

COMMITTEE ON RESEARCH Annual Report 2023-24

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 (OR) to promote faculty research. COR directly supports faculty researchers by awarding COR Faculty Allowance (CFA), travel grants (SMT/ICT), and this year a COR Large Grants Program (CLGP), and works to develop policy and strategy that assist with broad research goals, like increasing multi-principal investigator initiatives.

I. Summary

The committee engaged in several discussions and activities in this academic year. COR's most impactful activity remains the management of approximately \$1.2 million in research funds. This marks the first full academic year of the COR Faculty Allowance and Large Grants program, in which the research funds are made available to Senate faculty through both non-competitive and competitive programs. The committee also conducted a survey of research center directors to understand the challenges and opportunities for research centers on our campus. Descriptions of both the management of research funds and the results of the research center survey are available in sections II and III of this report, respectively.

A. Systemwide and Campus Topics Affecting Research

COR discussed a number of different systemwide and campus issues affecting research.

Systemwide, the implementation of new Graduate Student Researcher (GSR) and postdoc contracts continue to impact research on all UC campuses, with most disciplines that support large numbers of GSR's experiencing contractions in their graduate programs. Later in the year, there were renewed discussions of how to clarify the distinction between academic work (as assessed through academic credits towards a degree) and paid labor (GSR appointments). The impact of the strikes and financial costs associated with the new contracts on research groups depend strongly on the discipline and funding structure of each research group. Finally, the rollout of new financial management software implemented by Oracle continues to cause significant financial harm to research groups at affected campuses, most notably at UC San Diego and UC Merced. The Office of Research on our campus has expressed no immediate plans to transition to an Oracle-based solution, but has made clear that more sophisticated financial management tools will be needed to keep pace with the rapid increase in extramural funding on our campus.

On our own campus, a number of infrastructure and Information Technology (IT) issues emerged as highly relevant for faculty research. The implementation of storage quotas in Google Workspace was one of the most high-profile changes in IT policy in this academic year. A lack of communication surrounding that rollout led to significant confusion and concern, particularly for faculty that rely on Google storage for research products. Late in the year COR also learned about significant upcoming changes to Information Protection

rules that will require updates to network configurations that are likely to impact research groups with local computing infrastructure. We encourage the IT division to consult regularly with COR to help mitigate the impact of such changes on the research enterprise. Additional challenges arose from several large-scale power outages that impacted many research teams, with at least one outage occurring during a scheduled downtime for the campus's cogeneration plant, COGEN (during a period of particularly pleasant weather). Power outages continue to be highly disruptive to research, and COR encourages campus administration to continue to apply pressure on PG&E to improve the reliability of power service to our campus. In the meantime, the campus should consider how to support research groups in improving local resiliency, ideally in ways that align with clean energy goals.

Late in the year, a joint consultation of the Committee on Planning and Budget (CPB) and the chair of COR with the CP/EVC and some of her staff focused on Indirect Cost Recovery (ICR) and its use on campus. The administration is launching a review of how the proceeds of indirect costs generated by extramural funding are used on our campus. CPB noted that the current use of such proceeds is opaque, and there are few, if any, guardrails that ensure those funds are used in support of the research enterprise, as funding agencies commonly expect they will be. COR agrees with CPB that a bright line should be drawn around indirects to ensure that they are not used inappropriately in attempts to mitigate larger budget problems on our campus. Transparency in the allocation of indirects, and guidelines for units receiving indirects to ensure those units use the funds appropriately, should be a priority of the committee charged with revisiting this issue.

Related to the topic of ICR is the allocation of funds for the CFA. Previous allocations of ICR used to fund COR programs such as the Faculty Research Grants were tied to a percentage of total campus ICR, while the CFA is funded at a rate of \$2,000 per senate faculty FTE. The total CFA allocation exceeds previous ICR distributions by a large amount, but the fixed allocation per Senate faculty full time equivalent (FTE) means that inflationary pressures will quickly erode the impact of the CFA program for individual researchers. COR strongly encourages re-establishing a relationship of the total CFA allocation to a percentage of campus ICR, with a percentage that will maintain or increase the CFA relative to its 2024-2025 total.

