III. Research, Scholarship and Creativity

Working Group Report

June 2012
DARTMOUTH’S RESEARCH MISSION
Working Group on Research, Scholarship and Creativity

As part of the Strategic Planning process, the Research, Scholarship and Creativity (RSC) working group (WG) launched an intensive investigation of Dartmouth’s research profile and an extensive program of engaging colleagues and students across the institution to collect ideas and assessments regarding scholarly endeavors at Dartmouth. After analyzing trends in research, scholarship and creativity globally, making comparisons between Dartmouth and a broad set of peer institutions, and engaging over 150 faculty, staff and students from 40 departments and programs across the institution, our chief conclusion is that Dartmouth needs to secure its unique place among the world’s premier research universities.

EXECUTIVE SUMMARY

- Dartmouth should undertake a major effort to enhance the scale and global impact of its RSC. Aside from undergraduate teaching and Tuck, Dartmouth has no unambiguously top 10 department or program.
- Accomplishing this goal requires a reallocation of faculty work effort toward RSC, as well as enhanced RSC infrastructure.
- Reallocating faculty workload toward RSC while maintaining Dartmouth’s teaching excellence requires a massive infusion of resources, featuring a major increase in the size of the faculty and commensurate staff support without increasing the undergraduate student body.
- Reallocating faculty work effort without reducing total effort requires differentiation in the form of flexible incentives. While all Dartmouth faculty should be provided the opportunity to succeed at RSC at the standards of top research universities, the institution needs to have the flexibility to provide additional support to those who demonstrate exceptional promise or success.
- Reallocating workload in this manner requires enhanced institutional resources for assessing RSC at all levels. Dartmouth needs to innovate research vetting and evaluation, creating decision-making structures that meld administrative leadership, Dartmouth expertise, and unbiased outside expertise.
- Criteria for faculty promotion and tenure need to be adjusted upward in tandem with improved RSC infrastructure and increased resources.
- The experience of peer institutions validates two often complementary approaches to attaining these goals: (i) strengthening Departments that can articulate a vision of excellence and demonstrate sound decision making; and (ii) using Centers/Institutes to incubate and support interdisciplinary RSC, which would entail bolstering current Centers/Institutes and/or launching new Centers/Institutes.
- The WG strongly recommends that Dartmouth consider a third approach, which could be pursued in tandem with the traditional approaches: a new School of Advanced Studies (SAS), which could serve as the nexus of institutional RSC innovation. While new resources and practices need to be strategically allocated throughout the university’s existing structures, we believe that SAS could spearhead these new approaches, while signaling Dartmouth’s enhanced commitment to RSC, fostering interdisciplinary work, and addressing a set of core RSC challenges we face.
THE RESEARCH IMPERATIVE

Research, scholarship and creative endeavors have long been central to Dartmouth’s mission, but current trends place a much greater premium on RSC:

**Our faculty and staff are under intense pressure**, seeking to meet the institution’s expectations for advancing their scholarship in an increasingly competitive environment. Dartmouth asks faculty and staff to produce a leading undergraduate experience and maintain top-flight scholarship in the absence of adequate support and investment. Furthermore, the appropriate institutional incentives are currently lacking to support faculty excelling in scholarly activities. *Absent new investments in and incentives for RSC, Dartmouth will face increasing challenges retaining and recruiting the best faculty, students and staff.*

**Both the generation and transmission of knowledge are becoming much more internationalized**, highlighting the importance of a global reputation for recruiting the most promising students and best faculty. If not accompanied with the strongest profile for scholarship, the traditional aura of prestige from Dartmouth’s membership in the Ivy League may count for less in recruiting both students and faculty in the years ahead.

**Other institutions are investing in areas of Dartmouth’s traditional strengths**, simultaneously increasing their RSC profiles AND their attractiveness to the best undergraduate and graduate students. We currently lose students to peer institutions in part because of the intellectual excitement and promise generated by their RSC eminence. The list of institutions to which Dartmouth can lose prospective students and faculty is growing, and will continue to do so.

**RSC helps us attract the best faculty.** The best faculty candidates want to be teacher-scholars. They want to develop knowledge and disseminate it through their teaching, and to do so in an environment with adequate support for these endeavors.

**RSC is a prerequisite to good teaching.** The world is rapidly changing. Research keeps faculty current in this rapidly changing world, and thus contributes significantly to their teaching. Faculty can only deliver high quality content if they are actively involved in developing that content.

