Chairs' & Center Directors' Meeting Minutes

Date:

December 5, 2011 (12:00 to 2:00 pm)

Location: Attendees:

WCH – Room 443 Abbaschian, Reza

Barth, Matt Bhuyan, Laxmi Boretz, Mitch Haddon, Robert Hartney, Pat Matsumoto, Mark

Matsumoto, Mar Myung, Nosang Najjar, Walid Payne, Tom

Ravi

Rodgers, Victor

Roy-Chowdhury, Amit (for Jay Farrell)

Stahovich, Tom Vafai, Kambiz

Absent:

Balandin, Alex

Bhanu, Bir Farrell, Jay Schultz, Jerry Wang, Albert

The agenda for the meeting is shown in Appendix 1.

1. Welcome and call for agenda items - Reza

The following items were added to the agenda: Staff Unionization Efforts (Pat), Hanyang University visit (Nosang).

2. Approval of Minutes - Pat

The minutes of the October 28th Chairs/Directors meeting were unanimously approved.

3. Departmental/Center Updates

CEE: There are 60 applicants so far for CEE's faculty recruitments. CEE expects to receive over 180 applications and anticipates starting interviews in February 2012.

CE-CERT: The 7th annual CE-CERT/SJTU student symposium will be held at CE-CERT on December 8th. It is an open symposium and all are invited. Also, CE-CERT's annual holiday party is on December 16th and all BCOE Chairs and Directors are invited to attend.

CSE: Professors Neamtiu and Madhyastha will be receiving NSF Career awards this year. Prof. Krishnamurthy has been named an IEEE Fellow.

CE: CE's proposal is being reviewed by CCGA.

On-line MS Engr Program: The Program's proposal is being reviewed by CCGA. A meeting with UCR's School of Business is being scheduled.

CNSE: No updates at this time.

BIEN: The department will be moving to the new MS&E Building in the next two weeks. BIEN has received 75 applications so far for its faculty recruitment.

EE: Faculty recruitment ads have gone out. EE is having problems adding sections for classes with increased enrollments. Ravi is developing a course scheduling program for BCOE students that should enable better planning. He hopes that this scheduling program will be implemented next term. However, Ravi noted that 20-25% of BCOE undergrads are off-schedule which makes course planning difficult. Reza noted that 13,000 UCR students registered for less than 15 credits per quarter this year. BCOE students are having trouble getting breadth courses so BCOE will be increasing the courses that can fulfill this requirement. Reza asked that an ad-hoc committee be formed to work on the course scheduling problem with BCOE Student Affairs. Tom S. and Nosang volunteered for this committee and it was suggested that Jay Farrell also join this effort.

ME: The department's faculty recruitment ad in ASME is out and ME's search committee has started meeting. The EVC/P recently visited an ME departmental meeting.

4. Undergraduate Education - Ravi

Ravi noted that UC's undergrad application deadline has passed. BCOE's undergrad targets this year are 500 incoming freshmen and 100 transfer students. He reminded participants that UCR is using a new AIS calculation this year that emphasizes SAT scores and GPAs. BCOE departments will have the ability to dip below BCOE's AIS threshold if they need more incoming freshmen. This selection process will start in January/February. Ravi will share the current AIS formula with Chairs. Reza noted that international students currently comprise about 1% of UCR's undergrad enrollment. UCR wants to increase this percentage to 10% and has hired a consultant to provide input on how to achieve this goal. UCLA is #6 in the country in percentage of enrolled international students. Reza noted that UCR requires international students to have a GPA of 3.4 versus 3.0 for domestic students.

5. Graduate Education - Mark

Mark announced that BCOE's PhD fellowship allocation is increasing to \$40,700 next year from the current \$39,100. BCOE will continue to receive \$3,000 for each MS student enrolled. Also, BCOE departments will receive \$5,000 in fellowship funding for each enrolled self-supporting international grad student. This funding can be used to supplement PhD fellowship awards in the department.

