education | 0 | $0 | 0 | $0 |
| Not associated with an Emerging Program | 180 | $71,199,272 | 57 | $4,793,401 |
| **Totals** | **333** | **$116,120,903** | **89** | **$6,459,637** |

**d.** Revenue Centers

*Research*

- 360 Reviews of Center Directors
  - Developed a process for periodic 360 Reviews of Center Directors (every 4 years staggered in the two years between the 4 year Director/Post-tenure review)
  - Initiated three concurrent 360 Reviews in AY 15
  - Appointed Dr. Carl Tripp as Director of LASST
  - Appointed Dr. Laura Lindenfeld as Director of the Margaret Chase Smith Policy Center

- Indirect Cost Return

A task team was assigned by the VPR to develop a potential return policy for the effective and equitable distribution of a fraction of the indirect costs (IDC) yielded from grants and contracts to the Investigators, Research Centers/Institutes, and Academic Units that generated the funds (See Appendix B).

***Indirect Costs Generated FY 05 – FY 15***

| Fiscal Year | Indirect Costs |
|---|---|
| 2005 | $7,907,198 |
| 2006 | $7,474,088 |
| 2007 | $7,862,096 |
| 2008 | $9,176,978 |
| 2009 | $12,934,236 |
| 2010 | $12,211,372 |
| 2011 | $10,935,379 |
| 2012 | $7,633,721 |
| 2013 | $7,590,840 |
| 2014 | $9,420,803 |
| 2015 | $7,860,395 |

*Graduate School*

The only source of non-grant revenue for the Graduate School is application fees, which make up a portion of the annual operating budget. In AY15, the Graduate School budgeted for $125,000 in application fees and fell just short of the target by $862.50, even though applications were up by nearly 500. The shortfall is attributed to mandated fee waivers for applications received through the Royall campaign as well as applications received through Study Group. The Graduate School also returned application fees to a number of students who had applied to the Counselor Education program after it was suspended.

**e.** Private Giving/Alumni Cultivation

In order to increase the visibility and generate awareness of the research enterprise and graduate studies at UMaine, VP Kim has presented a research overview to several alumni groups. These groups include the Kennebec Valley Alumni Chapter, Boston Executive Club, Washington Executive Club and Southern Maine Executive Club. In addition, VP Kim met with alumni Ian Kinoshta '56, Robert Lyons '69, and Rick Lloyd '60 in January during an EPSCoR national meeting in Honolulu, HI. These visits provided an opportunity to update alumni about research and graduate studies at UMaine.

**f.** Initiatives to increase fiscal efficiency

*Research*

Several initiatives have been undertaken to improve efficiencies and better utilize research resources:

Consolidation and reorganization of MEIF funding for faculty lines. There are a number of faculty members whose salaries include small percentages (5-30%) of MEIF support. It is, however, exceedingly difficult to justify these small MEIF percentages as making a significant contribution to research. In order to address this, VP Kim requested that the Deans consider reorganizing and consolidating the MEIF salary lines so that all faculty would have at least 50% MEIF support. Dean Ashworth was able to pilot this approach without affecting the overall faculty funding from E&G or MEIF. These changes resulted in a 5-fold increase in the Return on Investment (ROI) for those faculty identified.

Shared Technician Pool. A comprehensive review of the current and potential funding models for technicians on campus was undertaken. A recommendation was made to create a centralized technician pool under the auspices of the OVPR that would provide campus wide access to skilled technicians on an as-needed basis, while lowering the financial liability for research units. Concurrently technicians would benefit from increased job security and cross-training (See Appendix C for draft policy).

Research Faculty. An analysis of the number and role of research faculty on campus was performed. A recommendation has been made to the OVPR and VPAF regarding pay equity and a unified policy for indirect cost return as an incentive to expand the ranks of these highly productive, non-tenure track UMaine faculty (See Appendix D for draft policy).

Review of Research Centers .The viability and sustainability of research centers will be periodically reviewed for scientific relevance and efficiencies. Through a process of interviews with Institute for Molecular Biophysics (IMB) faculty, discussions with the Co-Directors, Drs. Scott Collins and Rosemary Smith, and review of center performance and relevance, it was decided that the IMB would be eliminated as of the 2015-2016 academic year.

*Graduate School*

The Graduate School continued its efforts to increase the visibility of its graduate programs, making numerous structural changes to its web site. Building on the recent efforts to create a paperless application and review process for applications to all master's and doctoral degree programs, the Graduate School in conjunction with a student IT team has created a single on-line application with separate modules for degree, non-degree and certificate applications. The new application will greatly increase user-friendliness on the applicant end and efficiency in the Graduate School office on the processing end. The Graduate School anticipates being able to test a CRM this year, which will greatly increase the efficiency of communicating with prospective applicants.

In addition, the graduate school developed and piloted a process to decouple the teaching duties and the research focus (degree program) for several teaching assistants. The new process enables departments with heavy teaching loads to utilize teaching assistants whose research is conducted in a different degree

program. The students benefit from a greater number of potential dissertation mentors, while being supported to teach in their discipline or a closely related field.

**g.** Other

*Graduate School*

In addition to the direct marketing recruitment campaigns described above, representatives from the Graduate School attended 10 regional graduate fairs in the Northeast, as well as attending a graduate fair associated with the National Collegiate Council of Women Student Leaders at College Park, MD. International recruiting efforts focusing on Iraq and Saudi Arabia have resulted in **19 and 7 students respectively**, all paid through government scholarships. Each is supported with full out-of-state tuition, stipend, and (if needed) a year of paid ESL training in UMaine's IEI). The Graduate School is currently pursuing similar recruiting relationships with the embassies of Indonesia, Malaysia, and Kuwait.

- *Howard Reiche, Jr. MPS degree conferral*
  - Howard Reiche, Jr. was granted a Master of Professional Studies in Biochemistry in Fall 2015. Mr. Reiche was only one course shy of completing the degree that he started to work on over 60 years ago. Press stories can be found by following these links:
    http://umainetoday.umaine.edu/archives/fall-2014/the-bucket-list/
    http://www.umaine.edu/graduate/community/news-entry/umaine-awards-howard-reiche-jr
    https://umaine.edu/news/blog/2014/09/29/a-masters-degree-at-85/

**v. Culture of Excellence**

Several major activities were undertaken by the combined OVPR/Graduate school in AY 15 to increase efficiencies, better serve our stakeholders, and hence support a campus wide culture of excellence in research and graduate studies, for example:

*Research*

- The Office of Research and Sponsored Programs has undergone a LEAN Management Initiative that has resulted in much greater efficiency and accuracy in work products. In addition, an external review of UMaine's research administration was undertaken by NCURA, a series of task forces are in the process of determining the most efficient means of implementing the resultant recommendations.

- Upon the recommendation of the campus faculty, a Grant Development Office has been created within the OVPR, led by Mr. Jason Charland. The office is tasked with assisting faculty in identifying relevant funding opportunities, in assisting in forming faculty teams that are responsive to RFPs, and in all stages of proposal creation and vetting.

- Hosted a campus-wide event, Celebrating Scholarship, to showcase outstanding scholarship, artistic endeavors, and notable achievements in a variety of fields and disciplines. Eighty-four members of the UMaine faculty participated in this event designed to recognize the breadth and depth of their accomplishments since 2011.

- Ivan Fernandez, professor in the School of Forest Resources and the Climate Change Institute and University of Maine doctoral degree recipient, was appointed to the U.S. Environmental Protection Agency's Science Advisory Board's (SAB) Clear Air Scientific Advisory Committee (CASAC) in Washington DC. He will serve on the Secondary National Ambient Air Quality Standards (NAAQS) Review Panel for Oxides of Nitrogen

(NOx) and Sulfur (SOx). The Panel provides independent advice to EPA. Fernandez has served on various panels of the EPA SAB since 2000.

