REPORT OF THE TASK FORCE ON ADMINISTRATIVE WORKLOAD IN RESEARCH

September 7, 2018

Task Force Members

Craig B. Arnold: Professor of Mechanical and Aerospace Engineering; Director, Princeton Institute for the Science and Technology of Materials
Nathan T. Arrington: Associate Professor of Art and Archeology; Director, Program in Archeology
Pablo G. Debenedetti (Chair): Class of 1950 Professor in Engineering and Applied Science; Professor of Chemical and Biological Engineering; Dean for Research
Susan T. Fiske: Eugene Higgins Professor of Psychology; Professor of Psychology and Public Affairs
John T. Groves: Hugh Scott Taylor Chair of Chemistry; Professor of Chemistry
Yibin Kang: Warner-Lambert/Parke-Davis Professor of Molecular Biology
Bruce E. Koel: Professor of Chemical and Biological Engineering
David Leheny$: Henry Wendt III ’55 Professor of East Asian Studies
Daniel R. Marlow: Evans Crawford 1911 Professor of Physics
Elizabeth L. Paluck: Professor of Psychology and Public Affairs
Catherine A. Peters: Professor of Civil and Environmental Engineering; Chair, Dept. of Civil and Environmental Engineering; Director, Program in Geological Engineering
Jacob N. Shapiro: Professor of Politics and International Affairs, Woodrow Wilson School
Olga G. Troyanskaya: Professor of Computer Science and the Lewis-Sigler Institute for Integrative Genomics
Jennifer A. Widner: Professor of Politics and International Affairs, Woodrow Wilson School

Annette C. Tate (Secretary): Assistant Director for Finance and Administration, Office of the Dean for Research

Sitting with the Task Force

Steven Gill: Assistant V.P. for Costing, Analysis and Policy, Office of Finance and Treasury
Jason Knoch: Assistant V.P. for Financial Services, Office of Finance and Treasury
Anastasia T. Vrachnos: Vice Provost for International Affairs and Operations, Office of the Provost

$ Transferred to Emeritus status. Now at Waseda University (Japan.)
1. EXECUTIVE SUMMARY

1.1 Charge to the Task Force
The Task Force on Administrative Workload in Research (TAWR) was created following a recommendation of the strategic planning Task Force on the Future of Sponsored Research. This recommendation, which constitutes the TAWR’s charge, reads:

Create a task force charged with identifying internal mechanisms for reducing the administrative burden on investigators who perform federally-funded research, while maintaining full compliance with applicable regulations.

1.2 Work of the Task Force
The TAWR was constituted in January of 2017. Its work comprised 13 meetings, including discussions with invited central and departmental administrators (Section 3.1); an online faculty survey (Section 3.2; Appendix II); a faculty focus group (Section 3.3); and a departmental grant and business managers focus group (Section 3.4). Background reading material posted on the Task Force’s SharePoint site is listed in Appendix I.

1.3 Principal Recommendations
The Task Force’s recommendations are listed and discussed in detail in Section 4. The principal recommendations are:

Allow modular submission of proposals to ORPA§ for pre-submission internal review. Implement software and procedural changes that will enable PIs to submit budget and other administrative sections of proposals for internal review separately from scientific section(s), thus allowing PIs additional time to continue working on the latter.

Simplify financial reports. Monthly financial reports should be simple, credit card-like, as a default. Providing departmental grant managers or faculty with the ability to easily create such simplified reports is a viable alternative.

Develop a systematic approach to training at the departmental level. Department managers and grant administrators are essential to the success of Princeton’s research enterprise. The office of the Dean for Research, through ORPA, should develop a systematic program to “onboard” new department managers, new grant administrators, new chairs, and new faculty members on matters related to proposal submission, award administration, export controls and procurement. The office of the Dean for Research, through ORPA, should establish a continuous training program that ensures competent, knowledgeable and informed management of sponsored research at the department level.

Involve faculty members and department administrators when exploring, developing and testing electronic management systems. Faculty members and department grant/business

§ Office of Research and Project Administration.
Administrators are key users of research-related electronic management systems. Administrative offices that develop, select, implement and manage research-related electronic management systems should seek department/grant manager and faculty input throughout the process, from early testing of alternatives through implementation. This can take place through user focus groups.

1.4 Overall Assessment
The Task Force has identified several areas and processes in need of improvement. These specific recommendations notwithstanding, the Task Force completes its work with an overall sense that Princeton has worked to achieve a balance between enabling research and ensuring compliance. In general, these efforts have been successful and the current balance is about right, but the administration should continue to seek ways in which to minimize the administrative workload on investigators, especially in light of escalating compliance demands.

2. INTRODUCTION
The Task Force on the Future of Sponsored Research was constituted as part of Princeton’s strategic planning exercise, and issued its report in December of 2015. Its recommendations include:

Create a task force charged with identifying internal mechanisms for reducing the administrative burden on investigators who perform federally-funded research, while maintaining full compliance with applicable regulations.

There is a natural tension between two forces, enabling and complying, acting on the research enterprise. The former manifests itself in the generous investments in infrastructure, equipment, startup and retention packages, that research universities make in support of their research enterprise. The latter, in the equally notable investments in administrative infrastructure aimed at ensuring that research is conducted in a manner that is compliant with applicable local, state, and federal regulations. Finding the sweet spot between these two forces is a task that requires constant attention. Excessive emphasis on regulating research stifles creativity and research productivity; insufficient attention to compliance can have serious consequences, including injury or loss of life, damage to physical infrastructure, and serious reputational damage to research institutions.

Concerns about administrative workload on researchers are not new. The Federal Demonstration Partnership reports “2005 Faculty Workload Survey” and “2012 Faculty Workload Survey”, published in 2007 and 2014, respectively, were two important milestones in this area. The former collected responses from 6,295 federally-funded investigators, while the latter obtained responses from 13,453 PIs (representing a response rate of 26%). The results from both reports proved remarkably consistent, the most significant result being that PIs estimated spending, on average, 42% of their research time associated with federally-funded projects on compliance-related activities (i.e., meeting requirements), rather than conducting active research.
We are not aware of a comparable survey of Princeton investigators prior to the constitution of this Task Force. Accordingly, in seeking to identify “internal mechanisms for reducing the administrative burden on investigators who perform federally-funded research,” the TAWR sought to gather input from as broad a cross-section of Princeton’s research community as possible. In particular, a majority of the Task Force’s 13 meetings included presentations and conversations with administrators and staff members whose offices support various aspects of the research enterprise (see Section 3.1); an online faculty survey was administered between April 13th and April 21st of 2017, which elicited a participation rate of 28% (see Section 3.2 and Appendix II); and two focus groups were conducted: one with faculty members, on 11/6/17 (Section 3.3), and one with departmental and center grant/business administrators, on 2/15/18 (Section 3.4). In addition, abundant background documentation was posted on the Task Force’s SharePoint site for members to read (see Appendix I).

