COMMITTEE ON RESEARCH
Annual Report 2022-2023

To: Academic Senate, Santa Cruz Division

The Committee on Research (COR) is charged with reviewing campus and system-wide policies and issues related to UCSC’s research mission. The committee also advises and collaborates with the Office of Research to promote faculty research. COR directly supports faculty researchers through a COR faculty allowance (CFA), COR large research grants (CLG), and the Scholarly Meeting and Travel/Inter-Campus Travel (SMT/ICT) grants, and works to develop policy and strategy that assist with broad research goals, like increasing multi-principal investigator initiatives.

I.  Summary

The committee’s primary two projects this year involved the full implementation of the CFA and CLG, and the final summary of the COVID Impact Report. The labor actions undertaken by graduate students and postdocs, and the impact of the final contracts on campus research, were also a topic of frequent discussion by the committee.

A.  Faculty Allowance and the Large Grants Program

The CFA, developed by COR and the CP/EVC in academic year (AY) 2021-2022, was implemented at the beginning of the fall quarter in this academic year. A total of 422 faculty applied for and received CFA grants of $2,000. Funds that remained after CFA requests were fulfilled were used to fund the CLG, a competitive program for grants of up to $10,000 to support faculty-led research. Calls for CLG proposals were made in the winter quarter, and proposals were adjudicated by the committee in the spring. A total of 30 CLG grants were awarded across all five divisions.

A call for requests for CFA allocations for AY 2023-2024 was issued in May, and closed in June 2023, so that awards can be processed and distributed during the summer term. COR expects to follow a similar schedule for the CFA in future years.

A full summary of the implementation of the CFA and CLG in the first year is provided along with this annual report.

B.  COVID Impact Report

During AY 2021-2022 the committee conducted a survey of faculty on the impacts of the COVID-19 pandemic on their research activities. A short summary of that survey was provided in last year’s annual report. In the current academic year, COR revisited the results of that survey, and produced a full report outlining the results. Recommendations to help the campus prepare for, and respond to, future disruptions to campus operations were also provided. The COVID impact survey report (see appendices) was provided to the Senate Executive Committee in April, and is attached to this annual report.
C. Graduate Student and Postdoctoral Scholar Strike

The labor actions that took place in the second half of the fall term generated significant discussion in committee meetings, both internally and during consultations with Interim Vice Chancellor for Research John MacMillan. The committee expressed concerns that the strikes by graduate students and postdocs would impact research activities and harm Principle Investigator (PI)/student relationships. The committee drafted an open letter\(^1\) emphasizing the importance of graduate students and postdoctoral scholars to the research mission of the university.

After the labor contracts were negotiated, the committee noted that the new salaries for postdocs and graduate student researchers, as negotiated by University of California, Office of the President (UCOP), represented a significant increase in costs for faculty PI’s. These increased costs partially motivated the rollout of the CLG in the first year of the CFA, in the hopes that some CLG funds might offset the increased costs of the new postdoc and GSR salaries.

II. Research Grants

Funding Overview

A. COR Faculty Allowance (CFA)

Academic year 2022-2023 was the inaugural year for the CFA. This program is funded annually at $1,239,720 and is limited to Senate faculty as defined by subsection 105.1 of the Standing Orders of the Regents.\(^2\) The amount of the award is $2,000 and the term of the grant is two years. Faculty are invited to apply every year.

This year there were two calls: one in the fall for the 2022-2024 term and a second in the spring for the 2023-2025 term (see table below). Going forward, all CFA calls will take place during the spring quarter.

B. Scholarly Meeting and Travel (SMT) and Inter-Campus Travel Grants (ICT)

Through these grants, the committee supports faculty travel to scholarly meetings and intercampus travel to research facilities, field stations, and sister UC campuses. Senate faculty may apply for the $1,000 Scholarly Meetings (SMT) or $250 Inter-Campus (ICT) Travel grants. Going forward these programs will be funded by the CFA allocation, primarily through carryforward of CFA funds from previous years, and topped off by current-year CFA funds as needed.

C. COR Large Grant Program (CLGP)

In AY 2022-2023 COR was able to offer the CLGP as a way to provide more substantial support for campus research. This offering was possible due to leftover funds from the CFA, as well as substantial carry-over funds from the SMT fund. The call was transmitted on March 1, 2023 and final notifications of awards were transmitted on May 25, 2023.