*Graduate School*

- Due to one realized, and one projected, retirement of graduate school staff, a comprehensive review of the office staff tasks and their temporal distribution was undertaken. A more efficient staffing structure has been implemented with improved equity of workload distribution and increased cross-training.

- The Maine Business School is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB-International) and has been since 1974. Less than 6 percent of business schools worldwide have earned this distinction.

- The University of Maine's College of Education and Human Development is ranked 73rd in the nation for all Education Schools in 2015 by *U.S. News and World Report*. With more than 40 graduate degree programs and seven graduate certificate programs, the College of Education and Human Development offers professional development, and advanced education and training in a variety of modes. UMaine education graduate students choose from diverse course offerings and specializations in classes on campus and online.

a. Faculty Achievements (e.g., awards, recognitions, prestigious appointments etc.).
   - See Appendix E for a listing of FY 2015 Faculty Research awards granted from the VPR's office

b. Research and scholarship summary (e.g., publications, presentations, editorships, exhibits, etc.)
   - See Appendix F for highlights from the 15 designated research centers that report to the VPR

c. Curricular Innovations
   - The Graduate Board approved the following programs during AY 15: MS in Spatial Informatics

**vi. Student Engagement, Student Success**

a. Student research, scholarship or creative activities

A total of 3 graduate students are currently training as NSF graduate research fellows, and the Graduate School currently hosts 4 Fulbright awardees. Examples of graduate student research and scholarship are present in every edition of *UMaine Today*, as well as in the achievements of the students honored below. For example, Skylar Bayer (Waldron Fellowship) and Karen Stamieszkin (Eckardt Fellowship) are both former NSF Graduate Research Fellows with multiple publications. Siglinde Langholz (Chase Distinguished Research Assistantship) is a former Provost Fellowship awardee pursuing a Ph.D. in Intermedia, who has held 6 solo exhibitions and more than a dozen group exhibitions.

**a.** Student awards

The Graduate School selected winners in the annual awards competition:

- **5** Janet Waldron Doctoral Research Fellowships (formerly University of Maine Doctoral Research Fellowships) (3 new awards, 2 continuing awards)
- **4** Susan J. Hunter Teaching Fellowships
- **5** Michael J. Eckardt Dissertation Fellowships in MEIF Areas
- **10** Chase Distinguished Research Assistantships
- **18** Trustee Tuition Scholarships

- **2** Thurgood Marshall Tuition Scholarships
- **3** Atlantic Provinces Tuition Scholarships
- **6** Summer Writing Fellowships (stipend and office in Stodder)

The Graduate Student Government's GradExpo generated $11,680 in awards to graduate students. The Graduate School continued to sponsor its Graduate Deans' Mentoring Award as well as the annual student photo competition.

**b.** Student performance on national boards and exams

N/A (reported by home units)

**c.** Retention and graduation initiatives

The Graduate School maintains a "student-friendly", service-oriented "one-stop" office to help graduate students overcome any impediments to retention and graduation, including admissions, registration, billing, parking, housing and financial aid problems.

**d.** Degrees granted

Degree conferral data for AY 2014-15 underscores the drop in professionally-oriented master's degree program enrollment and also increasing enrollment in graduate certificate programs.

- 69 Doctorates (down from 77)
- 326 Masters (down from 401)
- 32 CAS (up from 25)
- 41 Graduate Certificates (up from 14)

**vii. Preserving-Restoring Infrastructure**

**a.** Renovation or construction projects completed

- **(ASCC)** Construction has continued on the $8 Million wind-wave marine simulation basin, called "$W^2$," and a $2 Million Advanced Automated Thermoplastics Manufacturing (AATM) Lab, initially starting in Spring of 2014. This expansion brings total Center laboratory size to 100,000 $ft^2$. The $W^2$ facility will be the only one of its kind in the world, equipped with a rotating open-jet wind tunnel over a wave basin, capable of testing ocean energy devices, ship structures, oil and gas structures, as well as the effects of coastal erosion and sea level rise. The AATM Lab's primary goal is to help industry address their current challenges of: realizing faster manufacturing cycle times, developing reliable and fast thermoplastic joining methods, transforming manufacturing methods to substitute high VOC thermosets with thermoplastics, and characterizing thermoplastic composites for desired performance and economical manufacturing.
- **(ARI)** ARI and SEANET moved to the Margaret Chase Smith Policy Center (May 2015).
- **(CRSF)** Howland Research Forest: A complete exchange of the primary field lab building which includes sample air plumbing, signal wiring and all AC electric supply to remote forested sites and towers; new field lab built off-site to occupy same footprint by local shed manufacturer. Building electrical (lights, outlets, etc.) wired by local electrician/inspector; all ground work, transportation performed by local contractors. Electrical high voltage hookup wiring (AC) and backup generator wiring performed by UMaine electrical shop.
- **(CCI)** Considerable renovation to Sawyer 2nd floor (refurbishing for the new Sawyer Water Research Lab (SWRL)) under the direction of J. Saros and parts of first floor.

**b.** Renovation/construction projects planned for coming year (i.e., vetted with Facilities Management)

- **(ASCC)** Construction will be completed in Fall of 2015 of the $W^2$ and Advanced Thermoplastic Composite Manufacturing Lab.
- **(ARI)** Renovations and upgrades at ARC will continue, as funding streams permit. These will be vetted and approved by Facilities Management before any work starts.
- **(CCIDS)** Continues to seek funding for basement renovations to create a *Living Lab* for research and development related to universal design/usability of products and educational materials.
- **(OVPRGS)** Renovations for Stodder Hall are being planned to accommodate new hires in the office.

**viii. Summary of anticipated challenges**

*Research*

There are a number of challenges facing the faculty in the coming year. The majority of the challenges require additional resources/funds. The most pressing include:

Facilities and Equipment

The research facilities and equipment that are necessary to conduct world-class research at UMaine is aging and becoming obsolete. Funds are needed for renovation of facilities to make research space functional and efficient. Equipment replacement and upgrades are critically needed in several research areas and centers. In addition, the colleges and departments have requested assistance with maintaining expensive equipment through service contracts that cannot be charged to grants, but should be covered by F&A charged to grants.

Student Support:

As federal research funding becomes increasingly scarce, this not only affects research directly but also impacts undergraduate and graduate student research opportunities. In particular, it is becoming more and more difficult to commit to supporting a doctoral student for 5-6 years. Support for both graduate and undergraduate students in research will become more critical in this and in subsequent years

Human Resources:

The decline in tenure track faculty numbers (through retirements, etc.) has greatly impacted the research and scholarship activity of UMaine. With fewer tenure track faculty members, proposal submission activity has declined over the past year. With a success rate now approaching an amazing 80%, by increasing the number of grant submissions the total number of grants awarded and funds captured should also increase.

As long-time members of research centers and departments move into administrative positions, the number of active researchers is declining, also adding to declining grant activity. Increasing the number of tenure track faculty and research faculty is critical.

Over the last decade Tenure Track (TT) Faculty FTE positions have decreased by a net of 85 positions (469 in 2005 to 384 in 2015). Despite the loss of TT faculty during this time period, UMaine increased overall external funding from $46.7M in FY05 to $51.1M in FY15, essentially "doing more with less." As TT FTE's continue to decline at the same time that federal funding competitiveness is at an all-time high, it is imperative that significant investments be made in TT faculty hires who are key to securing external funding and in replenishing the recent trend of large faculty retirement cohorts (See Appendix G for Grant productivity data of the retiring cohort of 2015).