The Task Force undertook a thoughtful and fact-based introspection regarding Princeton’s position in the enabling/complying spectrum, and our recommendations are aimed at steering a judicious course between these two driving forces.

3. TASK FORCE’S WORK

3.1 Meetings
Table 1 lists the 13 meetings of the Task Force. Also listed are the topics discussed at each meeting and the guests that joined the meetings. Agendas, minutes and, where applicable, guest slide presentations were uploaded to the Task Force’s SharePoint site.

3.2 Faculty Survey
An online survey of tenured and tenure-track faculty in Divisions I, II, III and IV was conducted between April 13th and April 21st, 2017. The full survey can be found in Appendix II. Key results are summarized below.

3.2.1 Participation
220 faculty members completed the survey (28% participation rate). The participation rate by division was 21% (I: Humanities), 20% (II: Social Sciences), 38% (III: Natural Sciences), and 36% (IV: Engineering). The participation rate by rank was 30% (Assistant Professor), 39% (Associate Professor), and 25% (Full Professor), and, by gender, 38% (women) and 28% (men).

3.2.2 Time Demands
Tables 2 and 3 summarize responses to questions about demands on faculty research time associated with regulatory and compliance requirements (2) and proposal writing (3), while Table 4 documents the delegation of research-related regulatory and compliance work to administrative assistants.
Based on the results summarized in Table 2, it can be concluded that tending to regulatory and compliance aspects of research does not appear to consume inordinate amounts of faculty research time. This in no way minimizes the importance of continuing to seek ways of further reducing administrative workload in research (this is, after all, the Task Force’s mission), but it suggests a situation that, while requiring continued attention, is better than at many peer institutions.

Table 4 demonstrates the crucial role that department-level support can play in minimizing administrative workload on faculty research time. It also highlights the importance of providing proper department-level grant management training (see also Section 4).

Comparison with corresponding national numbers is not straightforward, because the Task Force asked questions, such as delegation to administrative assistants (Table 4), that were not included, e.g., in the 2012 Federal Demonstration Partnership Faculty Workload Survey. According to this benchmark, PIs of federally-sponsored research projects reported spending, on average, 42% of their research time on regulatory, compliance and proposal writing activities (15.4% on proposal preparation, 5.7% on pre-award administration-related activities, 13.6% on post-award administration-related activities, and 7.6% on report preparation.)

3.2.3 Key Areas in Need of Improvement
The three topics that survey respondents identified as the areas most in need of improvement were:

**Proposal submission** (identified as top area in need of improvement by 23% of the faculty). The concern here is the software-driven inflexibility of the current procedure, which requires submission of the full proposal for ORPA internal review. There is a strong consensus among the faculty that the pre-award electronic management system should allow PIs to submit the budget and other administrative sections (e.g., Current and Pending Support) prior to the main (scientific) section, thereby allowing additional time for proposal preparation (see also Sections 1.3, 3.1, 3.3 and 4.)

**Travel-related expense processing** (identified by 17% of the faculty). Faculty who are not able to delegate this task to administrative assistants tend to find the process to be unnecessarily complicated (see also Sections 1.3, 3.1, 3.3 and 4.)

**Financial reports** (identified by 17% of the faculty). There is consensus that research-related financial reports are complicated and insufficiently flexible. A credit card-like report would be desirable (see also Sections 1.3, 3.1, 3.3 and 4.)
<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Guests</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/1/17</td>
<td>Faculty survey; International</td>
<td></td>
</tr>
<tr>
<td>3/2/17</td>
<td>Export controls; Legal aspects of international research; Faculty survey</td>
<td>John Jenkins (ORPA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kevin Licciardi (OGC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jed Marsh (Provost Office)</td>
</tr>
<tr>
<td>3/16/17</td>
<td>Sponsored research administration; Faculty survey</td>
<td>Jeffrey Friedland (ORPA)</td>
</tr>
<tr>
<td>3/29/17</td>
<td>International research; Procurement; ORPA</td>
<td>Nathan Arrington (via Skype)</td>
</tr>
<tr>
<td>4/10/17</td>
<td>Departmental administrator’s perspective; Focus groups</td>
<td>Dorothy Coakley (ELE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nancy Grinius-Cannulli (OPR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sarah Milburn (MOL)</td>
</tr>
<tr>
<td>4/21/17</td>
<td>Administration perspective; ORPA</td>
<td>Karen Haskin (Provost Office)</td>
</tr>
<tr>
<td>5/8/17</td>
<td>Proposal submission; Faculty survey; Human subjects research</td>
<td>Jeffrey Friedland (ORPA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Jed Marsh (Provost Office)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stuart Leland (RIA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chad Pettengill (RIA)</td>
</tr>
<tr>
<td>9/21/17</td>
<td>Human subjects research; Conflict of interest</td>
<td>Stuart Leland (RIA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chad Pettengill (RIA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Robert Scalese (RIA)</td>
</tr>
<tr>
<td>10/2/17</td>
<td>Environmental Health &amp; Safety; Animal research</td>
<td>Robin Izzo (EHS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stuart Leland (RIA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Laura Conour (LAR)</td>
</tr>
<tr>
<td>10/26/17</td>
<td>Recommendations</td>
<td></td>
</tr>
<tr>
<td>11/6/17</td>
<td>Financial reports</td>
<td>Carolyn Ainslie (Finance &amp; Treasury)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roger Weisenberg (Finance &amp; Treasury)</td>
</tr>
<tr>
<td>12/7/17</td>
<td>Department grants training program; Proposal submission process; Faculty focus group</td>
<td>Jeffrey Friedland</td>
</tr>
<tr>
<td>1/29/18</td>
<td>Procurement; Expense processing;</td>
<td>Christopher Eisgruber (President)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mohamed Ela (Finance &amp; Treasury)</td>
</tr>
</tbody>
</table>
Table 2: Percentage of Faculty Research Time Spent in Regulatory & Compliance Aspects of Research

