Sponsored Research and Contract Activity
2007 Year in Review

Research Administration and Contract Administration
Visit us on the web at: www.csus.edu/research
Dear Friends of Sacramento State,

It is my privilege to present, on behalf of my campus colleagues, our second annual Year in Review, which describes sponsored research and contract activity for the 2006–07 fiscal year. At Sacramento State, the members of our faculty are excellent teachers first; their scholarship and research energies advance their teaching, their respective disciplines, and the programs that the University offers. The faculty and professional staff who engage in research, scholarship and creativity activity see these pursuits as a core component of their professional development. In addition, the pursuit of research supported by external funds engages faculty in exhilarating opportunities to compete with others at the leading edges of their disciplines, and it also reaffirms the central role of scholarship and creative inquiry within the profession.

Sacramento State faculty secure resources for their individual research activities, for research equipment and academic program building initiatives, for collaborative projects with students and community groups, and for student scholarship support. As an example, the campus STEM Initiative (Science, Technology, Engineering and Mathematics) led by the Center for STEM Excellence, has begun to dramatically extend the campus knowledge base and our capacity to deliver research programs of impact and new pedagogical approaches. In addition, our partnership with the UC Davis Cancer Center is working through faculty and students to reduce health disparities through outreach, education and research.

It is through the pursuit and development of outstanding scholarship that the faculty and students of Sacramento State engage the future. In May 2008, the University was identified by the National Academy of Sciences as an Emerging Research Institution, an important designation that will lead to closer alliances with federal agencies and greater partnership opportunities with universities around the nation.

From discovery in science, education and the humanities to the creation of new learning platforms, the direction and momentum of Sacramento State is always forward. My colleagues and I invite you to explore the signal contributions Sacramento State faculty and staff are making to advance education in the region.

Please let us know if you would like more information on any of the programs highlighted in this Review. You can always catch the latest news and activities at www.csus.edu/research.

With warm wishes,

David P. Earwicker
Assistant Vice President
Research Administration and Contract Administration
Sacramento State and University Enterprises, Inc.

The research enterprise at Sacramento State is changing to meet the demands of a dynamic new generation of faculty and a more vibrant climate of research on campus. The professional staff of Research Administration and Contract Administration (RACA) provide a broad range of support, coordination and outreach services related to funded research grants and contracts. Research Administration also facilitates, for Academic Affairs and the Faculty Senate, the Committee for the Protection of Human Subjects, the Institutional Animal Care and Use Committee, and the Research and Creative Activity committee.

The administration of sponsored program funds requires prudent fiscal administration, heightened attention to evolving compliance and technical requirements, and a constant focus on the responsible conduct of research. The professional staff of RACA work to ensure the strength and integrity of our sponsored programs portfolio and to expand the awareness of funding opportunities available to the faculty, regardless of discipline.

Our structure is a creative partnership between Academic Affairs and University Enterprises, Inc. (UEI), the primary campus non-profit auxiliary, in which Academic Affairs staff provide research and proposal development support and UEI staff accept and administer the awarded grants and contracts for the University and faculty. The financial and operational support of UEI and its outstanding team of directors, managers and staff are integral to the research enterprise at Sacramento State. Together we serve to expand the connections between our campus and the state and federal funding agencies and other organizations which provide support to the intellectual, creative, and service activities of Sacramento State.

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## Summary of Research Grant and Contract Activity for Fiscal Years 2006 and 2007

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<tbody>
<tr>
<td>Proposed total project costs</td>
<td>$22,000,236</td>
<td>$21,649,421</td>
<td>-2%</td>
</tr>
<tr>
<td>Proposed direct project costs</td>
<td>$19,819,460</td>
<td>$18,836,556</td>
<td>-5%</td>
</tr>
<tr>
<td>Proposed Facilities and Administrative (F&amp;A) costs</td>
<td>$2,228,777</td>
<td>$2,812,864</td>
<td>26%</td>
</tr>
<tr>
<td>Average proposed F&amp;A recovery rate</td>
<td>11.2%</td>
<td>14.93%</td>
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<tr>
<td>Total number of submissions</td>
<td>195</td>
<td>192</td>
<td>-2%</td>
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<tr>
<td>Total funds awarded</td>
<td>$15,827,370</td>
<td>$17,842,710</td>
<td>13%</td>
</tr>
<tr>
<td>Direct project costs</td>
<td>$14,138,370</td>
<td>$15,570,629</td>
<td>10%</td>
</tr>
<tr>
<td>Facilities and Administrative (F&amp;A) Costs</td>
<td>$1,689,000</td>
<td>$2,272,081</td>
<td>34%</td>
</tr>
<tr>
<td>Average F&amp;A recovery rate</td>
<td>11.0%</td>
<td>14.66%</td>
<td></td>
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<tr>
<td>Number of awards received</td>
<td>148</td>
<td>152</td>
<td></td>
</tr>
<tr>
<td>Number of agencies/sponsors awarding grants and contracts</td>
<td>71</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Number of faculty and staff receiving awards</td>
<td>78</td>
<td>71</td>
<td></td>
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Note: The above figures exclude contracts administered by UEI for Student Employment Services ($22.78 million) and the cooperative research agreement with the US Geological Survey ($2.67 million).
Funds Awarded by College/Unit for 2006–2007

Total Awards Received: $17,842,710

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<tr>
<td>Total research grant and contract expenditures</td>
<td>$16,576,063</td>
<td>$17,476,459</td>
<td>5.43% Increase</td>
</tr>
<tr>
<td>Research grant and contract direct expenditures</td>
<td>$14,887,063</td>
<td>$15,699,452</td>
<td>5.45% Increase</td>
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<tr>
<td>Research grant and contract F&amp;A recovered</td>
<td>$1,689,000</td>
<td>$1,773,987</td>
<td>5.03% Increase</td>
</tr>
<tr>
<td>Average F&amp;A recovery rate</td>
<td>11.3%</td>
<td>11.3%</td>
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Note: Columns may not total precisely due to rounding and offsets.

