

Committee on Research Examining the University Opportunity Fund

To: Academic Senate, Santa Cruz Division

The research mission of UCSC has become integral to the reputation of the campus. Research highlights have been cited at public events throughout the year, most notably in Chancellor Blumenthal's 2012 State of the Campus Speech. The Committee on Research (COR) administers three grant programs that offer vital support to this mission. The Scholarly Meeting Travel (SMT) program helps create visibility for UCSC by supporting faculty presence at scholarly meetings around the world. Faculty Research Grants (FRGs) and Special Research Grants (SRGs) provide seed funding for new research and especially help junior faculty as they establish their individual research careers.

COR grants are selective and peer-reviewed. Over the last five years (2008-09 through 2012-13), the average funding success rate for FRGs is 75.5% and the average rate for SRGs is 42.6%. The funding offered through these programs has shrunk dramatically over the past several years. Nevertheless, even the relatively small grants currently offered by COR make a big difference for faculty. Without COR grants, too many faculty would need to choose between covering their research expenses out of pocket or abandoning their projects.

Realizing that all parts of the university have felt the effects of the budget cuts and that the campus does not currently have access to new funds to distribute to groups like COR, the committee has undertaken an examination of the distribution of the indirect funds that faculty research generates at UCSC.

Indirect Cost Recovery (Overhead) Distribution at UCSC

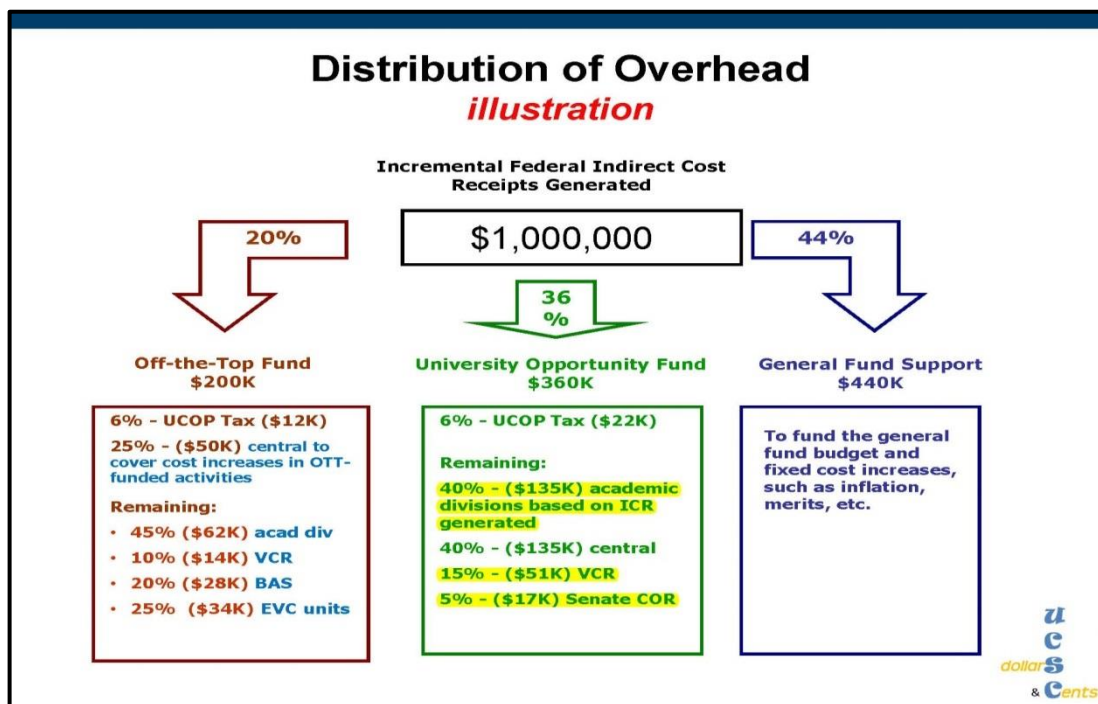
Indirect Cost Recovery (ICR) funds, also known as "overhead," are received by the university to offset the cost of services it renders in support of grants and contracts. ICR is not intended to completely cover the costs of doing research. As a public institution, we have an obligation to spend a portion of our funds in pursuit of research. A concise description of ICR funds can be found on the UCSC Planning and Budget Toolkit webpage:

The amount is based on the indirect cost rate, which includes the cost of facilities (such as equipment, research space, maintenance and utilities, and the library) as well as departmental administration and support. The current negotiated rate for the Santa Cruz campus is 51%. The "effective" rate (the amount actually generated as a percentage of expenditures) is closer to about 27% because not all federal contracts and grants generate overhead (i.e. equipment grants) and sometimes the overhead is waived or is reduced.¹

At UCSC, ICR funds go into three "buckets": Off-the-Top Fund; University Opportunity Fund; and General Fund Support. The percentage of the ICR that goes to each bucket (20%, 36%, and 44% respectively) is a systemwide policy. Figure 1 shows an illustration of the current distribution model.

¹ Indirect Cost Recovery (ICR). UCSC Budget & Resource Management: <http://planning.ucsc.edu/budget/toolkit/icr/>
Accessed May 15, 2013.

Figure 1. Current distribution of ICR funds at UCSC²



Once the ICR funds are in these three buckets, the campus must decide how to distribute them in a way that best supports the research mission of the university. In response to an administrative proposal, distribution of the Off-the-Top Fund (OTT) underwent extensive Senate review in 2010-11 and the administration was receptive to the recommendations of the Senate. Since its inception, the distribution of the University Opportunity Fund (UOF), however, has *never been reviewed by the Academic Senate and the rationale for the current split never articulated*. The formula was developed at a time of faculty growth upon which growth of research funds are dependent, and now that our faculty is reaching a steady state, it is time to understand our distribution methodology and, if warranted, change it to maximize support for research.

COR is convinced that the UOF funds allocated to both the VCR and the academic divisions are used in support of research. But how these funds are used is not transparent. Multiple requests from COR to the VCR’s office have not yielded a summary of the research support it provides from its portion of the UOF. The use of the division portion varies by Dean and is not publicly available, nor is the portion (if any) allocated to the departments. Since support for research is scarce among COR, the VCR and academic divisions, it is time to be confident that we are making optimal use of our UOF.

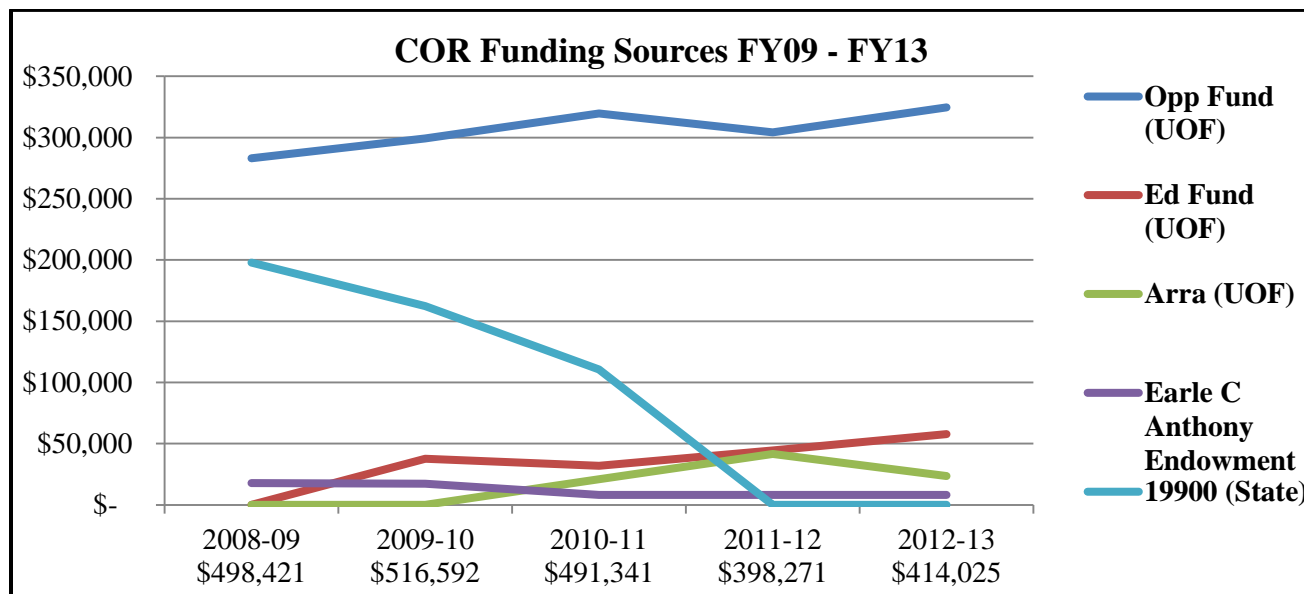
In July of 2012, UCSC was approved for an increase in its ICR rate. The current rate of 51% will rise 0.5% each year for the next five years. This increase further presents an opportunity for an examination of the 40/40/15/5 split of the UOF (and indeed OTT) to ensure that these funds are supporting faculty researchers in the best ways possible. At question in particular are the 15% / 5% split between the Vice Chancellor for Research (VCR) and COR, as well as the 40% portion to the academic divisions.