<table>
<thead>
<tr>
<th>Division</th>
<th>N = 54</th>
<th>N = 48</th>
<th>N = 88</th>
<th>N = 47</th>
<th>N = 237</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10%</td>
<td>59%</td>
<td>67%</td>
<td>31%</td>
<td>45%</td>
<td>48%</td>
</tr>
<tr>
<td>10-20%</td>
<td>33%</td>
<td>25%</td>
<td>47%</td>
<td>45%</td>
<td>39%</td>
</tr>
<tr>
<td>20-30%</td>
<td>4%</td>
<td>6%</td>
<td>16%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>30-40%</td>
<td>4%</td>
<td>0%</td>
<td>3%</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>40-50%</td>
<td>0%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>0%</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 3: Percentage of Faculty Research Time Spent Writing Proposals

<table>
<thead>
<tr>
<th>Division</th>
<th>N = 53</th>
<th>N = 48</th>
<th>N = 88</th>
<th>N = 47</th>
<th>N = 236</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10%</td>
<td>51%</td>
<td>58%</td>
<td>9%</td>
<td>15%</td>
<td>30%</td>
</tr>
<tr>
<td>10-20%</td>
<td>28%</td>
<td>26%</td>
<td>30%</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>20-30%</td>
<td>10%</td>
<td>10%</td>
<td>34%</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>30-40%</td>
<td>9%</td>
<td>4%</td>
<td>15%</td>
<td>22%</td>
<td>13%</td>
</tr>
<tr>
<td>40-50%</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>2%</td>
<td>2%</td>
<td>5%</td>
<td>8%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Table 4: Percent of Your Research-Related Regulatory & Compliance Work that You Delegate to an Administrative Assistant

<table>
<thead>
<tr>
<th>Division</th>
<th>N = 2</th>
<th>N = 15</th>
<th>N = 41</th>
<th>N = 19</th>
<th>N = 77</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10%</td>
<td>0%</td>
<td>0%</td>
<td>7%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>10-20%</td>
<td>0%</td>
<td>33%</td>
<td>10%</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>20-30%</td>
<td>0%</td>
<td>7%</td>
<td>24%</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>30-40%</td>
<td>0%</td>
<td>7%</td>
<td>12%</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>40-50%</td>
<td>50%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>&gt; 50%</td>
<td>50%</td>
<td>46%</td>
<td>42%</td>
<td>37%</td>
<td>42%</td>
</tr>
</tbody>
</table>

1 Includes only faculty members who replied Yes to question: Do you delegate tasks related to regulatory and compliance aspects of your research to a program manager or administrative assistant?

3.3 Faculty Focus Group

A focus group of seven faculty members representing all four divisions was convened on November 6, 2017 to discuss various aspects of Princeton’s administrative infrastructure in support of research. The key points that emerged from the conversation are listed below.
**Computational resources.** PICSciE’s support for the High Performance Computing Research Center, as well as overall OIT support (cycles, data storage) received favorable comments. More central resources, including a data scientist, are needed in support of open source and open data projects in the social sciences.

**Internal processes to gain access to data.** Internal processes to get access to research data (e.g., disease genome data) are complex and can often take up to 2-3 months. This involves both ORPA and the IRB.

**Department-level support.** Proposal submission and grant administration support is perceived to be very uneven across departments. There is widespread perception that increasing amounts of work are being “pushed outwards” from ORPA and SRA to the departments.

**Coverage at ORPA.** Occasionally, during especially busy periods, ORPA can become a bottleneck. A review of coverage practices and capability would be most helpful.

**Proposal submission.** There was strong support for modular internal proposal submission and review process, whereby ORPA would be able to review, e.g., budget items, while PIs can still work on the science.

**Financial reports.** There is considerable room for improvement with financial reports. They are viewed as too complicated and inflexible. The ability to generate a simple, credit card-like report was mentioned as a very desirable goal.

**Expense processing.** Practices vary substantially across departments. Faculty who do not (or cannot) delegate to staff find expense processing complicated and time-consuming.

**International travel.** A one-stop web resource is needed that would provide contact information and links to export controls, security, encryption, loaner programs, etc.

**Top three areas that Princeton should focus on.** Focus group members were asked to identify the three most important areas that Princeton should focus on in order to reduce administrative burden on research. Recurrent choices included:
- Increased department-level help with expense tracking and grant financials.
- Better training for departmental grant managers.
- Flexible internal proposal submission process (allow “modular” submission).
- Simpler, more flexible, credit card-like financial reports.
- Support for data research (both physical structure and internal support.)
- It would be desirable to reverse the perceived trend for central administration to shift more tasks and responsibilities to the departments.

---

¶ Princeton Institute for Computational Science and Engineering.
§ Sponsored Research Accounting.
Overall positive perception. There was a general perception that, compared to several peers, Princeton is “well-run” from a research administration perspective.

3.4 Departmental and Center Grant and Business Managers Focus Group
A focus group of eight departmental (or center) grants or business managers representing all four divisions was convened on February 15, 2018 to discuss various aspects of Princeton’s administrative infrastructure in support of research. The key points that emerged from the conversation are listed below.

Workload at the departmental level. There is a broad perception of a post-PRIME increase in workload at the departmental level. Tasks which were previously performed centrally are perceived to being increasingly pushed to the departmental level.

Departmental staffing levels. There is a perception among grant managers that staffing levels across departments vary greatly, without a corresponding underlying metric that would make allocations more transparent.

Training. Departmental grant managers requested greater availability of training opportunities, especially “onboarding” of new such employees.

Communications between ORPA and SRA. At least as experienced at the departmental level, communications between ORPA and SRA are not as efficient and fast as they were pre-PRIME.

Staffing levels at ORPA and SRA. There was broad agreement among the grant managers that both ORPA and SRA are understaffed. Although no metrics were offered to support this comment, the broad agreement reflects what departments are experiencing in terms of slower response times.

Adoption of new electronic systems. The group mentioned that often new systems are introduced “top-down.” There was broad agreement on the need to include more people who will actually be using the new systems, such as grant managers or departmental managers, in the selection and testing of new systems.

Sub-award management. The group mentioned delays in ORPA in performing simple tasks related to sub-awards (e.g., amendments, purchase orders.)

