

Task Force on Supporting Research, Creativity and Collaborative Innovation

Work Group 1: Enhancing Research and Creative Work

Our goal was to communicate the top 1-3 investments that would enhance productivity in independent research, scholarship, and creative works at Brandeis University. We conducted several “listening sessions” with councils of department chairs and center leaders and circulated a survey to identify these items. The answers differed across schools and centers, and we present the 1-3 items from each group. We begin with some common themes that emerged and issues that cut across school boundaries, and then discuss issues relevant to each school.

Items common to several schools (Creative Arts, Heller School, Humanities, Social Sciences):

- **Need for grant administration, particularly post-award:** Researchers in the Arts, Heller, Humanities, International Business School, and Social Sciences indicated varying levels of need and in some cases a dire need for grant administration support, in the pre-award planning and writing phase for some, and especially in post-award support. Some faculty, especially in non-science A&Ss departments, indicated that they pass over applying for many grants because there is not any administrative support to prepare budget statements and progress reports during the award period. (For example, faculty in the social sciences collaborating with researchers at other institutions often opt to run applications and grants through their collaborators rather than Brandeis.) Heller and the Sciences have been supported in the pre-award phase by an infrastructure within those units who are working with the staff at ORA. IBS and Economics generally do not apply for grants through Brandeis but sometimes applies for grants through NBER – National Bureau of Economic Research – which files the application and administers funded applications on behalf of the applicant. The only major group that is happy with both their pre-award and post-award services is the Division of Science, which has a team of people for pre-award and teams of people to handle post-award reporting, in addition to the support provided by the Office of Research Administration and Sponsored Programs Accounting. Heller is also happy with pre-award services because of their internal infrastructure and ORA’s support. However, regarding the post

award phase, and particularly with respect to management of internal financial accounts and accounts payable, Heller noted that they manage this by cobbling together effort of various staff but the feeling was universal that it was not working. *Improving pre- and post-award services in many schools or divisions would increase productivity and grant success.*

- **Need for more protected time for research:** Most faculty, but especially those in the Humanities, Social Sciences and International Business School wanted more time and associated resources to complete their scholarly work. They cited their teaching course load as an impediment, particularly alongside uncredited teaching and service they do outside the classroom (supervising dissertations, MA theses, BA honors theses). In some cases, researchers are fully funded through grants that require specific activities, which leave little room for development of new scholarship. More time might be provided in several ways: allocating teaching credit (course relief) for teaching outside the classroom (equivalent to inside the lab in the sciences). One-year leaves for junior faculty would be particularly helpful. Several competing universities require less teaching and offer more frequent semester sabbaticals with teaching relief (including teaching-focused colleges such as Williams College). Likewise, some universities provide course relief for demanding, high-visibility service to the field, such as journal editors. For researchers fully supported on external research funding, a stable level of funding to support development and scholarship could improve creativity and productivity. *A university-wide analysis of teaching requirements in Brandeis departments and competing departments at other universities would shed light on whether we are falling behind our peers in terms of protected time for research.*
- **Need to address facilities and administration rate consequences across schools:** The facilities and administration rate (F&A also known as indirect cost rate currently set at 62.5% for federal grants) policies have differential impacts on different different researchers. Humanists, physical scientists and social scientists often apply for smaller-value, capped grants (NSF and NEH, for example). The federal F&A rate is also used in the teaching buyout formula, making it prohibitively expensive for most in the humanities and social sciences with high teaching loads but small grants. Arts and Sciences provides a research fund equal to 2% of the F&A rate to investigators, but other parts of the university do not get this. Some other institutions also offer a sizeable incentives in the form of internal grants that amount to (10-50%) return of F&A to grantees and their departments, although there are also other ways to provide discretionary funds. *A closer examination of policies surrounding indirect cost recovery and related incentives would help greatly in research and teaching relief for researchers with smaller grants.*
- **Brainstorm: data scientists and facilities:** Many groups (Heller, International Business School, Sciences, Social Sciences) indicated an opportunity and a

need for resources in data analysis. The requested resources included new faculty hires that could sit within or across departments, a need for workshops and courses, and postdocs and/or consultants for data analysis. The sentiment is that existing resources need to be better pooled across campus but also that Brandeis is losing out on the development of new computational technologies and the ability such technologies present for innovative interdisciplinary research and collaborations among departments on campus and with other universities, businesses, state and local government, and non-profit organizations.

Interdisciplinary “incubator” space, perhaps around the library, would allow collaboration and transfer of knowledge across disciplines and departments.

Library services:

- **Help with data analysis (course work, tutorials):** The library has already taken initiative to deliver short courses and tutorials that teach statistics and data analysis across the disciplines. Building out the Library’s mission in Information Technology and training of undergraduate and graduate students, and faculty, is one way to take advantage of Brandeis’ small scale to develop vertical and horizontal integration of new computational technologies and analytic science across disciplines.
- **Central integration of data holdings:** It was discovered that several departments produce or own datasets that would be useful to other departments. Right now there is no central repository for datasets on campus, but it would be useful to create one. For datasets that can’t be openly shared (due to privacy regulations for example), documenting the existence of the dataset and a contact would be useful. Library Services is just beginning this process.

Items for individual schools:

Creative Arts:

- **Need to add/upgrade on-campus space:** At present, there is little to no useable on-campus space for artists. To create their art (visual arts, recordings, theater productions, etc.), artists must leave campus. This situation means that undergraduates are usually excluded from the creative process, and that the artists are frequently away from campus. On-campus space would allow undergraduates to participate in the creation of art and would dramatically enhance interaction among the faculty and undergraduates. It would also allow for public exhibition of their art at Brandeis. Handicap accessibility is a problem. In space overall: “We are in a shameful state compared to our peers / competitors.”