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\(^1\) COR_ASCGallagher_Grad Strike_20221117
\(^2\) https://regents.universityofcalifornia.edu/governance/standing-orders/so1051.html
Future offerings will be dependent on the amount of carry-over from prior year allocations, and unspent balances of current year CFA balances not allocated to the SMT program.

<table>
<thead>
<tr>
<th>Research Grant Program</th>
<th>Funded</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty Allowance (22-24)</td>
<td>422</td>
<td>$842,400 (FY23)</td>
</tr>
<tr>
<td>Faculty Allowance (23-25)</td>
<td>340</td>
<td>$665,750 (FY24)</td>
</tr>
<tr>
<td>Large Grant Program</td>
<td>30</td>
<td>$288,840 (FY23)</td>
</tr>
<tr>
<td>Travel Grants</td>
<td>185</td>
<td>$182,878 (FY23)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,314,118 (FY23)</td>
</tr>
</tbody>
</table>

III. Reviews of Policy and Process

Divisional
- Space Management Policy
- Strategic Plan Draft Reports
- Review of Draft Research Plan: UCSC.edu Feedback Surveys

Systemwide
- Second Systemwide Review of Proposed Revisions to Academic Personnel Manual Section 025, Conflict of Commitment and Outside Activities of Faculty Members (APM - 025) and Section 671, Conflict of Commitment and Outside Activities of Health Sciences Compensation Plan Participants (APM - 671)
- Proposed Presidential Policy on Inventions, Patents, and Innovation Transfer
- Proposed Presidential Policy BFB-BUS-43 - Purchases of Goods and Services; Supply Chain Management
- Proposed Presidential Policy on Sustainable Practices

IV. Upcoming Agenda for 2023-24

The committee will further explore the following topics in AY 2023-2024:
- The rules governing the creation and evolution of campus research centers are often opaque, even to research center leadership and campus administration. COR would like to work with the Office of Research and other campus stakeholders to clarify the role and governance of non-organized research unit (ORU) research centers on campus.
- The changes in the recently negotiated graduate student researcher (GSR) and postdoc labor contracts are already having an effect on campus research, and more changes are likely in two years when they will be renegotiated. COR will continue to work with other Senate committees and the Office of Research to inform campus and systemwide leadership about the response to the current contracts and future negotiations.

3 This total is not included in the FY23 total. This is due to the fact that there were two calls during the 2023-2024 academic year, one in the fall and one in the spring, which represent two different fiscal years and grant periods. The total allocation inclusive of the FY24 CFA call is $1,969,868.
Respectfully Submitted,

COMMITTEE ON RESEARCH
Elliot Campbell
Nicolas Davidenko
James Doucet-Battle
Katherine Isbister (W, S)
Irene Lusztig
Michael Stone
Gina Athena Ulysse
Ali Yanik
Michael Hance Chair

August 31, 2023
Executive Summary

The Faculty Senate Committee on Research (COR) distributed approximately $1.1M to support faculty research in 2022-2023, a substantial increase relative to previous years. The increased support enabled the creation of a new, non-competitive “faculty allowance” program, paired with a “large grants” program that funded more substantial activities through a competitive process. This report provides a summary of how the new funds supporting research and scholarly activities on campus were allocated and spent.

Introduction

The UC Santa Cruz Faculty Senate Committee on Research (COR) has long been responsible for distributing a fraction of indirect costs recovered from federal contracts and grants to support faculty-led research and scholarly activities. Until recently, COR was allocated the equivalent of 5% of total indirect cost receipts, which in recent years corresponded to approximately $365,000. These funds were then distributed to faculty through a mix of different programs, including competitive research grants, adjudicated by COR, and non-competitive awards supporting scholarly travel.

In April 2022, the CP/EVC, in consultation with COR, created a new program to support faculty research. The new program replaces the prior model based on indirect cost recovery with an annual allocation of $2,000 per “filled faculty FTE”, as defined on July 1st of each year. In the
2022-2023 academic year, the filled faculty FTE was calculated to be 619.86, resulting in an allocation of $1,239,720.

