# Table of Contents

**Message from Vice Chancellor for Research Harris Lewin**  
3

**Drive Innovation at the Frontiers of Knowledge**  
Building on the interdisciplinary strengths of its faculty, UC Davis will promote a collaborative environment that spurs innovations in learning and research by discovering ideas that take shape at the frontiers and intersections of academic disciplines.  
4

**Embrace Global Issues**  
UC Davis will be the university of choice for international students, post-doctoral scholars, faculty, prestigious international and governmental exchange programs and research enterprises that have trans-national and global applications.  
8

**Nurture a Sustainable Future and Propel Economic Vitality**  
UC Davis will be the pre-eminent university partner in advancing the economic prosperity of our region, fostering the burgeoning life-science, agricultural and “clean energy” industries of California, and in investigating and sharing socially, politically, economically and environmentally relevant solutions to global problems.  
10

**Foster a Vibrant Community of Learning and Scholarship**  
Through transformative and diverse opportunities for learning, UC Davis will inspire and prepare its students, faculty, staff and alumni to lead and excel in solving the dynamic challenges of tomorrow’s world.  
14

**Cultivate a Culture of Organizational Excellence, Effectiveness and Stewardship**  
UC Davis will provide an efficient, professional administrative organization that is committed to serving and advancing the university’s academic mission.  
15

**Sponsoring, Administering & Promoting Interdisciplinary Research**  
17

- **Organized Research Units:**
  - Air Quality Research Center
  - Bodega Marine Laboratory
  - California National Primate Research Center
  - Cancer Center
  - Center for Healthcare Policy and Research
  - Crocker Nuclear Laboratory
  - Institute of Governmental Affairs
  - Institute for Transportation Studies
  - John Muir Institute of the Environment
  - Program in International and Community Nutrition

- **Central Research Facilities:**
  - Campus Mass Spectrometry Facilities
  - Controlled Environment Facility
  - Interdisciplinary Center for Plasma Mass Spectrometry
  - McClellan Nuclear Research Center
  - Nuclear Magnetic Resonance Facility

- **Special Research Programs:**
  - Biotechnology Program
  - Consortium for Women and Research
  - Energy Institute

- **Organized Research Project:**
  - Center for Biophotonics, Science and Technology

**Appendices**  
Sources & Uses  
Office of Research Senior Leadership Mission, Vision & Values  
29
A Message from Vice Chancellor for Research Harris Lewin

The UC Davis Office of Research provides leadership to the campus research enterprise and provides services that enable faculty and staff to achieve their research goals. The Office of Research is also responsible for managing the campus' intellectual property and for developing corporate research partnerships. We provide resources that enhance research and other scholarly endeavors; catalyze relationships with government, industry, and private foundations; ensure compliance with university and sponsor policy; and provide leadership and oversight of interdisciplinary research programs, centers and institutes. This is accomplished primarily by the central administrative units of the Office of Research – Sponsored Programs, InnovationAccess, Institutional Review Board, Interdisciplinary Research Support and Business & Administration – comprised of approximately 110 employees.

During the 2010-11 fiscal year, UC Davis researchers received approximately $684 million in research funds – double the amount of a decade ago. This includes a marked 1-year increase in funding from the state of California, a notable achievement during difficult economic times. The office also administers a portion of the campus indirect cost return program currently totaling approximately $11.7 million and campus research support programs of approximately $2.7 million annually.

The Office of Research promotes interdisciplinary research by overseeing nearly 20 organized research units, special research programs and projects, and central facilities. Together these host 740 academic and staff employees, generate over $110 million in annual expenditures, and raise an annual recharge income of $22 million. Highlights of the work done in these units during the past year are provided in the final section of this report.

The past year was a period of transition for the Office of Research. When I began my tenure as the new Vice Chancellor for Research in March 2011, the Office of Research senior leaders and I pledged to work in partnership with UC Davis faculty, staff, students and friends to develop a new vision and strategic plan for research at UC Davis. As we pursue our goal of increasing the size and prestige of our research enterprise, we strive to become an employer of choice, align our resources and service expectations, model collaboration, and recognize achievements both inside and outside our organization. Throughout FY 2010-11, consultations with internal stakeholders and external groups have allowed us to develop strategies to implement numerous recommendations for improving the organization and practices of the Office of Research. These will serve UC Davis researchers well, as we work to ensure preeminence of our researchers and our university as a whole.

The coming year will bring many more changes in organization and programmatic activities. The Office of Research will be at the vanguard of new initiatives to boost large-scale interdisciplinary research while also increasing the capacity for technology transfer and new start-ups. As the Chancellor's Vision 2020 initiative unfolds, the Office of Research will play a critical role in its design and ultimate success.

Harris A. Lewin, Ph.D.
Vice Chancellor for Research
TOTAL EXTRAMURAL RESEARCH AWARDS

UC Davis received $684 million in extramural research awards in FY 2010-11 representing a steady increase in research funding over the past five years.

In FY 2010-11, federal awards accounted for 56% of all research funds, a 13% decrease from the prior fiscal year. The decrease in federal awards is offset by increases in state awards (up 63% year over year – from 9% to 14%) and private awards (up 87% year over year – from 10% to 18%).

The total includes funding from contracts and grants awarded to the university to support research, including contracts and grants from charities and foundations. The total does not include private gifts for research, which are reported separately. In accordance with nationally accepted guidelines, grants from philanthropic foundations and charities can be counted toward philanthropic totals; however, they are counted only once for university accounting purposes.

Award amounts include both direct costs and indirect costs. Research funding totals were calculated on the basis of dollars transferred to the university during the indicated fiscal year. Some agencies commit to funding multi-year projects but only transfer funds one year at a time. In those cases, funds are counted in the year received. In cases where the funding agency provides all of the committed funds up front, the total award amount is accounted for in the first year of funding but not in subsequent years.
A VISION OF EXCELLENCE

FUNDING AMOUNTS BY FEDERAL SOURCE

Of the awards derived from federal sources, more than half ($216 million) were received from the Department of Health and Human Services, including the National Institutes of Health. The National Science Foundation was the second largest source of federal funds ($56.9 million), and accounted for approximately 15% of federal funds each year for the past five years.

Similarly, the percentage of funds derived from other federal agencies has remained relatively constant for the past five years.

AWARDS FROM CORPORATE SPONSORS

In FY 2010-11, UC Davis received over 740 awards for contracts and grants for corporate sponsors for a total of $55.7 million in awards, a $5.6M or 10.1% decrease from the previous fiscal year. Awards from corporate sponsors in three categories:

- Business: profit entity business or other entity engaged in activities for profit
- Interest Groups: non-profit, business related non-profit organizations sponsored by one or more business or other entities engaged in activities for profit, including corporate foundations, industry or trade associations & professional, union or lobbying organizations
- Agricultural Marketing Orders: Marketing Orders or Regulated Agricultural Marketing Order Boards

The average award size of these grants is $92,000 for awards in businesses, $61,000 for awards from interest groups and $46,500 for awards from Agricultural Marketing Orders.
The indirect cost recovery (ICR) is a reimbursement for expenditures already incurred by the campus to support research. The rate is calculated for the campus in a negotiation with the Department of Health and Human Services according to a methodology defined in OMB Circular A-21.