Finally, COR consulted with Becky George, Assistant Vice Provost of Global Engagement, who described the Faculty Seminar Away program, which this year sent faculty to the UK to foster collaborations between faculty at UCSC and partner institutions. A COR representative sat on the panel that selected Seminar Away participants, and COR looks forward to exploring more opportunities for collaboration with the Global Engagement team.

B. Research Units

The Office of Research (OR) restarted regular reviews of Organized Research Units (ORU's) with the review of the Institute of Marine Sciences (IMS). The review panel was composed of outside experts and reported their findings to OR. John MacMillan, Vice Chancellor for Research (VCR), consulted with COR on the review findings. The next

ORU review will be Santa Cruz Institute for Particle Physics (SCIPP), held in August 2024. OR consulted with COR on the composition of the SCIPP external review committee.

Prior to the IMS review, the most recent ORU review appears to have been approximately 15 years ago, much longer than the nominal five-year period expected for regular ORU reviews. The findings in the IMS review illustrate that regular reviews of major campus programs, represented through ORU’s, can be an appropriate and healthy way to identify areas of opportunity, and highlight areas where improvement may be needed. COR looks forward to seeing the outcome of the upcoming SCIPP review. However, the long gap between reviews has eroded the Senate’s institutional memory on best practices for participating in the review process, and recently COR has largely been reactive to OR requests for participation. The reset in ORU review cadence offers an opportunity for COR to engage more in the ORU reviews, primarily to hear directly from ORU faculty researchers and leaders about the challenges and opportunities they face as ORU affiliates. One way this might be achieved is through a post-review consultation held with the ORU director, possibly along with the VCR or other relevant stakeholders, in which the outcome of the review is presented and discussed.

II. Research Grants

A. Funding Overview

COR Faculty Allowance (CFA). This program is funded at a rate of \$2,000 per Senate faculty FTE per annum. In 2023-24 the funding level was \$1,281,380 (\$2000 @ 641 FTE).

COR Large Grant Program (CLGP). This grant is funded by the CFA funds that remain after the transfer of funds has been completed for all those who applied. In addition to the carry forward CFA funds, COR also has at its disposal the Earl C. Anthony Endowment for the Physical and Biological Sciences Division, which is funded annually at approximately \$31,719.

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 grant, respectively.

| Research Grant Program | Funded | Amount |
|-------------------------------|---------------|--------------------|
| Faculty Allowance (2024-2026) | 415 | \$829,680 |
| Large Grant Program | 32 | \$363,189* |
| Travel Grants | 230 | \$233,835 |
| Total | | \$1,426,704 |

**Includes \$48, 000 from the Earl C. Anthony Endowment for PBCSci*

B. Administration and Usage of the CFA

The CFA is used by faculty from all divisions and career stages to support their research. The breakdown of CFA recipients by division for the 2024-2026 allocation is shown below.

| Division | Respondents | Percentage |
|---|--------------------|-------------------|
| Social Sciences Division | 131 | 31.6% |
| Humanities Division | 76 | 18.3% |
| Arts Division | 50 | 12.0% |
| Baskin Engineering | 53 | 12.8% |
| Physical & Biological Sciences Division | 105 | 25.3% |
| Total | 415 | |

Faculty are encouraged to use the CFA in any way they feel is most impactful for their individual research program. Faculty who request an allowance the following year are asked to indicate ways in which they used the previous year’s CFA. Faculty requesting the CFA in June 2024 indicated that they used the CFA in many ways, including:

| Usage (2023-2024) | Respondents | Percentage |
|--|--------------------|-------------------|
| Computer and Office Equipment | 87 | 21.0% |
| Specialized Research Equipment and Materials | 97 | 23.4% |
| Student Support | 80 | 19.3% |
| Conference and Field Travel | 175 | 42.2% |
| Professional Services and Memberships | 92 | 22.2% |

Many faculty indicated that they used the CFA in more than one way, but by far the most common use was for travel. In discussions with Senate faculty, a common point of praise for the CFA is how it can be used to fill gaps in portfolios of external awards. It is often the case that even well-funded groups have need for materials or services that cannot be covered on existing grants. The existence of even a modest annual allowance significantly simplifies transitions between projects.