Travel expense processing through Concur. The group voiced several concerns about travel expense processing through Concur. First, there was consensus that the process was considerably simpler before Concur. Other concerns included the need to process expenses well ahead of a trip, for example in cases where booking happens months before the trip, and the need for itemization of hotel receipts, described as “burdensome” and “time-consuming.”
**Purchase processing through Concur.** Using Concur for purchases was also considered burdensome by the group. Specific issues mentioned include the need for greater flexibility with expense categories, and the need for greater flexibility with purchasing reports, specifically the fact that it is not possible to select and print a sub-set of purchases. The group also indicated the desirability for Finance and Treasury staff who approve purchasing and travel expenses to have some basic grant training.

4. **RECOMMENDATIONS**

The Task Force used input from the faculty survey, the two focus groups, the presentations by and discussions with administrators whose work impacts sponsored research, and its own deliberations, to come up with a list of recommendations. The top three are highlighted in the Executive Summary (Section 1.3).

4.1 **Office of Research and Project Administration (ORPA)**

As the office that handles proposal submissions, contract negotiations, and project administration, ORPA is, for most faculty members, the face of research administration, and the unit whose work most impacts the administrative workload experienced by researchers. Not surprisingly, ORPA was the focus of a considerable fraction of presentations, Task Force deliberations, and recommendations.

As reflected in the faculty survey conducted in the spring of 2017, the overall perception of ORPA by faculty members is good, and certainly much better than at most peer institutions, based on informal impressions offered by several members of the Task Force as a result of their scholarly travel. Nevertheless, the Task Force is making numerous recommendations and suggestions for improvement, as detailed below.

**Pre-submission proposal review.** Proposals are reviewed prior to submission to ensure compliance with sponsor and University guidelines and regulations. ORPA’s guideline is for PIs to submit proposals for internal (ORPA) review 5 working days prior to the submission deadline. This rule is not rigidly enforced, but it is an internal deadline that faculty and grant administrators at the departmental level broadly seek to comply with. During Task Force discussions, it emerged that the 5-day policy is driven by software limitations. ORPA’s current pre-award software, Coeus, does not allow for “modular” review, because it cannot handle individual proposal sections. The Coeus license expires on 6/30/19; the Task Force strongly recommends that the new software be flexible and allow modular internal submission, so that ORPA can review budget, facilities descriptions, and other such administrative sections, while the PIs work on the science narrative. Department Chairs could then be asked to certify that the latter contains no changes in budget and space commitments.

**Metrics.** Task Force members conveyed the impression that there exists considerable variability in responsiveness among ORPA Grant and Contract Administrators (GCAs). Tracking of individual GCA response times was suggested. Another suggestion was to collect peer staffing and workload data in order to assess objectively the extent to which ORPA staff is over/underloaded.
Effective communications. Several recommendations were made to improve the quality, usefulness and information content of communications between ORPA and faculty members, departmental managers, and grant managers. These include developing an ORPA “cheat sheet” for departmental administrators; posting a continuously updated list of guidelines, agency requirements and submission deadlines; and posting essential process “flow charts.”

Training. Department managers and grant administrators are essential to the success of Princeton’s research enterprise. The office of the Dean for Research, through ORPA, should develop a systematic program to “onboard” new department managers, new grant administrators, new chairs, and new faculty members on matters related to proposal submission, award administration, export controls and procurement. The office of the Dean for Research, through ORPA, should establish a continuous training program that ensures competent, knowledgeable and informed management of sponsored research at the department level.

Hiring. There was strong support for ensuring ORPA and SRA active participation in hiring departmental grant managers.

Staffing. There was a general perception that ORPA is understaffed in the areas of contract negotiations.

4.2 Financial Reports
A number of recommendations were made, aimed at making financial reports simpler to use by grant managers and faculty members, and enabling forecasting capabilities. Detailed recommendations are given below.

Credit card-like report. The Task Force recommends the creation of a simple, credit card-like report. Most Task Force members would like to see this as a default, but a simple way of generating such a report would also be favored.

Consolidation of categories. The Task Force recommended implementation of functionality that could generate consolidated reports, where charges are listed by broad categories (e.g., equipment, travel, personnel, etc.)

Worked examples. The Task Force recommends that the hosting site include step-by-step instructions (e.g., how to generate credit card-type reports).

Help boards. The Task Force recommends posting of questions and expert answers, as well as searchable FAQs.

---

5 A pilot program is in progress. A group of Task Force members receive monthly reports incorporating some of the recommendations listed below and they provide feedback to Roger Weisenberg, Director of Financial Technology.
Scripting capability. Some members favored giving users the ability to write and save scripts (e.g., to generate a specific sub-set of numbers or to perform standard calculations).

Automatic generation of monthly customized reports. The Task Force recommends functionality that can automatically generate monthly reports once a grant manager or faculty member converges on the level of detail.

Clarity on dates. Faculty members requested greater clarity on what is meant by “current period” in financial reports. The period of an encumbrance was also listed as an item in need of further clarity.

4.3 International Research

Create a “one-stop” online portal for international research, in particular Travel and Export Controls. The Task Force heard several presentations that touched upon aspects of international research. One problem that became evident was the lack of a “one-stop” web portal addressing in a simple and informative way (what to do, whom to contact) the complexities of research-related international travel, including Export Control considerations. Considerable progress has already been made during the past year or so:

- An International Princeton web site has been created, which includes a Know Before You Go page.
- The Export Controls web page within the Office of Research and Project Administration (ORPA) includes an International Travel page, an Export Control flowchart, and a useful Summary Document for researchers.
- The Princeton Travel and Expense site includes a page on International Travel.
- The Information Security Office includes an International Travel Guidelines page.

While these are helpful resources, work remains to be done in creating a single, simple, entry point that enumerates issues (information security, export controls, visas) and lists the relevant resources (web page(s), responsible administrator(s) with contact information). This entry point should reside within the purview of the Vice Provost for International Affairs and Operations, and should be widely known and easily accessible across campus. The Dean for Research, the Vice Provost for International Affairs and Operations, and the Assistant Director for Export Control and Compliance should coordinate this task. The complexities that may arise (e.g., intersection of research-related purchasing and export controls) will necessitate consultation with additional offices [e.g., Procurement, Office of the General Counsel (OGC)].

