

# 2000

# 2001

## Budget for Current Operations



UNIVERSITY OF CALIFORNIA  
Office of the President  
October 1999

## THE PRESIDENT'S MESSAGE

California's institutions of higher education are about to be inundated by Tidal Wave II – the demographic bulge created largely by the children of the Baby Boomers. Just as their parents – Tidal Wave I – made access to college a defining issue of the 1960s, so this new generation of students, the largest and most diverse in history, is about to make the next ten years the “decade of higher education.”

Tidal Wave II will create the most challenging decade the University of California has ever faced as we prepare to enroll 210,000 students by 2010 – an increase of more than 60,000 students since 1998-99, the equivalent of today's combined enrollments at UC Berkeley and UCLA. Not even the hectic postwar years, which brought thousands of returning GIs to our campuses, posed so formidable a challenge.

UC remains committed to providing access to all qualified students and we are working aggressively to address the challenge of Tidal Wave II, but with the knowledge that there is no single, one-size-fits-all solution. Each campus will adopt strategies that work in terms of its particular strengths and circumstances. And though it will require hard public policy choices from the State and uncommon resourcefulness from the University to find a place for these thousands of additional students, Tidal Wave II is within California's means.

But there is a vital difference between enrolling students and educating them. UC provides value to California only as it provides high-quality educational programs. We do the State and our students no favor if academic excellence is left behind in the rush to deal with the numbers.

We know it is possible to grow in quality as we grow in size because that is precisely what UC has been doing over the last 35 years. Yet there are large differences between the 1960s and today.

- Today, UC must find room for additional students much more quickly than in the 1960s, increasing our enrollment by an average of 5,000 students annually. We will grow by as many students over a 12-year period as we did over a 30-year period.
- At the end of the 1960s, the drive to expand educational opportunity to traditionally underrepresented students was just gathering force; today, the means that were developed in the 1970s and 1980s for attaining diversity are being challenged nationwide, and in California have been largely abolished. We are now embarked on a major outreach initiative to improve college preparation broadly and keep UC's doors open to students from all backgrounds.
- We are living in a knowledge-based economy, one in which the capacity to innovate will play a critical role in determining which countries prosper in the global marketplace. This situation is placing new demands on research

universities, like UC, which are on the cutting edge in producing the educated people and new research findings that keep the economy growing.

All the University's commitments – to undergraduate and graduate education, to scholarship and research, to public service and to quality – must be balanced in our budget request to the State.

This year's budget request, which was developed in anticipation of reaching agreement on a new partnership with the Governor, seeks to meet these challenges and includes proposals to:

- Fund the University's merit salary program which allows us to reward the best faculty and staff; and to provide faculty with competitive salaries and other employees with salary increases that at least keep pace with inflation.
- Fund an additional 6,000 students, growth of four percent, at the agreed-upon marginal cost per student.
- Increase funding, as part of a four-year plan, to address the permanent budget shortfalls in several critical areas including ongoing building maintenance, instructional technology, instructional equipment, and library materials.
- Provide the initial increment of funding, as part of a multi-year plan, to strengthen the quality of our undergraduate programs. Over time, the goal is to provide \$50 million in permanent budget support which is equivalent to the funding that would be needed to return to the historic student faculty ratio of 17.6 to one.

These proposals are included in the University's basic budget and would be funded as part of a new partnership agreement with the State that would continue to provide public higher education in California with the resources needed to grow and the fiscal stability to plan.

We are working with Governor Davis and are confident that in the months ahead we will reach agreement on a partnership that will provide us with the resources to maintain quality and meet the growth challenges of Tidal Wave II, yet hold us accountable to specific outcomes.

At the same time, we are continuing our efforts to increase federal funding and to raise more private dollars. In 1998-99 we received private pledges and private gifts and contracts of nearly \$1 billion – an historic high and an eloquent statement of support from the University's friends and alumni.

In addition to the 2000-01 proposals that would be covered by this new partnership and which constitute the University's basic budget, we have identified several research, academic outreach, and public service initiatives that are a high priority to the University and would greatly benefit the State. If approved by the State, these

initiatives would be in addition to the funding levels anticipated in a new partnership agreement to support the University's basic budget.

***Academic Outreach.*** Educating the State's citizenry remains at the core of our mission and our faculty are working to help improve the academic preparedness of K-12 students, especially those in educationally disadvantaged schools, to prepare more teachers, and to create more opportunities for experienced teachers to renew and expand their professional skills.