The proposal that COR made for the increased allocation included plans for tiered funding levels, including both competitive and non-competitive programs. A similar program at UC Davis offers all faculty access to a modest amount of research funds every year, with the balance of funds being used to support larger competitive awards. During the 2021-2022 academic year, COR determined that each senate faculty member should have the right to request $2,000 on a non-competitive, opt-in basis. The first COR “Faculty Allowance” grants were distributed in summer 2022.

During the 2022-2023 academic year, after the faculty allowance grants had been distributed, and since Scholarly Meeting and Travel (SMT) requests could still be funded from carryforward SMT funds from previous years, COR determined that the remaining funds should be used to support faculty-led projects on a competitive basis. The COR “Large Grants” program was created to fund faculty awards of up to $10,000.

In the following sections, we describe the “faculty allowance” and “large grants” programs in more detail, including how funds were distributed across divisions, and how individual faculty used those funds to support their research.

**Faculty Allowance**

The COR Faculty Allowance (CFA) program was developed by COR in academic year 2021/2022 after formal approval of the program by CP/EVC Kletzer on April 6, 2022. The program was announced to the faculty in a Senate meeting on May 20, 2022 by Chair Nicolas Davidenko. Feedback from that meeting was incorporated in the final implementation of the CFA for the 2022/2023 academic year. One notable message from the May 2022 Senate meeting was the importance of continuing the Scholarly Meeting and Travel (SMT) program, in addition to the faculty allowance. While the SMT account would no longer be funded by campus, COR agreed that SMT requests should continue to be funded from the CFA program once the remaining balance of SMT funds was expended.¹

Previous funding programs administered by COR assumed that faculty would spend their allocations within one year. However, there were frequent requests for extensions, and COR

¹ Due to reduced travel during the COVID-19 pandemic, there were enough SMT funds carried forward from previous years to grant all SMT requests in AY 2022/2023. The use of CFA funds to support SMT requests will only start in AY 2023/2024.
recognized that giving faculty flexibility to spend funds at times that would most benefit their research should be a goal for the new CFA program. All CFA applicants were therefore given a two-year window in which to spend their CFA allocations, after which unspent funds would be returned without the possibility of extension.

Applications for the CFA were opened on October 1, 2022 and closed on October 14, 2022. Applicants were able to request up to $2,000, which was automatically approved if they qualified as Senate Faculty. No justification or detailed budget was required. A description of the program was provided in CARS (see the Appendix for the full text), along with allowed uses of CFA funds, which were significantly broader than typically permitted for (N)FRG awards.²

The total CFA allocation in AY 22/23 was based on a “filled faculty FTE” count of 619.86, resulting in an allocation of $1,239,720. Historically COR has deemed all Senate faculty eligible for COR funding, and COR chose to continue that practice with the CFA funds. This meant that 846 faculty across all five academic divisions were eligible to receive funds. A total of 422 faculty requested funds during the open application period in October 2022, or approximately 50% of eligible faculty. The breakdown of this count by division is provided below.

<table>
<thead>
<tr>
<th>Division</th>
<th>Applications</th>
<th>Eligible</th>
<th>Percentage</th>
<th>Total Distributed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>57</td>
<td>113</td>
<td>50%</td>
<td>$114,000</td>
</tr>
<tr>
<td>BSOE</td>
<td>46</td>
<td>121</td>
<td>38%</td>
<td>$92,000</td>
</tr>
<tr>
<td>Humanities</td>
<td>75</td>
<td>202</td>
<td>37%</td>
<td>$150,000</td>
</tr>
<tr>
<td>PBSci</td>
<td>100</td>
<td>191</td>
<td>52%</td>
<td>$200,000</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>144</td>
<td>219</td>
<td>66%</td>
<td>$288,000</td>
</tr>
<tr>
<td>Total</td>
<td>422</td>
<td>846</td>
<td>50%</td>
<td>$844,000</td>
</tr>
</tbody>
</table>

Additional information was collected on the allocation by position, provided below.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Applications</th>
</tr>
</thead>
</table>

² Requests for clarification on the use of funds were usually sent to Senate analyst Chad Silva and forwarded to the COR Chair or the full committee for discussion. Requests for specific uses of funds were almost always granted, except where prohibited by university purchasing policies.
The application asked faculty to indicate how they intended to use the CFA funds, without committing to a specific use, and allowing faculty to indicate more than one spending category. The results of that informal survey are provided below.