DARTMOUTH’S MODEL AND THE CHALLENGE IT FACES

Dartmouth aspires to be both the best undergraduate college in the world and a top, internationally recognized research university. *We have a unique, modern and international institution steeped in tradition, that combines the leading undergraduate College, Ph.D. programs in Science, Technology, Engineering and Mathematics (“STEM”) and faculty-driven research in the Arts, Humanities, Social Sciences, Health Care Science and Business Administration.*

To the world at large, however, Dartmouth still projects ambiguity concerning its commitment to RSC and the positive impact such activities have locally and globally, and on the undergraduate teaching mission. This disconnect between the institution’s strengths and its perception doubtless has many causes: poor efforts to communicate the accomplishments of our scholars, a bias against small scale in various rankings, the absence of Ph.D. graduate programs in the arts, humanities and social sciences, and the lack of investment in RSC compared to our peer institutions. But it also reflects the reality that aside from undergraduate teaching and Tuck, Dartmouth has no unambiguously top 10 department or program.
Compared to any reasonable selection of peers, our analysis indicates that Dartmouth lags in the following:

- Disproportionate expectations of teaching and service coupled with a relative lack of support to accomplish these goals.
- Investment in faculty hiring, development and retention.
- Investment in the staff needed to support faculty RSC and pedagogy.
- Commitment of institutional resources to launch new RSC initiatives, to support our current top-tier programs and to invest in RSC infrastructure, including lagging alumni support for such endeavors.
- Commitment of resources to graduate and postdoctoral training programs.
- Facilitating maximal RSC productivity, including support systems and appropriate incentives towards this end, and metrics to evaluate the effective use of resources.
- Defined cross-institutional governance structure dedicated to the support and promotion of RSC endeavors, with dedicated resources to support such goals.
- And finally, an unambiguously stated commitment by Dartmouth to its aspirations as a top research institution, including a forceful rejection of the false idea that we cannot be both the top ranked undergraduate institution AND a global leader in RSC. *Indeed, we argue that outstanding RSC is a pre-requisite to outstanding teaching.*

**Meeting the Challenge**

The history, current realities and expected trends of RSC and higher education suggest that fully realizing the Dartmouth model will require a substantial influx of new resources dedicated to the RSC endeavor. Engagement with our colleagues across the institution and our own analysis of peer institutions yields a set of basic principles for new investment:

- Dartmouth’s basic choice not to seek to mimic the sprawling “multiversity” of the mid-late 20th century remains valid.
- Dartmouth nevertheless cannot be a research institution of the first rank without improving its global standing in selected STEM areas, as well as associated graduate and postdoctoral programs.
- Areas within the social sciences, humanities and arts are also poised to enhance their global standing. The relative success of several RSC enterprises has occurred in the absence of Ph.D. programs. Strategic investment in new faculty, post-doctoral programs and in RSC infrastructure can dramatically enhance the RSC contributions of these departments, programs and groups.
- Resources should not be invested across the board but strategically in areas across the Arts and Sciences divisions and the professional schools showing the most potential. This investment should include strategic evaluation and development of new graduate programs for interested departments, divisions, and schools.
- Institutional mechanisms must be fashioned to measure success and revisit investment decisions accordingly.
- Investments cannot be wholly dictated by enrollment pressure, but must nonetheless be sensitive to the fact that heavy enrollments degrade both teaching and RSC productivity, particularly in departments without Ph.D. programs.
- Current impediments to RSC must be reduced/removed, and new systems established to recognize RSC excellence.
THE CAMPAIGN FOR RSC EXCELLENCE

Dartmouth needs to pursue two inter-related goals: increase the RSC productivity and impact of current faculty, and to substantially increase the size and overall quality of the faculty by hiring additional scholar-teachers. It is impossible to enhance RSC while simultaneously maintaining Dartmouth's standing as a top ranked College without major additions of outstanding scholar-teachers. It is impossible to hire and retain the highest quality faculty without creating a setting that better nurtures and rewards RSC excellence.

Dartmouth's aspirations must rest on firm foundations, and the Campaign for RSC Excellence would seek first and foremost to improve the existing research setting. Endowment declines, reductions in the rates at which endowments are spent, and growth in faculty relative to restricted endowments have all reduced per capita department research-Incentive funds dramatically. Our comparative analysis of peer institutions shows that Dartmouth faculty work with less support - administrative, technical, statistical, library, etc. - than colleagues at peer institutions. In many areas across the institution, teaching loads are out of line with peers. The cost of purchasing course relief is higher than most peers, and sabbatical policies are less flexible.