C. Administration and Usage of the COR Large Grant Program

The COR Large Grants (CLG) program is a competitive grant program funded with CFA funds that remain after distribution of the \$2,000 allowance. Since the allowance is an opt-in program, the funds available for large grants fluctuate year to year. Funds remaining after the CFA and CLG are funded are carried forward to the following year to support the

SMT program. This year COR determined that it had sufficient funds for approximately 30 large grants of up to \$12,000 each. Awards of up to \$12k allow, for example: funding of a graduate student over the summer; purchase of laboratory supplies or artistic materials; and travel to field sites. Approximately two additional awards in PBSci are also available using the Earl C. Anthony Endowment.

The call for CLG proposals was distributed on January 26th, 2024, with a proposal deadline of 11:59 pm on March 4th, 2024. The call was open to all Senate faculty from all academic divisions and departments. The Arts Division had fewer proposals than other divisions in the first year of the CLG, so additional efforts were made this year to advertise the CLG within those disciplines. The call emphasized that proposals would be evaluated based on: intellectual merit; clarity and accessibility to reviewers from across the campus; impact of the award on the proposed project; and compatibility of the project timeline with the two-year award period.

COR received 123 proposals for the CLG, an almost 50% increase relative to the previous year, while the number of awards remained similar to the previous cycle. This made the review challenging; CLG adjudication occupied the committee for most of the spring quarter. Awards were announced in June, and funds were made available to awardees over the summer. The list of awards for this cycle, as well as previous cycles, is available at: <https://senate.ucsc.edu/committees/cor-committee-on-research/funded-clgp-proposals/index.html>

As with the previous year, COR prioritized coverage of all academic divisions, as measured in both the number of awards and the percentage of funded proposals within each division. The number of proposals for each division was very similar in this cycle, so all five divisions received either six or seven awards, for a total of 32. The acceptance rate was 26% overall, and ranged from 25% to 33% depending on the division.

III. Research Center Survey

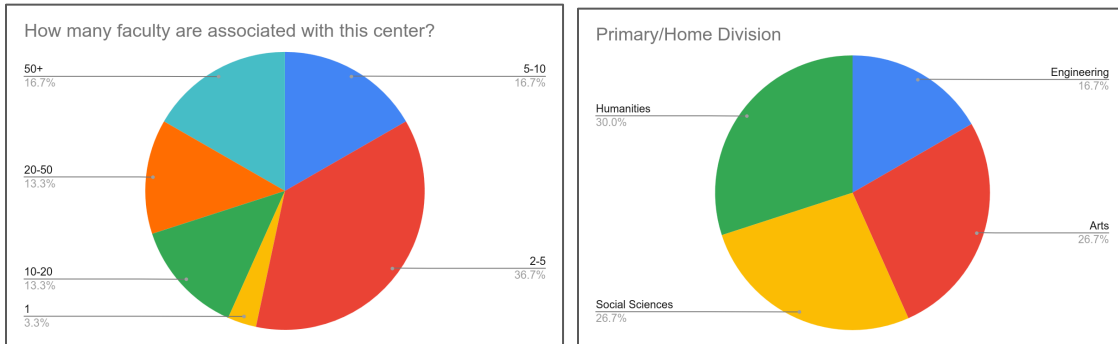
In March 2024, COR distributed a survey to campus research center directors. The goal of the survey was to better understand the challenges faced by faculty researchers on campus, especially those working on collaborative projects in the context of research centers. Directors of organized research units (ORU) and multi campus research units (MRU) were invited to participate to provide points of comparison for the size, scale, and scope of research centers, but the results presented below focus only on non-ORU/MRU centers.

The survey was developed within COR and distributed to campus research center directors on March 17, 2024. Reminders to fill in the survey were sent on April 9, and the survey closed on April 30, 2024. Of the 47 active campus research centers identified by COR, 30 responded. Both campus MRUs also responded, along with one out of three ORUs.