In FY 2010-11, UC Davis expended $452 million in total direct costs, a $30 million or 7% increase from the previous fiscal year.

Indirect costs are tracked and managed in three primary groups: (1) federal, (2) state, and (3) private and local agencies. In FY 2010-11, UC Davis gross ICR generated, excluding the American Recovery and Reinvestment Act (ARRA) funds, was $105 million, a $7 million or 7% increase from the previous fiscal year.

The ICR funds are returned to the campus annually. The Office of Research in conjunction with Budget and Institutional Analysis office is responsible for the distribution of indirects to campus. In FY 2010-11, $80 million or 77% of the gross ICR generated was returned to UC Davis, of which the Office of Research administered the return of $11.7 million to academic departments, administrative units and deans/vice chancellors offices.

The $11.7 million returned to campus by the Office of Research represents a ~7.5% return of federal funds and a ~16.8% return of private funds based on the total overhead generated. In future years, the funds returned to campus departments will be further addressed in the campus-wide budget reform process.

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1 Reporting for current year is based on prior year (FY 2009-10) activity.

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**Office of Research Distribution of $11.7M ICR Funds**

**ICR Returned to Campus excluding ARRA ($ millions)**

**Gross ICR Generated excluding ARRA ($ millions)**

**Total Direct Costs ($ millions)**

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2010-2011 ANNUAL REPORT 6
INTERDISCIPLINARY RESEARCH SUPPORT

The Interdisciplinary Research Support (IRS) unit within the Office of Research coordinates the preparation of major grant proposals for large-scale, interdisciplinary research programs. The team works on grants and contracts that involve multiple schools, colleges, divisions or institutions to support new research units, programs or centers at UC Davis that are funded by major extramural research sponsors. Since inception in 2004, the team has assisted on over 170 projects ranging from center grants and training grants to pre-proposals and prestigious fellowships.

<table>
<thead>
<tr>
<th>Source of Gifts FY 2010-11</th>
<th>Purpose of Gifts FY 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations 33%</td>
<td>Student Support 4%</td>
</tr>
<tr>
<td>Corporations 47%</td>
<td>Instruction 2%</td>
</tr>
<tr>
<td>Other 14%</td>
<td>Campus Improvement 1%</td>
</tr>
<tr>
<td>Alumni 1%</td>
<td>Department Support 1%</td>
</tr>
<tr>
<td>Individuals 5%</td>
<td>Other 9%</td>
</tr>
</tbody>
</table>

In FY 2010-11 the Interdisciplinary Research Support team assisted UC Davis researchers on 21 projects, including 14 full proposals, six pre-proposals, and one letter of intent. Of the full proposals, seven have been funded and two are pending review for a success rate of 58% in FY 2010-11, and a 5-year success rate of 43%. Of the pre-proposals and letter of intent in FY 2010-11, two were invited to submit full proposals and two are pending review.

The IRS team also hosted numerous workshops and discussion sessions to inform UC Davis researchers about upcoming funding opportunities, connect them with campus outreach professionals, and encourage team-building across interdisciplinary boundaries.

PHILANTHROPIC DONATIONS, FOUNDATION AWARDS & INDIVIDUAL GIFTS RECEIVED FOR INTERDISCIPLINARY PROGRAMS

In FY 2010-11 there were a total of 277 gifts to the research units reporting to the Office of Research totaling $3.77 million, a $0.8 million or 21% decrease from the previous fiscal year. The majority of gifts were from corporations ($2 million or 47%) & foundations ($1.1 million and 33%) and the majority was designated for the purpose of research ($2.9 million or 71%).

Note: The private support reported here is primarily reflective of gifts and grants to the units reporting to the Office of Research, and is not reflective of total private support for all research campus-wide.
A VISION OF EXCELLENCE

Global Issues

UC Davis will be the university of choice for international students, post-doctoral scholars, faculty, prestigious international and governmental exchange programs and research enterprises that have trans-national and global applications.

FOREIGN SPONSORS

The 'Other' category includes multi-national organizations or where the country was not identified (e.g. NATO, CIAT, BARD, etc.)
**BGI @ UC DAVIS PARTNERSHIP**

Partnership to Conduct Large-Scale Genome Sequencing & Functional Genomics Programs

UC Davis and BGI, the world’s largest genome sequencing institute, have agreed to form a partnership to conduct large-scale genome sequencing and functional genomics programs, focusing initially on the areas of food security, human and animal health & wellness, and biodiversity and environmental health. Leadership for this effort was provided by Harris Lewin, Vice Chancellor for Research and the Office of Research staff.

UC Davis faculty and students will certainly gain access to the capabilities and expertise of one of the world’s premier genomics and bioinformatics companies, while BGI researchers will be able to access the university’s diverse resources and expertise in education and research, especially in biology, human and veterinary medicine, agriculture and the environment.

**THIRD ANNUAL GOVERNORS’ GLOBAL CLIMATE SUMMIT**

The Mondavi Center at UC Davis | November 15-16, 2010

The third Governors' Global Climate Summit brought 1,500 people from 80 states, provinces and countries to UC Davis for discussions of global action on the environment and the economy. UC Davis was a co-sponsor of the summit. The Office of Research provided funding for a pre-summit event featuring posters by faculty, students and staff showcasing projects, programs, technologies and accomplishments.

The summit hosted climate conversations among top leaders of local, regional, national and international interests, including academics, businesspeople and non-profit organizations.

For the third summit, former Governor Schwarzenegger selected UC Davis and solicited expertise on the research eloquently described by the eight speakers below:

- Mark Schwartz - John Muir Institute of the Environment *
- Michael Kleeman - Air Quality Research Center *
- Tom Tomich - Agricultural Sustainability Institute
- Tom Turrentine - Plug-in Hybrid and Electric Vehicle Research Center *
- Case van Dam - California Wind Energy Collaborative
- Bryan Jenkins - Energy Institute *
- Nicole Woolsey Biggart - Energy Efficiency Center *
- Andrew Hargadon - Center for Entrepreneurship

* units reporting to the Office of Research
INVENTION DISCLOSURES

In FY 2010-11, UC Davis had 181 invention disclosures down 26% from 245 for the previous fiscal year. The year over year change was due largely to a decrease in inventions disclosures from the NeuroMab program. The total invention portfolio increased by approximately 14% during this same period, from 1,017 in FY 2009-10 to 1,161 in FY 2010-11.

RECORD OF INVENTION DISCLOSURES CLASSIFICATION

In FY 2010-11, the number of NeuroMabs inventions decreased from 85 (FY 2009-10) to 24 (FY 2010-11). The total number of non-NeuroMab inventions, however, increased from 151 (FY 2009-10) to 157 (FY 2010-11). The largest fraction of Record of Invention Disclosures (45%) was for biotechnology and medical-related technologies.

* FY 2010-11 data is preliminary
In FY 2010-11, 29 US patents and 44 foreign patents were issued. UC Davis manages a five-year average patent portfolio of 400 active US patents and 435 active foreign patents.

Also, during FY 2010-11, 98 US-based patent applications were filed compared to 101 in the prior fiscal year.