* Included in the figure for Academic Affairs is $987,000 for the CSU Louis Stokes Alliance for Minority Participation (LSAMP) program funded by the National Science Foundation.
The Center for STEM Excellence—Growing Strong in Year One

The Center for STEM (Science, Technology, Engineering and Mathematics) Excellence was created in May 2006 as a direct result of the planning and progression of the STEM Initiative begun in 2005. A dedicated group of energetic faculty gathered expertise from across the STEM disciplines to create an interdisciplinary, focused effort in support of STEM majors and pre-service teachers.

The core goals of the initiative are to attract and prepare more students from all walks of life to pursue STEM degree programs, to graduate more of our students with nationally recognized STEM degrees, and to help our graduates prosper in their chosen fields.

Located in Santa Clara Hall, the STEM Center serves as a meeting space for STEM faculty and staff and a project site for interdisciplinary partnerships with faculty, administrative staff and regional organizations that are coordinated through the Center. In its first year, the Center housed STEM faculty grant development projects that included submissions to the National Science Foundation’s Major Research Instrumentation program (Thomas Landerholm, professor of biological sciences), the Course, Curriculum, and Laboratory Improvement program (Jeffrey Paradis, professor of chemistry) and the Informal Science Education program (James Baxter, professor of biological sciences).

STEM faculty work across campus to improve all aspects of STEM-discipline development for prospective students, community and regional business and industry, and the Sacramento State community at large. Some examples of the activities the Center administered in its first year include:

STEM Scholars Public Lecture—The STEM Scholars Public Lecture Series is the avenue for Sacramento State scholars to share their research with the community. Lectures in 2006-07 included: Volcanoes in our Backyard? by geology professor Lisa Hammersley; Sustainable Energy, Challenges and Solutions by mechanical engineering professor Timothy Marbach; and Is Agricultural Biotechnology Safe? by biological sciences professor Nick Ewing.

Sacramento Region Collaborative for Higher Education Conference—Held at Sacramento State in November 2006, this regional conference featured a STEM workshop facilitated by STEM Director Thomas Landerholm. The group in attendance worked to identify key issues surrounding participation and success in STEM training in our region. Topics covered included workforce development, transfer from community colleges to Sacramento State, and issues related to equity and access.

Building the STEM Pipeline Summit—Held in April 2007, this summit was designed to lay the foundation for strengthening the preschool through graduate degree (P-20) STEM pipeline in the Sacramento region and, in doing so, building a stable STEM workforce for our growing high-tech economy. Industry leaders, educators, community and local government came together to examine our current and future needs for a high-technology workforce and develop partnerships to fill the gaps in infrastructure, education and research that might impede our region from producing the best STEM pipeline for its workforce.
Enriching the Academic Experience of College Science Students Conference—Eleven Sacramento State STEM faculty attended this May 2007 conference at the University of Michigan in Ann Arbor. With specific learning objectives, the group returned and produced a report to the campus community and held a brown bag event on Peer Assisted Learning (PAL). It was an exceptional learning experience for the participants and a fantastic opportunity to bring to campus an organized, collective view on relevant academic issues such as advising and mentoring, learning skills, and enhancing support for STEM majors.

Expanding Your Horizons Conference (EYH)—The Expanding Your Horizons in Science and Mathematics™ conferences are designed to nurture young girls’ interest in science and math courses and to encourage them to consider science and math-based career options such as engineering, computer science and physical science. In October 2007, the Community Engagement Center and the Center for STEM Excellence worked in collaboration with representatives from the Women of AT&T to organize this event at Sacramento State for 300 girls from Sacramento and surrounding counties.

The event was designed to inform 6th through 8th grade girls about STEM careers and give them hands-on experiences in a variety of STEM disciplines. Many of Sacramento State’s STEM faculty donated their time to provide an exciting array of workshop choices and make this event a memorable experience for the girls.

For more information on the STEM Center or the activities mentioned above, visit www.csus.edu/stem or call (916) 278-2789.

UC Davis Cancer Center and Sacramento State: Community and Campus Collaboration

The Sacramento State/UC Davis Cancer Center Partnership to Reduce Health Disparities continued its work with an annual research conference focused on community-based collaborative research, the development and submission of a NIH exploratory (P20) grant application, and the formation of experiential learning opportunities in clinical trials research and nursing. A range of federal and private proposals are currently being developed by faculty and researchers from both institutions.

For 2007, the Partnership nurtured three distinct faculty-community research projects, held the 2007 Campus/Community Collaborative Research conference in October at Sacramento State, and developed a Health Care Communications course to be offered in Fall 2008 at Sacramento State. In addition, we were delighted to learn in early 2008 that Partnership Board member Dr. Jan Nolta, who serves as Director of the Stem Cell Program at UC Davis Medical Center, and who is an alumna (B.S., Chemistry, 1984) of Sacramento State, received a $20 million award from the California Institute for Regenerative Medicine (CIRM) which includes funds for work with Sacramento State students.

Drawing on the outreach and educational goals of each institution, the Partnership Board will finalize its strategic plan during 2008 and begin the next phase of recruitment for an endowed position to formalize and bridge the relationship between the two universities. For more information about the Partnership, please visit the interim site at www.sacstate-ucdcc.com or e-mail research@csus.edu.
U.S. Geological Survey and Sacramento State: A Decade of Cooperative Science

When the U.S. Geological Survey’s (USGS) California Water Science Center agreed to site its new Sacramento offices on the campus in 1997, the stage was set for discoveries and collaborations between world-class USGS scientists and our expanding, changing campus. The Cooperative Agreement between our two entities and University Enterprises, Inc. (UEI) celebrated its 10th anniversary in fall 2007 with a research conference entitled, Cooperative Science: 10 years of Discovery and Collaboration between the U.S. Geological Survey and California State University, Sacramento. Over the course of 10 years, the USGS and Sacramento State have formed a unique partnership which emphasizes the regional and statewide initiatives that both organizations are engaged in continuously. The USGS capacities in hydrology, water science and related areas are recognized throughout the region as world-class science. When our faculty and students work in partnership with USGS staff in the classroom, at the lab bench, in the field with drilling and sampling projects, or in other initiatives which characterize the partnership, growth and sharing occur simultaneously.