Figure 3

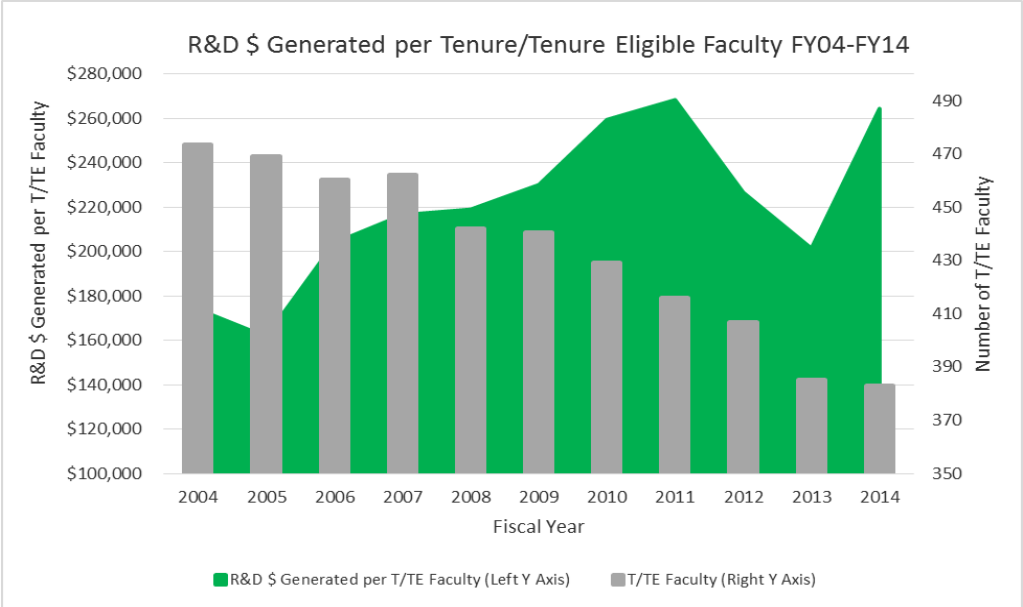


*Figure 3. Tenure/tenure eligible (T/TE) faculty member numbers have declined at UMaine for the decade spanning FY04-FY14. The graph above contrasts the number of T/TE members to the R & D dollars generated per T/TE member (calculated by dividing the total research expenditures by the total number of T/TE faculty members). For FY 2014 R & D dollars generated per faculty for T/TE faculty was $264,366.*

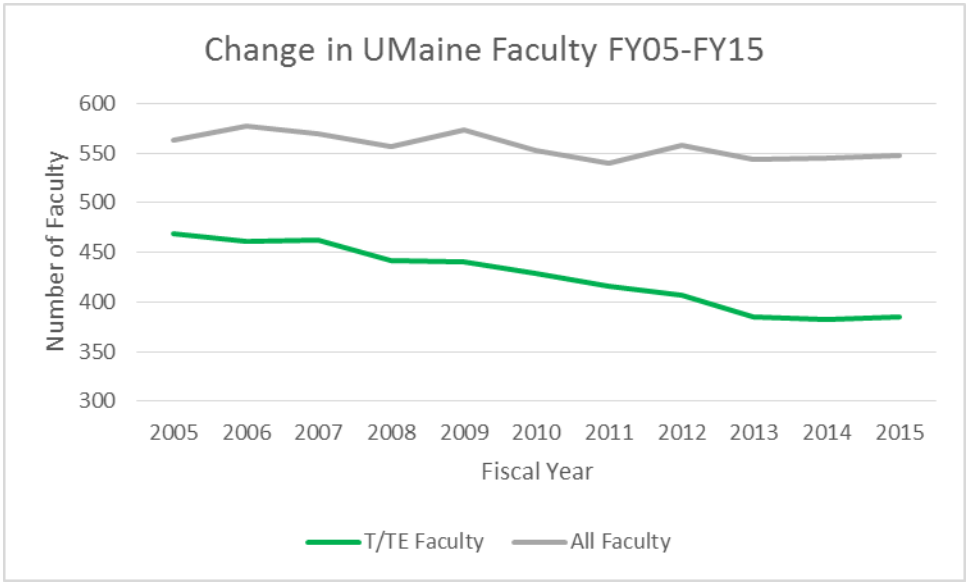


***Figure 4.*** *Total UMaine faculty and UMaine tenure/tenure eligible faculty, FY05-FY15. Although the "All Faculty" ranks remain fairly flat, the number of tenure track faculty has decreased by 19% over the last decade.*

*Graduate School*

Enrollment Management: UMaine's graduate stipends are still the lowest of all the New England land-grant universities, impacting programs' ability to attract its first tier graduate applicants. While an intense effort was conducted in AY 15 to direct market some of UMaine's professional graduate programs, responses from some of the applicants indicated that the high cost for nonresident tuition was a factor in their decision not to attend UMaine, suggesting that the University examine discounting graduate tuition or leveraging financial aid as is done currently at the undergraduate level. An Assistant Director of Graduate Enrollment Services (Jamie Ballinger) has been hired to spearhead graduate recruitment.

Operating Budget: Historically, the operating budget of the Graduate School has supported a comprehensive set of services and functions from processing of graduate applications to thesis review and degree audit. However, the primary responsibility for graduate student recruitment has traditionally rested with individual programs. In AY15, the University of Maine established a contract with Royall and Co. for direct marketing in targeted graduate programs with student capacity. While this campaign did not produce successful results in most of the targeted programs, the Graduate School did have some success in conducting similar recruitment campaigns. As a result, in AY16, the Graduate School hired a professional staff person to coordinate graduate student marketing and recruitment.Permanent resources for this position remain to be identified.

**ix. Summary of new initiatives**

See 2f, 2g, and 3c above.

Strategic Planning:

The Executive Committee of the University Research Council is undertaking a comprehensive strategic planning process. A draft strategic plan is nearing completion and will be broadly circulated for review and comment, prior to adoption, in Fall 2015

The Executive Committee of the Graduate Board is undertaking a comprehensive strategic planning process. A draft strategic plan is nearing completion and will be broadly circulated for review and comment, prior to adoption, in Fall 2015

***Future Goals for Research and the Graduate School***

- The Graduate School will work with academic units to develop 4+1 graduate programs to help increase enrollment
- Work with Enrollment Management to increase graduate student enrollment
- Continue to build the Aging Initiative across the UMS
- Evaluate UMaine's Carnegie status in research
- Increase the visibility of new and ongoing research at UMaine and the perceived value of post-baccalaureate education.

**x. Student learning outcomes (NEASC Forms E1A (all programs), E1B and S3 (all programs reporting to accreditation agencies and select programs whose graduates take licensure exams)**

N/A, will be submitted by units sponsoring courses.

**xi. Summary of Program Reviews**

N/A; GSBSE will have its first review next fall.

# Appendix A: TA Sharing Plan

Purpose: To pilot a process for sharing graduate student financial support between programs with high undergraduate teaching needs and programs that have the research capacity to enroll more graduate students, but limited E&G support for graduate students. In this first year, the Graduate School will pilot the sharing of 6 TAs (3 in Chemistry and 3 in Biology) which have been offered in the past on an *ad hoc* basis to meet increased undergraduate teaching needs and funded either through college resources or through resources provided centrally by the office of Academic Affairs. The Graduate School will provide tuition and insurance support for these one year positions to create an assistantship package comparable to the authorized positions held by the Graduate School.

Process: "Shared TAs" will be awarded through a process similar to other competitive Graduate School fellowships and assistantships. Specifically:

- Initial nominations are made by the Graduate Coordinator of individual units to the Graduate School. Nominated students may be new applicants or students in their first year of graduate study.

- The nomination materials shall consist of:
    - the resume of the student including academic transcripts
    - the resume of the advisor including funding, publication and graduate advising history
    - A statement from the potential research mentor regarding:
        - The research project that the student would be undertaking
        - The research duties expected of the student and associated weekly hours
        - The student's research qualifications
        - Why the student is particularly well suited to the research project
        - Means by which the student will be supported after TA support ends

- The Graduate School will perform an initial screening for competitiveness and completeness of the application and subsequently forward suitable nomination materials to the unit with the teaching obligation. Units with teaching obligations shall develop a brief description of the TA position including job duties and expected academic qualifications of the TA.