Mark noted that GRE scores will be on a new scale starting this year. The new scale goes from 120 to 180. The 180 score is equivalent to the previous GRE score of 800.

Mark distributed the current status of grad student applications by BCOE department. He noted that the total number of applications has increased to 332 from 266 at this same time last year. However, the total number of domestic applications has essentially not increased. BCOE may need to extend its January 5th application deadline to allow for more domestic student applications.

6. Winston Chung Centers Update - Reza

Reza noted that the November 9th Winston Chung Hall (WCH) Renaming Ceremony went very well. Winston couldn't attend but sent his son. Reza and Jun Wang visited Winston in China in mid-November to bring him pictures and mementos of the event. During their visit, Winston confirmed the \$600K in funding for the six Winston Chung Global Energy Center projects recently selected. Reza presented a proposal during the visit to establish a new research center in collaboration with other UC campuses. Reza reported that Winston is very appreciative of BCOE efforts.

Nosang reported that a Winston Chung Global Energy Center kick-off meeting will be scheduled for December 9th. The Center has seed funding available for projects. The Los Alamos National Lab (LANL) can also provide funding for grad students.

7. Research Opportunities - Mitch

Mitch distributed a summary of the UC Lab Fees program. Letters of Intent (LOI) are due tomorrow (12/6) but this deadline may be extended. Faculty can submit LOIs for small proposals (under \$500K). These projects must include participants from LANL. At least one LOI with LANL for a major center in energy research is being submitted by BCOE. This handout also described LANL's support for UCR grad students and the possibility of requesting funding from the UCR Chancellor's Office for long-term collaboration with LANL. Other UC campuses have been able to provide this long-term support.

Mitch called attention to the second side of his handout which lists Defense Threat Reduction Agency (DTRA) topic areas with relevant BCOE departments/centers noted for each topic area. Pre-proposals for these topic area awards are due on 1/13/12.

Lastly, Mitch mentioned that all BCOE PIs need to attend Export Control Training sessions. Upcoming sessions are scheduled on December 13th (at CE-CERT) and December 15th (on-campus). Starting January 2012, UCR's Office of Research will not set-up awards for PIs that have not taken this training.

8. Staff Appreciation - Pat

Pat reminded participants that this year's BCOE Staff Appreciation Luncheon is scheduled for Wednesday, December 14th in WCH 232 from noon – 2pm. As in previous Staff Appreciation Luncheons, Chairs and Directors will be asked to serve the food and will present their units "Employee of the Year" awards. Each award consists of a \$75 gift card.

9. Other Matters

Pat distributed a list of staff positions by BCOE department/center that are being targeted for unionization by UPTE. Unlike previous unionization efforts, a union election will not be held. Each targeted staff member is being sent a union interest card by UPTE. Submission of this card by the employee counts as a vote for the union and cannot be retracted by the employee. The union will be selected if over 50% of the total UC targeted employees submit these cards. It is expected that the majority of targeted employees at the larger UC campuses will vote for the union which would then give the union exclusive bargaining rights to targeted employees at all UC campuses. If a targeted employee asks for input concerning submission of a union interest card, Pat advises supervisors to encourage the employee to look at all the facts and make an informed decision.

Reza distributed copies of the Implementation Report from the UC Academic Senate's Academic Council and the UC Research Mission Statement from the UC Committee on Research Policy. Both of these documents stress the importance of preserving and enhancing UC's excellence in research. On a related matter, Pat distributed copies of contract/grant awards and grad student support by BCOE department for FY 10/11. Upon request, Pat can provide detailed summaries by department/center PI to each Chair/Director. The purpose of providing this data is to give Chairs relevant data when they are making course and committee assignments. This data will be updated on an annual basis and is for internal BCOE use only.

Nosang stated that UCR and Hanyang University in Korea have a Memorandum of Understanding (MOU) which enables MS students at Hanyang to be co-advised by a BCOE faculty member. This student could then pursue a PhD at BCOE. About five faculty members from Hanyang will be visiting UCR in mid-January. A one-day conference will be organized during this visit. Nosang will send copies of the MOU to BCOE Chairs and Directors.