<table>
<thead>
<tr>
<th>Category</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Office Equipment</td>
<td>161</td>
</tr>
<tr>
<td>Specialized Research Equipment and Materials</td>
<td>170</td>
</tr>
<tr>
<td>Student Support</td>
<td>210</td>
</tr>
<tr>
<td>Conference and Field Travel</td>
<td>293</td>
</tr>
<tr>
<td>Professional Services and Memberships</td>
<td>188</td>
</tr>
<tr>
<td>Other</td>
<td>77</td>
</tr>
</tbody>
</table>

During the application period for the AY 2023/2024 CFA, which opened in May 2023, faculty were asked how they spent their CFA funds in AY 2022/2023. This survey does not capture all uses of CFA funds, since not all faculty receiving funds responded, and not all faculty receiving funds spent their 2022/2023 allocation before the survey was completed. However, these results mostly agree with the predictions made by faculty when requesting the funds in September 2022.

<table>
<thead>
<tr>
<th>Category</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer and Office Equipment</td>
<td>129</td>
</tr>
<tr>
<td>Specialized Research Equipment and Materials</td>
<td>112</td>
</tr>
</tbody>
</table>
Large Grants

The authorization of the allocation from the CP/EVC allowed for “a mix of faculty research grant levels,” which aligned with COR proposals for a tiered funding model that included both non-competitive and competitive awards. The committee decided to open a competitive large grants program to fund specific, faculty-led research projects funded by the remaining balance after the CFA applications were processed. Awards in PBSci were partially funded from an endowment provided by the Earle C. Anthony foundation that supports on-campus research in the Physical and Biological Sciences. An award amount of $10,000 was chosen, to support projects at a level beyond the previous (N)FRG awards, but still below larger seed-funding programs run by the Office of Research.

A full description of the COR Large Grants (CLG) program is available in Appendix II. The program was announced on March 2, 2023 and proposals were accepted until April 7th, 2023. Proposals were encouraged from faculty in all divisions and disciplines. Proposals had to include a narrative as well as a budget justification, with a maximum award amount of $10,000.

Proposal adjudication within the committee began immediately following the application deadline, and lasted through mid-May. In our adjudication process, the committee agreed to work explicitly to assure equity in divisional representation of awardees. A total of 30 proposals were selected for funding, at a total cost of $288,840. A breakdown of funded proposals by division is provided below.

<table>
<thead>
<tr>
<th>Division</th>
<th>Proposals</th>
<th>-funded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences</td>
<td>30</td>
<td>9</td>
</tr>
<tr>
<td>Humanities</td>
<td>18</td>
<td>6</td>
</tr>
</tbody>
</table>

3 In the future, when the SMT program is funded by the same allocation that funds the CFA and not by carryforward from previous years, the SMT program will be allocated at least as much as needed to cover the previous year’s SMT requests before funding the large grants.
Conclusion

The recent increase in resources for supporting faculty research at UC Santa Cruz has helped to energize campus research and scholarly activities. The mixture of non-competitive “allowance” awards and more competitive large grants appears to be popular with faculty, and gives COR sufficient flexibility to ensure that faculty needs from all divisions and disciplines are served by these funds. The call for requests for CFA funds for AY 2023/2024 concluded before the end of the spring quarter, which will allow COR to continue with the programs established in the first year of the new model.

Appendix I: Description of Faculty Allowance

The COR Faculty Allowance is described in CARS (https://cars.ucsc.edu/cor/page/104/view) and provided below.

Overview

What: the COR Faculty Allowance program (CFA) is a non competitive grant program intended to provide financial support for research related activities of Senate faculty. This program replaces predecessor programs such as the New Faculty Research Grant (NFRG), the Faculty Research Grant (FRG) and the Special Research Grant (SRG). The fundamental difference is that faculty will no longer be required to submit a project proposal but will instead be required to fill out a simple application. The only requirement needed to apply is that the applicant is a member of the Santa Cruz Division of the Academic Senate. This program does not replace either the Scholarly Meeting and Travel (SMT) nor the Inter-Campus Travel (ICT) programs. These will still be running concurrently with funds available on a first come, first serve basis.
Policy

The application will open in the fall in the 2022-23 year. In the 2023-24 year the call for the CFA will go out during the spring quarter and will be awarded prior to the opening of the next fiscal year and will run during the fiscal year of July 1 - June 30 just as the FRG has in past years. This is to bring the grant into alignment with campus and state budget timelines. Senate faculty members will have two years to spend their award which will be $2000. Any unexpended balance left after two years will be automatically returned to COR without extension. The maximum balance of CFA funds that can be held in an account is $4000. That is, a faculty may retain funds up to a maximum of $4000 and have two years to spend the award.