The importance of the USGS presence on campus can be symbolized in one word: catalyst. The USGS cohort has become a part of the campus, an affiliation in which each group takes great pride. The collaboration illustrates to our regional, state and federal partners the importance of investing in and nurturing such relationships. The public good is strengthened, the taxpayers’ investment is leveraged, and the body of knowledge is expanded through students, faculty and USGS scientists working together. This is, indeed, a successful working partnership.

Over the 10 years, new shared facilities such as Modoc Hall and Placer Hall have been constructed, the Master of Science (M.S.) in geology at Sacramento State was created, and numerous graduate students have become full-time scientists and staff for USGS. A proposed collaborative research center will focus on funded research and education initiatives that involve interdisciplinary collaborations of students, faculty and researchers from other agencies and organizations, including USGS and its affiliates. The center will engage in research, education, outreach and service to the regional, national and global environments. Through the formation of linkages and funding alliances with state and federal agencies, the developing center will strengthen the cooperative science platform of Sacramento State and USGS and build a vibrant research and education avenue for students, faculty and community researchers.
The Archaeological Research Center (ARC) is conducting several projects under the direction of professors Mark Basgall and Michael Delacorte. These include continuing work associated with the relicensing of Lake Oroville for the California Department of Water Resources (DWR). The Oroville facilities are a critical component of the Central Valley Water Project that provides flood protection and water deliveries for much of California. ARC has been instrumental in structuring and providing cultural resources management studies in support of the Oroville relicensing for the past five years, and will continue to assist DWR in the implementation of various license provisions and long-term management of the area’s prehistoric heritage resources. This multimillion dollar project is only one of several major contracts that ARC currently holds. For more information on ARC, visit: www.csus.edu/anth/arc.

The Center for California Studies

The Center for California Studies, led by director Tim Hodson, was founded in 1982 by the government department faculty as a vehicle for encouraging the study of California government, politics and public policies. In recent years more than 150 Sacramento State faculty and staff have been involved in Center activities. The Center focuses on four areas:

» California Studies including the annual Envisioning California Studies and California Election Data Archive;

» Capital Fellows including the administration of the Assembly, Executive, Judicial Administration and Senate Fellows Programs;

» Civic Education including the LegiSchool Project; and

» Government Affairs including the Faculty Research Fellows Program.

Since 1985-86, the Center has been funded by a separate line item appropriation in the state budget. The line item is located within the budget of the California State University and university budget materials include it as a standard university appropriation. However, the statutory language of the line item mandates that the funds appropriated to the Center may be used only for the Center, Capital Fellows and LegiSchool project. For more information on the Center for California Studies, visit: www.csus.edu/calst.

Creative Services

The Sacramento State Creative Services Team, a unit within Academic Affairs, brings together the talents of creative and technical professionals utilizing state-of-the-art tools and facilities. The result: compelling, effective and cost efficient products to meet the communication, education and outreach needs of government and non-profit clients. A diverse mix of internal capabilities and skills including project management, instructional design, photography, and video and graphic design, provides a comprehensive one-stop service approach to projects large and small. Recent projects that the Creative Services Team has been involved in include:

Interactive DVDs for California State Parks—Services were provided for the creation of interactive DVD tours of several sites including Jack London State Historic Park, The Vallejo Home, Petaluma Adobe, Benicia State Capitol and, most recently, Will Rogers State Historic Park in Pacific Palisades. Creative Services not only produced the video and did DVD programming but also engineered, designed and built the kiosks that are housed in the visitor centers. Another project of interest was the video documentation of the restoration and preservation of Historic Stoves at Mt. Diablo State Park. This DVD will be used to educate the public about the stoves and to serve as a resource and training tool for future park employees who will do stove restoration.
Skin Cancer Prevention Public Education Materials—
In collaboration with the California Department of Health Services and the Public Health Institute, Creative Services developed and produced video and audio public service announcements, posters and outreach materials to increase the awareness of parents, as well as construction and other trade workers, of skin cancer risks related to ongoing exposure to the sun.

For more information on Sacramento State Creative Services, visit: www.mycreativeservices.info.

Institute for Social Research
The Institute for Social Research (ISR) designed a study in response to the Respiratory Care Board of California’s need to plan and prepare for a potential shortage of Respiratory Care Practitioners (RCPs) in California and to consider future direction for RCP education and certification requirements. The project surveyed RCPs, Respiratory Care educational programs, and RCP employers and compiled statewide demographic, labor market and health care data from a variety of sources. One of the overall positive findings was the high level of agreement between stakeholder groups on most of the issues. The study found that concerns regarding shortages of RCPs in California are well-founded. Forecast models show potential for a “perfect storm” scenario driven by a constellation of factors that could result in serious shortages of RCPs available to meet the needs of the California population in the coming decades. For more information on ISR, visit: www.csus.edu/isr.

North Central Information Center
The North Central Information Center (NCIC) is one of 12 Information Centers that are part of the California Historical Resource Inventory System (CHRIS) funded by the California Department of Parks and Recreation. NCIC serves as the official repository for archaeological and historical information for the counties of Amador, El Dorado, Nevada, Placer, Sacramento and Yuba. This inventory includes thousands of prehistoric and historic archaeological resources and reports, the files of the Historic Resource Inventory, and documents pertaining to the National Register of Historic Places, the California Register of Historical Resources, and the California Points of Historical Interest. In 2007, the Society for California Archaeology awarded the Information Centers of the California Historic Resource Information System the Thomas F. King Award for Excellence in Cultural Resource Management. For more information on NCIC, visit: www.csus.edu/hist/centers/ncic.

Office of Water Programs
The Research Group of the Office of Water Programs (OWP) continues to provide technical assistance in stormwater research to the California Department of Transportation (Caltrans) and others. At a specially constructed test facility on campus, OWP’s Brian Currier directed several investigations into small-footprint treatment devices that can fit into underground vaults or existing storm drains. The oil removal capabilities of four commercial devices were tested for the California Integrated Waste Management Board. A series of technology development tests were run to help KriStar Enterprises, Inc. refine its design for an underground filter it hopes to market in the future. In addition, several experimental devices fabricated on campus were tested under Caltrans sponsorship. These projects involved faculty and students from civil engineering, mechanical engineering, and chemistry. For more information on OWP, visit: www.owp.csus.edu.