### PATENTS

![FY 2006-07 FY 2007-08 FY 2008-09 FY 2009-10 *FY 2010-11
PATENTS FILED
U.S. First Filings 80 65 49 59 56
U.S. Secondary Filings 54 47 42 42 42
First Foreign Filings 30 28 19 22 23
Total Filed 164 140 110 123 121

PATENTS ISSUED
U.S. 45 21 24 29 29
Foreign 62 36 14 28 44
Total Issued 107 57 38 57 73

ACTIVE PATENTS
U.S. 394 409 414 419 364
Foreign 522 436 399 403 417
Total Active 916 845 813 822 781

### WEB-BASED PROGRAM SPECIFIC MATERIAL TRANSFER AGREEMENTS

Since FY 2004-05, UC Davis has seen a large, annual increase in the total number of Material Transfer Agreements (MTAs). The majority of the increase is due to requests for material from the UC Davis mouse repositories and the NIH NeuroMab Program. In FY 2010-11, UC Davis had 5,340 web-based program specific Material Transfer Agreements, an increase of approximately 145% over the previous fiscal year. The majority of these were for the UC Davis/NIH NeuroMab Program.

![Web-based Program Specific MTAs
UC Davis/NIH MMRRC COUs 150 478 599 507
UC Davis/NIH Knockout Mouse Project 40 215 454 837
UC Davis/USDA Tomato Genetics Resource Center 309 356 338 330 367
UC Davis/NIH NeuroMab Program 95 609 977 800 3,629
Total Program Specific MTAs 404 1,155 2,008 2,183 5,340
Total PI Specific MTAs Executed 834 792 531 539 574
CDAs Executed (Not in PTS) 50 48 30 55 54
Grand Total MTAs and CDAs 1,288 1,995 2,369 2,777 5,968
New Agreements 962 1,034 738 759 829

1 FY 2010-1 data is preliminary
2 incoming license, collaborative research, outgoing bailment and data transfer agreements not in PTS

* FY 2010-11 data is preliminary
**LICENSING AGREEMENTS**

UC Davis has again experienced a large increase in the use of web-based and shrink-wrap Material Transfer Agreements rising 145% from 2,183 in FY 2009-10 to 5,340 in FY 2010-11. Executed agreements increased 104% from 3,058 in FY 2009-10 to 6,243 in FY 2010-11.

**LICENSING INCOME**

Preliminary estimates of gross licensing income in FY 2010-11 totaled $11 million of which approximately $10.2 million was received from royalties and fees and $0.889 million from reimbursements.
START-UP COMPANIES

Since FY 2003-04, 41 start-up companies have been formed at UC Davis. The majority of the companies formed were in the fields of biotechnology and medical sciences (16 start-ups) and engineering and computing (11 start-ups). In FY 2010-11, all of the start ups were in two categories (3 in agriculture-related technologies and 4 in engineering).

![Start-Up Companies Classification]

ENABLING BUSINESS SOLUTIONS

Drs. Simon Chan and Ravi Maruthachalam discovered a reliable method of genome elimination in plants. That is, they developed a method to make plants containing genetic material from only one parent. Traditional plant breeding relies on screening numerous plants to identify novel, desirable characteristics and can take many years to produce plants with reliably expressed traits. The novel breakthrough from UC Davis, however, will dramatically speed up breeding times resulting in faster release of crop plants with desirable traits. The technique has been published in the journal *Nature*, and has been reported widely in numerous media outlets including NPR, ScienceDaily and global webcasts. InnovationAccess filed for patent protection on the discovery and has initiated an extensive, international non-exclusive licensing campaign to encourage far-reaching utilization of this invention. Dr. Chan was recently selected to receive a fellowship, jointly awarded by the Howard Hughes Medical Institute and the Gordon and Betty Moore Foundation. This award will support Dr. Chan and his lab for five years, encouraging his research in global food issues for human health.

InnovationAccess exclusively licensed a novel yeast technology to Functional Technologies Corp. The improved yeast, when used during fermentation, reduces hydrogen sulfide (H₂S) in wine. H₂S is a well-recognized, widespread industry problem in wine making. It is a natural byproduct of wine fermentation and has a rotten-egg smell that can negatively impact wine quality. The new yeast technology prevents the buildup of H₂S during fermentation. It was developed by Dr. Linda Bisson with support from the American Vineyard Foundation and the broader commercial wine industry. Phyterra, a subsidiary of Functional Technologies Corp., initiated sales of the new yeast product in 2010, completing this technology’s journey from research discovery to commercialized innovation available in the public marketplace.
OFFICE OF RESEARCH INTERNAL STRATEGIC FUNDING PROGRAMS

The Office of Research (OR) is the chief administrative unit and the catalyst for advancing the research mission at UC Davis. The Office of Research receives a permanent and recurring annual allocation currently valued at $2.7 million to administer the following four internal funding programs:

- **Principal Investigator (PI) Bridge Program**: Provides one-time funding to PIs who have lost or will lose their primary extramural funding. Funds ensure continuation of a research project for an interim period until extramural support can be re-established.
- **Match Program**: Provides cost sharing or matching funds when required by an external sponsor.
- **Strategic Investments**: Provides funding for PI initiatives, center start-up costs, seed money, program support and memberships. Funding is provided to an array of areas and disciplines across campus – UC wide and externally.
- **Publication Assistance**: Provides funding to faculty for the publication of books or monographs and exhibition or performance of works of art.

Strategic Funding Programs
FY 2010-11 Distribution = $2.2 million

In FY 2010-11, $2.2 million was distributed to the schools/colleges and units reporting to the Office of Research, an increase of nearly $100,000 or 4.6% from the previous fiscal year.
REORGANIZATION OF THE OFFICE OF RESEARCH CENTRAL ADMINISTRATIVE UNITS

The past eighteen months has been a period of transition for the Office of Research characterized by both challenges and opportunities. Beginning in FY 2009-10, the Office of Research participated in several UC Davis reviews identified by the Chancellor including the Blue Ribbon Committee on Research, the Blue Ribbon Committee on Technology Transfer and Commercialization, and the Washington Advisory Group – an external review of research at UC Davis. The Research Recommendation Implementation Committee was formed as an advisory group providing feedback on the development of strategic initiatives and the implementation of numerous recommendations made in those reviews.

In addition to the above reviews, the Office of Research hired the Huron Consulting Group to review the business and administrative practices pertaining to technology transfer as well as pre- and post-award activities. Results of the reviews can be found in the Huron Consulting Group Assessment of Pre-Award and Post-Award Operations\(^1\) and the Huron Consulting Group Review of Innovation Access reports. The reviews provided recommendations for improving the organization and practices of the Office of Research that will serve UC Davis researchers well as we pursue our goal of increasing the size and prestige of our research enterprise.