So, during the 2022-23 fiscal year, the faculty member receives $2000. They elect not to spend it in 2022-23 and will have until the 2024-25 fiscal year to do so. The faculty member is awarded $2000 in 2023-24, the following year. Their CFA balance is now $4000. They will have until the end of the 2023-24 fiscal year to spend the 2022-23 balance. If they do not, the balance will be automatically returned. However, they may apply again in 2024-25 and receive another $2000, thus retaining a balance of $4000 if they wish. This automatic return removes the necessity of having the faculty member request an extension since they will be automatically eligible to apply in the next cycle.

A brief description of allowable expenses follows.

Allowable Expenses

Allowable expenses fall into five broad categories:

- Computer and Office Equipment
  - This includes but is not necessarily limited to:
    - Computers
    - Hardware, software
    - Printers, copiers
    - Paper and other print materials for manuals, texts, etc.
- Specialized Research Equipment
  - This includes but is not necessarily limited to;
    - Custom orders for research-related materials
    - Laboratory equipment
    - Laboratory samples or specimens for testing
    - Access to, or copies of, archival materials, manuscripts
- Student Support
Appendix II: Description of Large Grants Program

The COR Large Grants Program description was distributed as part of the application process on CARS, and is provided below.

Overview

The Committee on Research (COR) is pleased to announce a competitive grant program for UCSC faculty that extends the COR Faculty Allowance (CFA) program. COR “Large Grants” (CLG) can be proposed for any amount up to $10,000, with the number of awards determined by the yearly balance of the CFA. Awards are intended to support faculty research and scholarly activities, broadly defined. Budgets might include: summer Graduate Student Researcher (GSR) support; travel; event costs; materials and supplies; participant support; manuscript fees; and other expenses allowed by the CFA. Faculty summer salary is not an allowed use of these funds, nor are course buyouts. Awards are made for a period of two years, with funds expected to be available in late June. No extensions will be granted.

COR anticipates having funds for approximately 30 awards, and expects that awards will be made supporting a broad range of scholarly activities. Faculty from all campus divisions are
eligible and encouraged to apply. Awards to faculty from the Division of Physical and Biological Sciences will be partially funded by an endowment named after Earl C. Anthony.

**Eligibility**

All UCSC tenure-track or tenured Senate faculty, including teaching professors and emeritus faculty, are eligible to apply.

Adjunct faculty, visiting faculty, staff, postdoctoral fellows or scholars, fellowship trainees, and graduate students are not eligible.

**Application Requirements**

The application will be submitted via a form that collects basic information about the proposal. A narrative portion will be uploaded by the applicant.

- **Form information:**
  - Project title
  - Faculty member name and contact information
  - Department and Division of the faculty member
  - Amount requested, up to $10,000
  - Current and Pending (other) funding. List all funding, but indicate which is relevant to the proposed project.
  - List of other COR awards (excluding the $2,000 CFA) from the previous 3 years

- **Narrative description (not to exceed 2 pages)**
  - **Project Summary**
    - Motivation and description of the project. Is this an extension of existing work, or a new area?
    - Timeline for the project
    - Expected outcomes and criteria for success of the project
    - Qualifications of the faculty or team that will contribute to the success of the project
  - **Budget Justification**
    - Description of costs
    - Role of CLG funds. Will the project only rely on CLG funds, or are CLG funds being used in conjunction with other support? How critical are CLG funds to the success of the project?
Review Criteria

Applications will be evaluated based on:

- Clarity and accessibility of the proposal to reviewers, who are of varying intellectual backgrounds
- Strength, creativity, and/or novelty of the proposal
- Impact of the award on the success of the project
- The compatibility of the timeline of the proposed work with the two-year award

Junior (un-tenured) faculty, and faculty looking to use this award to pivot into new areas of activity, are particularly encouraged to apply.