- The unit with the teaching obligation shall review all nominees and shall make a recommendation to the Graduate School regarding each nominee and the classes that s/he is qualified to teach.

- Nomination materials of qualified nominees shall be reviewed and assessed by the Executive Committee of the Graduate Board on the following criteria:
    - Academic qualifications of the student
    - Research qualifications of the faculty mentor
    - Capacity of the unit to support the student following the one year TA

Teaching assistantship awards will be made for the following academic year. TAs selected through this process will be obligated to fulfill all duties normally expected of TAs in the teaching unit.

Timeline:

Mid January: Awards Announcement
Early February: Nominations Due at the Graduate School
Early March: Decisions made

# Appendix B: Proposed Policy for the Return of Indirect Costs to Investigators, Research Centers/Institutes, and Academic Units at The University of Maine

February 25, 2015
(Proposed Amendments 7-31-2015)

**Background:**

Given the prospect of a policy that would return a fraction of the indirect costs (IDC) yielded from grants and contracts to the Investigators, Research Centers/Institutes, and Academic Units that generated the funds, the Vice President for Research assigned a task team to develop a potential policy for the effective and equitable distribution of these funds.

**Task Team Members:**
The task team consisted of leaders from Research Centers/Institutes, Academic Units, and the Office of Research and Sponsored Programs (ORSP):

| *Research Centers/Institutes:* | *Academic Units:* | *ORSP:* |
|---|---|---|
| • Bob Wagner (Director, Center for Research on Sustainable Forests) – *Task Team Chair* | • Fei Chai (Director, School of Marine Sciences) | • Mike Hastings (Director, ORSP) |
| • Len Kaye (Director, Center on Aging) | • Scott Johnson (Director, School of Earth and Climate Sciences) | |
| • Paul Mayewski (Director, Climate Change Institute) | • Jean MacRae (Department of Civil Engineering) | |

**Objective:**
The objective of the task team was:

> *To provide the Vice President for Research with a proposed plan for the proportional distribution of indirect costs (IDC) that may be returned to the investigators and units that generated the research funds.*

**Guiding Principles:**

The IDC Task Team agreed to develop a policy that:

- Maintained a harmonious and non-competitive relationship between Research Centers/Institutes and Academic Units;
- Distributed returned IDC to Investigators, Academic Units, and Research Centers/Institutes in proportions that fairly represented the contributions made by each to generate the funds and support research activities;
- Distributed returned IDC in a manner that would provide a meaningful level of support and enhancement of the university's overall research capability; and
- Did not address the IDC return policy for Investigators that are supported primarily by soft-money, as another university committee is addressing this issue.

**Proposed Policy:**

In developing a proposed IDC return policy, the task team recognized sponsored research at UMaine is conducted by faculty that may have appointments in either Academic Units, Research Centers/Institutes, or some combination of the two. The task team also recognized that it was important to return a meaningful portion of the IDC directly back to Investigators to help maintain and build on their successful research efforts.

In addition to Investigators receiving additional resources, it was deemed important to provide some fraction of returned IDC back to the facilities (e.g., specific laboratories or farms/forests that provided technicians, instruments, equipment, vehicles, logistics, etc.) to support research activities, as well as to those units that provide direct grant management support (e.g., purchasing, payroll, budget tracking, etc.) for specific research projects. It also was recognized that additional resources are needed by School Directors/Department Chairs to strengthen support for common-use research facilities, graduate students, research technicians, and other research support services needed to maintain and build the research capacity of their units. In the same way College Deans and Research Center/Institute Directors also need funds for research facilities support, faculty start-up requests, and to help facilitate research conducted by faculty who do not have ready access to external funds.

In considering the above principles, our task team proposes two IDC return policies depending on the total fraction of IDC that is returned by the university:

**If annual IDC collected is less than the current baseline ($8.3MM), a minimum of $500,000 of IDC received will be returned as follows:**

- 100% of the IDC returned will be distributed to Investigator(s) based on the percentage of Investigator responsibility for the project appearing in ORSP's Grants and Contracts Database (GCDB). (The GCDB initially reflects what was entered into PARS at the time the project was submitted. However, the percentage of investigator responsibility may be modified by the PI after the award is executed, if the amount awarded differs from the amount requested, or if project circumstances have changed since the proposal was submitted.)
- The amount of IDC returned to the Investigator will be determined by the amount of IDC received for the grant/contract from the previous year less any direct cost share contributed by the university.
- Investigators will be permitted to retain all funds, or are free to work with other Investigators, School Directors/Department Chairs, and/or Research Center Directors to decide how best to use the funds to enhance research productivity of the unit.
- The funds will be dispersed into an account that is controlled by the Investigator. The funds will be used to support research activities. Unspent balances in the account can be carried forward on an annual basis.

**If annual IDC received exceeds the current baseline ($8.3MM), 100% of all IDC received above this baseline will be returned and distributed as follows:**

- **10% to Office of Vice President for Research.**
- **90% to Investigators, School Directors/Department Chairs, Research Center Directors, and College Deans** in the following proportions based on the percentage of Investigator responsibility for the project that was entered into ORSP's GCDB at the time the project was submitted:

- **50% to Investigator(s)** based on the percentage of Investigator responsibility for the project entered into the GCDB.
- **10% to university research facilities** (i.e., specific laboratories or farms/forests that provide technicians, instruments, equipment, vehicles, logistics, etc.) supporting the research project. If the project does not involve a university research facility, this share goes to Investigator's School/Department or Research Center/Institute; or in equal shares to each if Investigator is affiliated with both.
- **10% to university unit providing grant management support** (e.g., purchasing, hiring, payroll, budget tracking, etc.) for the research project.
- **7% to Investigator's School/Department.** If Investigator is not affiliated with a School/Department, this share goes to Investigator's Research Center/Institute.
- **7% to Investigator's Research Center/Institute.** If Investigator is not affiliated with a Research Center/Institute, this share goes to Investigator's School/Department.
- **6% to Investigator's College.** If Investigator is not affiliated with a College, this share goes to Investigator's Research Center/Institute.

- Investigators will propose distribution of IDC to specific university units when a proposal is submitted to PARS. This proposed distribution may be adjusted by the PI on the GCDB if responsibility percentages change after the proposal is submitted.
- The amount of IDC returned to Investigators, Research Facilities, Grant Support Units, Research Centers/Institutes, and Academic Units will be determined by the amount of IDC received for the grant/contract from the previous year less any direct cost share contributed by the university.
- Investigators will be permitted to retain their portion of the funds, or are free to work with other Investigators, School Directors/Department Chairs and/or Research Center Directors to decide how best to use the funds to enhance research productivity of the unit.
- The funds will be dispersed into an account controlled by the Investigators, leaders of Research Facilities, leaders of Grant Support Units, School Directors/Department Chairs, Research Center/Institute Directors, and Deans. The funds will be used to support research activities. Unspent balances in the account can be carried forward on an annual basis.

# Appendix C: Shared Technician Committee

04/25/2015

To: Carol Kim, Vice President for Research and Dean of the Graduate School
From: David Neivandt, Chair of the ad-hoc Shared Technician Committee
RE: Analysis of, and Recommendations regarding, Potential Shared Technician Models

Dear Carol,

As per your request I convened a committee tasked with evaluating potential advantages and disadvantages of technicians shared across research units/departments for the training, use, maintenance, and leveraging of research facilities and equipment.