A more complete listing of Sac State research centers and institutes can be found on the back cover.
Learning the U.S. Tax System

The College of Continuing Education developed a customized training program for a group of Chinese tax professionals from the Hubei Province. The 18 visitors were selected by the Chinese government to be here for one year to study business, international accounting practices, and leadership development. In addition to an intense schedule of academic coursework all in English, they job shadow taxation employees in various public and private agencies including the California Franchise Tax Board. Before returning to China in August 2008, they will complete a major research project in their field. The program is one of the first of its kind involving China. For more information, visit: www.cce.csus.edu.

Peace Building in Africa

Conducting Alternative Dispute Resolution (ADR) and peace education programs in Africa has been a focus of Professor Ernest Uwazie’s Center for African Peace and Conflict Resolution (CAPCR) for more than 10 years. Currently, through a project funded by the U.S. Department of State, CAPCR is collaborating with the Ethiopian judiciary and lawyer associations to introduce, implement and promote ADR in Ethiopia. Uwazie and his team are conducting training workshops and case settlement sessions for legal and allied professionals in Ethiopia and developing curricula for post-training programs. The hope is that by developing a cadre of ADR leaders there will be an increase in the use of peaceful conflict resolution techniques, and the efficiency and effectiveness of the Ethiopian judiciary and legal systems will be enhanced. For more information on CAPCR, visit: www.csus.edu/org/capcr.

Increasing Diversity and Opportunities for Undergraduates

Geology professor Lisa Hammersley, along with professors Judi Kusnick, Brian Hausback and Kevin Cornwell, has been working to develop new geology courses that will encourage Hispanic students to become geology majors. The National Science Foundation awarded a two-year grant for this project, which involves a Geology of Mexico introductory geology course and a two-week field course in Central Mexico which allows students to have direct contact with Mexican geologists. The ultimate goal of this project is to develop future place-based courses at Sacramento State, including Geology of Africa and Geology of Asia, and thus supporting the university’s efforts to increase diversity in the sciences.
McNair Scholars Program

The Sacramento State McNair Scholars Program, funded by the U.S. Department of Education, is a comprehensive program to help low-income and first generation students, and students from underrepresented groups succeed in their undergraduate course work. In addition, the program’s activities are designed to prepare participants to enroll in graduate studies leading to a Ph.D. Students are selected based on their potential to be successful with consideration given to significant needs related to various barriers including academic underpreparedness, financial difficulties, and other socio-psychological factors. Sacramento State has been awarded McNair program funding for the past seven years. For more information, visit: www.csus.edu/mcnair.

In addition, MEP sponsors the MEP Honors Partnership (MHP), a paid internship program for competitively selected students. MHP Industry Fellows are offered full-time, paid positions during summers and college breaks from their freshman through senior years. The income that students earn, along with any financial aid they receive, allows them to attend school full-time and eliminates the need to work when classes are in session.

MESA Engineering and Computer Science Program

The MESA Engineering and Computer Science Program (MEP) focuses on the recruitment, retention, and graduation of highly motivated students from educationally disadvantaged backgrounds. Participation in the MEP program increases the probability that students will be successful in their engineering or computer science studies. The MEP program provides workshops, tutoring, and study groups and assists in the coordination of retention services for all students in the College of Engineering and Computer Science. Professional development, a freshman orientation course, academic advising, and co-op placements are also made available. MEP has received funding from the Intel Foundation, GenCorp and the UC Office of the President.

Innovative Student Programs

Guy Deaner instructing graduate vocational rehabilitation counseling students.

Support to Students with Disabilities

The U.S. Department of Education TRIO Student Support Services Program is an integral component of Services to Students with Disabilities (SSWD) at Sacramento State. SSWD provides supplemental and remedial instruction, tutoring, disability management counseling, and other support services to eligible students with disabilities to help facilitate retention and graduation. For more information, visit: www.csus.edu/sswd/trio.html.
Student Employment Services

University Enterprises, Inc. (UEI) provides Sacramento State graduate and undergraduate students with academically related career-building opportunities through its Student Employment Services (SES) program. The program offers part-time employment that complements students’ areas of academic focus through contracts with state and local government agencies, nonprofit organizations, and private industry. These organizations, integral partners with the SES program, provide mentoring and real-life work experience for the students in fields such as computer technology, business, marketing, and scientific research.

In addition to providing opportunities in support of Sacramento State students, SES collaborates with partner colleges and universities throughout the state for the participation of students enrolled at other post-secondary institutions.

SES handles student recruitment and provides human resources expertise, payroll management, and contract administration. For more information on SES, visit www.enterprises.csus.edu/SES or call (916) 278-4994.

For 2006–07, the total volume of contract activity through SES was $22.78 million. SES is fortunate to work with a distinguished group of state agencies whose commitment to workforce development and higher education is unparalleled. Some agencies SES worked with and wish to thank for their continued support are:

- California Air Resources Board
- California Department of Education
- California Energy Commission
- California Office of Statewide Health Planning and Development
- California Department of Public Health and the California Department of Health Care Services (formerly the California Department of Health Services)
- California Department of Motor Vehicles
- CalPERS
- California Secretary of State
- CalSTRS
- California Water Resources Control Board

Vocational Rehabilitation Counseling

With funding from a five-year Rehabilitation Services Administration training grant, professor Guy Deaner assists graduate vocational rehabilitation counseling students in defraying the cost of their education. The program addresses the critical shortage of qualified rehabilitation counselors in both the state of California and in the nation, and has graduated 400 qualified rehabilitation counselors who possess the skills and dedication to assist individuals with disabilities in achieving self-determination, independent meaningful employment and full community integration. For more information, visit: http://edweb.csus.edu/eds/voca_rehab.html.
Arts and Letters

Philosophy professor Michael Epperson, in collaboration with scientists from NASA, Lawrence Berkeley National Laboratory, the Georgia Institute of Technology and the University of Maryland, received a planning grant to investigate the relationship between the causal and logical orders in quantum mechanics. The group recently submitted a full proposal to the Templeton Foundation’s Science and Transcendence Advanced Research Series (STARS) to pursue this research in more depth.