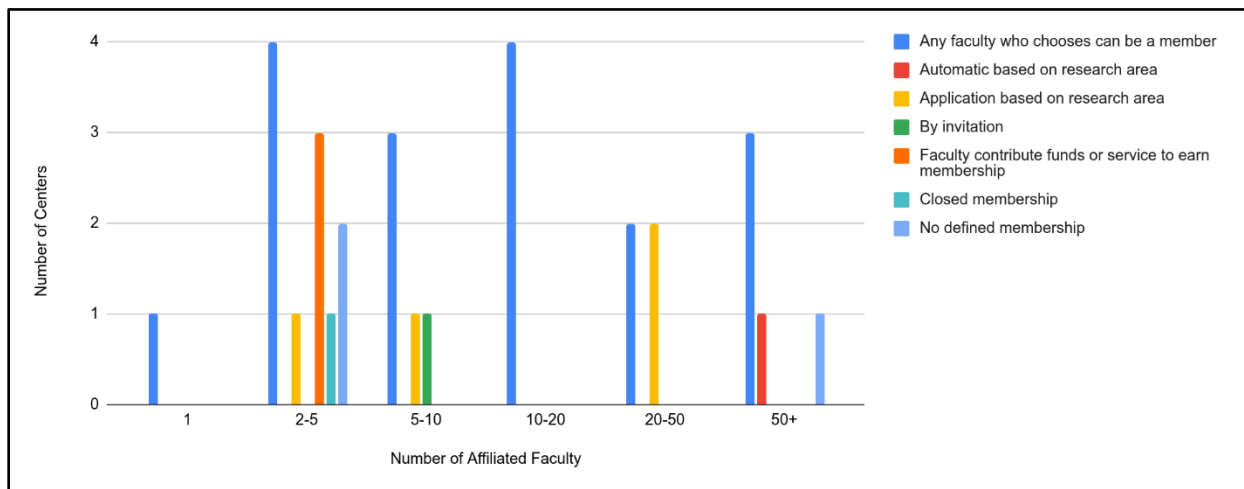
A. Demographics

The size and distribution of research centers across academic divisions is shown in the figures below. More than half of the responding centers have fewer than ten affiliated

faculty, and five non-ORU/MRU centers report having over 50 affiliated faculty. Research centers are prevalent across all divisions, though COR received no responses from the Physical and Biological Sciences. (Two ORUs and one of the MRUs, are aligned with PBSci, which may contribute to the relatively low number of smaller centers in that division.)



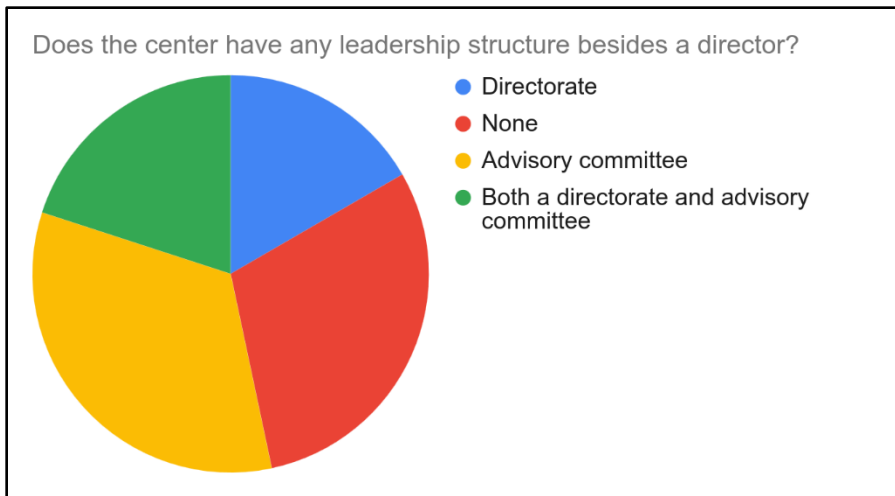
The majority of research centers are also inclusive in how they define membership, with either no-cost, opt-in affiliations, or automatic affiliations based on their research area. There does not appear to be a strong correlation between the size of the research center and the policies surrounding membership, though the centers with relatively few members do tend to have more restrictive membership policies.