² An interactive model of this distribution chart can be viewed at <http://planning.ucsc.edu/budget/toolkit/icr/>. The figure of \$1,000,000 is a sample amount. The 6% UCOP tax to OTT and UOF in this diagram is no longer mandated by UCOP but is maintained on our campus as a contribution to the single UCOP assessment established through Funding Streams.

The 15% / 5% Split Between the VCR and COR

Under the current UOF distribution model (known as 40/40/15/5), COR receives 5% of the UOF. These funds now comprise 98% of COR’s budget. *The 40/40/15/5 split was conceived at a time when COR was also receiving permanent 19900 state funds, which have since been cut entirely.* Figure 2 provides a summary of COR funding sources from 2008-09 through 2012-13.

Figure 2. Sources of COR funding for 2008-09 to the current fiscal year



COR’s budget is used exclusively for faculty support. COR puts all of its money directly into the hands of faculty researchers in the form of Scholarly Meeting Travel (SMT) support or Faculty Research Grants (FRGs) and Special Research Grants (SRGs). COR’s annual budget decisions are completely transparent and accountable through its annual report submitted to the Senate. A summary of the last four years of COR support can be found in Appendix A. Any increase in this percentage of the UOF would positively affect COR’s ability to seed fund the important research of our faculty. Also, COR grants often lead to new extramural funding that brings in additional ICR to campus. A snapshot of the impact of recent COR grants can be found in Appendix B.

The 40% to the Academic Divisions

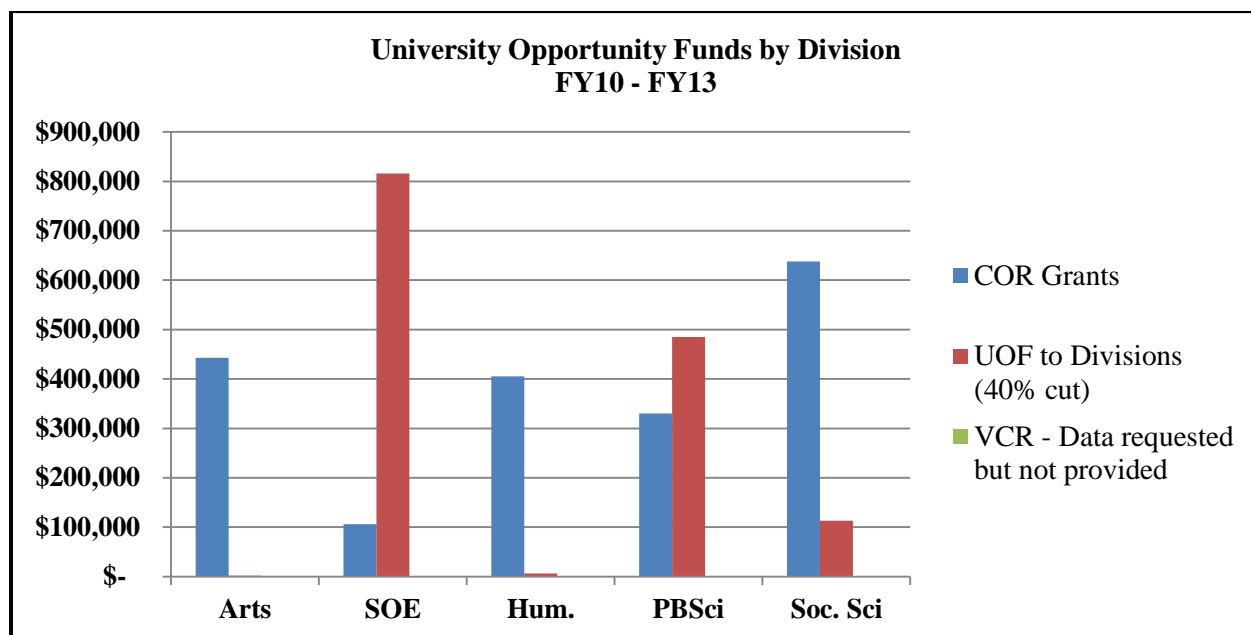
As COR carried out its analysis of the 15/5 split, we came to re-examine the entire UOF funding pool. A simple glance at the UOF allocations shows a greater amount going to SOE and PBSci, divisions with greater opportunities for extramural funding. To offset this, COR has traditionally provided more support to the Arts, Humanities, and Social Sciences Divisions as a way of balancing the access to research support for UCSC faculty. As a result, a shift in the 15/5 VCR and COR distribution would greatly aid faculty members in the latter divisions. To similarly aid faculty members in SOE and PBSci, COR suggests a change in the 40% of the UOF that currently goes to academic divisions.