Engineering and Computer Science

The Governor’s Office of Emergency Services contracted with civil engineering professor Ralph Hwang to review dam failure inundation maps prepared by dam owners throughout the state of California. This review consists of checking the shape of the dam breach, cross sections, flood inflow assumptions, the reservoir elevation-area storage capacity, and verifying the scope of the floodplain resulting from hypothetical failures.

Education

Child development professor Kimberly Gordon Biddle is working to promote the development of a professional child care workforce and enhance the quality of child care services available to Sacramento area families. With funding from Child Action, Inc., Gordon Biddle placed undergraduate students in child care centers to assist the teachers and assessed the educational environment of various centers. Recently this funding was renewed for three more years, and in addition to placing students as assistants in child care centers, the project will now provide information sessions and tours to potential students who are currently employed in the child care field.

Health and Human Services

In collaboration with the El Dorado Union High School District, kinesiology and health science professor Roberto Quintana and family and consumer sciences professor Wendy Cunningham, are providing graduate students with the opportunity to implement health-related fitness and nutrition education curriculum to address adolescent obesity. With funding from the U.S. Department of Education, the project provides training in conducting body composition assessment, cardiovascular fitness testing, physical activity monitoring, nutritional education, and
data analysis to the district’s physical education teachers and high school students. This three-year project benefits not only the high school district, P.E. teachers, and high school students, but also the exercise science graduate students through the valuable “hands-on” experience they gain.

California State Parks manages the largest and most diverse natural and cultural heritage holdings of any state agency in the nation, with 278 individual units in the park system. To assist in planning for the park system’s future, State Parks is collaborating with recreation, parks and tourism administration professors David Rolloff, Beth Kivel, Beth Erickson and Katherine Pinch to conduct the first comprehensive survey of state park visitors in the agency’s 100+ year history. Visitors at 26 representative parks are being interviewed by student field researchers to gain information about their attitudes toward parks, their recreation and educational participation in parks, as well as providing socio-economic background and information related to economic expenditures as part of their park visits. This study represents one of the largest social research efforts ever funded by California State Parks.

**Natural Sciences and Mathematics**

Geology professor Kevin Cornwell and graduate student Kamala Brown received funding from the National Heritage Institute to investigate the physical and hydrologic characterization of Clark’s Meadow in the upper Feather River Watershed to determine the subsurface conditions and potential water storage capabilities of meadow sediments. The partially restored nature of Clark’s Meadow offered a unique opportunity to observe the consequences of unchecked stream erosion in the lower half of the meadow against restored conditions in the northern half of the meadow. Under conditions measured during late summer 2007, Cornwell and Brown found that the groundwater was only about 35% of optimal. This substantial discrepancy resulted primarily from dewatering of meadow sediments through unchecked stream channel erosion. This unchecked erosion causes channel incision and widening (which facilitate the de-watering of subsurface sediments) and cause stream banks to become unstable, furthering erosion problems.

The Azure Penstemon (*Penstemon Azureus*) is a little perennial with purplish-blue flowers native to the foothills and middle elevations of the Sierra Nevada mountains. Through a grant from the Earthwatch Institute, biological sciences professor Shannon Datwyler and her team of six gifted high school students from across the United States, documented the pollinators to Azure Penstemon in the central Sierra Nevada. The students collected data on the relative abundance of different pollinator species, caged plants to examine the effects of excluding pollinating insects of different sizes, examined the effectiveness of different pollinator species, and performed laboratory analyses to understand evolutionary relationships among these plants. Interestingly, the project documented the presence of pollen wasps, a poorly understood pollinator, as the primary visitors to this species of wildflower.

Chemistry professor Linda Roberts has been researching a protein that provides significant protection against heart disease.
of researchers from the biology and chemistry departments, Roberts has been examining the effect of targeted deletions on the protein’s structure and lipid-binding properties. In collaboration with Dr. John Voss in the biochemistry and molecular medicine department at UC Davis, the lab has also been engaged in studies involving an amyloid-forming mutant of apo A-I (amyloids are implicated in Alzheimer’s and Huntington diseases, among others). Roberts hopes her research will provide insight into the molecular mechanisms regarding the protein’s cholesterol-lowering functions and how certain mutations lead to structural changes resulting in amyloid deposition.

Social Sciences and Interdisciplinary Studies

Economics professor Jonathan Kaplan is collaborating with researchers at UC Davis and the State Water Resources Control Board to assess the long-term economic consequences from increasing water salinity on the economy of California’s Central Valley. Kaplan’s research focuses on animal feeding operations, which are significant contributors to the economic prosperity of California and of nutrients and salt within the Central Valley. He is studying the complex interaction between these nutrients, specifically nitrogen, phosphorus, and salts, all of which are found in animal manure. Insights gained through this research will help our understanding of the economic cost of managing manure nutrients through land application in light of the fact that increasing salinity levels negatively affect the ability of the land to absorb nutrients.