The committee was comprised of:

David J. Neivandt (Chair)
Alyssa Anaya
John Belding
Justin Crouse
Russell Edgar
Jacquelyn Gill
Andrea Mauery
Morris Lee
Seth Tyler

The committee evaluated the current model/s of technician use on campus, and developed three potential additional models. For each model the committee created a list of pros and cons. On balance the committee unanimously recommends the fourth model in the attached report. In summary, the model calls for a pool of centrally supported technicians who may be wholly in the pool, or who may have a portion of their time in a home unit, and a portion in the pool. Very highly specialized technicians would likely not be in the pool. The skills sets of the technicians in the pool would be carefully selected and managed to match campus needs (in terms of skills and quantity of work). A list of potential skill sets is provided. Technicians would be called upon by a unit/faculty member for a specific task, the duration of which could vary considerably. The unit/faculty member would be billed for the hours at a rate set to cover the technician salary, fringe, and to account for unbillable hours. A small additional charge would be levied to create a pool of funds for leave time etc. (the source of these funds would have to be non-grant derived). The pool would have a career ladder (perhaps three levels), rates charged to users would vary by the technician level required for the task. Any downtime of technicians could be used for cross-training within the pool or third party training, informed by the expressed needs of faculty and research units. A database of skill sets and certifications/trainings would be developed. Performance feedback would be required upon completion of each job. The pool would require central administration and management. The objective would be to make the entire pool (technicians and management) cost neutral; rates and skill sets would be adjusted iteratively to achieve this. Care would be required to ensure that the cost is kept reasonable.

The proposed model has many potential advantages, perhaps the greatest two are ready access of faculty and staff to a wide array of skilled technicians enabling rapid start-up of new projects or new research directions, and separately, greater job security for the technicians. There are however several potential concerns with the model, most notably that if not well implemented and managed a large financial obligation could result, hence the model carries some risk.

The committee is very enthusiastic with regard to the concept of a shared pool of technicians and sees great benefits to the University of Maine if such a model were implemented.

Regards
David Neivandt for the Shared Technician Committee

Report Regarding Potential Advantages and Disadvantages of Technicians Shared Across Research Units/Departments for the Training, Use, Maintenance, and Leveraging of Research Facilities and Equipment

Charge of the Committee and Initial Observations:

- For large centers there is a need for technicians, but with stop start funding makes it very challenging
- Can we create a pool of technicians that could be deployed as necessary where there are funds and needs?
- Are there common skill sets that could be used?
- Three models are envisaged: ad-hoc employee pool, a pool of technicians supported by soft money, a pool of technicians supported centrally
- The committee will develop the various models and list pros and cons for each
- The committee will make a recommendation to VPR Kim

**Model 1. Existing: Laboratory/Center Centric Technicians**

Description:

- Technicians have a home in a given laboratory or center
- Funding is largely through the laboratory or center
- Mix of E&G and soft money
- Work assignments are at the behest of the laboratory or center
- Job descriptions are fairly constant within a laboratory or center as is compensation, differences may exist across campus

Cons:

- Constant stress on the laboratory or center to fund the technician
- Potential for layoffs
- Less job security
- Skills not readily available outside of the laboratory or center
- Potential for unused/not fully utilized time
- Potential for unused/not fully utilized equipment and skills of the technician
- The technicians skill set is known only locally and not broadly

Pros:

- The laboratory or center has full control
- Availability of the technician
- Ability to be creative in funding sources
- Job description and remuneration, hourly vs salary is currently well defined
- Clarity of responsibility and accountability

**Model 2. Ad-Hoc Technicians as per the Advanced Manufacturing Center's Model**

Description:

- AMC is largely fee for service
- Has a pool (2) of engineering technicians and brings them in as temporary employees on an as-needed basis for project work
- Paid by the project
- Use a database system for billing through DIC
- The needs are often design (CAD), also some project management

Cons:

- AMC can have very short deadlines, e.g. a week, so timing can be issue
- Availability of the technicians due to other commitments/employment
- Payroll timing can result in delays in payments to the employees
- ORSP routed projects are much more challenging to set up than DIC
- Future could be challenging due to rules about length of hiring temps and also rehiring the same person
- Affordable Care Act may bring additional complications
- If the technician does not have the full skill set required to achieve the project goals then this can be a problem

Pros:

- Very flexible
- Salary negotiated on an individual basis, can also be on a project specific basis

**Model 3: Pool of Technicians Supported by Soft Money**

Description:

- A pool of a given number of technicians
- The pool would not be for all technicians but a subset of units that volunteer them for some portion of their time, or are hired specifically. This leaves specialists in their current positions
- Diversity in the skill sets
- Called upon for specific duties of varying duration
- Unit with the need billed for the hours
- Could be cross-trained to give redundancies in the pool
- May help to identify required skill sets in order to populate the pool
- Database of skill sets and certifications/training would be useful
- Require performance feedback centrally after each project
- Would require central administration
- Time card monitoring would be essential

Cons:

- Could be large salary and benefits issues as if there isn't contract work then the employee would receive only a fraction of their salary and hence reduced benefits. This may be somewhat alleviated by good central scheduling

- May require a unified career ladder within the pool, which could raise salary equity issues and hence expenses
- Researchers may lose flexibility in scheduling, particularly if they like a specific highly trained individual
- Consistency in work performance when multiple technicians are performing work for a given PI/employer
- Loss of potential additional compensation for the technician

Pros:

- Succession planning could be greatly improved by cross-training within the pool
- Lessens burden and stress on individual units to fully pay for technicians
- Eases time management issues for technicians and will lead to better utilization
- More attractive when recruiting technicians as not e.g. 20 hours/week but 40 hours/week.
- Enhances job security for the technician

**Model 4: Pool of Technicians Supported Centrally**

Description:

- A pool of a given number of technicians
- The pool would not be for all technicians but a subset of units that volunteer them for some portion of their time, or are hired specifically. This leaves specialists in their current positions
- Diversity in the skill sets
- Called upon for specific duties of varying duration
- Unit with the need billed for the hours plus fringe and a charge for unbillable hours
- May have a career ladder within the pool (say level 1, 2 and 3). Rates would vary depending on which level the technician used is
- Could utilize a level 2 or 3 for a level 1 job but the rate charged would be level 1
- Have a small additional charge (for flexibility) that goes into an account to pay for payout of leave time etc. The source of these funds may have to be non-grant derived.
- Could be cross-trained to give redundancies in the pool
- Downtime (hopefully minimal) could be used for training to advance the skills of those within the pool
- Will have to identify the required skill sets in order to populate the pool
- Database of skill sets and certifications/training
- Require performance feedback centrally after each project
- Would require central administration/management
- Goal is to fully recover costs. Rates would be adjusted iteratively with full cost-recovery being the objective
- Care would have to be taken to ensure that it remains affordable or the pool would collapse

Cons:

- If a level 3 technician can perform level 1 work and the unit is charged the level 1 rate, then there is an inequity in what two technicians may be paid for the same work
- If not well managed, or if the need is not as high as anticipated, the pool could collapse and leave a large financial obligation

- Higher fixed cost of implementation and higher risk
- Loss of potential additional compensation for the technician

Pros:

- From a faculty perspective gives ready access to highly trained technicians which could get new projects etc. moving very rapidly. This may be particularly important for junior faculty
- Could be a great recruitment tool for new faculty
- Excellent way to pool the universities collective expertise for broader utilization
- Could potentially hire technicians out to industry on a contract basis (at a higher rate)
- Technicians would bring an external perspective to the location they are working in-which could provide more consistency in e.g. compliance
- Centralized source for training e.g. by SEM
- Fits well with the UMS concept of shared resources
- Enhance job security for the technician

Potential Skill Set of the Technician Pool (note technicians may not work on physical facilities and infrastructure)

- Fork Lift Operation
- Crane Operation
- CAD
- Prototyping
- Electrical
- Mechanical
- Welding (MIG, TIG, Stick)
- Machining
- Carpentry
- Cell Culture/Microbiology
- Microscopy
- Spectroscopy
- Analytical Instrumentation
- Chemical and Biological Safety and Compliance
- Mechanical Testing
- Materials Testing
- General Laboratory
- Field Work
- Ionizing and Non-Ionizing Radiation
- Data Acquisition
- Event Organization
- Photography and Design
- Web Design

Observations Regarding the Advanced Structures and Composites Center Technician Database

Tom Drake of ASCC reviewed the online ASCC Database for Training, Users.