The initiatives proposed in this budget build on our commitments to improve access to higher education and include:

- An initiative to raise substantially the number of community college students transferring to UC, especially from those community colleges with current low transfer rates;
- Providing standards-based professional development to sixth through ninth grade teachers of mathematics to ensure the successful completion of algebra by California's secondary students;
- Increasing programs to identify, prepare, and encourage students from educationally disadvantaged backgrounds to attend and succeed in graduate and professional school; and,
- Using the University's research expertise to identify the root causes of educational disparity within California's school system and using the results to devise strategies to provide greater access.

***Expanding Research to help the State's Economy.*** Intellectual discovery in universities is proceeding with breathtaking speed. The life sciences are driving a revolution in biomedical technologies and agriculture. Computer and information sciences have ushered in the Internet and entirely new paradigms for communications and commerce. Multimedia technologies are creating new vehicles and new demand for the arts and humanities. These revolutions contain such rich potential for application that innovative forms of cooperation with industry are springing up to translate research into useful products. California, with the most knowledge-intensive economy in the world, is a leader in transforming knowledge into wealth.

The initiatives proposed in the budget would contribute to California's competitiveness in a variety of ways.

- An initiative to expand research efforts in engineering and computer science, including support for graduate student research. To help keep California's high-technology industries vital in a fiercely competitive international marketplace, the economy will continue to rely on cutting-edge research and highly trained graduate students. We are planning to increase enrollments in engineering and

computer sciences at both the undergraduate and graduate levels by at least 40 percent across the UC system over an eight-year period ending in 2005-06.

- An initiative to establish a universitywide multi-disciplinary peer-reviewed grants program to support basic scientific understanding of the State's natural resources, which are critical to sustaining California's environment.
- An initiative for collaborative research between California and Mexico focusing on issues of critical economic interest, such as trade and economic development, the environment, food and agriculture, and health.
- Expand access for faculty and students to the Internet2 to encourage and facilitate collaboration with researchers in industry.

One of the brightest chapters in the history of American higher education is the story of the University of California and its rise from a raw frontier institution to one of the world's most dynamic centers of learning. This ascent was far from inevitable. Most public universities in the United States not only failed to make it to the first rank; they did not even attempt the climb. It happened at the University of California because of our tradition of quality – an institutional environment in which high aspiration and achievement are routine expectations – and because the people of California and their elected leaders, through their very generous support, made it possible.

The goals of our 2000-01 budget are to continue educating a growing and diverse population, preparing the next generation for a knowledge-based economy, and helping find answers to the most pressing problems our society faces. In partnership with the State, we are confident that we can meet the challenges before us and maintain the promise of opportunity to tens of thousands of students who will be arriving on our campuses in the coming decade.

Richard C. Atkinson, President  
October 1999

# UNIVERSITY OF CALIFORNIA



## FOREWORD

The University of California was founded in 1868 as a public, State-supported land grant institution. It was written into the State Constitution as a public trust to be administered under the authority of an independent governing board, The Regents of the University of California. There are ten campuses: Berkeley, Davis, Irvine, Los Angeles, Merced, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz. All of the campuses, with the exception of Merced, offer undergraduate, graduate, and professional education; one, San Francisco, is devoted exclusively to the health sciences. The Merced campus is expected to enroll its first on-campus students in 2005-06. The University operates teaching hospitals and clinics on the Los Angeles and San Francisco campuses, and in Sacramento, San Diego, and Orange counties. Approximately 150 University institutes, centers, bureaus, and research laboratories operate in all parts of the State. The University's Agricultural

Field Stations, Cooperative Extension offices, and the Natural Reserve System benefit people in all areas of California. In addition, the University provides oversight of the three Department of Energy Laboratories.

***Organization of The Regents' Budget***

The Introduction and Summary provide an overall perspective on the major policy issues, specific objectives, and priorities for 2000-01. The subsequent sections discuss programs in more detail and provide fuller justification of requests for funding increases. The budget is structured to accommodate the reader who does not go beyond the Executive Summary or who wants information on selected topics only. Therefore, important themes are repeated throughout the budget.