Core planks and central principles of this campaign should include:

- Increase the faculty without increasing the size of the undergraduate student body. Immediate efforts should include the hiring of faculty with highly productive, internationally recognized programs in RSC in the next 1-3 years – faculty who would generate new initiatives or grow current areas of strength, help recruit additional faculty and immediately raise the profile of our RSC enterprise.
- Structural changes that better align teaching loads, administrative support and RSC infrastructure with peer institutions. We need to develop a workload point system to better account for the real scale of faculty teaching and administrative responsibilities.
- Improved RSC investment in programs and infrastructure in key areas across the institution, including new initiatives with concomitant metrics to evaluate the success of these endeavors, the flexibility to invest and reinvest in our most outstanding programs and the ability to leverage new resources targeted at RSC through current and/or new Centers/Institutes.
- Incentives for RSC. Better mechanisms are sorely needed to facilitate and support research excellence, to develop a culture of rewarding RSC excellence and reduce/eliminate current institutional impediments to RSC.
- A commensurate increase in expectations of RSC productivity should follow increased investment, including but not limited to, a reconsideration of the criteria for faculty promotion and tenure.
- Dartmouth faces a critical need to establish a more salient and prominent global presence. This will require a multi-pronged strategy with an input of significant resources and effort. Such a strategic effort should be developed in close collaboration with the RSC, Global Dartmouth and Digital Dartmouth Working Groups. To better capture the existing reality of what this institution is and, even more, to signal our aspiration, Dartmouth should consider adding “University” to its name. Dartmouth College would continue to exist within Dartmouth University.
IMPLEMENTATION

In ascending degree of departure from the status quo, we see three approaches to implement the changes required to attain the goals outlined above.

1. BUILD DEPARTMENTS/PROGRAMS VIA CURRENT STRUCTURES

Traditional departments/programs can be strengthened by providing increased resources distributed via traditional structures (e.g., Provost/Deans). Resources should be distributed strategically to those department/programs that can articulate a vision for their future, develop an ambitious plan for increasing productivity with the additional resources, propose discipline-appropriate metrics to measure results garnered from these resources, and demonstrate the capacity to make sound collective decisions in promotion and recruitment. The continued distribution of new resources should be coupled to robust metrics of success.

2. CENTER/INSTITUTE-BASED STRATEGIES

Our research shows one effective strategy for boosting RSC within and across disciplines is the effective utilization of resources allocated to RSC-focused Centers or Institutes. These entities can provide a wide range of support, including pilot research funds, RSC fellowships, new faculty lines and an intellectual community of scholars that often generates new and productive collaborations. Administrative structures need to be developed to ensure the effective use of Center/Institute resources, as well as to regularly evaluate the continued allocation of resources to such Centers/Institutes. Overall, Centers and Institutes at Dartmouth play a far smaller role in RSC than is the case at peer institutions. We envision the possibility of increasing RSC-dedicated funding to current Centers/Institutes and/or the launching of new Center/Institute initiatives.

3. THE SCHOOL OF ADVANCED STUDIES

One charge for this working group demanded transformative ideas that would embrace the whole institution in a renewed commitment to RSC. The call was for lasting change, not a one-off infusion of resources; for a major statement, not “status quo plus”; to implement strategies that would grow RSC across the entire institution; and bolster both graduate programs and faculty-driven RSC enterprises. We also sought a coherent expression of our aspirations rather than a laundry list from which to choose line items for funding. Finally, there was the concern that significant changes to RSC expectations, metric-driven distribution of resources, re-evaluating RSC incentive strategies and re-evaluation of promotion metrics and criteria might not be attainable via current administrative structures and governance.

To meet all these goals, our WG recommends that Dartmouth consider the formation of a new school, the first in over 100 years. The School of Advanced Studies (SAS) would be the first-in-the-nation school focused broadly on advancing RSC for faculty, graduate students, post-doctoral fellows and undergraduates. Led by a new Dean reporting directly to the Provost, SAS’s remit would be to advance RSC at Dartmouth across all disciplines and all schools. It would invigorate the research environment at Dartmouth, spearhead better organized decision-making on RSC, help attract top talent to Dartmouth from all over the world, create more inclusive and enriching environment for graduate students and post-docs, and foster cross-disciplinary collaboration among faculty as well as undergraduate, graduate and post-doctoral students. We envision a new facility on central campus that would house SAS and its associated programs, as well as housing for visiting scholars and conference attendees, conference space, and common spaces.
SAS would comprise four linked Centers and Programs, all of which reflect ideas generated by our engagement with the Dartmouth community:

1. The Center for Research, Scholarship and Creativity would allocate resources and nurture RSC initiatives strategically. The Dean of SAS can nurture programs generated either through her or his own initiative (top-down) or through faculty proposals (bottom-up). It would implement a pilot fund to seed new projects at the $10-50K/yr level, including pilot funds targeted specifically at international collaborations, and funds for the purchase of large equipment purchases (up to $500K). Fewer but larger “Dartmouth RSC Clusters” in the range of $5-$50M should also be funded. New funds would complement current Center/Institute-based funding by: i) supporting projects not within the purview of current Centers/Institutes, ii) seeding new Center/Institute-type programs, and iii) addressing cross-campus initiatives. Processes to critically evaluate proposals by the appropriate experts need to be implemented, as would mechanisms to measure the success of such programs on which continued funding would be contingent. It would manage competitive funding to increase faculty research accounts across the institution. The Center would also develop, evaluate and evolve Research Support Centers/Institutes to support the RSC endeavors (e.g., Statistics Center, Physician-Scientist mentoring program, Conference support, Geographic Information Science Center, etc.).

2. The Office of Graduate and Post-Doctoral Studies would constitute Dartmouth’s novel model of scholar training. Its remit would be to develop an innovative graduate and post-doctoral experience across disciplines, and to provide a substantial increase in financial support for standing and new programs. Initiatives would include: an institution-wide competitive post-doctoral training program to recruit the most talented fellows from across the nation and the world; a Dartmouth Scholars Program for 1-3 extraordinarily talented recent Ph.D. graduates to come to Dartmouth with an independent position for 4 years; the development and funding of innovative new graduate programs (Ph.D. and Masters); a 5th year masters programs to allow undergraduates to stay on for a year dedicated to research. To assist in promoting our international RSC profile, funds should be included specifically for fellowships for international graduate students and post-docs, and new programs like a “Reverse Rassias” to teach new graduate students English skills the summer before they start their graduate work.

3. Summer Institutes in the Arts, Humanities and Social Sciences would position Dartmouth as the go-to institution for courses, meetings and workshops during the summer quarter. Such programs will bring students, faculty and other scholars to Dartmouth from across the world, leveraging the new spaces in the Arts Block and other ongoing physical infrastructure initiatives planned on campus (DartRow, Silsby area) to create a dynamic intellectual environment. These Summer Institutes would serve as an important component of the strategy to bolster our international RSC profile.

4. The Sabbatical Institute would provide a new space that would serve both Dartmouth faculty doing on-campus sabbaticals and visiting faculty on sabbatical, including an emphasis on international faculty, or coming to campus as a part of a newly initiated visiting scholars program. The Institute would manage a new competitive faculty RSC sabbatical program in addition to or in place of the current time-serve policy. This institute should serve as an incubator for intellectual activity (including developing of programming including seminars, conferences, social activities) and contribute to enhancing Dartmouth’s reputation in RSC. The Sabbatical Institute would serve as an important component of the strategy to bolster our international RSC profile, facilitated by funding for international scholars.
WORKING GROUP MEMBERSHIP

1. Pamela Bagley
   Research and Education Librarian

2. Lisa Baldez
   Associate Professor of Government, and of Latin American, Latino, and Caribbean Studies

3. Ethan Dmitrovsky
   Andrew G. Wallace Professor of Pharmacology, Toxicology, and Medicine, Geisel School of Medicine

4. Laura Edmondson
   Associate Professor of Theater

5. Robert Graves
   John H. Krehbiel Sr. Professor for Emerging Technologies, Thayer School of Engineering; Adjunct Professor of Business Administration, Tuck School of Business; Director of the Master of Engineering Management Program

6. Mary Lou Guerinot
   Ronald and Deborah Harris Professor of Biological Sciences

7. Annabel Martín
   Chair, Program in Women’s and Gender Studies; Associate Professor of Spanish, of Women’s and Gender Studies, and of Comparative Literature

8. Scott Neslin
   Albert Wesley Frey Professor of Marketing, Tuck School of Business

9. George O’Toole
   Professor of Microbiology and Immunology, Geisel School of Medicine (CO-CHAIR)

10. Donald Pease
    Ted and Helen Geisel Third Century Professor in the Humanities; Professor of English; Director of the Master of Arts in Liberal Studies Program

11. Michelle Warren
    Professor of Comparative Literature; Coordinator, The Mellon Mays Undergraduate Fellowship

12. William Wohlforth
    Daniel Webster Professor of Government (CO-CHAIR)