Chairs' & Center Directors' Meeting

December 5, 2011

Agenda

Winston Chung Hall – Room 443

1.	Welcome - Request for Agenda Items from the Floor	Reza
2.	Approval of Minutes from October 28, 2011 Meeting	Pat
3.	Departmental/Center Updates - Faculty Recruitment	All
4.	Undergraduate Education	Ravi
5.	Graduate Education	Mark
6.	Winston Chung Centers Update	Reza
7.	Research Opportunities	Mitch
8.	Staff Appreciation	Pat
9.	Other Matters	

Future meeting schedule

Monday – December 19, 2011 (Chairs/Program Leaders Only) Monday – January 9, 2012 (all)

Please note: Meetings will be held in WCH - Room 443

	S	Submitted - All	All	Subn	Submitted - Domestic	nestic		Started - All		Sta	Started - Domestic	stic
2012-13	MS	ПНd	TOTAL	MS	PHD	TOTAL	MS	PHD	TOTAL	MS	PHD	TOTAL
BIEN	9	1	7	4		5	27	20	47	20	12	32
CEE	11	30	41	1	5	9	35	88	123	11	20	31
CPSC	78	40	118	9	9	12	219	124	343	28	27	55
ELEN	85	25	110	4	3	7	172	155	327	12	14	26
MSE	3	14	17	2	₹	3	18	40	58	7	8	10
MCEN	20	19	39	4	4	∞	48	43	91	10	7	17
BCOE	176	156	332	21	20	41	519	470	686	88	83	171
									-			

	S	Submitted - All		Subn	Submitted - Domestic	nestic		Started - All		Star	Started - Domestic	stic
2011-12	MS	DHD	TOTAL	MS	PHD	TOTAL	MS	DHD	TOTAL	MS	DHD	TOTAL
BIEN	5	4	6	3	0	3	22	26	48	13	12	25
CEE	13	33	46	2	8	10	32	96	122	6	27	3.6
CPSC	33	43	9/	5	9	11	135	147	282	18	27	45
ELEN	49	48	97	2	2	4	133	126	259	1,8	15	33
MSE	5	11	16	H	3	4	13	39	52	4	13	17
MCEN	6	13	22	4	2	9	35	26	61	14	5	19
BCOE	114	152	366	17	21	38	370	454	824	76	96	175
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Greater Collaboration with the National Labs

1. The UC Lab Fees program (http://www.ucop.edu/labresrfp/)

Letters of intent are due Tuesday, December 6. Individual PIs are submitting multiple small proposals (<\$500,000 per year) and at least one large proposal for collaboration with LANL in energy research.

LANL priority areas:

- Information Science and Technology
- · Materials for the Future
- Science of Signatures
- Energy Security

LLNL priority areas:

- High-energy-density science
- Computer science and applications
- Materials for energy research
- Micro- and nano-fabrication technologies
- Laser science
- · Carbon and climate science
- Ultrafast science and technology
- · Biosecurity and medical technologies

2. LANL support of UCR graduate students

Nosang Myung and Sadrul Ula are taking the lead in soliciting ideas from faculty for projects that could attract graduate support from LANL. We discussed this funding mechanism during a visit to LANL earlier this year.

3. Set-aside funding

We will ask the chancellor to propose a long-term funded collaboration, which other campuses have been able to establish in the past.

Defense Threat Reduction Agency: Basic Research for Combating Weapons of Mass Destruction

The Defense Threat Reduction Agency has revised HDTRA1-11-16-BRCWMD-BAA, Basic Research for Combating Weapons of Mass Destruction, by adding a number of new research topic areas. Each new topic is designated as "Period B." Some funds are set aside for young investigators (within 5 years of receipt of the Ph.D.) The new topics:

DTRA topic area	Potential BCOE relevance
PerB-Topic 1: Post-Detonation Radiological and Nuclear Forensics (Thrust Area 1)	
PerB-Topic 2: Methodologies for Autonomous Radiological and Multi-mode Information Collection (Thrust Area 1)	BioE, CEE, ME, EE, CSE, CE-CERT
PerB-Topic 3: Advancing Knowledge of Network Theory for Network Analysis and Response to Attacks (Thrust Area 2)	CSE
PerB-Topic 4: Science for Novel Radiation-Hardened Robotics for Sampling and Rescue (Thrust Area 3)	EE
PerB-Topic 5: Basic Science of Laser Filamentation for Counter- Weapons of Mass Destruction Utilization (Thrust Area 3)	
PerB-Topic 6: Production of Reactive Oxygen Species in Cancer Stem Cells Subsequent to Acute Radiation Exposure (Thrust Area 3)	BioE
PerB-Topic 7: Multi-scale Coupling in Simulations of Multi-component Reacting Systems (Thrust Area 4)	CEE, ME, CSE
PerB-Topic 8: Novel Signatures and Methodologies for Characterizing Nuclear Event Sites and Activities (Thrust Areas 1 and 5)	CE-CERT, CEE, ME
PerB-Topic 9: Novel Materials and Methods for Sensing and Transparency to Secure WMD (Thrust Area 5)	MSE

There are four categories of awards:

- 1. Single-scope: \$150,000 or \$250,000 per year for up to five years, depending on the topic and funding source.
- 2. Multidisciplinary: \$350,000 to \$500,000 per year for up to five years.
- 3. Young Investigator: up to \$100,000 per year for up to five years.
- 4. Seed: up to \$75,000.

Pre-proposals in all of the Period B topic areas are due **January 13, 2012**. Full proposals will be invited. Because the projects are for basic research, there will be no restrictions on foreign participants or publication.

The solicitation is available at

http://www07.grants.gov/search/search.do?&mode=VIEW&oppId=75633. Be sure to follow the link to the Revised Full Announcement HDTRA1-11-16-BRCWMD-BAA-Amendment 1.

Current BCOE Non-represented employees that will be impacted by UPTE Unionization Efforts

Dept Desc	Title Code Desc
Bioengineering	ANALYST I
CE-CERT	ANALYST II
	PROGRAMMER/ANALYST III
Chemical/Environ. Engineering	ANALYST II
	STUDENT AFFAIRS OFFICER I
Computer Science & Engineering	ADMIN. SPECIALIST
	PROGRAMMER/ANALYST III
	ANALYST II
	STUDENT AFFAIRS OFFICER II
Ctr for Nano Sci & Engr	ADMIN. SPECIALIST
	ANALYST III
Electrical Engineering	ANALYST I
	STUDENT AFFAIRS OFFICER I
Engineering - Dean's Office	ANALYST II
	STUDENT AFFAIRS OFFICER II
	ANALYST II
	ANALYST III
	ANALYST I
	ANALYST IV
	STUDENT AFF. OFFICER III
	ANALYST IV
	ACADEMIC ADVISOR II
	ACADEMIC ADVISOR III
Mechanical Engineering	ANALYST II

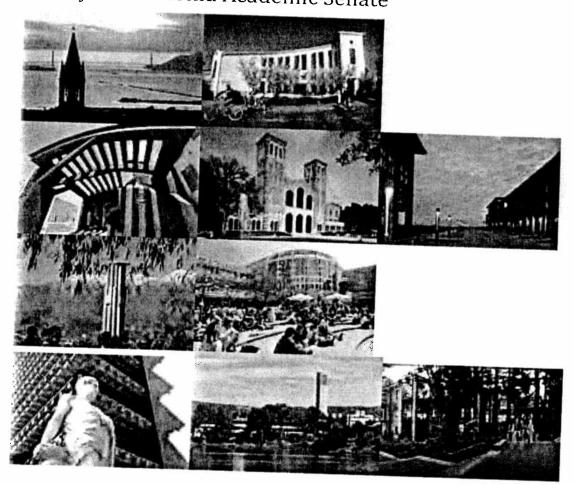
Senate, UCR, EDU

The Implementation Report

July 2011

Submitted by the Implementation Task Force Academic Council

University of California Academic Senate



IMPLEMENTATION TASK FORCE REPORT Recommendations Adopted by the Academic Council and Respective Votes