Applications that propose to use funds for summer GSR support are also encouraged, especially to fund students that would otherwise not have summer support.
Impact of the COVID-19 Pandemic on Faculty Research

April 4, 2023

UC Santa Cruz Faculty Senate Committee on Research
Elliot Campbell, Nicolas Davidenko, James Doucet-Battle,
Michael Hance (Chair), Katherine Isbister, Kevin Lofgren (Graduate Representative),
Irene Lusztig, Michael Stone, Gina Athena Ulysse, Ali Yanik
Chad M. Silva (Analyst)

Executive Summary

A survey of faculty was conducted in Spring 2022 by the UC Santa Cruz Faculty Senate Committee on Research (COR) to assess the impacts of the COVID-19 pandemic on all areas of campus life. The results of the survey indicate that the impacts of the pandemic are broad and ongoing, and continue to affect many faculty members in their research and other endeavors. This report presents the findings of the survey and provides recommendations for mitigating the impact of the past and present effects of the current pandemic, and for improving our campus’ resiliency to future pandemics.

Survey Design

The survey was distributed to all Senate faculty on April 23, 2022 and responses were closed on May 12, 2022. The survey was structured as a Google Form, with a set of questions that collected demographic information about the respondents, followed by questions that asked faculty to rate the impact of the pandemic on various endeavors using 5-point scales ranging from 1 (little/no impact) to 5 (significant impact). Several free-response questions were also provided to allow faculty to give unstructured feedback on their experiences in navigating research, teaching, mentoring, service, and the campus in general during the pandemic. A full list of survey questions is provided as an appendix at the end of this report.
Description of the Sample

Responses were collected from a total of 121 faculty across all divisions. A detailed divisional breakdown is provided below.

<table>
<thead>
<tr>
<th>Division</th>
<th>Number of respondents</th>
<th>Percentage of divisional faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical and Biological Sciences</td>
<td>29</td>
<td>15.2%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>36</td>
<td>16.4%</td>
</tr>
<tr>
<td>Arts</td>
<td>13</td>
<td>11.5%</td>
</tr>
<tr>
<td>Jack Baskin School of Engineering</td>
<td>15</td>
<td>12.4%</td>
</tr>
<tr>
<td>Humanities</td>
<td>27</td>
<td>13.4%</td>
</tr>
</tbody>
</table>

Findings

The survey results showed that the pandemic had, and continues to have, a substantial impact on faculty research and productivity. Over half of faculty respondents are concerned about the impact of COVID not only on their short term goals, but on their career as a whole.

The survey questions covered many aspects of faculty experience. We group the findings into three general categories: impacts on research; impacts on teaching, mentoring, and service; and feedback on the campus’ response to the pandemic.

Impacts on Research

In qualitative assessments of the overall effect of the pandemic on their research, a large majority of faculty, across all campus divisions, reported moderate to significant impacts. This includes impacts on data collection, creating, writing, publishing, exhibiting, and performing. Junior faculty members appear to have been particularly impacted, with one noting “Every single stage of my research process as a relatively new assistant professor has been severely impaired by the pandemic.” Research involving human subjects was also especially affected,
with one faculty member writing “My research involves in-depth in person interviews. We weren’t able to collect any data with either college students or adolescents”.

One of the most frequently cited impacts of the pandemic was the lack of interactions with colleagues, both on campus and off, and on travel for research in general. A large majority of respondents reported that the pandemic had a significant impact on travel. While it was no surprise that travel was heavily impacted, the broad effects this had on research continue to be felt. One respondent noted that “Much of my research is abroad in multiple countries and I have had to abandon all of it...20 years of work. It is hard for me to explain what the consequences have been”. Some respondents noted that campus travel restrictions were often confusing or seemingly applied differently across divisions, which further added to confusion and frustration among faculty.

Many faculty incurred direct financial losses as a result of their lost productivity or the lost productivity of their research teams. Direct costs include support for GSRs and lab staff that were unable to access campus facilities or collect data. As one faculty member succinctly noted, “Lab members still needed to be funded despite significant drop in productivity. Only one funding source offered a supplement.” When asked to assign a dollar value to the lost productivity, the median reported impact was in the range of $10,000-$20,000 per faculty.
member. However, many faculty reported financial impacts over $20,000, suggesting that the average (mean) impact may be much higher.