- **Need for additional funding for research and/or travel:** Artists and Humanistic researchers in the Arts (Art History, Dramaturgy, Musicology) feel they have to choose between research and travel to conferences. Right now there is not enough money for both.

Centers and Institutes that are not affiliated with other schools:

- **Fundraising:** Institutional Advancement (IA) does not have the experience working with the kind of funders needed. There is no development officer for individual donors or private foundations that understand the work and could support them. Often IA prevents Centers & Institutes from reaching out to certain donors because of other priorities.
- **Individuality:** Each center is very different, some supporting Brandeis activities, others reaching internationally. While that individuality is a strength, Centers & Institutes could be organized in a different way where there would be less redundancy in staff, for example, sharing IT or advertising. “We have built walls rather than doors”.

Division of Science, including Psychology:

- **Additional hires (requires space):** Science departments felt strongly that new faculty hires were needed to revitalize research and provide research experiences to increased numbers of undergraduate majors. The Brandeis undergraduate experience of performing original laboratory research is no longer available to many interested students because the ratio of research faculty to majors has gone down considerably, which is a threat to a major value proposition of a Brandeis education. Virtually every department indicated that their distribution of faculty is skewed away from youth and toward “experience”. In addition to money for startup packages, core facilities and space were mentioned as key unmet needs to recruiting the best young faculty.
- **Core facilities and experts to run them (requires space):** Every experimental department emphasized a dire need for better core facilities, ranging from mass spectrometry (Chemistry/Biochemistry) to advanced microscopy (Biology, Biochemistry, Neuroscience, MRSEC, Physics) to a professional-grade “maker space” that is suitable for research purposes (Biology, Neuroscience, MRSEC, Physics). The chairs and faculty were also adamant that these facilities were not just desired but that the current situation was very much hurting our ability to perform our research, attract new faculty (Chemistry, Biology, Neuroscience in particular), and provide excellent training for our postdocs, graduate students, and undergraduates. Equally emphasized was the need to equip each core facility with a PhD-level staff member who can help researchers obtain the best

results with the equipment, maintain the facility, target grant opportunities for funding the facility, and train users in acquisition *and* data analysis.

- **Space:** In order to accommodate new faculty, core facilities, and teaching space for increased numbers of science majors, science departments were united in calling for the planned “Phase II” building and for the renovation of presently unusable space.

Heller School:

- **Need compensation for time for grant writing, innovation, thinking:** Several researchers stated emphatically that they have no compensated time to write grants. The Heller funding model means they must be constantly working on their projects, and must fit in grant writing for future projects, for writing, and thinking in their “spare time”. Soft money puts the emphasis on survival rather than the best or most important research. (Investigators might pursue projects similar to old projects just because funding seems likely, even if other projects or new directions might be more important in the long term.)
- **More flexibility in developing faculty models:** Heller scholars cited a very high burden for bringing in new faculty: the faculty must be essentially fully funded from the beginning. Hybrid tenure structures, perhaps with some startup and initial salary support in the early years, would allow Heller to plan its growth more thoughtfully.

Humanities:

- **Integration across humanities (staff):** The Humanities faculty indicated that there is poor integration across departments but that some added shared administrative staff across departments would help integrate information such as research opportunities for graduate students and undergraduates and relieve administrative burdens that are repeated across several small departments.
- **Funds for small targeted projects, including undergraduate research support:** Money for undergraduate research would enhance research efforts, and small amounts of money to support “book finishing conferences” and other targeted scholarship would enhance research.
- **Narrowness in interdisciplinary credited work for promotion:** Some in the humanities and social sciences suggested that a major barrier to collaboration within and across departments is the low value that collaborative interdisciplinary work is perceived to have within some disciplines. Public Humanities was one such type of work cited. This low evaluation of collaborative work was perceived to hold both on campus but also in external evaluations for faculty for promotion.

International Business School (and Economics):

- **Administrative support:** In addition to the grant administration concerns covered above, it was noted that more administrative help for administering programs, certain kinds of advising, and secretarial help would create more time for research.
- **Funding for undergraduate research:** IBS and Economics were very interested in hiring significantly more Brandeis undergraduates as research assistants, but generally lacked the funds to do so.
- **Narrowness in interdisciplinary credited work for promotion:** Interdisciplinary work in economics and business were mentioned as receiving very little credit for tenure and promotion. This low evaluation of collaborative work was perceived to be true both on campus but also in the letters that external evaluators would write about faculty for promotion.

Social Sciences:

- **Institutional Review Board:** The Institutional Review Board is so slow that it is threatening the ability of students to complete masters or honors theses, or requiring them to do watered-down studies that are less likely to yield results that contribute meaningfully to the field. Inconsistency in requests for revisions also slows the process by requiring multiple rounds of revisions. Returning to practices used in the past, such as prompt initial review of proposals by IRB staff, could help to reduce problems.
- **High teaching load:** Combination of large majors and high teaching load makes supervising research students difficult. Psychology, Linguistics, and Economics have a 1-2 course load, with a 1-1 load for pre-tenure tenure track faculty in Psychology. Sociology, Anthropology and Political Science have a 2-2 load at all levels. Transparent and equitable teaching policies would be welcome. One remedy may be to restructure the credit system to allow students to get course credit from participating in research and from research.