In alignment with the Office of Research’s pledge to work in partnership with UC Davis’ stakeholders and to develop a new vision and strategic plan for research at UC Davis, in FY 2010-11, senior leadership within the Office of Research identified a Mission, Vision, and Values\(^2\) foundational statement to serve as our guide. We then embarked upon the establishment of three major reorganization of the central administration units within the Office of Research (including the Sponsored Programs Office, InnovationAccess, Institutional Review Board Administration, Research Compliance and Integrity, Interdisciplinary Research Support, Business and Finance, Human Resources, and Information Technology Services). Vice Chancellor Harris Lewin laid the foundation for the organization with the establishment of three executive leadership positions: 1) Executive Associate Vice Chancellor for Research Administration; 2) Associate Vice Chancellor – Technology Management and Corporate Research Relations; and 3) Associate Vice Chancellor – Interdisciplinary Research and Strategic Initiatives. The central administrative units are collectively organized into three distinct business divisions reporting to the three executive positions. The reorganization included the integration of the Office of Corporate Relations, formerly a unit within University Relations, into the Technology Management and Corporate Research Relations division of the Office of Research. To better align and leverage resources, in FY 2010-11 we set into motion the merge of the information technology services groups of Safety Services and the Office of Research.

Moving forward, the activities of the past year represent opportunities for the Office of Research to improve our service to the research community including securing extramural research funding, conducting and facilitating interdisciplinary research, and facilitating the transfer of discovery and knowledge resulting from our research to society.

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\(^1\) The Huron Consulting Group Post-Award review included Accounting & Financial Services - Extramural Accounting Division which reports to Vice Chancellor Meyer, Administrative and Resource Management.

\(^2\) Appendix – The Office of Research Senior Leadership – Mission, Vision, and Values statement
IMPROVE PERFORMANCE AND ENHANCE WORK ENVIRONMENTS

In alignment with one of our vision statements, the Office of Research strives to be an employer of choice and in March 2011 launched a survey to assess the work environment and climate within the Office of Research central administrative units. The survey provided a mechanism and opportunity for staff within the Office of Research central administrative units to provide feedback on an array of issues including those issues affecting the delivery of service to the research community.

More than 100 staff members participated in the survey (~ 95% participation rate) resulting in valuable feedback and recommendations aimed at enhancing the overall work environment within the central administrative units and the Office of Research as a whole. As a result, small subcommittees were formed to develop action plans to address the highest priority recommendations such as training and resources, clarity in scope of responsibilities, internal and external communication, and workload balance in order to provide better service to the research community. The next Office of Research climate survey is scheduled for FY 2012-13.

IMPROVING CUSTOMER SATISFACTION

In response to the recommendations of our internal stakeholders and external reviewers, for the past two years the Sponsored Programs Office (SPO) has routinely implemented a customer satisfaction survey for all proposals and awards processed. The response rate to the surveys for FY 2010-11 was 32%, an increase from the 25% response rate in the previous fiscal year.

The results of the survey indicate that the UC Davis research community is increasingly satisfied with the efficiency, effectiveness, courtesy, and knowledge of the SPO staff. The “strongly agree” responses has steadily increased over two years - from 65% in quarter of FY 2009-10, to 83% at the end of FY 2010-11. The average “disagree” or “strongly disagree” rating of 2.68% shows a decrease of 50% over the 2-year survey period.
The Air Quality Research Center’s (AQRC) mission is to facilitate research on the scientific, engineering, health, social and economic aspects of gaseous and particulate atmospheric pollutants.

AQRC support programs that pair undergraduate, graduate and professional students together with faculty, alumni and community and industry leaders to provide “real-world” opportunities for learning through the operation of community-based social and educational services.

Over the past few years, the AQRC has hosted hundreds of Girl Scouts and under-represented junior high school students on campus, using air quality as a mechanism for connecting these students to science, technology, engineering and mathematics (STEM) disciplines. These students were mentored primarily by UC Davis female and minority faculty, research staff and graduate students working on air quality issues. Some of the student groups visit campus for one day during the school year, but during the summer, some of these groups stay on campus overnight to experience dormitory life and eating in the dining commons. Through these mechanisms, we hope to motivate students in STEM disciplines, to graduate from high school and to obtain a university education.

Recognized among peer institutions as a leader in interdisciplinary marine research, Bodega Marine Laboratory (BML) faculty and researchers are engaged in addressing complex environmental issues that challenge the state, nation, and globe. Bodega is one of the most notable US marine laboratories in scholarly achievement, volume, breadth and application of research, sophistication of facilities and ocean observing, and educational offerings.

The highly successful NSF-funded Research Experience for Undergraduates program in marine science completed its 6th year and attracted 200 applicants per year for 8 to 9 available spots. Participants spent eight weeks developing confidence and independence in completing research and communicating science. The program gives priority to students who are at the beginning of their career and may not have significant prior research experience. Past participants have co-authored papers in top journals, given presentations at national meetings, and/or received awards related to their projects.
The mission of the California National Primate Research Center (CNPRC) is to provide resources to investigators that use nonhuman primates in their research. This includes consultative services, as well as access to animals, service cores, technical and intellectual expertise, and specialized facilities.

The CNPRC’s Educational Outreach Program’s mission is to introduce K-6th grade students and educators to nonhuman primates, topics in health sciences, translational research and careers in science. In addition, the course demonstrates the direct connection between biomedical research and the impact on their health. Annually, the Educational Outreach Program is presented to approximately 1,400 young students. A major focus this past year was to expand the program to high-risk, low-income youth and schools in order to develop the breadth of those students’ science curriculum and career opportunities.

The UC Davis Cancer Center Organized Research Unit demonstrated its overall scientific value by achieving an Outstanding (26) score on the second competitive renewal of National Cancer Institute designation, effective July 1, 2011. In peer review, the center was also determined to meet the scientific criteria for comprehensive designation, the highest rank of designation. It is currently preparing the supplemental application required to demonstrate that it also meets the educational and outreach criteria required for comprehensive status. A hallmark of a comprehensive cancer center is a high level of inter-programmatic collaboration among its scientific programs. This was demonstrated by a detailed analysis of publications of Cancer Center members which had co-authors from different programs, illustrated in the table below:

<table>
<thead>
<tr>
<th>Program</th>
<th>Total Publications, 5 Years</th>
<th>% Inter-programmatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Oncology</td>
<td>449</td>
<td>22%</td>
</tr>
<tr>
<td>Comparative Oncology</td>
<td>524</td>
<td>21%</td>
</tr>
<tr>
<td>Therapeutics</td>
<td>728</td>
<td>44%</td>
</tr>
<tr>
<td>Population Sciences and Health Disparities</td>
<td>322</td>
<td>23%</td>
</tr>
<tr>
<td>Prostate Cancer</td>
<td>320</td>
<td>54%</td>
</tr>
<tr>
<td>Biomedical Technologies</td>
<td>869</td>
<td>22%</td>
</tr>
</tbody>
</table>
The Center for Healthcare Policy and Research has taken the lead role in conducting public health impact analyses for the California Health Benefits Review Program. The California Health Benefits Review Program is a program administered by the University of California Office of the President. It responds to requests from the State Legislature to provide independent analyses of the medical, economic, and public health impacts of health insurance benefit mandates and repeals of health insurance benefit mandates proposed by the legislature.