Reserving 5% of this 40% to return to the individual faculty PIs who generated the ICR would put research funds directly into the hands of researchers who earn grants. This unrestricted form of money would both incentivize and facilitate research by these PIs. It would cover expenses

that cannot be charged to federal grants as well as seed new research directions. COR has considered putting a cap on these PI returns, possibly at \$20K per PI, as well as limiting access to FRG/SRG grants for PIs earning more than \$100K direct per year. These funds would be unrestricted research funds and would greatly enhance the research environment at UCSC, as expenses for research, such as ICR rate, GSR tuition, and fringe benefits, continue to increase.

Looking separately at the 15%/5% VCR/COR portion or at the 40% to the academic divisions is not sufficient due to the disproportionate effect on different faculty groups. COR is calling for an examination of the entire 40/40/15/5 split of the UOF. This approach gives the campus the best opportunity to ensure fair treatment of all disciplines. Figure 3 shows the distribution of these funds to the five academic divisions over the last four years.

Figure 3. Distribution of UOF funds and COR grants awarded by division for FY10 to 13



After consultation with COR on May 14, 2013, Executive Vice Chancellor (EVC) Galloway is seeking more data on the use of the UOF funds by the VCR's office and the academic divisions. As this data becomes available, COR will continue to update the Senate. We present this report now so that faculty can begin to discuss the possible impacts of changes to this distribution formula. COR looks forward to your feedback as the committee will continue this work with the EVC in the fall.

Respectfully Submitted;
COMMITTEE ON RESEARCH

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May 17, 2013

APPENDIX A

COR runs three grant programs for faculty. One program offers travel support for faculty to present their research at scholarly meetings around the world and the other two programs offer research support in the form of peer-reviewed grants. COR puts research funds directly into the hands of individual faculty members. These funds often play a crucial role in the development of exciting new areas of research for campus. The details of each program are available in COR Annual Reports, making all funding decisions transparent.

The limits for these research support programs are set according to the available COR funds in a given year. The three programs are:

Faculty Research Grants (FRGs) - Competitive start-up grants awarded each spring. Limits have ranged from \$1500 - \$2500.

Special Research Grants (SRGs) - Competitive large grant (often collaborative in nature) awarded each spring. Recent limits have been \$10,000 (2009-10), \$15,000 (2010-11), and \$8,000 (2011-12, 2012-13).

Scholarly Meeting Travel (SMT) - One-time annual travel support grants awarded throughout the year. Limits are \$650/year with an option for up to \$1,000 every three years. A flat rate of \$700/year will go into effect July 1, 2013.

The data below can be found in COR's Annual Reports:

<http://senate.ucsc.edu/committees/cor-committee-on-research/cor-annual-reports/index.html>

Faculty Research Grants (FRGs)

	Applications	Total Amount Requested	Average Amount Requested	Funded Projects	Total Amount Funded	Average Award Amount	Percent of Requested Money Funded
2008-09	146	\$252,036	\$1,726.27	129	\$185,592	\$1,439	73.6%
2009-10	128	\$205,306	\$1,603.95	110	\$166,856	\$1,517	81.3%
2010-11	127	\$255,779	\$2,014	110	\$146,480	\$1,332	57.3%
2011-12	84	\$130,386	\$1,552	72	\$108,161	\$1,502	83.0%
2012-13	112	\$174,474	\$1,558	93	\$143,668	\$1,545	82.3%