General Principles

(Adopted Unanimously)

- 1. Rebenching is urgently needed as the second phase of UC's budget reforms, and should proceed as soon as possible. (page 1)
- 2. The fundamental objective in evaluating budget reform, enrollment plans, and other policies should be to preserve UC's excellence in research; the Academic Council explicitly puts quality before access and affordability, if necessary. (page 1)
- 3. State funding allocated to campuses based on undergraduate and graduate instruction must support the research enterprise, not just "podium time" for instruction. (page 2)
- 4. The state subsidy per student should not depend on the campus the student attends; this recommendation follows from our core value that UC is one university with one standard of excellence at its ten campuses. The cost of a UC-quality education is the same on every campus, and the campuses should be funded accordingly. (page 2)
 - 5. It is essential that the University enroll the number of California residents that the state considers funded. (page 9)
- 6. The Academic Council favors reducing the incentive for campuses to over-enroll unfunded, resident undergraduates. For campuses that over-enroll resident undergraduates, there should be no state subsidy provided for students above targeted enrollments. (page 17)
 - 7. The University should establish a transparent basis for allocating state funding that is also adjustable as campuses evolve; particularly, as campuses differ in the extent to which residents are replaced by non-residents. (page 18)

The Proposed Mechanism for Allocating State Funding for Undergraduate Enrollments

(Adopted 18 to 1)

- 8. The President and the state shall negotiate a UC budget and the undergraduate resident enrollment target (TE1). (page 11) The President allocates funding to
 - a. Earmarks, or "off the top" items
 - b. Undergraduate and graduate education
 - c. Medical school students' education
 - d. Other professional students' education
- 9. The President assigns resident undergraduate enrollment targets to the nine undergraduate

campuses—te1(1) through te1(9)—to sum to TE1. (page 12)

10. The President determines a *funding ratio* f = TE2/TE1, where TE2 denotes the number of resident undergraduate students the University considers funded. (*page 16*)

AC = average cost of a UC-quality education, to be defined by Budget Office, in consultation with the Academic Senate. The Academic Council recommends using a "Blended Average Cost" spanning general-campus undergraduates and graduate students. The substantive point is to cover average cost, however defined, with the sum of net tuition and the state subsidy.

SS = Required State Subsidy (per student) = AC -tuition net of return to aid (t)

SS and AC are independent of any particular campus. It follows that TE2 = total state support for undergraduates/SS.

11. State funds are allocated to the campuses based on their actual enrollments, relative to targets. (page 16)

If the campuses all meet their targets, total funding is

$$SS*TE2 + t*TE1 + t*(over-enrollment) = SS*f*TE1 + t*TE1 + t*OE$$

A campus i that falls short of its target by n students receives

$$(SS-n)*te2(i) + t*(te1(i)-n).$$

12. Targets must be flexible. A campus seeking to reduce its target can do so if another campus is willing to increase its target. Targets also will evolve as the President's negotiations lead to different outcomes for TE1. (page 18)

Recommendations for Ph.D. students

(Adopted Unanimously)



- 13. Targets for Ph.D. students should be established, with funding provided to every campus to allow a minimum ratio of Ph.D. students to funded resident students of 0.10. Targets above the 10% figure should be set, for campuses that can currently sustain enrollment of additional Ph.D. students, to allocate state funding on the same principle as for undergraduates: all (targeted) Ph.D. students should receive the same state subsidy. (page 21)²
- 14. A model based on a "co-pay arrangement" should be developed to allocate additional

¹ The framework does not depend critically on how these are assigned, but we propose using 2009-10 enrollment data. (page 12)

² If a blended AC is used, then Ph.D. students would receive a state subsidy sufficient that net tuition plus SS would equal blended AC. If an unblended AC is used—a separate AC reflecting the higher cost for educating a Ph.D. student—then the subsidy would adjust accordingly.