Taking the lead role for the public health impact analysis has allowed the Center for Healthcare Policy and Research the opportunity to provide:

- Comprehensive information related to public health impacts of new legislation so law makers are informed when making their decisions
- Reports available to the public to provide information and educational resources related to proposed legislation on health benefit mandates
- The opportunity for graduate students in public health or policy to participate and contribute academic effort to the California Health Benefits Review Program

**CROCKER NUCLEAR LABORATORY**

**Eye Therapy at the Crocker Cyclotron**

One of the Crocker Nuclear Laboratory’s newest programs, the Eye Therapy Facility is the first involvement of the cyclotron in direct machine-to-patient transfer of radiation for medical treatment. One of few in the United States, the Eye Therapy Facility treats patients, from as far away as New Zealand, for retinal melanoma.

During FY 2010-11, physicians and scientists from Departments of Ophthalmology at the UC Davis Medical Center and the UC San Francisco treated 159 patients with uveal melanoma – melanoma in the eye. Use of a proton beam generated by the cyclotron is relatively non-invasive compared to other treatments and more than half the patients retain sight in the treated eye. The cure rate using the proton beam is about 95%. These same ophthalmologists and scientists are collaborating on a clinical study funded by the National Institutes of Health to investigate use of the proton beam to treat macular degeneration, a disease afflicting more than one million people in the US. Current treatment consists of a drug, taken monthly for life, that stops the progression of the disease. Preliminary studies at Crocker Nuclear Laboratory showed that use of the proton beam reduced the need for the drug dramatically.
The Institute of Governmental Affairs (IGA) supports social science research, graduate student training, public affairs programming, and outreach activities at UC Davis. The institute houses a number of formal research programs and enjoys the participation of faculty from a number of departments across the campus. IGA also serves as a campus home for scholars visiting from around the world.

The Institute of Governmental Affairs and the UC Center Sacramento provide Sacramento-based internships in public policy and public affairs to students throughout the UC system. These internships provide direct experience in democratic governance within the legislative and executive branches of state government, non-governmental organizations, and advocacy groups. As part of this effort, the institute conducts California Policy Seminars during all three academic quarters as well as the summer. In addition to readings and seminar discussions, this course also includes weekly presentations by public policy scholars, legislators, lobbyists, governmental officials and others who are active in the policy process. IGA also collaborates with the UC Berkeley’s Graduate School of Journalism to provide a summer undergraduate internship program in public policy journalism.

The UC Davis Energy Efficiency Center is the nation’s first university-based energy efficiency center. Its mission is to accelerate the development and commercialization of new energy-saving products and services, and train future leaders in the field of energy efficiency.

The center’s FY 2010-11 milestones included:

- The center is launching a $4.9 million project to develop tools and strategies for retrofitting commercial buildings to be significantly more energy efficient.
- UC Davis West Village, the largest planned zero net energy development in the US, is nearing completion of its first phase of student, staff and faculty housing. The Energy Efficiency Center is continuing to help make the project a “living laboratory” for energy efficiency research, development and deployment.
- Supporters gave $1 million to create the Arthur H. Rosenfeld Chair in Energy Efficiency. With the Chevron Chair and the Sempra Chair, this brings UC Davis’ total of endowed professorships in the field to three – the only three in the world.
The Institute of Transportation Studies at UC Davis (ITS-Davis) is the world’s leading university transportation research center. The institute focuses on four major areas: efficient vehicles, low-carbon fuels, land use and travel-reduction strategies.

This year was historic as the first plug-in hybrid (Chevrolet Volt) and mass-produced battery electric vehicles (Nissan Leaf) went on sale at auto dealerships. For the faculty and staff of ITS-Davis’ Plug-in Hybrid & Electric Vehicle (PH&EV) Research Center, the rapid developments meant their expertise was in steady demand by stakeholders around the globe.

The PH&EV program’s mission is to evaluate the concerns, constraints and impacts associated with bringing electric-powered alternative transportation options into the mainstream marketplace.

FY 2010-11 achievements included:

- Led the writing of “Taking Charge,” the state’s first strategic plan for an electrified transportation system
- Spurred by the “Taking Charge” report, California stakeholders formed the California Plug-In Electric Vehicle Collaborative, a public/private effort ensuring a strong and enduring transition to a plug-in electric vehicle market in California
- Discovered through research what consumers want and need from plug-in and battery electric cars and infrastructure such as recharging networks

Beyond the boundaries of any school or college at UC Davis, the John Muir Institute of the Environment (JMIE) launches innovative cross-disciplinary collaborations among scholars that result in cutting-edge research on the critical environmental problems of the 21st century.

In response to the Department of Interior’s solicitations for proposals to host a multi-million dollar Southwest Climate Center, the institute brought UC Davis climate scholars together to explore new approaches to the massive problem of climate change. The result is the multi-university Southwest Climate Alliance, combining research strengths from world-renowned scholars across the southwest. The John Muir Institute of the Environment and the Bodega Marine Laboratory jointly lead the UC Davis component.

In fall 2010, the John Muir Institute of the Environment brought the prestigious Heinz Center for Science, Economics and the Environment to UC Davis for the first collaborative workshop on Science Communication and Policy Development. Twenty-five faculty, professionals and graduate students participated in four intense days of interactions with policymakers and media representatives.

In 2010 JMIE launched the Forest Biology Research Center with 24 UC Davis faculty and affiliated members from the US Forest Service. In addition, by hosting researchers from agencies like the US Forest Service and US Geological Service, the institute strengthens UC Davis’ federal partnerships and makes collaboration a daily function of the institute and the university.
The UC Davis Center for Watershed Sciences, part of the John Muir Institute of the Environment, has emerged as the UC’s leader in developing solutions to California’s water and related ecosystem management issues. The center’s mission is to help frame the debate about these issues by using teams of scientists, engineers and ecologists to provide analyses and offer an array of promising solutions. The strength of the center lies in the innovative use of multidisciplinary teams, the focus on practical policy choices, and persistent engagement with stakeholders and policymakers, particularly the legislature and agencies in Sacramento. The center is also well-known for training the next generation of water resource and ecosystem managers.

The signature achievement of the center is its Delta Solutions Program. In place for the past five years, the program is using multidisciplinary teams to address water supply and ecosystem conflicts in the Sacramento-San Joaquin Delta. The program has identified and evaluated a range of controversial alternatives for managing Delta ecosystems while supplying water to 25 million people and three million acres of farms. A series of landmark publications on the Delta have emerged from the center’s collaboration with the Public Policy Institute of California. These publications formed a basis for the historic 2009 laws that guide on-going planning and restoration efforts for the Delta.

The Program in International and Community Nutrition (PICN) was established in 1987 to coordinate research and training activities concerning human nutrition problems of low-income countries, and of ethnic minorities and disadvantaged groups in the United States.

The International Lipid-Based Nutrient Supplements (iLiNS) Project, led by researchers in the PICN, contributes to global efforts to prevent malnutrition among vulnerable infants and young children. This work is made possible by a grant from the Bill & Melinda Gates Foundation to lead a large international research collaboration. The iLiNS Project reflects and nurtures ties with research institutions and organizations in both the global north and south, with on-going studies in Burkina Faso, Ghana and Malawi.