- Can create new training types
- Does not auto-populate with new employees, requires manual entry
- Anybody can search by training e.g. who is qualified to run a forklift
- Does not yet automatically notify users of expiration dates-that is the next step
- Is a standalone database

Also discussed Tom's and other IT technicians experiences with split appointments between centers/units and system IT. Would definitely benefit from use of a database similar to that described above-but also needs a manager. At the moment time is self-managed-this does not scale well. Could work if the basis was task specific-but not blanket time.

# Appendix D: Research Faculty at the University of Maine

## Objective

*To provide Vice President for Research Carol Kim and Associate Vice President for Research David Neivandt a plan for incentivizing existing, and increasing the number of, Research Faculty while creating and maintaining an equitable position for Research Faculty relative to their Tenure Track counterparts.*

## Task Team Members

Laurie Connell, Research Professor, School of Marine Sciences
Janet Fairman, Associate Research Professor, College of Education and Human Development
Ivan Fernandez, Professor, School of Forest Resources, Climate Change Institute
Doug Gardner, Professor, School of Forest Resources, Advanced Structures and Composites Center, Forest Bioproducts Research Institute
Scott Johnson, Professor, Director, School of Earth and Climate Sciences
Andrei Kurbatov, Associate Research Professor, Climate Change Institute
Paul Mayewski (chair), Director, Climate Change Institute, Professor, School of Earth and Climate Sciences, School of Marine Sciences, School of Policy and International Affairs
Rob Meulenberg, Associate Professor, Department of Physics, LASST
Harlan Onsrud, Professor, School of Computing and Information Sciences
David Townsend, Professor, School of Marine Sciences
Carl Tripp, Director, LAAST, Professor Department of Chemistry
Aaron Weiskittel, Associate Professor, School of Forest Resources

## Background

**Research Faculty have contributed significantly to the mission of the University of Maine** through: highly focused intellectual contributions in a broad range of disciplines, units and industry segments; support for undergraduate and graduate students, post doctoral fellows, technicians, and faculty associates; experiential offerings and mentoring of undergraduate and graduate students, post doctoral fellows, and technicians; academic course and apprenticeship offerings; and extramural funding for the purchase of state-of-the-art and core equipment and facilities.

**Research Faculty appointments do not carry tenure but they do carry obligations** to associated students, staff and faculty as well as to securing their own salary. Some Research Faculty raise 100% of their salary and others have some portion covered on a year-to-year basis by University funds in exchange for services rendered in the form of research grant development, teaching/advising, maintenance of critical research programs and facilities, specialized expertise in the form of software and equipment development, intellectual property development, and in other activities in service to the University of Maine and its mission.

**Continued growth in Research Faculty numbers at the University of Maine offers significant potential for enhancing future research support** in the form of extramurally procured salaries, equipment, operating costs, travel, and indirect return to the University. Research Faculty offer multi-faceted opportunities for significantly enhancing the University of Maine's national research standing and the intellectual enterprise of the institution. As of the writing of this report the University of Maine is home to 28 Research Faculty, on average over the last five years, or 5% of the University of Maine's full time faculty.

**Research Faculty bring significant funding to the University of Maine with a high return on investment.** Between 2009 and 2015 Research Faculty were involved in attracting $45,706,585 in direct funds and $8,813,838 in indirect. This means that the 5% of all faculty, who are Research Faculty, are involved in raising close to 13% of the total of all research funds awarded to the University of Maine.

**Research Faculty involvement in University of Maine research is limited thus far to several units and relatively few per unit offering considerable margin for expansion.** Units currently housing Research Faculty are: Advanced Structures and Composites Center, Center for Community Inclusion, Center for Research and Evaluation, Climate Change Institute, Education, Margaret Chase Smith Center, Mechanical Engineering, Mitchell Sustainability Solutions Center, Molecular and Biomedical Science Center, School of Forest Resources, School of Food and Agriculture, Psychology, School of Earth and Climate Sciences, School of Marine Sciences, and Wildlife, Fisheries, and Conservation Biology.

**Future growth in Research Faculty is intended to benefit many units on campus.**

## Proposed Policy

To provide an equitable and incentivized environment for Research Faculty at the University of
Maine, it is suggested that all have:

- 9-month salaries compatible with Tenure Track Faculty at equivalent rank and seniority. This allows them to attract an additional 3 months of summer salary per year equivalent to Tenure Track Faculty.
- Compensation for teaching to be determined by individual research/academic units.
- For Research Faculty who are 100% soft money (no funds provided by the University for salary) 25% of the individual's component of indirect costs recovered from grants will go to the Research Faculty to use at their discretion for their research (e.g., Research Faculty salary, graduate students, post doctoral fellows, equipment). Indirect return to be calculated annually following first year overhead recovery by the University. Maximum indirect return $100,000 per year. Research Faculty would be required to identify their option to receive this indirect return when submitting grants through OSRP.

- Research faculty receiving a portion of their salary from University funds will receive indirect return in a split form. They will be treated as Research Faculty equivalent to the % of soft money they raise for their salary. For the remaining % of their 9-month appointment Research Faculty indirect return will be according to the indirect return policy proposed for Tenure Track Faculty by the VPR charged Indirect Return Committee.
- While there appear to be no University policies that explicitly define the role of Research Faculty there are requirements for reviewing these faculty. Research Faculty should be primarily judged on the success of their research programs. Additional reviewing credit should be considered for teaching, mentoring and service.
- Emeritus Professors should be treated as Research Faculty for purposes of indirect return in so far as they receive no salary commitment from the University.
- Overhead return funds should be allowed to roll over as a guarantee for the Research Faculty member's future salary and research program.
- Return on overhead should come from the University account that holds the indirect.
- This policy should be reviewed every four years.

**Statistics for Other Institutions**

Although only a partial sampling, the table below offers some examples of % research faculty and IDC return for peer institutions (University of Idaho, Montana State University, North Dakota State University, University of South Dakota), near peer institutions (University of Rhode Island, University of New Hampshire, University of Connecticut), and aspirational peer model institutions (University of Washington, Oregon State University).

| Institution | # Non-tenure track research faculty | % of total faculty | IDC % Return |
|---|---|---|---|
| The University of Idaho | 25 | 3.29 | |
| Montana State University | 48 | 8.10 | 0 |
| North Dakota State University | 16 | | |
| The University of Rhode Island | 22 | 3.20 | |
| The University of South Dakota | 2 | 0.44 | 11 |
| University of New Hampshire | 68 | 7.20 | 10 |
| University of Connecticut | 34 | 2.19 | 10 |
| University of Washington | 2001 | 49% | 35 |
| Oregon State | 166 | 12.90 | 26 |
| University of Maine | 28 | 5.00 | |

Number of non-tenure track faculty and percent research faculty out of total number of faculty for the University of Maine compared to peer and near peer institutions is fairly similar.

It is noteworthy that the University of Washington and Oregon State University, which could be considered to be aspirational modes for the University of Maine, have almost 50% and 13%, respectively of their faculty as research faculty and a 35% and 26%, respectively, IDC return.

We suggest, that while it is not appropriate to assume that the University of Maine seeks to have 50% research faculty, it is reasonable to assume the University of Maine strives to advance as a research institution by increasing to significantly more than 5%. Furthermore, the IDC return of 40% suggested by this committee would create a highly competitive situation for attracting research faculty to the University of Maine.