UNIVERSITY OF CALIFORNIA

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UNIVERSITY COMMITTEE ON RESEARCH POLICY (UCORP) John Crawford, Chair iohn.crawford@uci.edu

Senate UCK. EDU

Assembly of the Academic Senate 1111 Franklin Street, 12th Floor Oakland, CA 94607-5200 Phone: (510) 987-9466 Fax: (510) 763-0309

October 24, 2011

ROBERT ANDERSON, CHAIR ACADEMIC COUNCIL

University of California Research Mission Statement RE:

Dear Bob,

With state funding to the University of California undergoing unprecedented decreases, it has become critical to reaffirm the research theme that is central to the mission of the University of California. Additional impetus is evidenced by recent administration communications that disconnect research from the educational functions of the University. As just one example, the UC Office of the President has utilized language such as:

"A sizable portion of the funding provided by the State has little or nothing to do with educating enrolled students, but rather supports organized research, public service, or financial aid..."1

The logical extension that expenditures on research are, by their nature, somehow distinct from "educational" expenses has become increasingly common in public discussions of UC's budget crisis.

The University Committee on Research Policy views research as central to all academic enterprises. The University's mission statement affirms that our institutional obligation "includes undergraduate education, graduate and professional education, research, and other kinds of public service, which are shaped and bounded by the central pervasive mission of discovering and advancing knowledge."2 Our institutional mission thus casts our educational enterprise as shaped by the very definition of research itself.

Research is, of course, pivotal in the creation of non-professional graduate degrees, but it is also vital in providing the superlative undergraduate educational experiences that attract students to our university. From a societal viewpoint, the twin research/educational enterprise of UC has furnished the intellectual horsepower that has driven 21st century California industries, such as the biotechnology industry and Silicon Valley; UC research has equipped leaders across all sectors of the California educational and

From "Cost of Education Calculations at the University of California," from Budget and Capital Resources, University of California, April, 2011.

From: http://www.universityofcalifornia.edu/aboutuc/missionstatement.html

business landscape; and UC research has, across all disciplines, produced entrepreneurs who have profoundly benefited our state's economy.

It is the production of such research-educated students and citizens that is the distinguishing role of our University among California's state-funded institutions. Hence, our research and educational enterprises are fundamentally coupled.

UCORP submits a University of California Research Mission Statement to reaffirm the central role of research for the University of California during this time of budgetary stress and into the future. We request that Council endorse this Statement and forward it to the Assembly, the President and The Regents for endorsement and adoption, as well.

Sincerely,

John Crawford, Chair

UCORP

Encl.

cc: UCORP

Steve Beckwith, Vice President, Office of Research and Graduate Studies Martha Winnacker, Executive Director, Systemwide Academic Senate

University Committee on Research Policy (UCORP) Proposed UC Research Mission Statement

Short Mission Statement:

University of California — We discover, interpret, apply, educate and communicate.

Full Mission Statement:

Research is central in the University of California's mission to benefit California and the world as we discover, interpret, apply and communicate new knowledge and innovations that ensure the quality education we provide our students, inspiring them to be leaders and contributors to the public good.

- **Research**: The California Master Plan for Higher Education designates UC as "the state's primary academic research institution," charged with providing the highest quality both in research and in undergraduate, graduate and professional education.
- **Discover**: UC researchers discover new basic and applied science, technological, social, and cultural knowledge that benefits California and the world.
- **Interpret**: UC researchers make new discoveries while also preserving and re- exploring historical and cultural knowledge.
- **Apply**: The work of UC researchers inspires new ways of thinking, solutions and innovations that catalyze the industries, economy, society, and culture of California.
- Educate: UC researchers give students unique access to the newest and best research that prepares them to be life-long learners, leaders and contributors to society. At UC, research and teaching are part of a single act of exploring and communicating knowledge.
- **Communicate**: As both researchers and educators, UC faculty are committed to conveying new knowledge, discoveries to our students, stakeholders, policy makers and the public.