During 2010 and 2011, iLiNS Project activities expanded in all three field sites in Africa. This involved partnering with research institutions in each study country to train cadres of local staff to carry out research activities.
CAMPUS MASS SPECTROMETRY FACILITIES
Cutting Edge Access to Innovative Mass Spectrometry-Based Tools

The Campus Mass Spectrometry Facilities (CMSF) provides open-access, training and support to mass spectrometry resources for the UC Davis campus. The facility is in its 5th year of operation under the Office of Research.

The facility seeks to provide cutting-edge access to innovative mass spectrometry-based tools for UC Davis investigators. In 2011, the CMSF was awarded its second Shared Instrumentation Grant (SIG) from National Institute of Health to purchase a new mass spectrometer for the campus. The first SIG was in 2007 and brought the first open-access high-resolution mass spectrometer to campus. The second SIG award will provide campus investigators access to true walk-up, open-access based nanoflow LC-MS system. This innovative system is the Water’s Xevo G2 QToF with the chip-based Trizaic microfluidic system for sample separation and introduction. The Trizaic system is the first chip-based system to provide Ultra-High Performance Chromatography (UPLC) separation in the world and will allow UPLC performance on a walk-up basis. This access will help spur innovations in research as the Campus Mass Spectrometry Facilities and UC Davis will be one of the first campuses to provide this type of system on an open-access basis and will serve to keep UC Davis at the cutting-edge of instrumentation.

CONTROLLED ENVIRONMENT FACILITY
Global Food Security

The Controlled Environment Facility maintains a total of 151 plant growth chambers in two separate locations on the UC Davis campus. Chamber controls include light intensity, temperature, relative humidity, photoperiod and irrigation systems. There are also many specialized units, including 15 for precise control of carbon dioxide levels.

The ability to feed the expanding global population is currently being challenged by the loss of arable lands due to urbanization, declining soil fertility and a limited supply of non-renewable phosphate fertilizers. This problem is exacerbated by humans’ impact on the planet’s atmosphere through a range of processes, the most significant of which being the consumption of fossil fuels leading to global climate change. Solutions to these major problems will, in large part, require accelerated understanding of the processes underlying plant growth and development. The goal here will be to engineer plants to achieve enhanced performance under a wide range of conditions, including those associated with marginal lands (low nutrient and water availability) and rapidly changing weather patterns.

The Controlled Environment Facility provides an essential supporting infrastructure to the campus community to allow for the propagation of plants under controlled and highly reproducible conditions. In this manner, the facility is functioning as a critical component in this campus-wide national and global initiative of achieving global food security.
McCLELLAN NUCLEAR RESEARCH CENTER

Advancing Neutron Activation Analysis and Medical Isotope Production in Morocco

The nuclear research reactor at the McClellan Nuclear Research Center (MNRC) became operational in 1990 making it one of the newest research reactors in the US. It is the highest power TRIGA™ (Training, Research, and Isotope Production General Atomic) reactor in the United States, rated at 2 MW in steady state and can pulse to approximately 1000 MW for 20 ms. TRIGA™ reactors are designed to be fail-safe. They are passive reactors that require no action to maintain safety.

Two collaborative research projects between MNRC, and the Moroccan National Center for Energy, Science, and Nuclear Technology (CNESTEN) were supported by The Partnership for Nuclear Security.

MNRC and CNESTEN are also working to develop a medical isotope production capacity in Morocco through scientific collaboration with international isotope production experts. Under this project, teams from each country visited each other’s facilities to share experiences in isotope production, including safety and security aspects of the production process.
NUCLEAR MAGNETIC RESONANCE FACILITY

The Nuclear Magnetic Resonance Facility (NMR) provides qualified researchers in the biological, medical, and physical sciences access to state-of-the-art nuclear magnetic resonance instrumentation for spectroscopy and imaging. At present the facility operates ten spectrometers of varying purposes and capabilities. All of the spectrometers are multinuclear and a large variety of liquids, solids, surface and imaging coils are available for use. The facility also has Linux computers for off-line data processing.

Investigator highlights for FY 2010-11:

- **Robert F. Berman, Center for Neuroscience, UC Davis MIND Institute**: The focus of Dr. Berman’s project is on imaging brain development and neurodegeneration in a mouse model of the neurological disorder Fragile X Tremor Ataxia (FXTAS). The clinical syndrome of FXTAS includes tremor, ataxia and a constellation of neuropsychological problems, including memory impairment, anxiety, depression and dementia. In order to study this disease the investigators have recently developed a mouse model of FXTAS. These knock-in mice have allowed researchers to model the much of the pathophysiology of FXTAS, including deficits in motor function, learning and memory the occurrence of intranuclear inclusions in neurons, as well as the transgenerational repeat instability that occurs in the Fragile X syndrome. By modeling the genetic defects underlying the disease in transgenic mice, it is possible to more precisely define its underlying cellular pathology and understand its impact on the various affected organ systems, including the brain.

- **James B. Ames, Department of Chemistry**: The Ames research group uses nuclear magnetic resonance, to delineate the structure, dynamics and mechanisms of a family of calcium sensor proteins (calcium-myristoyl switches) that serve as membrane-targeting regulators in calcium signaling and are linked to retinal and neurological diseases. Neuronal calcium sensor 2 proteins are a conserved subclass of the calmodulin superfamily that regulate signal transduction in the brain and retina. Brain NCS proteins have diverse functions. Neurocalcins and visinin-like proteins regulate guanylate cyclase and nicotinamide acetylcholine receptors implicated in synaptic plasticity. KChIPs, hippocalcin, and NCS-1 bind to various ion channels and thus control neuronal excitability.

- **Gerd N. LaMar, Department of Chemistry**: The LaMar group research addresses an important issue related to oxygen transport in serum. This research effort is an international collaboration involving investigators from the UC Davis NMR Facility, UC Davis Department of Chemistry, Department of Biochemistry and Molecular Biology, Yamagata University Japan, Central Laboratory for Research and Education, Yamagata University Japan and the Department of Chemistry Washington State University.

Heme Oxygenase (HO) is a widely distributed enzyme that cleaves its natural substrate, hemin, into biliverdin, iron and carbon monoxide. In mammals the products serve as a precursor for the potent antioxidant bilirubin, as a source of ~97% of the required iron, and as a gaseous neuronal messenger. All HOs proceed via the same three intermediates, meso-hydroxyhemin, verdoheme and iron-biliverdin and exhibit significant sequence and structural homology with a conserved alpha-helical fold.
BIOTECHNOLOGY PROGRAM

The Designated Emphasis in Biotechnology Program

The Biotechnology Program is the administrative home for the Designated Emphasis in Biotechnology and Advanced Degree for Corporate Employees graduate programs, NSF and NIH Biotechnology PhD Training Grants and links academia to biotechnology industries and government agencies. It provides an education source for students, teachers and community through its Summer Technical Short Courses, "Train the Trainers" workshops for teachers, and the BioTech SYSTEM (K-14 outreach consortium) and Teen Biotech Challenge science competition.

The Designated Emphasis in Biotechnology graduate program (approved in 1997) is undergoing a second 8 year program review. In FY 2010-11, over 30 Biotechnology Program students were placed in industry internships. Over 25% of the students are underrepresented minorities, due to the active recruitment. There is a strong emphasis in formal and informal mentoring of the students.