Special Research Grants (SRGs)

	Applications	Total Amount Requested	Average Amount Requested	Funded Projects	Total Amount Funded	Average Award Amount	Percent of Requested Money Funded
2008-09	53	\$687,456	\$12,971	30	\$238,575	\$7,953	34.7%
2009-10	45	\$526,108	\$11,691	31	\$213,680	\$6,893	40.6%
2010-11	45	\$418,939	\$9,310	31	\$218,155	\$7,037	52.1%
2011-12	24	\$158,698	\$6,612	14	\$83,132	\$5,938	52.4%
2012-13	47	\$331,112	\$7,045	22	\$110,815	\$5,037	33.5%

Scholarly Meeting Travel (SMT)

	Applications	Total Amount Requested	Average Amount Requested	Funded Projects	Total Amount Funded	Average Award Amount	Percent of Requested Money Funded
2008-09	171	\$126,990	n/a	171	\$126,990	\$743	100.0%
2009-10	154	\$113,246	n/a	154	\$113,246	\$735	100.0%
2010-11	162	\$139,058	n/a	162	\$139,058	\$858	100.0%
2011-12	165	\$138,974	n/a	165	\$138,974	\$842	100.0%
2012-13	165	\$134,458	n/a	165	\$134,458	\$815	100.0%

APPENDIX B

COR Grant Impact

On the 2012-13 COR FRG/SRG application, faculty were asked to provide the following information:

1. List all Faculty Research Grants (FRGs) and Special Research Grants (SRGs) received during the last 3 years, and a short summary of the project result.
2. Please describe if your project(s) resulted in further funding and/or proposals or publications.¹

Responses from 2012-13 applicants for FRGs and SRGs provided the following summary of COR grant impact from 2009-10 to present:

COR grants from 2009 to present have resulted in:

- **\$6,492,083 in external funding**
- **62 external grants sought**
- **156 publications**
- **15 books**
- **26 performances or exhibitions**
- **25 presentations**
- **7 fellowships**
- **3 CDs**
- **2 films**

It is important to note that not all recipients of COR grants from 2009-2012 applied for COR grants again in 2012-13, meaning that this data is just a snapshot of the impact of COR funding. The following page lists highlights of COR-supported or -seeded research as taken from the UCSC Research Highlights webpage (<http://www.ucsc.edu/research/highlights.html>) and local press.

¹ A full pdf version of the 2012-13 COR FRG/SRG Application can be viewed at: http://senate.ucsc.edu/committees/cor-committee-on-research/grant-applications/Application_Sample_201213.pdf

Further COR Grant Impact Highlights

Faculty Name	Grant/Award/Honor	Project	COR Support	Year
Nobuhiko Kobayashi <i>Electrical Engineering</i>	2012 R&D 100 Award (Oscar of Innovation)	“Low-cost plasma processing system...that enables production of nanoscale materials at lower temperatures, faster rates, and with enhanced properties” <i>-news.ucsc.edu June 2012</i>	\$15,000	2007-08
Carolyn Dean <i>Anthropology</i>	2011 Avery Prize from Association for Latin American Art (for best scholarly book published on the art of Latin America)	<u>A Culture of Stone</u> (2011)	\$1480	2007-08
Karen Tei Yamashita <i>Literature</i>	2011 California Book Award 2010 National Book Award Nomination	<u>I Hotel</u> (2010)	\$1500	2007-08
Lisbeth Haas <i>History</i>	2012 Dwight L. Smith (ABC-CLIO) Award from the Western History Association	<u>Pablo Tac, Indigenous Scholar</u> (2012)	\$1400	2008-09
Rebecca Braslau <i>Chemistry</i>	Santa Cruz Sentinel Article UCSC Research Highlights	Development of spray to detect poison oak and its relatives	\$1500	2008-09
A. Marm Kilpatrick <i>Ecology & Evolutionary Biology</i>	\$2 million NIH Grant	Research on climate change and the transmission of mosquito-borne diseases	\$2,000	2008-09
Raphael Kudela <i>Ocean Sciences</i>	\$4 million NOAA Grant	Using robotics and sensor networks to monitor toxic algae blooms along the California coast	\$3000	2009-10 2010-11
Karen Otteman <i>METOX</i>	UCSC Research Highlights	Reducing dangers of ulcers and stomach cancer by taming stomach bacteria	\$4090	2012-13
Gustavo Vazquez <i>Film & Digital Media</i>	Film premier at Pacific Rim Festival	<i>Jugando con Fuego</i>	\$2000	2008-09