Establish a dedicated contact within Finance and Treasury, in addition to a Shared Services general number. When faculty members conducting research abroad need to communicate with Finance and Treasury about issues that can arise (e.g., procedural or time-sensitive questions
related to payments to local technicians or consultants), they need a dedicated contact with whom to communicate, as opposed to a generic Shared Services number.

**Need for local contact in foreign countries.** Conducting research abroad often requires processing paperwork and following local procedures (which are in many cases quite different from Princeton's). The Task Force recommends that whenever possible, the University make arrangements with a local contact person/office who can help with filing the necessary paperwork and provide advise on local procedures, for example in hiring local personnel.

**Relaxing purchase categories for international procurement and transactions.** In the course of Task Force discussions, it was pointed out that declinations of credit card transactions can be especially inconvenient for researchers conducting work abroad, particularly in developing countries. It was suggested to explore the possibility of relaxing purchase categories for international procurement and transactions.

4.4 **Institutional Review Board (IRB)**

**Student compliance training.** The Task Force recommends compliance training for undergraduate students participating in human subjects research. Discussions between the Dean for Research and the Dean of the College are encouraged.

**PI protocol responsibility.** A large number of students in Psychology and Sociology engage in human subjects research for their senior thesis. Faculty members in these departments often serve as “nominal” advisors, but are not otherwise involved in designing or supervising the research. In many such cases, faculty are reluctant to assume PI responsibility on IRB protocols. This is a significant issue that can stand in the way of timely completion of senior theses. Further conversations between Research Integrity and Assurance (RIA) and the Dean of the College are needed to address this problem.

4.5 **Conflict of Interest Reporting**

**Annual disclosure form.** The Task Force recommends that the prior year’s Conflict of Interest annual disclosure information automatically populate the current year’s form. Check boxes should be added to either acknowledge that the information is correct, or to trigger an update. Checks would then be needed in order to proceed to the new section.

---

* Since this recommendation was made, corrective action has already occurred: each department has a dedicated point person (primary contact) and a secondary contact (e.g., in case of primary contact vacation), both within Financial Shared Services.

* Discussions are underway between Finance and Treasury, the Dean for Research Office, and the Vice Provost for International Affairs and Operations.
4.6 General

**Involve faculty members and department administrators when exploring, developing and testing electronic management systems.** Faculty members and department grant/business administrators are key users of research-related electronic management systems. Administrative offices that develop, select, implement and manage research-related electronic management systems should seek department/grant manager and faculty input throughout the process, from early testing of alternatives through implementation. This can take place through user focus groups.

5. OVERALL ASSESSMENT

The results of the online faculty survey, the information gathered from conversations with staff and administrators whose work supports the research enterprise, the two focus groups, and the Task Force’s own deliberations yielded an overall picture of a research administration system at Princeton that, in most cases, is informed by a customer service ethos. This does not mean that there aren’t important areas in need of improvement, as our recommendations indicate. Rather, it signifies that Princeton, overall, is striking approximately the right balance between enabling and regulating. Maintaining this balance, and making progress in those areas in need for improvement, requires broad administrative commitment to customer service, which translates, among other things, into awareness and understanding of whom systems and policies are intended to support, and, whenever possible, inclusion of researchers and/or department-level administrators (e.g., grant managers) when planning new systems or considering new procedures. A parallel understanding should permeate the broad research community of the fundamental importance of complying with applicable federal, state and local regulations. These complementary understandings should undergrid a collaborative engagement between researchers and administrators, to the ultimate benefit of Princeton’s research enterprise.
APPENDIX I

Background Material

The following documents were posted on the Task Force’s SharePoint site as background reading material:

2013


2014


2015

*Senator Offers Tantalizing Prospect of Regulatory Relief for Biomedical Researchers*, by J. Marvis. *ScienceInsider*, 7/22/15. DOI: 10.1126/science.aac8892.


2016


**University Efforts to Reduce Administrative Burden.** Council on Governmental Relations (COGR) Meeting, June 2016.

**Strategies to Reduce Your Administrative Burden.** Huron Consulting Group Webinar, 11/9/16.


**Capitalizing on Regulatory Reform to Reduce Administrative Burden.** Arizona State University (2016).
APPENDIX II

Faculty Survey

Results of the online survey of the faculty conducted between April 13th and 21st, 2017.
Response rate by division

- TOTAL: 220 (28%)
- Humanities: 47 (21%)
- Social Sciences: 41 (20%)
- Natural Sciences: 83 (38%)
- Engineering: 49 (36%)
Response rate by rank

- **TOTAL**: 220 (28%)
- **Assistant Professor**: 57 (30%)
- **Associate Professor**: 39 (39%)
- **Professor**: 124 (25%)
Response rate by gender

- **TOTAL**
  - Women: 220
  - Men: 146

- **Women**
  - Response rate: 28%

- **Men**
  - Response rate: 32%

- **Overall response rate**
  - Women: 28%
  - Men: 28%
General questions

Please estimate the **percentage of your own research time** (excluding any delegation to administrative assistants) that you spend in tasks related to **regulatory and compliance aspects of your research**.

Examples include, but are not limited to:

- preparing and submitting progress reports to funding agencies and other sponsors;
- writing protocols for human subject or animal research;
- filling in forms or on-line questionnaires related to laboratory safety;
- activities related to laboratory safety inspections;
- completing conflict-of-interest questionnaires;
- completing travel report documentation;
- completing effort certification on-line forms.
S1Q1: Please estimate the percentage of your own research time that you spend on tasks related to regulatory and compliance aspects of your research. (excluding any delegation to administrative assistants)

<table>
<thead>
<tr>
<th>Percentange</th>
<th>Humanities (n = 54)</th>
<th>Social Sciences (n = 48)</th>
<th>Natural Sciences (n = 88)</th>
<th>Engineering (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10%</td>
<td>33%</td>
<td>25%</td>
<td>31%</td>
<td>45%</td>
</tr>
<tr>
<td>10 to 20%</td>
<td>3%</td>
<td>4%</td>
<td>47%</td>
<td>4%</td>
</tr>
<tr>
<td>20 to 30%</td>
<td>4%</td>
<td>6%</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>More than 30%</td>
<td>6%</td>
<td>2%</td>
<td>6%</td>
<td>2%</td>
</tr>
</tbody>
</table>

TOTAL (n = 237)
S1Q2: Please estimate the percentage of your own research time that you spend writing proposals to funding agencies, foundations or corporations.
(excluding any delegation to administrative assistants)
S1Q3: Do you delegate tasks related to regulatory and compliance aspects of your research to a program manager or administrative assistant?