When asked which factors, outside of travel, had a significant impact on research progress, faculty noted “home dynamics” and “access to lab/studio/office” in large numbers. Approximately a third of survey participants also noted “illness, mental health” had a significant impact on their research.

Impacts on Teaching, Mentoring, and Service

Many faculty noted that they prioritized teaching demands over research during the pandemic, compounding other inhibitors of research productivity such as lost work time due to illness or caregiving responsibilities and increased time spent pivoting to online instruction. Survey respondents reported a significant increase in teaching load, and no corresponding reduction in service responsibilities, as shown in the survey responses below. Time for research was almost always lost to more immediate demands from teaching and service.
Faculty who mentored graduate students during this period also highlighted the significant impacts of the pandemic on graduate student productivity. A large majority of respondents mentored graduate students who experienced moderate to significant setbacks in their progress. Faculty noted that such students needed just as much (or more) mentoring to overcome those setbacks as they would in normal circumstances, and in many cases faculty continued to fund those students as GSRs despite the lost productivity.

Campus Response to the Pandemic

Faculty evaluations of the campus’ response to the pandemic were mixed. A significant number of responses praised the campus for doing the best it could during challenging circumstances. However, a number of areas for improvement were raised.

Allowing holds on tenure clocks was recognized as an important step in the campus response. Many faculty further recommended that standards for personnel actions be adjusted in light of the pandemic, which has also been a priority for CAP. Overall, there was a desire for recognition of the extensive teaching and service that was provided under extreme circumstances, and for release from non-research obligations in the future.
A large number of responses criticized the closure of the campus library and other campus services during the pandemic, even as other UC campuses found creative ways to offer those services to their campus communities. Lack of access to the library was a substantial impediment to faculty research, as noted in several free responses:

"The Library could have been more flexible (or even just a little bit flexible) with faculty who needed access to print materials and ILL, instead of inaccurately insisting that the Hathi Trust emergency access worked for everybody's needs."

"An effort might have been made to keep the library open for shelf-browsing, on an appointment basis perhaps."

Different areas of research experienced very different impacts of the pandemic. Faculty in lab-based disciplines noted that occupancy restrictions had severe impacts on their research, and were confusing to navigate especially in the earliest months of the campus closure. Faculty who perform research involving human subjects expressed frustration in the IRB process during the pandemic, which was both slow to review cases and also slow to adopt policies that would allow studies that met public health guidelines to resume. Some faculty suggested that other UC campuses were able to implement policies that allowed for human subjects research to proceed with less administrative burden than on our campus.

Discussion

The findings above illustrate the broad impact the pandemic has had on faculty research, and the disparate impact it has had on subsets of the faculty, including caregivers, junior faculty, and specific disciplines.

We found through the free-text responses that the survey results are limited in their ability to quantify the impact on the faculty as a whole as well as specific subsets of faculty. Several respondents noted that we did not collect information on gender or parental/caregiver status, which may have helped to identify groups of faculty who had more adverse experiences than others. We also noted that the response rates were relatively low, between 10% and 16% depending on the division; a larger response rate would certainly lead to more robust conclusions.

Nevertheless, with over 100 responses to work with, a number of strong messages were clear. One clear message that should inform present and future policy is that the impacts of the
pandemic were not felt equally across campus, with some faculty experiencing little or no impact on their work while others had their research careers upended. Another clear message is that mitigating the setbacks from the pandemic is, in many cases, not an intractable problem, and can sometimes be accomplished with relatively modest resources. Taken together, these messages, along with the detailed findings above, inform recommendations for how the campus can respond to the current pandemic, as well as future disruptions.

Recommendations

We group our recommendations for this campus into two categories: those concerning the COVID-19 pandemic, and those that look ahead to future long-term disruptions in campus operations.

Mitigating the Effects of COVID-19 on Faculty Research

When faculty were asked directly about how the impact of the pandemic on their research might best be mitigated, teaching and service release along with bridge funding for ongoing research received overwhelming support. Other forms of bridge funding, such as GSR fellowships and travel funding, were also noted as possible mitigations.