	Contract/Grants and	u Grad Student Su	pport for FY10-1	rT
	FY10-11 Award Amounts	FY10-11 Award Amnts as	FY10-11	FY10-11 BS/MS & MS
Department	as PI	Co-PI	PhD Supports	Supports
Bioengineering				_
	113 074		3	4
	112,871		6	•
	342,725		5	3
			2	5
	. = -		2	
	100,000		4	
	239,044		6	
		144,225	2	
			5	
	794,640	144,225	35	12
Chemical & Enviro	nmental			
			1	4
	175,000		2.5	
	15,000	228,970	11.5	1
	(498,144)		2	2
	417,280		5	1
	725,131	83,624	7	
	97,257		2	2
		176,247	3	1
	209,396	176,247	7	
	49,998	605,000	8	1
	,	10,000		-
	586,507	29,748	6	
	609,401	,	5	
	979,733	101,057	9	1
	,	101,057	-	-
	319,999	118,371	7	

1,630,318

76

13

3,686,558

	FY10-11 Award Amounts	FY10-11 Award Amnts as	FY10-11	FY10-11 BS/MS & MS
Department	as Pl	Co-PI	PhD Supports	Supports
Computer Science				
			6	
			6	2
	539,999	7,500	5	4
			2	
	400,000		8	7
	187,282	100,000	9	
	24,700			
		283,820	6	
	91,200		6	3
	100,000	154,694	8	4
	356,384	137,391	6	
		310,318	4	3
		210,318		
			1	
			1	
		54,694	3	1
	365,863	376,320	2	1
			1	1
	219,000		3	3
			5	1
		198,919	6	2
	92,927	54,694	3	
		30,725	2	
			6	3
•	2,377,355	1,919,391	99	35

		d Grad Student Su	Photoiol Lito.	lo sello
	FY10-11	FY10-11		FY10-11
	Award Amounts	Award Amnts as	FY10-11	BS/MS & MS
Department	as PI	Co-PI	PhD Supports	Supports
lectrical Engineerin	ıg			
			9	8
	300,000	54,766	1	1
	50,000	17,500		
	192,330			
		48,624	2	1
	175,000		1	
			1	
		26,667	2	
	367,847			
		17,500		
	228,717		1	
	130,000	54,766	2	
	4,500		2	
	240,000		1	
	33,293		1	1
	110,000	22,500	1	
	1,099,041	48,624	7	1
	477,063	20,000	3	
	55,240	,		
	80,000		1	
	1,030,734	6,667		
	4,573,765	317,612	35	12
	, ,	•		
lechanical Enginee	ring			
_	67,119		3	
	12,500	63,744	3	1
	454,002	·	4	_
	303,519	63,744	6	2
	,	52,724	3	_
		20,929	1	
		20,023	-	1
		22,500	4	2
		20,929	4	1
			4	.
			4	2
			3	3
	93,586			
	23,300	20,929	2 3	1
		20,323		
_	930 726	365 400	2	12
	930,726	265,498	46	13

	Contract/Grants an	d Grad Student Su	pport for FY10-	l1
	FY10-11	FY10-11		FY10-11
	Award Amounts	Award Amnts as	FY10-11	BS/MS & MS
Department	as PI	Co-PI	PhD Supports	Supports
CE-CERT				
	693,947	128,400	2	
		50,000		
	87,987	78,400		
	100,591			
		1,287,967		
		60,040		
	47,425			
	60,000			
	46,758	334,898		
		116,024		
		16,024		
	118,632	199,512		
		47,654		
		47,654		
	264,349			
		125,148		
	1,419,689	2,491,718	2	
NSE				
	4,787,800	29,748	1	
	4,787,800	29,748	1	
CRIS				
		144,225	7	2
		23,100		
		144,225		
	-	311,550	7	2
otal	18,570,533	7,110,060	301	87
		25,680,592		388
	=	Award Total	=	Stdnt Total**

^{*}CO-PI award amounts are with various PIs and departments. Amounts were split equally among all BCOE co-PIs.

^{**} Student Total does not include students on filing fee only