APPENDIX C

COR Grants by Division 2007-08 to 2012-13

Acronyms		
FRG	Faculty Research Grant	Competitive grant of up to \$2000 awarded by COR each spring
NFRG	New Faculty Research Grant	Grant awarded by COR each fall that allows faculty starting July 1 access to immediate research funding
SRG	Special Research Grant	Competitive grant currently up to \$8,000 (historically as high as \$20,000) awarded by COR each spring
SMT	Scholarly Meeting Travel	Once annual grant (per faculty) of up to \$650 - \$1000 for travel to scholarly meetings

Arts						
Grant Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
FRG	\$59,640	\$50,280	\$45,695	\$43,686	\$36,731	\$35,765
NFRG	\$3,899	\$1,812	\$2,000	\$0	\$0	\$0
SRG	\$49,578	\$53,475	\$46,180	\$45,629	\$35,373	\$25,350
SMT	\$23,548	\$18,400	\$18,350	\$20,658	\$22,100	\$22,400
Total	\$136,665	\$123,967	\$112,225	\$109,973	\$94,204	\$83,515

Percentage of Eligible Arts Division Faculty that Apply for COR grants					
2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
47%	56%	68%	47%	47%	40%

**Total Arts
 2007-13
 \$660,549**

Engineering

Grant Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
FRG	\$1,595	\$3,500	\$5,500	\$2,475	\$1,500	\$3,000
NFRG	\$1,600	\$2,000	\$2,000	\$0	\$1,500	\$0
SRG	\$30,000	\$39,000	\$0	\$20,526	\$0	\$6,000
SMT	\$8,300	\$8,550	\$5,950	\$10,900	\$5,600	\$7,250
Total	\$41,495	\$53,050	\$13,450	\$33,901	\$8,600	\$16,250

Percentage of Eligible Engineering Faculty that Apply for COR grants

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
7%	7%	13%	6%	8%	4%

**Total SOE
2007-13**

\$166,746

Humanities

Grant Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
FRG	\$42,255	\$49,810	\$44,500	\$37,852	\$22,098	\$38,184
NFRG	\$4,630	\$9,500	\$2,000	\$0	\$0	\$4,000
SRG	\$32,400	\$25,500	\$26,000	\$40,500	\$16,500	\$10,550
SMT	\$30,354	\$37,347	\$29,846	\$35,100	\$43,200	\$28,158
Total	\$109,639	\$122,157	\$102,346	\$113,452	\$81,798	\$80,892

Percentage of Eligible Humanities Division Faculty that Apply for COR grants

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
31%	31%	34%	29%	31%	16%

**Total Hum.
2007-13**

\$610,284

PB Sci

Grant Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
FRG	\$18,466	\$23,272	\$22,340	\$23,063	\$10,000	\$19,760
NFRG	\$0	\$5,623	\$2,000	\$0	\$2,000	\$2,000
SRG	\$49,000	\$60,000	\$50,500	\$51,500	\$7,409	\$32,229
SMT	\$16,850	\$15,318	\$12,200	\$16,150	\$20,450	\$27,200
Total	\$84,316	\$104,213	\$87,040	\$90,713	\$39,859	\$81,189

Percentage of Eligible PB Sci Division Faculty that Apply for COR grants

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
11%	12%	14%	10%	13%	7%

**Total PB Sci
2007-13**

\$487,330

Social Science

Grant Type	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
FRG	\$73,945	\$58,730	\$48,821	\$39,404	\$37,832	\$46,959
NFRG	\$16,285	\$11,500	\$9,500	\$0	\$0	\$7,840
SRG	\$44,550	\$60,600	\$91,000	\$60,000	\$23,850	\$36,686
SMT	\$55,344	\$47,375	\$46,900	\$56,250	\$47,624	\$49,450
Total	\$190,124	\$178,205	\$196,221	\$155,654	\$109,306	\$140,935

Percentage of Eligible Social Science Division Faculty that Apply for COR grants

2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
24%	26%	33%	27%	22%	16%

**Total Soc Sci
2007-13**

\$970,445