B. Research Center Leadership

While there are clear guidelines for ORUs and MRUs concerning formation, governance, and sunseting, guidelines for research centers are less consistent. Nevertheless, centers frequently do have well-defined and active governance structures that impact the scope and operation of the center’s activities. While all centers have a primary director or point of

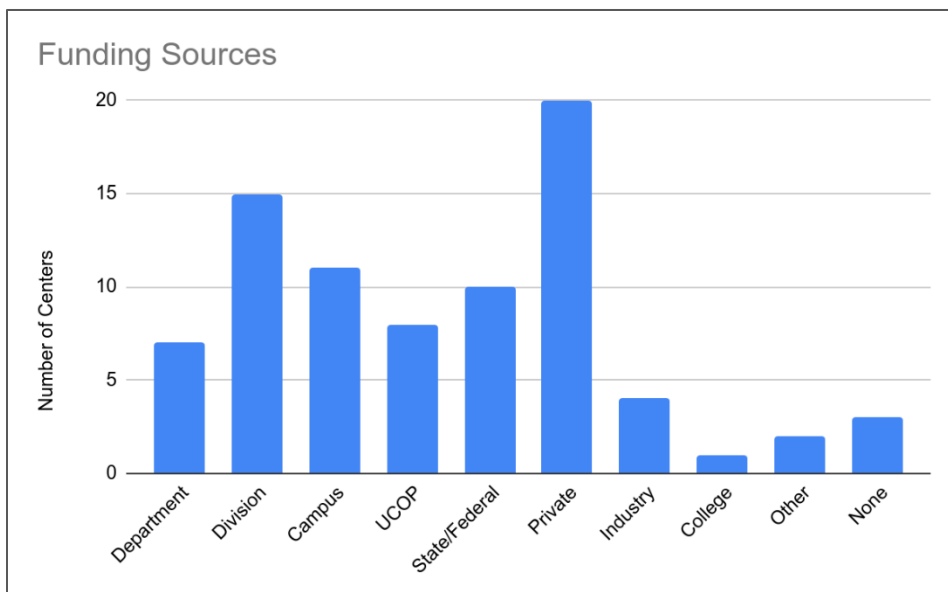
contact, most centers also have additional faculty or staff forming a directorate, advisory committee, or both.



Half of the centers surveyed have only been led by a single director. Three centers (10% of responding centers) undergo regular transitions to a new director every few years.

C. Funding Sources

Campus research centers derive funding from a broad range of different sources, as shown below. Most responding centers indicate that they rely on multiple funding sources to operate and grow their programs.

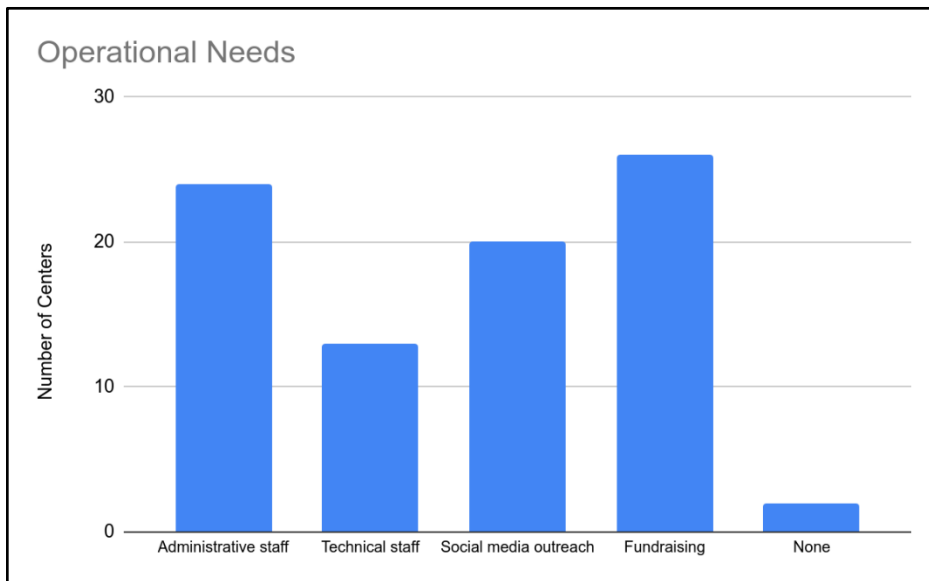


Private donors, including foundations and individual/philanthropic gifts, support two thirds of the centers responding to the survey. Departments, divisions, the campus, and UCOP support at least half of the responding centers, and state/federal funds support a third. Over 75% of responding centers have extramural funding from non-university sources. The

survey did not collect information on the amount of funding in each category, so the relative importance of each category of funding for each center cannot be meaningfully assessed.