- Yes, 33%
- Yes, 4%
- Yes, 31%
- Yes, 48%
- Yes, 40%

TOTAL (n = 238)
Humanities (n = 54)
Social Sciences (n = 49)
Natural Sciences (n = 88)
Engineering (n = 47)
S1Q4: Please estimate what fraction of your total research-related regulatory and compliance work you delegate to a program manager or administrative assistant.  
(Question displayed if S1Q3 = Yes)

<table>
<thead>
<tr>
<th>Percentage Range</th>
<th>TOTAL (n = 77)</th>
<th>Humanities (n = 2)</th>
<th>Social Sciences (n = 15)</th>
<th>Natural Sciences (n = 41)</th>
<th>Engineering (n = 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 10%</td>
<td>8%</td>
<td>9%</td>
<td>7%</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>10 to 20%</td>
<td>17%</td>
<td>7%</td>
<td>7%</td>
<td>10%</td>
<td>21%</td>
</tr>
<tr>
<td>20 to 30%</td>
<td>42%</td>
<td>18%</td>
<td>33%</td>
<td>24%</td>
<td>16%</td>
</tr>
<tr>
<td>30 to 40%</td>
<td>18%</td>
<td>9%</td>
<td>7%</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>40 to 50%</td>
<td>24%</td>
<td>6%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>More than 50%</td>
<td>7%</td>
<td>12%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>100%</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td>37%</td>
</tr>
</tbody>
</table>

TOTAL:
- Humanities: 2 respondents
- Social Sciences: 15 respondents
- Natural Sciences: 41 respondents
- Engineering: 19 respondents
ORPA
Office of Research & Project Administration
S2Q1: Do you submit proposals to funding agencies, corporations or foundations as part of your research activities?

- TOTAL (n = 225): Yes, 84%
- Humanities (n = 51): Yes, 65%
- Social Sciences (n = 44): Yes, 68%
- Natural Sciences (n = 82): Yes, 96%
- Engineering (n = 48): Yes, 98%
S2Q2: Please rate the ORPA process for pre-submission review of proposals.
(Question displayed if S2Q1 = Yes)

<table>
<thead>
<tr>
<th>Rating</th>
<th>TOTAL (n = 166)</th>
<th>Humanities (n = 17)</th>
<th>Social Sciences (n = 25)</th>
<th>Natural Sciences (n = 78)</th>
<th>Engineering (n = 46)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>19%</td>
<td>12%</td>
<td>24%</td>
<td>22%</td>
<td>29%</td>
</tr>
<tr>
<td>Very good</td>
<td>18%</td>
<td>35%</td>
<td>20%</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>Acceptable</td>
<td>16%</td>
<td>23%</td>
<td>20%</td>
<td>15%</td>
<td>29%</td>
</tr>
<tr>
<td>Fair</td>
<td>24%</td>
<td>6%</td>
<td>4%</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Poor</td>
<td>13%</td>
<td>13%</td>
<td>15%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Not sure, my assistant handles this.</td>
<td>2%</td>
<td>19%</td>
<td>18%</td>
<td>16%</td>
<td>2%</td>
</tr>
</tbody>
</table>
S2Q4: Please rate the ORPA process for award negotiation and acceptance process.
(Question displayed if S2Q1 = Yes)
S2Q6: Please rate the usefulness of the information on funding opportunities provided by ORPA on its website. (Question displayed if S2Q1 = Yes)
S2Q7: Please rate the knowledge and helpfulness of ORPA staff.
(Question displayed if S2Q1 = Yes)

<table>
<thead>
<tr>
<th>Category</th>
<th>Excellent</th>
<th>Very Good</th>
<th>Acceptable</th>
<th>Fair</th>
<th>Poor</th>
<th>Not sure, I don't interact with ORPA staff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL (n = 169)</td>
<td>18%</td>
<td>26%</td>
<td>20%</td>
<td>15%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Humanities (n = 20)</td>
<td>20%</td>
<td>26%</td>
<td>20%</td>
<td>5%</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>Social Sciences (n = 27)</td>
<td>18%</td>
<td>25%</td>
<td>15%</td>
<td>11%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Natural Sciences (n = 76)</td>
<td>20%</td>
<td>26%</td>
<td>18%</td>
<td>4%</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Engineering (n = 46)</td>
<td>24%</td>
<td>28%</td>
<td>24%</td>
<td>2%</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>
IRB
Institutional Review Board
S3Q1: Do you conduct or supervise research involving human subjects?

- Yes, 26% (TOTAL, n = 224)
- Yes, 18% (Humanities, n = 49)
- Yes, 55% (Social Sciences, n = 44)
- Yes, 27% (Natural Sciences, n = 83)
- Yes, 8% (Engineering, n = 48)
S3Q2: Please rate the promptness of the IRB process for human subject research protocol review and approval. (Question displayed if S3Q1 = Yes)
S3Q3: Please rate the overall helpfulness and knowledge of IRB staff.  
(Question displayed if S3Q1 = Yes)
IACUC
Institutional Animal Care and Use Committee
S4Q1: Do you conduct or supervise research involving animals?

- Total (n = 224): 9%
- Humanities (n = 49): 9%
- Social Sciences (n = 44): 2%
- Natural Sciences (n = 83): 24%
- Engineering (n = 48): 2%
S4Q2 and Q3: Please rate the following... (Questions displayed if S4Q1 = Yes)

Promptness of the IACUC process for protocol review and approval.

- Very prompt, 20%
- Prompt, 33%
- Neither prompt nor slow, 27%
- Slow, 7%
- Very slow, 13%

(n = 15)

Effectiveness of electronic handling of protocols by IACUC staff.

- Very effective, 16%
- Effective, 42%
- Neither effective nor ineffective, 31%
- Ineffective, 11%

(n = 19)
S4Q4 and Q5: Please rate the following...
(Question display if SQ4Q1 = Yes)

Your overall experience with the IACUC semi-annual review process

Excellent, 6%
Very good, 33%
Acceptable, 39%
Fair, 11%
Poor, 11%

(n = 18)

The overall helpfulness and knowledge of IACUC staff.

Excellent, 16%
Acceptable, 31%
Very good, 37%
Fair, 16%

(n=19)
LAR
Laboratory Animal Resources
S4Q1: Do you conduct or supervise research involving animals?