Student Affairs

The Sacramento State Alcohol Education Program works to reduce the harm associated with high risk drinking through education, student leadership development and the provision of resources to support and encourage healthy choices. Through State Incentive Grant funding, the program aims to reduce binge drinking related problems and underage access to alcohol among Sac State students. Activities related to this included the training of 15 peer health educators to conduct presentations and outreach on campus and in the Sacramento community, working with local law enforcement agencies to provide DUI enforcement at the 2007 Causeway Classic, and testifying at the Sacramento City Council Law and Legislative meeting to encourage lawmakers to pass an Alcohol Retail Licensing Fee for local liquor license holders to support Sacramento City Police Department enforcement efforts in the community.
Grants & Contracts
Received from 7/1/2006 through 6/30/2007

Academic Affairs
Joseph Sheley, Academic Affairs
National Science Foundation .............................................. $987,000
CSU LSAMP (Phase III)—Bridge to the Doctorate Supplement

Academic Technology and Creative Services
Michaeline Veden
California Dept. of Boating and Waterways .................................................. $75,000
General Graphic Design—Outreach Publication Work and Products
California Dept. of Boating and Waterways .................................................. $450,000
Graphic Design, Products, Print, Web Development and Maintenance (MOU 1)
California Dept. of Boating and Waterways .................................................. $400,000
Graphic Design, Products, Print, Web Development and Maintenance of AquaSMART (MOU 2)
California Dept. of Consumer Affairs .................................................. $24,689
Video Training Module for the 2007 Vehicle Inspection Update Training Program
California Dept. of Consumer Affairs .................................................. $2,832
Video Training Module for the 2007 Vehicle Inspection Update Training Program
California Dept. of Corrections .................................................. $75,000
Graphic Audio/Visual Services
California Dept. of Corrections .................................................. $80,000
Graphic, Printing, and Audiovisual Products
California Dept. of Health Services .................................................. $294,832
Media Services/Products
California Dept. of Parks and Recreation .................................................. $5,500
Diablo Stove Restoration Training Film
California Dept. of Veterans Affairs .................................................. $40,000
Branding Guidelines Development and Logo Design
California Service Corps .................................................. $48,950
Creative Services for Citizen Corps Programs
EMT Associates, Inc .................................................. $12,300
“Brief Intervention” Interactive DVD Product

EMT Associates, Inc .................................................. $23,500
“Difficult Issues” Interactive DVD
Kern County Superintendent of Schools .................................................. $12,250
FCMAT Teleconference, May 16 and 17, 2007
Kern County Superintendent of Schools .................................................. $12,500
FCMAT Teleconference, February 26, 2007
Kern County Superintendent of Schools .................................................. $12,000
FCMAT Teleconference July 11, 2006
Pearson Education, Inc .................................................. $24,750
Video “Work” Clips and Help Files
Public Health Institute .................................................. $18,922
Skin Cancer Prevention Media
Public Health Institute .................................................. $2,340
Skin Cancer Prevention Media (Amendment 1)

College Assistance Migrant Program (CAMP)
Viridiana Diaz
The Orfalea Family Foundation .................................................. $3,000
CAMP Outreach and Support Services
US Dept. of Education .................................................. $462,100
CAMP Year 3
US Dept. of Education .................................................. $462,100
CAMP Year 4

Graduate Studies
Chevelle Newsome
US Dept. of Education .................................................. $222,159
McNair Scholars Program (Yr 4)

College of Arts and Letters
Communication Studies
Barbara O’Connor
William and Flora Hewlett Foundation .................................................. $200,000
Brokers of Expertise

Foreign Languages
Carol Eberhart
University of California, Office of the President .................................................. $38,800
Capital Foreign Language Project

History
Christopher Castaneda
California Dept. of Justice .................................................. $10,000
Institutional History of the California Attorney General’s Office

Charles Postel
Folsom Cordova Unified School District .................................................. $17,642
Teaching American History Grant Program “Every Teacher an Historian: Merging Content & Discipline in American History”
Placer County Office of Education .................................................. $20,745
Teaching American History 2007 Summer Institute
San Juan Unified School District .................................................. $45,411
Teaching American History Grant—“Knowing History, Thinking History” (Years 2 and 3)

Lee Simpson
California Dept. of Parks and Recreation .................................................. $42,660
North Central Information Center
California Dept. of Transportation .................................................. $10,000
North Central Information Center (Amendment No. 5)
California Tahoe Conservancy .................................................. $24,323
Record Searches

Music
Stephen Blumberg
County of Sacramento .................................................. $12,520
2007 Cultural Arts Awards Program: 30th Annual Festival of New American Music

(continued)
(Grants and Contracts continued)

Daniel Kennedy
National Endowment for the Arts .................. $12,500
30th Annual Festival of New American Music

Philosophy
Michael Epperson
Center for Theology and the Natural Sciences ................................................. $20,000
Quantum Physical Investigations into the Causal and Logical Orders and the Physical Basis of Possibility

College of Business Administration
Amy Mickel
California Dept. of Developmental Services .................................................. $166,763
Review of Current Methodologies and Recommend Statistically Sound Changes

Dennis Tootelian
California Dept. of Conservation .................. $94,145
Review of Research and Current Sampling Design Plans, Practices, and Methods
California Dept. of Parks and Recreation .... $50,000 Consulting Services
California Dept. of Parks and Recreation ... $25,000 California Citrus State Historic Park Wealthy Growers Mansion Activity Center Feasibility Study
California Dept. of Parks and Recreation ... $27,970 Old Town San Diego State Historic Park—Franklin House Feasibility Study

College of Continuing Education
Susan Gonzalez
California Dept. of Corrections .................. $46,755
Summit for Safe Communities
California Dept. of Corrections .................. $50,000 Summit for Safe Communities (Amendment I)

William Sharar
Cheongju University, Korea .................. $31,044 English Language and American Culture Program—1/16/07–2/23/07
Cheongju University, Korea .................. $67,636 English Language and American Culture Program—1/16/07–5/25/07
Cheongju University, Korea .................. $27,340 English Language and American Culture Program—6/23/06–8/21/06
Cheongju University, Korea .................. $34,380 English Language and American Culture Program—8/8/06–12/10/06

Kumoh Institute of Technology, Korea .................. $41,449 Short-term English Language and American Culture Program
Nihon University of Japan .................. $28,800 English Language and American Culture Program—2/9/07–3/8/07
Tunghai University, Taichung, Taiwan ........ $54,800 2007 Summer Freshman Program
World Learning .................................. $45,512 Belarus Farmers’ Association Development Program
World Learning .................................. $45,431 Fruit and Vegetable Processing and Food Safety Training for Tajikistan
World Learning .................................. $48,000 Quality Control in Wine Production Sector Education Program

College of Education
Bilingual/Multicultural Education
Dianna Gutierrez
Instituto de los Mexicanos en el Exterior .................. $10,000 Grant for GED Student Scholarships
US Dept. of Education .................. $470,000 Sacramento State High School Equivalency Program (HEP) Year 3
US Dept. of Education .................. $470,000 Sacramento State High School Equivalency Program (HEP) Year 4