While the pandemic may be in the past for many faculty, others are still heavily impacted. We recommend the creation of an application-based program for COVID-19 relief grants in the range of $10,000 to $20,000. Such a program would still have a significant positive impact on faculty research. In addition, we recommend a similar program for teaching and/or service release.

Our campus offered the ability to place a hold on the tenure clock for non-tenured faculty, and many survey respondents noted the importance of that program for their own files. We recommend the campus continue to use tenure holds as one part of a portfolio of mitigation measures.

Another popular mitigation is the consideration of the impacts of the pandemic on faculty research in personnel actions. Many faculty emphasized the importance of this in their responses, and COR was reassured to hear repeated and strong statements from CAP and the CP/EVC that faculty should include a COVID impact statement as part of their files. We recommend that this practice continue for at least the next several years, as the impacts of the pandemic on research output can take several years to be felt. As one survey respondent noted
in Spring 2022, "my ‘gap’ in publications will come in about 1-2 years from now," implying effects that may still be seen in personnel actions through 2026 and beyond.

**Mitigating Future Disruptions to Campus Operations**

The recommended mitigations listed above for the ongoing pandemic are also the first set of recommendations for mitigating the effects of future emergencies on faculty research. Application-based programs for teaching release and bridge funds would likely have a substantial positive effect in maintaining faculty research during a major disruption, and allow the campus to target relief to those who need it most. Tenure holds and special consideration in personnel actions will also be important parts of a comprehensive mitigation strategy.

The survey responses also reinforced the message that not all faculty were affected equally by the pandemic, so a one-size-fits-all approach is unlikely to be the right way to equitably support a diverse faculty population. We recommend that the campus clearly articulate its priorities when it comes to future funded mitigation efforts, even if funding levels and specific actions necessarily need to be defined later. A good example of a program with clear priorities was the COVID-Related Caregiver Modified Duties (CCMD) program in 2021, in which faculty who had substantial caregiving responsibilities during the pandemic could apply for release from teaching and/or service. Other structured programs might support junior faculty, or faculty who live in areas most affected by the cause of the disruption.

We recommend that the administration prepares strategies to offer campus services, like library and lab access, in ways that mitigate the impact of public health emergencies on faculty, students, and staff.

Finally, we recommend that the UCSC Office of Research prepare guidelines for how human subjects research can proceed during future disruptions, and especially during pandemics.

**Conclusion**

The COVID Impact Survey conducted by the UCSC Committee on Research in Spring 2022 offers a new window into the challenges faced by faculty during and after campus closures during the COVID-19 pandemic. Our campus has taken many steps to mitigate the impact of the pandemic on the campus community, but more can be done to help individual faculty who experienced a broad range of setbacks during the pandemic. We hope that the findings and recommendations provided in this document will clarify possible paths forward for remediating
the adverse effects of COVID-19 on faculty research, and for making our campus more resilient to future disruptions to campus operations.

Appendix: Survey Questions

1. Name (optional)
2. Division
3. Check the group with which you most closely identify:
4. Has the pandemic significantly affected your research with respect to data/information acquisition?
5. Has the pandemic significantly affected your research with respect to interactions with colleagues, students, post-docs?
6. Has the pandemic significantly affected your research with respect to travel for research?
7. Has the pandemic significantly impeded your ability to write or create?
8. Has the pandemic significantly impeded your ability to publish/perform/exhibit?
9. Feel free to add any comments related to the questions above.
10. Outside of travel, which factors have significantly impacted your research progress?
   (Check all that apply)
11. Were there additional demands on teaching that disproportionately impacted your research productivity
12. Were there additional demands on service that disproportionately impacted your research productivity?
13. Have your graduate students experienced setbacks that have caused delays to their degree milestones?
14. Did you support graduate students, post-docs, undergraduates, or staff from your grants who were unable to work during campus closures?
15. Feel free to add any comments related to the questions above.
16. Are you concerned about the long-term impacts of the pandemic on your research career?
17. If possible, please estimate the financial impact of the pandemic on your research
18. Do you have any feedback about what the campus could have done differently to mitigate the impacts of the pandemic on research?
19. What can be done now to make up for some of your losses? (For example: bridge funding, service or teaching release)
20. The pandemic may have had some positive impacts on your research productivity. If so, please explain.