- **Yes, 9%** (n = 224)
- **Yes, 24%** (n = 83)
- **Yes, 2%** (n = 48)
The knowledge and professionalism of LAR staff in matters related to animal care.

- Excellent, 19%
- Very good, 37%
- Acceptable, 31%
- Fair, 13%

LAR’s interactions with my lab are cooperative and collegial.

- Strongly agree, 44%
- Somewhat agree, 31%
- Neither agree nor disagree, 13%
- Somewhat disagree, 12%
S5Q3 and Q4: Please rate the following...
(Question displayed if S4Q1 = Yes)

LAR’s interactions with my lab show the right balance between enabling research and ensuring compliance.

- Excellent: 31% (n = 16)
- Very good: 25% (n = 16)
- Acceptable: 19% (n = 16)
- Fair: 19% (n = 16)
- Poor: 6% (n = 16)

The quality of electronic handling of animal care and husbandry bills.

- Excellent: 7% (n = 16)
- Very good: 33% (n = 16)
- Acceptable: 47% (n = 16)
- Fair: 13% (n = 16)
- Poor: 13% (n = 16)
Annual disclosure forms
(Conflict of Interest)

As you know, every faculty member has to complete an annual disclosure form to report on outside professional activities; use of office or laboratory space, equipment, or students for non-University-related activities; significant financial interests related to research or teaching activities; and possible conflicts of interest.

The information requested in the annual disclosure form is needed in order to assess compliance with federal regulations and University procedures (e.g., reporting requirements for federally funded investigators; one-day-a-week rule on outside activities).
S6Q1: How would you describe the process of completing the annual disclosure form?
S6Q2: Please rate the effectiveness of University communications aimed at explaining the need for completing the form and providing the requested information.

![Bar chart showing ratings of University communications effectiveness by academic field.]

- **TOTAL (n = 220)**: 6% Very ineffective, 26% Ineffective, 14% Neither effective nor ineffective, 42% Effective, 3% Very effective, 10% Total.
- **Humanities (n = 49)**: 14% Very ineffective, 12% Ineffective, 23% Neither effective nor ineffective, 63% Effective, 2% Total.
- **Social Sciences (n = 43)**: 14% Very ineffective, 21% Ineffective, 37% Neither effective nor ineffective, 42% Effective, 8% Total.
- **Natural Sciences (n = 81)**: 11% Very ineffective, 11% Ineffective, 49% Neither effective nor ineffective, 49% Effective, 9% Total.
- **Engineering (n = 47)**: 15% Very ineffective, 12% Ineffective, 13% Neither effective nor ineffective, 62% Effective, 2% Total.
Effort certification

Effort certification is needed to assure federal and non-federal sponsors that the effort expended on sponsored activities justifies the salaries charged to projects. Faculty members who are Principal Investigators (PIs) on sponsored research projects must periodically certify that the effort expended on sponsored activities justifies the salaries charged to such projects (e.g., graduate students, post-docs, faculty summer salary).
S7Q1: Are you a Principal Investigator (PI) on a sponsored project?

- **TOTAL** (n = 224): 63%
- **Humanities** (n = 49): 14%
- **Social Sciences** (n = 44): 41%
- **Natural Sciences** (n = 83): 86%
- **Engineering** (n = 48): 92%
S7Q2: How would you describe the process of completing the online effort certification form?

- **TOTAL (n = 219)**: 4% Very complicated, 11% Complicated, 14% Neither simple nor complicated, 27% Simple, 43% Very simple
- **Humanities (n = 46)**: 14% Very complicated, 11% Complicated, 57% Neither simple nor complicated, 14% Simple, 16% Very simple
- **Social Sciences (n = 42)**: 13% Very complicated, 17% Complicated, 56% Neither simple nor complicated, 11% Simple, 6% Very simple
- **Natural Sciences (n = 83)**: 3% Very complicated, 25% Complicated, 42% Neither simple nor complicated, 17% Simple, 11% Very simple
- **Engineering (n = 48)**: 5% Very complicated, 32% Complicated, 32% Neither simple nor complicated, 18% Simple, 2% Very simple
S7Q3: Please rate the effectiveness of University communications aimed at explaining the regulatory need for completing the form and providing the requested information. (Question displayed if S7Q1 = Yes)

![Chart showing the effectiveness of University communications across different fields.](chart.png)
International aspects of research
S8Q1: Do your research projects involve a significant international component? (e.g., funding from an overseas source, research projects conducted in part or in full overseas, or relying on researchers or staff working overseas and paid by or through Princeton)

Yes, 34%  
Yes, 37%  
Yes, 48%  
Yes, 33%  
Yes, 21%

TOTAL (n = 219)  
Humanities (n = 46)  
Social Sciences (n = 42)  
Natural Sciences (n = 83)  
Engineering (n = 48)
Research-related travel and expenses
S9Q1: Which of the following options best describes your experience with the University’s online travel booking system?
S9Q2: Which of the following options best describes your experience with the University’s online travel-related expense management system?

- I don't use the online travel-related expense management system
- Very complicated
- Complicated
- Neither simple nor complicated
- Simple
- Very simple

<table>
<thead>
<tr>
<th></th>
<th>TOTAL (n = 217)</th>
<th>Humanities (n = 46)</th>
<th>Social Sciences (n = 42)</th>
<th>Natural Sciences (n = 82)</th>
<th>Engineering (n = 47)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don't use</td>
<td>16%</td>
<td>12%</td>
<td>25%</td>
<td>25%</td>
<td>26%</td>
</tr>
<tr>
<td>Very complicated</td>
<td>12%</td>
<td>20%</td>
<td>22%</td>
<td>11%</td>
<td>6%</td>
</tr>
<tr>
<td>Complicated</td>
<td>20%</td>
<td>32%</td>
<td>21%</td>
<td>33%</td>
<td>17%</td>
</tr>
<tr>
<td>Neither simple nor</td>
<td>25%</td>
<td>25%</td>
<td>22%</td>
<td>20%</td>
<td>34%</td>
</tr>
<tr>
<td>Simple</td>
<td>26%</td>
<td>24%</td>
<td>26%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Very simple</td>
<td>3%</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

TOTAL (n = 217)
S9Q3: Which of the following options best describes your experience with the promptness of travel-related expense reimbursement?