Nadeen Ruiz
Migrant Education Region 23 .................. $135,835 Summer Migrant Academy
US Dept. of Education .................. $283,566 The California Binational Teacher Education Program
Child Development
Karen Horobin
David and Lucile Packard Foundation $150,000
A California State University-California Community College Degree Pathway: Proposal for Integrated Preparation in Early Development Care and Education (IPEDCE)

Special Education, Rehabilitation and School Psychology
Bernice Bass de Martinez
The Regents of the University of California $10,000
University Centers for Excellence in Developmental Disabilities

Guy Deener
US Dept. of Education $149,982
Long-term Training in Rehabilitation Counseling

Kathleen Gee
US Dept. of Education $299,996
Project ETCHES—Educating Teachers Collaboratively, Honoring Every Student

Teacher Education
Nancy Cecil
University of California, Office of the President $69,000
California Reading and Literature Project (NCLB Funds)

University of California, Office of the President $46,000
California Reading and Literature Project (State of California Funds)

David Jelinek
Davis Joint Unified School District $19,014
DJUSD Javits Gifted and Talented Program

Crystal Olson
California Arts Council $3,000
2007 MOSAICS Project Arts Resource Faire

College of Engineering and Computer Science
Eric Matsumoto
UC San Diego $82,446
Development of Precast Bent Cap Systems for Seismic Regions

Washington University, St. Louis $10,000
Deployment and Integration of Instructional Shake Tables Using the NEES Cyberinfrastructure

Ali Purbaha
National Science Foundation $163,400
Acquisition of Seismic Simulator for Research and Education at a Principally Undergraduate Institution

Electrical and Electronic Engineering
Warren Smith
Shriners Hospitals for Children, Northern California $79,738
Fall Meter Design, Normative Testing, and Evaluation of Botulinum Toxin Treatment Efficacy

MESA Engineering and Computer Science Program (MEP)
Madeleine Fish
GenCorp Aerojet $9,000
2006-2007 MEP Program

Intel Foundation $15,000
MEP Fast-Track to Success and Confidence in Math Program

University of California, Office of the President $20,000
2005-2006 MESA Engineering Program (MEP)

Jaime White
Intel Foundation $47,667
MEP Honors Partnership

Office of Water Programs
Ramzi Mahmood
California Dept. of Transportation $2,330,151
Technical Assistance Agreement

KriStar Enterprises, Inc. $77,738
Perk Filter Testing and Performance Verification

KriStar Enterprises, Inc. $5,000
Amendment 1

Kurt Ohlinger
California Water Environment Association $7,422
2007 Study Session Moderator Training Workshops

(continued)
College of Health and Human Services

Criminal Justice
Ernest Uwazie
US Dept. of State..........................$285,000
Program for Development and Promotion of Alternative Dispute Resolution (ADR) in Ethiopia

The World Bank Group .................$10,000
Compilation of Case Studies and Lessons on Alternative Dispute Resolution

Miki Vohryzek-Bolden
California Dept. of Corrections...........$180,000
Review of Current Inmate Gang Management and Housing Practices

California Dept. of Justice ..............$300,000
Technical Expertise and Consulting Services to Evaluate the California Methamphetamine Strategy

Governor’s Office of Emergency Services ....$91,429
Technical Expertise and Consulting Services and Evaluation of Cal-MMET Program

Kinesiology and Health Science
Daryl Parker
Commission on Correctional Peace Officer Standards ..................$23,760
Juvenile Corrections Core Course

Roberto Quintana
El Dorado Union High School District......$117,761
Body Composition Measurements and Nutrition Analysis of High School Students

Recreation, Parks and Tourism Administration
David Rolloff
California Dept. of Parks and Recreation...$500,000
Expertise for State Park Visitors Survey

California Dept. of Parks and Recreation ...$89,125
State Park Visitors Survey—Phase 1

Social Work
Sylvester Bowie
UC Berkeley..................................$1,518,448
2006-2007 Title IVE Social Work Training Program

Francis Yuen
Governor's Office of Emergency Services...$25,000
Expertise for the OES Violence Against Women Act STOP Program Projects

National Institute of Child Health and Human Development..................$91,800
Developing a Bio-medical and Behavioral Research Center (Year 4)

National Institutes of Health .............$30,000
Adolescent Obesity: Academic—Community Partnership Conferences

National Institutes of Health .............$216,000
Science Education Partnership

Shannon Datwyler
EarthWatch Institute ......................$15,225
Sierra Nevada Wildflowers Project

Laurel Heffernan
CSU Chancellor’s Office ..................$50,000
Math and Science Teacher Incentive Grants

NASA ............................................$873,707
The Sacramento State Space Science Center—II

College of Natural Sciences and Mathematics

Biological Sciences
Juanita Barrena
California Statewide Health Planning and Development .............$17,500
Health Professions Pipeline Partnership Project

National Institutes of Health .............$216,000
Science Education Partnership

Chemistry
Bradly Baker
National Science Foundation .............$43,190
CAREER: Biogenic Hydrocarbons from Grasslands-Flux Measurements and Education Outreach

National Science Foundation .............$107,064
CAREER: Biogenic Hydrocarbons from Grasslands-Flux Measurements and Education Outreach

Health Resources and Services Administration..................$119,128
Scholarships for Disadvantaged Students

Francis Yuen
Governor’s Office of Emergency Services...$25,000
Expertise for the OES Violence Against Women Act STOP Program Projects

 unnecessarily
Katherine McReynolds  
National Institutes of Health ...................... $36,949  
Research Supplement to Promote Diversity: AREA Award Synthesis of Novel Water Soluble Glycodendrimers as Anti-HIV Agents

Linda Roberts  
National Institutes of Health ...................... $66,000  
Analysis of a Conformational Switch

Thomas Savage  
Research Corporation .............................. $14,091  
Elucidation of the Biochemical Pathway to the Marine Neurotoxin Domoic Acid