CONSORTIUM FOR WOMEN AND RESEARCH

Support of Research By and On Women

The Consortium for Women and Research (CWR) exists to support research by women and on women/gender and to facilitate the professional development of women faculty, postdocs, and graduate students across the various colleges of the university. The CWR promotes a critical understanding of the ways that gender, in its intersections with race, class, sexual orientation and other categories of identity and analysis, shape culture and society, including the university itself.

During FY 2010-11, the Consortium for Women and Research implemented many successful programs and events. Among them was the Distinguished Women in Science Lecture Series, which is important for professional development, networking and community-building among women scientists on campus. In 2010, featured speakers included Chancellor Linda Katehi and Dr. Rebecca Richards-Kortum, a biomedical engineer from Rice University and a member of the National Academy of Engineering, who focused on the topic of “making a difference” in society -- how scientists and engineers in academia can use their skills and expertise to effect positive social change at home and abroad.

The consortium is working with an interdisciplinary team of UC Davis faculty and administrators to secure a NSF ADVANCE-Institutional Transformation grant for the campus. The grant will provide $4 million dollars over a five-year period for creating programs and policies to better recruit and retain women scholars in science, technology, engineering and mathematics (STEM), focusing on such issues as climate, unconscious bias, mentoring, and pipeline challenges.
The Energy Institute focuses and coordinates energy research and education across the campus and partners with other campus, state, national and international centers and institutes in fostering new innovations; expanding public service; and informing decision making in government, industry and other sectors.

FY 2010-11 achievements included:

- The institute, together with the John Muir Institute of the Environment, initiated research into the development of a global sustainability index to provide quantitative metrics and a composite indicator of overall progress in energy, environmental, social and economic sustainability.

- The institute continued to develop and pursue international programs in energy, including new collaborative research agreements with Shandong University of Technology and Hebei University in China. The joint UC-Denmark summer school in renewable energy, with UC Davis participation coordinated through the institute, is now in its fourth year.

- The institute administers the California Renewable Energy Center, a state-wide multi-sector collaborative addressing critical issues in expanding renewable energy in California. The institute continued to lead an intelligent energy grid pilot program to connect the four Center for Information Technology in the Interest of Society (CITRIS) campuses (Berkeley, Davis, Merced, Santa Cruz) in investigating optimization of large regional smartgrids.
The Center for Biophotonics Science and Technology (CBST) advances research, development, and application of new optical/photonic tools and technology in medicine and the life sciences. The center’s unique location and environment enables engineers to collaborate with basic scientists and physicians at the UC Davis Medical Center to translate new biotechnologies from the benchtop to bedside.

The Center for Biophotonics Science and Technology was chosen to be an exhibitor at the inaugural USA Science & Engineering Festival on the Washington, DC Mall and Pennsylvania Avenue on October 23rd and 24th, 2010. The National Science Foundation chose the CBST Education team as one of 15 exhibitor teams to represent the foundation and get the public excited about the work funded by the agency. The group demonstrated numerous highly engaging activities and was joined by Leah Meza, a recent graduate and NIH post-baccalaureate fellowship recipient, who interned with the center when in community college and throughout her career at UC Davis. Over the two-day period, approximately 2,500 persons of mixed ages and race visited the booth and interacted with the presenters. Overall participation in the weekend festival activities topped 500,000. The UC Davis CBST booth was featured on Brazilian television as part of a science program and also was interviewed for several blogging sites on science, physics and photonics.

Claire Pomeroy, Chief Executive Officer of UC Davis Health System, UC Davis Vice Chancellor for Human Health Sciences and Dean of the School of Medicine, presented the CBST education team with an excellence in teamwork award for their exemplary service to the community.
## Sources & Uses

### Appendix

Data Provided by Budget & Institutional Analysis Office

**Unit: Office of Research**

### SOURCES OF FUNDS

<table>
<thead>
<tr>
<th>Source</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>Percent Change 2007-08 - 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Funds and Tuition-- July 1 Base (199XX)</strong></td>
<td>$10,601,120</td>
<td>$11,300,876</td>
<td>$10,890,174</td>
<td>$10,645,964</td>
<td>0%</td>
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<tr>
<td><strong>General Funds and Tuition--Current (199XX)</strong></td>
<td>$14,093,872</td>
<td>$11,270,927</td>
<td>$9,886,611</td>
<td>$12,778,032</td>
<td>-9%</td>
</tr>
<tr>
<td><strong>External and Other Funds (Total)</strong></td>
<td>$150,075,599</td>
<td>$149,522,920</td>
<td>$162,877,464</td>
<td>$168,985,390</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Income and Recharges (INCO/SUB9)</strong></td>
<td>$20,449,099</td>
<td>$23,037,222</td>
<td>$21,208,666</td>
<td>$22,125,138</td>
<td>8%</td>
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<tr>
<td><strong>Total Sources:</strong></td>
<td><strong>$174,770,591</strong></td>
<td><strong>$172,094,723</strong></td>
<td><strong>$183,654,249</strong></td>
<td><strong>$192,409,386</strong></td>
<td>10%</td>
</tr>
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### USES OF FUNDS - Total Expenditures

#### General Funds and Tuition

<table>
<thead>
<tr>
<th>Category</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>Percent Change 2007-08 - 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Salaries (SBxx)</td>
<td>$1,636,518</td>
<td>$1,406,129</td>
<td>$1,037,195</td>
<td>$1,254,002</td>
<td>-23%</td>
</tr>
<tr>
<td>Staff Salaries (SUBS)</td>
<td>$6,397,666</td>
<td>$5,846,400</td>
<td>$5,781,767</td>
<td>$6,528,739</td>
<td>2%</td>
</tr>
<tr>
<td>General Assistance (temporary staffing)</td>
<td>$5,528,366</td>
<td>$3,390,805</td>
<td>$1,774,267</td>
<td>$1,612,085</td>
<td>-71%</td>
</tr>
<tr>
<td>Benefits</td>
<td>$3,315,047</td>
<td>$2,782,928</td>
<td>$2,521,384</td>
<td>$2,868,990</td>
<td>-13%</td>
</tr>
<tr>
<td>OE&amp;E and Other</td>
<td>$4,019,919</td>
<td>$4,789,917</td>
<td>$2,252,173</td>
<td>$3,891,042</td>
<td>-3%</td>
</tr>
<tr>
<td><strong>Sub-total: General Funds and Tuition</strong></td>
<td><strong>$20,897,516</strong></td>
<td><strong>$18,216,179</strong></td>
<td><strong>$13,366,788</strong></td>
<td><strong>$16,154,858</strong></td>
<td>-23%</td>
</tr>
</tbody>
</table>