D. Operational Needs and Challenges

Research center directors identified a range of operational needs that are critical to their missions. Most centers identified various forms of staff support, either administrative staff or in fundraising/research development, as a significant need. Technical support for engineering and scientific projects was also a frequent response. A minority of centers indicated that their needs were entirely met with existing resources, usually through affiliation with a larger institute.



Several additional questions with free-form responses collected information on the needs of research centers. Most center directors indicated that additional funding, and especially stable funding that can be used to bridge gaps in extramural support, would mitigate many of their challenges and enable their centers to take advantage of new opportunities.

Administrative staff was identified as the single most important form of support for most centers. Navigation of university bureaucracy effectively requires staff support, especially for essential functions such as hiring, purchasing, safety, and compliance. Many centers indicated that they do not need full-time staff support, and even part-time support in the form of administrative research staff shared across multiple centers would still be transformative. One specific area of need is in fundraising, especially in the Social Sciences where faculty noted a lack of research development support from the division/campus. Closer partnership of research development with individual research centers represents an opportunity for growth of individual centers, as well as the entire campus's research portfolio. A related form of staff support that centers identified as a need is campus communications specialists that can assist with center newsletters, social media, and other outreach materials. Individual centers, especially those with fewer than 20 affiliated faculty, are unlikely to be able to support an outreach specialist just for themselves, but

could benefit from a part-time specialist that works with a number of different campus groups.

While the governance structures of research centers vary widely, it is clear that many centers, and center directors, value their autonomy. However, relatively few research centers are established with clear guidelines on their rights and responsibilities. Centers that rely on financial or in-kind support from departments, divisions, or the campus can find themselves subject to significant pressures regarding changes in leadership, governance, or research priorities.

Finally, research center leaders noted that they often feel the contributions from their centers are undervalued by the university. Increased recognition of the important role that research centers play in cultivating new research and enabling ongoing projects can lead to a virtuous cycle of improved morale, re-energized research, and increased extramural support. Recognition can come in many forms, including elevation of research center missions in campus-wide or public communications, as well as through personnel actions for center leadership/directors.

E. Recommendations

In light of the findings presented above, COR has several recommendations for departments, divisions, and campus-level units:

1. While most research centers are small, several are large, even exceeding the size of established ORUs. With only three ORUs, our campus trails most or all other UC campuses, some of which have more than ten times as many. Our campus should re-evaluate the balance of ORUs vs centers. COR suspects that for large centers willing to undergo this transition, the campus will benefit both financially and reputationally from such a change in designation.
2. For smaller centers, or large centers who do not prefer ORU status, our campus should define clear guidelines governing their formation, governance, financial support, reviews, and sunseting.
3. Our campus should work towards a model in which a pool of administrative staff is available to support research center operation. Year-to-year fluctuations in funding for smaller centers can be evened out in such a collective model. Staff positions should include specialists in research administration, fundraising, and outreach.
4. COR recommends increased recognition of research centers and their accomplishments, both within the campus community as well as publicly, as a way to support faculty research and the unique role that research centers play in our research ecosystem. This is relevant not only for small centers, but also for large centers, ORUs, and MRUs.

IV. Reviews of Policy and Process

Divisional

- Leading the Change Strategic Plan (LTC)
- Income Disposition for UC-owned Copyrightable Materials, Data, and Tangible Research Property

- Draft Policy for Automatic License Plate Readers (ALPR)

Systemwide

- Systemwide Review of Proposed Presidential Policy BFB-BUS-46 Use of University Vehicles

V. Upcoming Agenda for 2024-25

The committee will further explore the following topics in 2024-25:

- Central funding to COR for faculty research support (travel, faculty allowance, and “large” grants)
- Impact of new contractual environment on hiring and working with graduate student and post-doctoral researchers
- Follow up on the survey of campus research centers, conducted in 2023-24
- Research dimensions of ADA and related access issues, and campus responsibilities in this regard

Respectfully Submitted,

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