John Spence  
Petroleum Research Fund ........................ $26,000  
Synthesis, Thermal and Photochemical Reactivity of Highly Conjugated Enediyenes

Geology  
Kevin Cornwell  
Natural Heritage Institute ........................ $40,000  
Physical and Hydrological Characteristics of Mountain Meadows

Brian Hausback  
California Dept. of Water Resources ........... $49,875  
Expertise Associated with Geological Studies of Subsurface Stratigraphy in the Sacramento Valley

Timothy Horner  
US Bureau of Reclamation ....................... $37,804  
Habitat Suitability of Spawning Gravels on the Lower American River

Judith Kusnick  
Intel Foundation .................................... $20,000  
Science in the River City and Open Science Summer Institute

UC Office of the President ....................... $38,367  
Sacramento Area Science Project

Yolo County Office of Education ............... $56,948  
Yolo County Math/Science Partnership

Mathematics and Statistics  
Scott Farrand  
University of California, Los Angeles ........ $124,010  
California Mathematics Project—Supporting Teachers to Increase Retention

University of California, Office of the President $13,690  
California Math Project 2005-2007

Geetha Ramachandran  
California Dept. of Health Services ............ $7,500  
MPES 2006 Report

GenCorp Aerojet ..................................... $10,000  
Mathematics Tutoring Project

Physics and Astronomy  
Randy Phelps  
National Science Foundation ................... $56,497  
SGER: Synoptic Astronomy, the Large Synoptic Survey Telescope, and the Virtual Observatory

Lynn Tashiro  
CSU Chancellor’s Office .......................... $13,521  
Information Competence Initiative Grants

College of Social Sciences and Interdisciplinary Studies  
Archaeological Research Center  
Mark Basgall  
California Dept. of Transportation .......... $12,163  
Historical Archaeological Services

California Dept. of Transportation .......... $14,997  
Mammoth Fence Construction

California Dept. of Transportation .......... $47,932  
Technical Support Services

Michael Delacorte  
California Dept. of Transportation .......... $64,457  
Collections Verification and Upgrade

California Dept. of Transportation .......... $152,603  
Upgrade California SAC-29 Collection, Accession Number 140

Center for California Studies  
Timothy Hodson  
California Latino Legis. Caucus Institute for Public Policy ........... $212,300  
Polanco Fellowship Program

Donna Hoenig-Couch  
Judicial Council of California ................. $20,000  
Courses for a Certificate in Judicial Administration

Economics  
Jonathan Kaplan  
UC Davis ............................................. $37,500  
Central Valley Salinity Project

Terri Sexton  
UC Davis ............................................. $10,128  
Extension of UCD Agreement (Amendment No. 7)
Ethnic Studies
Gregory Mark
Research Corporation of the University of Hawaii $32,606
Asian/Pacific Islander Youth Violence Prevention Center Year 2
Research Corporation of the University of Hawaii $26,979

Gerontology
Cheryl Osborne
California Dept. of Social Services $12,500
Gerontology Training

Institute for Higher Education Leadership and Policy
Nancy Shulock
William and Flora Hewlett Foundation $110,000
General Support Grant for the Institute for Higher Education Leadership and Policy
Western Interstate Commission for Higher Education $3,000
Strategic Planning to Address Financial Policies

Institute for Social Research
Ernest Cowles
California Air Resources Board $44,968
Outboard Marine Tank Survey
California Air Resources Board $131,960
Refueling Tank Telephone Survey
California Dept. of Mental Health $15,617
Early Prevention, Screening, Diagnosis and Treatment (EPSDT) Sampling Study
California Dept. of Pesticide Regulation $71,190
2007 School IPM Survey
California Dept. of Pesticide Regulation $73,855
Statewide IPM Survey of California School Districts
California Dept. of Social Services $122,755
Administrative Law Judge Time Study
California Dept. of Social Services $157,986
Child and Family Services Program Improvement Plan Telephone Survey
California Dept. of Social Services $435,056
Hourly Task Guidelines Assessment with Data from Trend Data Reports
College of Continuing Education $150,000
DSS Training and Assessment Program—Year 2
University of California $15,292
Patient’s Guide to Clinical Trials

Psychology
Lawrence Meyers
California Dept. of Corrections $18,716
Developing the Foundation of the Job Families Project

Student Affairs
Heather Dunn Carlton
County of Sacramento $60,000
State Incentive Grant
Higher Education Center for Alcohol and Other Drugs $5,800
Network Regional Funds

Student Health Center
Cyndra Krogen
County of Sacramento $5,000
Sac State Quit and Win Program
CALIFORNIA STATE UNIVERSITY, SACRAMENTO

offers life-changing opportunities for our students, preparing them to be leaders in their fields and communities. Our teacher-scholars have made superior teaching a top priority. We offer 60 undergraduate degrees and 40 graduate degrees in eight Colleges—Arts and Letters, Business Administration, Continuing Education, Education, Engineering and Computer Science, Health and Human Services, Natural Sciences and Mathematics, and Social Sciences and Interdisciplinary Studies.
Selected Research Centers and Institutes

The Archaeological Research Center | www.csus.edu/anth/arc
Center for African Peace and Conflict Resolution | www.csus.edu/org/capcr
Center for California Studies | www.csus.edu/calst
Center for Collaborative Policy | www.csus.edu/ccp
Center for Health and Human Services Research | www.hhs.csus.edu/CHHSR
Center for Interdisciplinary Molecular Education, Research and Advancement | www.csus.edu/org/mbigweb
Center for Mathematics and Science Education | www.csus.edu/mase
Center for Regional Environmental Science and Technology | www.csus.edu/crest
Center for Small Business | http://cbaweb.cba.csus.edu/csb
Center for STEM (Science, Technology, Engineering and Mathematics) Excellence | www.csus.edu/stem
Institute for Higher Education Leadership and Policy | www.csus.edu/calst/affiliations/Institute_for_Higher_Ed.html
Institute for Social Research | www.csus.edu/isr
North Central Information Center | www.csus.edu/hist/centers/ncic
Office of Water Programs | www.owp.csus.edu

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