#### External and Other Funds

<table>
<thead>
<tr>
<th>Category</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>Percent Change 2007-08 - 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Salaries (SBxx)</td>
<td>$2,368,679</td>
<td>$3,186,181</td>
<td>$3,010,051</td>
<td>$2,559,622</td>
<td>8%</td>
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<tr>
<td>Staff Salaries (SUBS)</td>
<td>$2,784,728</td>
<td>$3,503,511</td>
<td>$2,819,061</td>
<td>$2,282,293</td>
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<td>General Assistance (temporary staffing)</td>
<td>$24,897,067</td>
<td>$25,788,802</td>
<td>$27,289,146</td>
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<td>22%</td>
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<td>Benefits</td>
<td>$7,719,187</td>
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<td>$9,527,147</td>
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<tr>
<td>OE&amp;E and Other</td>
<td>$51,236,920</td>
<td>$51,624,114</td>
<td>$47,833,644</td>
<td>$47,864,363</td>
<td>-7%</td>
</tr>
<tr>
<td><strong>Sub-total: External and Other Funds</strong></td>
<td><strong>$89,066,581</strong></td>
<td><strong>$92,704,100</strong></td>
<td><strong>$90,479,049</strong></td>
<td><strong>$93,953,221</strong></td>
<td>6%</td>
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#### Totals--All Fund Sources

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<tr>
<th>Category</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>Percent Change 2007-08 - 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Salaries (SBxx)</td>
<td>$4,005,197</td>
<td>$4,592,310</td>
<td>$4,047,246</td>
<td>$3,813,624</td>
<td>-5%</td>
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<td>Staff Salaries (SUBS)</td>
<td>$9,182,394</td>
<td>$9,349,911</td>
<td>$8,600,828</td>
<td>$8,811,032</td>
<td>-4%</td>
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<tr>
<td>General Assistance (temporary staffing)</td>
<td>$30,425,433</td>
<td>$29,179,607</td>
<td>$29,063,413</td>
<td>$31,944,725</td>
<td>5%</td>
</tr>
<tr>
<td>Benefits</td>
<td>$11,034,234</td>
<td>$11,384,420</td>
<td>$12,048,531</td>
<td>$13,783,293</td>
<td>25%</td>
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<tr>
<td>OE&amp;E and Other</td>
<td>$55,256,839</td>
<td>$56,414,031</td>
<td>$50,085,819</td>
<td>$51,755,404</td>
<td>-6%</td>
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<tr>
<td><strong>Total Uses</strong></td>
<td><strong>$109,904,097</strong></td>
<td><strong>$110,920,279</strong></td>
<td><strong>$103,845,837</strong></td>
<td><strong>$110,108,079</strong></td>
<td>0%</td>
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### FTE Employees (April Employee Snapshot as compiled by BIA)

<table>
<thead>
<tr>
<th>Category</th>
<th>2007-08</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>Percent Change 2007-08 - 2010-11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General Funds, Tuition and Fees--Base and Current</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MSP and SMG</td>
<td>17</td>
<td>18</td>
<td>17</td>
<td>24</td>
<td>41%</td>
</tr>
<tr>
<td>PSS</td>
<td>132</td>
<td>124</td>
<td>99</td>
<td>89</td>
<td>33%</td>
</tr>
<tr>
<td>Academics</td>
<td>30</td>
<td>25</td>
<td>17</td>
<td>16</td>
<td>-47%</td>
</tr>
<tr>
<td><strong>Sub-total: General Funds and Tuition</strong></td>
<td><strong>179</strong></td>
<td><strong>167</strong></td>
<td><strong>133</strong></td>
<td><strong>129</strong></td>
<td>-28%</td>
</tr>
</tbody>
</table>

| **External and Other Funds**          |         |         |         |         |                                   |
| MSP and SMG                           | 25      | 21      | 27      | 23      | -8%                               |
| PSS                                   | 387     | 388     | 396     | 413     | 7%                                |
| Academics                             | 153     | 172     | 166     | 173     | 13%                               |
| **Sub-total: External and Other Funds** | **565** | **581** | **589** | **609** | 8%                                |
| **Total Employees**                   | **744** | **748** | **722** | **738** | -1%                               |

2 July 1 Base Budget less June Final Current Budget
**APPENDIX**

Senior Leadership Mission, Vision & Values

**MISSION:**
The Office of Research senior leadership serves the research community and the chancellor in achieving the research and technology transfer goals of the university.

**How the Senior Leadership Achieves this Mission:**
The Office of Research senior leadership team seeks to achieve this mission in partnership with UC Davis faculty, staff, students and friends, by promoting creativity and an entrepreneurial culture; ensuring the research preeminence of UC Davis; taking the actions needed to ensure we have a well-trained, service-oriented and supported workforce; employing clear, simple and necessary operating processes; utilizing appropriate technology; optimizing funding models and always operating ethically.

**How Success is Determined:**
Success is determined by earning the satisfaction and appreciation of the research community, and the respect and trust of all those to whom the senior leadership are accountable, including the chancellor, the deans, the regents and the Office of Research workforce.

**VISION:**
The senior leadership team has identified the following elements of our vision for the and will be held accountable to act upon them:

- Develop a new vision and strategic plan for research at UC Davis
  - Increase the university’s capacity to produce cutting-edge research
  - Strengthen interdisciplinary connections among colleges and schools
  - Identify and promote new large-scale interdisciplinary research initiatives that address major social, political and scientific issues
  - Establish metrics for campus research and technology transfer goals and monitor the progress towards reaching those goals
  - Foster a of culture success: value risk-taking, entrepreneurship, transparency and collaboration
  - Promote scholarship, creativity, excellence and entrepreneurship among the faculty
  - Support and leverage research strengths

- Ensure research preeminence of UC Davis
  - Promote UC Davis research capabilities to the public, government industry and other research enterprises
  - Foster partnerships and collaborations with government, industry and other research enterprises
  - Represent the UC Davis research community at the international, national, state and local levels
  - Promote commercialization of university inventions
  - Ensure compliance with all relevant regulations governing research activities
  - Focus on reducing the myriad of administrative burdens (both within and outside of the Office of Research) required of campus researchers
  - Identify and make appropriate changes to policies and procedures that are barriers to the generation of research
VISION continued:

• Seek to become an employer of choice
  • Employees have high morale and work/life balance
  • Employees are well-trained, appropriately compensated and have the tools needed to do their jobs
  • There is good communication within the office and to our university colleagues and stakeholders
  • We have effective leadership in our organization
  • We actively practice the UC Davis Principles of Community

• Align resources and service expectations
  • Our core services are defined and aligned to best achieve our mission
  • We use technology efficiently and effectively
  • Optimize funding models managed by the Office of Research
  • Our processes are simple and cost-effective
  • We are responsible stewards of the resources entrusted to us

• Model collaboration
  • We foster trust and teamwork
  • We support internal and external collaboration through partnerships and resource sharing
  • We view our own tasks in the larger framework of the University

• Work to achieve goals and recognize achievements both inside and outside our organization
  • We are results-oriented
  • We encourage and support informed risk-taking
  • We measure the satisfaction of those we serve and implement strategies to continuously improve our service delivery

• Support a safe and environmentally responsible working environment

VALUES:
The Senior Leadership team commits to be held accountable to model the following:

• TRUSTWORTHINESS: Honesty, Integrity, Reliability
• RESPECT: Civility, Courtesy, Understanding, Caring
• STEWARDSHIP: Accountability, Transparency, Pursuit of Excellence
• SERVICE: Collaboration, Teamwork, Professionalism, Quality, Ownership