# Appendix E: VPR FY 2015 Faculty Research Awards

| | | |
|---|---|---|
| **Regular Faculty Research Competition FY15** | The Last Glaciation of the Scotland: Implications for our understanding of Abrupt Climate Change | Bromley, Gordon |
| | Experiences of Older Lesbians with Home Care | Butler, Sandra |
| | The Marks of his Race: Anti-Semitism, Assimilation and Assistance in the Career of Émigré Scholar Paul Lazarsfeld | Fried, Amy |
| | Developing a DNA Barcoding Approach to Address a Nationwide Research Challenge: Species Identification of Dragonfly Larvae | Nelson, Sarah |
| **Scholarly Materials and Equipment Competition FY15** | A High Power Objective and Digital Camera for an Inverted Microscope | Saros, Jasmine |
| | Powerlab Data Acquisition System with Accessories, and a Fisher Scientific Refrigerated/Heated Bath Circulator | Wahle, Richard |
| **Summer Faculty Research Competition FY15** | Perceived Work Experiences of Chief Nursing Officers: A Phenomenological Inquiry | Ingwell-Spolan, Charlene |
| | Research for Minerva Novels and Romantic Anxiety: Rethinking Authorial Community in the British Romantic Period | Neimann, Elizabeth |
| | Student Nurses' Perceptions of their Cognitive and Affective Learning Needs of End of Life Care: A Focus Group Exploration | Poirier, Patricia |
| | Changing Aesthetic, Changing Politics. Quebec's Counterculture 1965-1975 | Rondeau, Frederic |
| | Writing the City: Peruvian Poetry of the Seventies and Social Change | Villacorta, Carlos |
| | Aeronautics, Itinerancy and the Many Networks of Rufus Porter | Wolff, Justin |
| **Aging Research and Technologies Seed Grant FY15** | Development and Assessment of Solid Nutrition Food Supplements for Frail Older Adults with Poor Appetites | Camire, Mary Ellen<br>Kaye, Lenard |
| | Development of a Fast, Accurate, Low-Cost, Easy-to-Use Complete Blood Count (CBC) Technology for at Home Health Monitoring | Xue, Qian<br>Smith, Rosemary |
| | Development of Non-Stigmatizing Hip Protection for Prevention of Fall Related Injuries | Caccese, Vincent<br>Depoy, Elizabeth<br>Gilson, Stephan |
| | Evaluating Neuromelanin's Role in Neurodegenerative Disorders Using Synthetic Fragments | Brichacek, Matthew |
| | Improving Navigation and Independence in Older Adults Using Compensatory Augmentations | Giudice, Nicholas<br>Corey, Richard |
| | Indoor Multi-input Navigation for the Aging Population Using a Hybrid Wireless System | Abedi, Ali<br>Giudice, Nicholas<br>Corey, Richard |
| | Modular Mobility Assistive Support System (MASS) | Depoy, Elizabeth<br>Caccese, Vincent<br>Gilson, Stephen |
| | Pilot Research Assessing the Value and Experience of Older Adults in the Labor Force | Kaye, Lenard<br>Barkan, Steven<br>Bell, Kathleen<br>Blackstone, Amy |
| | Sleep Movement Monitoring as an Indicator for Cognitive Deterioration in Aging Population | Hayes, Marie<br>Abedi, Ali |
| | Synthesis and Characterization of Catheter Surface Coatings to Prevent Catheter Associated Infections in the Elderly | Millard, Paul<br>Gramlich, William |
| | Water Purification System for Point of Use in Residential Care Facilities for Older Adults | Tripp, Carl<br>Amirbrahman, Aria<br>Kaye, Lenard |

# Appendix F: Research Center Highlights

**Research Centers**

The VPR oversees 15 University Research Centers at the University of Maine. Research center directors meet with the VPR monthly during the academic year to discuss concerns, identify areas of collaboration, and enhance the visibility of the centers.

**Aquaculture Research Institute**

The 2014 academic year was recorded setting for the *Aquaculture Research Institute (ARI)* in many ways. ARI engaged more interns, more K-12 students, and in more community events in 2014 than in any previous year. The impact of ARI was broad reaching. Having been awarded a $20 million NSF EPSCoR grant, the ARI collaborated with a multitude of institutions, research disciplines and stakeholders. ARI distinguished itself within the industry through participation in economic impact analysis, the hosting of international conferences, and participation in the *Aquaculture R&D Forum*. Further, the ARI established a vision for the future beyond 2014 with the approval of a *Strategic Plan*.

**Center on Aging**

The *Center on Aging (COA)* had a productive year making strides in collaborative research, education and community outreach. This year, COA advanced its *Successful Aging for Independent Living (SAIL)* Project engaging approximately 100 faculty and researchers from some 25 schools. The COA deepened its community impact by taking on the Senior Companion Program (SCP) and by hosting the 10th annual *University of Maine Clinical Geriatrics Colloquium*. The COA advanced research in the important and emerging field of aging in place through the second year of an NIH/NIA research program and collaborative research within the MOTIVATE initiative.

**Center for Community Inclusion and Disability Studies**

2014 represented the *Center for Community Inclusion and Disability Studies' (CCIDS)* 22nd consecutive year of competitive, federal funding. The impact of CCIDS was most directly felt by the University's faculty and students themselves. The CCIDS funded graduate students, provided support for interdisciplinary faculty research, and enrolled graduate and undergraduate students across disciplines. In the broader community, the CCIDS provided consultations, technical assistance, and professional development opportunities. Academically, the CCIDS contributed to community engagement, early care, education, and aging research.

**Senator George J. Mitchell Center for Sustainability Solutions**

The primary focus of the *Senator J. Mitchell Center for Sustainability Solutions (SMCSS)* was the publication of sustainable science research. The Mitchell Center's researchers produced innovative work that was shared through publication in various, leading scientific and professional journals. In 2014, the Mitchell Center had a hand in the development of $36 million worth of research proposals that bridge disciplines. Further, the Mitchell Center is proud to have helped in the development of new professionals, awarding six doctoral degrees this year.

**National Center for Geographic Information Analysis**

This year, the *National Center for Geographic Information (NCGIA)* was a consistent collaborator on numerous cross-disciplinary research proposals. In total, the NCGIA contributed to proposals totaling over $5 million. The NCGIA is proud to have led the effort in earning the University a *National Geospatial Intelligence Agency and US Geological Survey Center Excellence in Geospatial Science* designation. The NCGIA continues to collaborate with institutions worldwide through reunions, science

festivals, and consortiums. Additionally, the NCGIA awarded its 50th doctoral degree in the spring of 2015.

**Maine Sea Grant**
The *Maine Sea Grant College Program (MSGCP)* had academic, economic and community impacts in 2014. MSGCP faculty are leading the way in helping Maine gain a foothold in an $8 billion industry by bringing research, expertise, education and technology to Maine businesses. Support from the MSGCP directly contributed to the establishment of six new, Maine sea farms and has greatly expanded the variety of new products that farmers can bring to market. The MSGCP is proud to have deepened its community presence by supporting the first *Maine Seaweed Festival*.

**Center for Research on Sustainable Forests**
This year the *Center for Research for Sustainable Forests (CRSF)* demonstrated economic potential by returning $51.40 for every $1.00 provided by the *Maine Economic Improvement Fund (MEIF)*. The CRSF engaged stakeholders as well as forestry related associations and organizations through a range of research projects. The CRSF received two new grants supporting the *Howland Research Forest*, and CRSF researchers contributed to a larger conversation ion sustainability by publishing journals, book chapters, reports, and periodicals. Further, the CRSF was active in the community through leading presentations, tours, meetings, and workshops.

***Margaret Chase Smith Center for Public Policy*** *(MCSCPP)* experienced substantial growth and demonstrated a deep impact over the 2014-2015 academic year. The Policy Center underwent significant organizational development, gained new affiliations, increased readership of the *Maine Policy Review*, and became co-lead on an NSF EPSCoR SEANET grant. MCSCPP directly supported and engaged UMaine and non-UMaine graduate and undergraduate students. The Policy Center sponsored Maine Fellows, welcomed the *Faculty Fellows Program* into the Center and is proud to have hosted Senator Susan Collins for the *Senator Margaret Chase Smith Lecture on Public Affairs*.

**Laboratory for Surface and Science Technology**
The *Laboratory for Surface Science and Technology* (LASST) moved forward, continuing with work on almost $10 million in projects this year. Additionally, LASST added over $500,000 in new projects to that total. LASST contributed the advancement of their academic mission by awarding seven advanced degrees to students and producing 68 professional publications and presentations.