- Very slow
- Slow
- Neither prompt nor slow
- Prompt
- Very prompt

- TOTAL (n = 209)
  - Very slow: 26%
  - Slow: 31%
  - Neither prompt nor slow: 46%
  - Prompt: 55%
  - Very prompt: 56%

- Humanities (n = 45)
  - Very slow: 19%
  - Slow: 24%
  - Neither prompt nor slow: 17%
  - Prompt: 13%
  - Very prompt: 23%

- Social Sciences (n = 41)
  - Very slow: 4%
  - Slow: 4%
  - Neither prompt nor slow: 5%
  - Prompt: 4%
  - Very prompt: 4%

- Natural Sciences (n = 75)
  - Very slow: 2%
  - Slow: 2%
  - Neither prompt nor slow: 32%
  - Prompt: 27%
  - Very prompt: 15%

- Engineering (n = 48)
  - Very slow: 4%
  - Slow: 2%
  - Neither prompt nor slow: 4%
  - Prompt: 5%
  - Very prompt: 4%
Purchasing
S9Q5: Please rate the overall efficiency of the process needed to purchase research-related items.
Financial reports
S9Q6: Please rate the ease of accessing financial reports through PRIME.

- Not sure, my assistant generates report spreadsheets for me.
- Very complicated
- Complicated
- Neither simple nor complicated
- Simple
- Very simple
S9Q7: Please rate the overall effectiveness of financial reports in conveying information about research accounts simply and transparently.

<table>
<thead>
<tr>
<th>Overall Effectiveness</th>
<th>Humanities (n = 35)</th>
<th>Social Sciences (n = 31)</th>
<th>Natural Sciences (n = 74)</th>
<th>Engineering (n = 44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very ineffective</td>
<td>16%</td>
<td>24%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Ineffective</td>
<td>14%</td>
<td>17%</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>Neither effective nor ineffective</td>
<td>40%</td>
<td>49%</td>
<td>45%</td>
<td>36%</td>
</tr>
<tr>
<td>Effective</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Very effective</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
</tbody>
</table>

TOTAL (n = 184)
Final question

Please select the top three areas that in your opinion require the most improvement in order to reduce the administrative load on researchers.
S10Q1: Percentage of faculty identifying item as needing the most improvement.

<table>
<thead>
<tr>
<th>Item</th>
<th>TOTAL</th>
<th>Humanities</th>
<th>Social Sciences</th>
<th>Natural Sciences</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of faculty</td>
<td>176</td>
<td>30</td>
<td>31</td>
<td>76</td>
<td>39</td>
</tr>
<tr>
<td>Proposal submission</td>
<td>23%</td>
<td>20%</td>
<td>23%</td>
<td>22%</td>
<td>26%</td>
</tr>
<tr>
<td>Travel-related expense processing</td>
<td>17%</td>
<td>43%</td>
<td>16%</td>
<td>12%</td>
<td>8%</td>
</tr>
<tr>
<td>Financial reports</td>
<td>17%</td>
<td>17%</td>
<td>10%</td>
<td>17%</td>
<td>23%</td>
</tr>
<tr>
<td>IRB</td>
<td>9%</td>
<td>10%</td>
<td>26%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Purchasing</td>
<td>9%</td>
<td>7%</td>
<td>10%</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>IACUC</td>
<td>6%</td>
<td>0%</td>
<td>0%</td>
<td>13%</td>
<td>3%</td>
</tr>
<tr>
<td>Travel booking</td>
<td>6%</td>
<td>0%</td>
<td>3%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Effort reporting form</td>
<td>5%</td>
<td>0%</td>
<td>10%</td>
<td>7%</td>
<td>0%</td>
</tr>
<tr>
<td>Award negotiation</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Conflict-of-interest form</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Capital equipment tracking</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>8%</td>
</tr>
<tr>
<td>Laboratory safety inspections</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
</tr>
</tbody>
</table>
S10Q1: Percentage of faculty identifying item as among the three needing the most improvement. (Top three most frequently cited: 1  2  3)

<table>
<thead>
<tr>
<th>Item</th>
<th>TOTAL</th>
<th>Humanities</th>
<th>Social Sciences</th>
<th>Natural Sciences</th>
<th>Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of faculty</td>
<td>176</td>
<td>30</td>
<td>31</td>
<td>76</td>
<td>39</td>
</tr>
<tr>
<td>Number of selections</td>
<td>462</td>
<td>81</td>
<td>79</td>
<td>199</td>
<td>103</td>
</tr>
<tr>
<td>Financial reports</td>
<td>47%</td>
<td>40%</td>
<td>42%</td>
<td>50%</td>
<td>51%</td>
</tr>
<tr>
<td>Proposal submission</td>
<td>44%</td>
<td>37%</td>
<td>35%</td>
<td>53%</td>
<td>41%</td>
</tr>
<tr>
<td>Travel-related expense processing</td>
<td>41%</td>
<td>67%</td>
<td>45%</td>
<td>37%</td>
<td>26%</td>
</tr>
<tr>
<td>Travel booking</td>
<td>27%</td>
<td>50%</td>
<td>19%</td>
<td>21%</td>
<td>26%</td>
</tr>
<tr>
<td>Purchasing</td>
<td>24%</td>
<td>27%</td>
<td>26%</td>
<td>18%</td>
<td>33%</td>
</tr>
<tr>
<td>Award negotiation</td>
<td>16%</td>
<td>20%</td>
<td>16%</td>
<td>16%</td>
<td>15%</td>
</tr>
<tr>
<td>IRB</td>
<td>16%</td>
<td>20%</td>
<td>35%</td>
<td>11%</td>
<td>8%</td>
</tr>
<tr>
<td>Conflict-of-interest form</td>
<td>15%</td>
<td>10%</td>
<td>23%</td>
<td>16%</td>
<td>10%</td>
</tr>
<tr>
<td>Effort reporting form</td>
<td>13%</td>
<td>0%</td>
<td>13%</td>
<td>13%</td>
<td>21%</td>
</tr>
<tr>
<td>IACUC</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
<td>17%</td>
<td>3%</td>
</tr>
<tr>
<td>Capital equipment tracking</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
<td>26%</td>
</tr>
<tr>
<td>Laboratory safety inspections</td>
<td>3%</td>
<td>0%</td>
<td>0%</td>
<td>5%</td>
<td>5%</td>
</tr>
</tbody>
</table>