**Advanced Materials for Infrastructure and Energy**
The *Advanced Materials for Infrastructure and Energy* (AMIE) demonstrated a lasting economic, educational and environmental impact in 2014-2015. Students and faculty from the AMIE engaged the federal government and industry with a number of research contracts, totaling almost $6 million. The AMIE made significant contributions to environmental sustainability through offshore wind turbine projects and saved American lives with a *Modular Ballistic Protection System* (MBPS) project. The AMIE's *Bridge-in-a-Backpack* design has been approved and will lower construction costs, and the AMIE demonstrates continual technical excellence through an ongoing, working relationship with NASA. Additionally, the AMIE contributed to the advancement of engineering education and research through the production of many professional publications.

**Center for Undergraduate Research**
In 2014, the *Center for Undergraduate Research* (CUGR) has continued to grow. Following the pattern of expansion that began during the Center's foundational year, CUGR saw 53% growth this year. This year was the Center's largest annual showcase ever, with 229 student participants and 73 faculty. The showcase was highly regarded by surveyed constituents.

**Institute for Molecular Biophysics**
The faculty at the *Institute for Molecular Biophysics* (IMB) distinguished themselves in 2014 by producing work for prestigious journals, books, and international, national and regional conferences. Cutting-edge IMB work includes work on a microfabricated, mechanical algae lysing device, regulation of C. albicans cell wall architecture, and the development of *in vivo* FPALM using a low-pigment strain of zebrafish. IMB directly contributed to $2.3 million in extramural funding with an eye toward a possible, additional $7 million in the future. IMB moved forward with its educational mission by supporting many postdoctoral, graduate, and undergraduate students.

**Forest Bioproducts Research Institute**
This year, the *Forest Bioproducts Research Institute* (FBRI) built on its track record of serving wood producers and users by expanding to incorporate additional biomass sources such as seaweed growers and MSW processors. FBRI secured over $3.5 million in extramural funds by engaging federal and corporate partners the results of which directly led to new, productions jobs. FBRI's *Process Development Center* continued to be utilized by industry worldwide, and FBRI received three patents this year. FBRI advanced research into wood-delivered-sugars, the application of cellulose nanofibers, and wood to jet fuel conversions. FBRI advanced its educational mission with a major RUE that brought undergraduates from as far away as Puerto Rico to UMaine.

**Maine Center for Research in STEM Education (RiSE Center)**
RiSE Center faculty, staff, and students are comprised of 28 active Master of Science in Teaching students, 5 undergraduate summer research assistants, three postdoctoral research and teaching associates, ten professional staff, two part -time classified staff, and sixteen faculty. RiSE Center faculty published 21 peer reviewed STEM & STEM Education research journal articles in 2014-15, with another 11 accepted for publication. In 2014-15 the RiSE Center's *Faculty Course Modification Incentive Grant* and *Maine Learning Assistant Program* (FIG-MLA) supported 23 STEM faculty teaching 17 modified STEM courses across 10 departments, supported by 79 highly qualified STEM undergraduate learning assistants. RiSE Center *STEM TA Professional Development* program provided targeted professional development to 92 STEM graduate students from 22 departments. RiSE Center K-12 Initiatives (the *MainePSP* and *MaineESP*) provided high-quality professional development and research-based instructional materials to more than 1,048 classroom science teachers, reaching more than 19,000 Maine students in grades K-9 and building a vertically-aligned professional community for K-16+ science educators.

# Appendix G: Grant Productivity Data for Retiring Cohort (2015)

| Person | # Awards Participated In | Value of Awards Participated In | # awards based on % responsibility | Value of Awards based on % responsibility | # of awards received as PI | Value of awards received as PI |
|---|---|---|---|---|---|---|
| Anderson, Mark W. | 4 | $8,018,445 | 2.1 | $218,445 | 2 | $18,445 |
| Babkirk, Douglas G. | 6 | $91,755 | 6.0 | $91,755 | 6 | $91,755 |
| Bird, Douglas W. | 4 | $430,950 | 1.5 | $141,725 | 2 | $135,950 |
| Bushway, Rodney J. | 23 | $3,251,480 | 4.7 | $521,368 | 5 | $150,618 |
| Campbell, Christopher | 18 | $952,252 | 15.5 | $900,073 | 14 | $862,294 |
| Cheng, Hsiang-Tai | 4 | $469,416 | 1.1 | $121,849 | 0 | $0 |
| Congleton, William R. | 1 | $2,847 | 0.8 | $2,135 | 1 | $2,847 |
| Davenport, Alan W. | 1 | $2,350 | 1.0 | $2,350 | 1 | $2,350 |
| Dowse, Harold B. | 5 | $117,815 | 4.3 | $97,858 | 5 | $117,815 |
| Fort, Raymond C. | 16 | $14,059,805 | 2.4 | $918,765 | 3 | $288,469 |
| Fortune, Aileen | 1 | $2,000 | 1.0 | $2,000 | 1 | $2,000 |
| Frankel, David J. | 10 | $2,600,837 | 3.8 | $686,898 | 2 | $57,600 |
| Gagne, Karen | 19 | $1,061,408 | 17.9 | $978,738 | 18 | $1,031,408 |
| Garthwait, Abigail | 5 | $46,133 | 5.0 | $46,133 | 5 | $46,133 |
| Genco, Joseph M. | 28 | $10,923,243 | 7.7 | $1,537,169 | 2 | $476,256 |
| Halteman, William A. | 3 | $577,224 | 0.6 | $103,027 | 0 | $0 |
| Hutchison, Keith W. | 20 | $4,232,696 | 11.5 | $2,365,438 | 15 | $3,858,001 |
| Incze, Lewis | 3 | $504,094 | 3.0 | $504,094 | 3 | $504,094 |
| Jumars, Peter A. | 28 | $9,390,885 | 19.5 | $3,409,750 | 20 | $3,063,060 |
| Kezis, Alan S. | 4 | $483,800 | 3.2 | $220,020 | 3 | $145,620 |
| Kimball, Alan J. | 2 | $262,368 | 1.1 | $26,893 | 1 | $14,500 |
| Kornfield, Irv | 29 | $3,099,279 | 19.4 | $1,126,051 | 16 | $635,583 |
| Latour, Laurence J. | 1 | $499,130 | 0.1 | $59,896 | 0 | $0 |
| Lux, Daniel R. | 3 | $567,028 | 1.3 | $163,278 | 1 | $92,028 |
| Megquier, David M. | 58 | $20,869,763 | 58.0 | $20,869,763 | 58 | $20,869,763 |
| Mountcastle, Donald. | 1 | $599,999 | 0.1 | $30,000 | 0 | $0 |
| Parks, Alan B. | 16 | $6,765,499 | 16.0 | $6,765,499 | 16 | $6,765,499 |
| Rosser, Mary | 5 | $582,838 | 5.0 | $582,838 | 5 | $582,838 |
| Schwintzer, Christa R. | 1 | $115,000 | 0.5 | $57,500 | 0 | $0 |
| Sigmon, Sandra T. | 18 | $665,512 | 18.0 | $665,512 | 18 | $665,512 |
| Wallace, Charles R. | 2 | $77,156 | 1.1 | $7,716 | 1 | $0 |
| Watt, Bruce | 22 | $381,842 | 22.0 | $381,842 | 22 | $381,842 |
| White, Alan S. | 11 | $432,854 | 7.7 | $284,130 | 8 | $361,710 |
| Wilson, James A. | 34 | $14,570,476 | 20.2 | $1,734,226 | 21 | $2,208,798 |
| Zeph, Lucille A. | 146 | $30,102,360 | 136.1 | $28,347,890 | 146 | $30,102,360 |
| **Totals** | **N/A** | **N/A** | **418.9** | **$73,972,622** | **421** | **$73,535,148** |