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# UNIVERSITY OF CALIFORNIA 1999-00 BUDGET FOR CURRENT OPERATIONS AND EXTRAMURALLY FUNDED OPERATIONS

## EXPENDITURES

## INCOME

BUDGET FOR CURRENT OPERATIONS				BUDGET FOR CURRENT OPERATIONS					
	1998-99 Budget (\$000s)	1999-00 Proposed (\$000s)	Change Amount (\$000s)	%		1998-99 Budget (\$000s)	1999-00 Proposed (\$000s)	Change Amount (\$000s)	%
Instruction					General Funds				
General Campus	\$ 1,422,307	\$ 1,462,056	\$ 39,749	2.8%	State of California	\$ 2,518,890	\$ 2,662,890	\$ 144,000	5.7%
Health Sciences	640,551	658,351	17,800	2.8%	UC Sources	297,924	310,924	13,000	4.4%
Summer Session	32,200	34,132	1,932	6.0%					
University Extension	199,000	208,950	9,950	5.0%	Total General Funds	\$ 2,816,814	\$ 2,973,814	\$ 157,000	5.6%
Research	348,529	348,529	--	0.0%					
Public Service	181,988	181,988	--	0.0%					
Academic Support					Restricted Funds				
Libraries	216,999	216,999	--	0.0%	State of California	\$ 59,335	\$ 59,335	\$ --	0.0%
Other	402,157	418,407	16,250	4.0%	U. S. Government	16,000	16,000	--	0.0%
Teaching Hospitals	1,702,291	1,741,195	38,904	2.3%	Appropriations	899,620	929,022	30,402	3.4%
Student Services	241,039	244,744	3,705	1.5%	Student Fees	1,624,783	1,663,687	38,904	2.4%
Institutional Support	370,759	370,759	--	0.0%	Teaching Hospitals	481,415	500,671	19,256	4.0%
Operation and Maintenance of Plant	373,231	386,231	13,000	3.5%	Auxiliary Enterprises	105,000	119,000	14,000	13.3%
Student Financial Aid	228,134	233,800	5,666	2.5%	Other	1,049,311	1,100,944	51,633	4.9%
Auxiliary Enterprises	491,595	510,851	19,256	3.9%	Total Restricted Funds	\$ 4,234,464	\$ 4,388,659	\$ 154,195	3.6%
Provisions for Allocation	80,536	104,996	24,460	30.4%					
Special Regents' Programs	119,962	125,085	5,123	4.3%					
Program Maintenance: Fixed Costs, Economic Factors	--	115,400	115,400	--					
<b>TOTAL BUDGET FOR CURRENT OPERATIONS</b>	<b>\$ 7,051,278</b>	<b>\$ 7,362,473</b>	<b>\$ 311,195</b>	<b>4.4%</b>	<b>TOTAL BUDGET FOR CURRENT OPERATIONS</b>	<b>\$ 7,051,278</b>	<b>\$ 7,362,473</b>	<b>\$ 311,195</b>	<b>4.4%</b>
<b>EXTRAMURALLY FUNDED OPERATIONS</b>					<b>EXTRAMURALLY FUNDED OPERATIONS</b>				
Sponsored Research	\$ 1,472,781	\$ 1,567,478	\$ 94,697	6.4%	State of California	\$ 113,030	\$ 116,421	\$ 3,391	3.0%
Other Activities	798,143	843,967	45,824	5.7%	U. S. Government	1,231,576	1,305,470	73,894	6.0%
					Private Gifts, Contracts & Grants	564,022	609,144	45,122	8.0%
					Other	362,296	380,410	18,114	5.0%
<b>TOTAL EXTRAMURALLY FUNDED OPERATIONS</b>	<b>\$ 2,270,924</b>	<b>\$ 2,411,445</b>	<b>\$ 140,521</b>	<b>6.2%</b>	<b>TOTAL EXTRAMURALLY FUNDED OPERATIONS</b>	<b>\$ 2,270,924</b>	<b>\$ 2,411,445</b>	<b>\$ 140,521</b>	<b>6.2%</b>
<b>TOTAL OPERATIONS</b>	<b>\$ 9,322,202</b>	<b>\$ 9,773,918</b>	<b>\$ 451,716</b>	<b>4.8%</b>	<b>TOTAL OPERATIONS</b>	<b>\$ 9,322,202</b>	<b>\$ 9,773,918</b>	<b>\$ 451,716</b>	<b>4.8%</b>
<b>MAJOR DEPARTMENT OF ENERGY</b>					<b>MAJOR DEPARTMENT OF ENERGY</b>				
<b>LABORATORIES</b>	<b>\$ 2,808,000</b>	<b>\$ 2,864,160</b>	<b>\$ 56,160</b>	<b>2.0%</b>	<b>LABORATORIES</b>	<b>\$ 2,808,000</b>	<b>\$ 2,864,160</b>	<b>\$ 56,160</b>	<b>2.0%</b>

## **INTRODUCTION TO THE 2000-01 BUDGET**

The University's annual budget is a statement of resources needed to maintain access and ensure the continued excellence of University programs. Funding requests in the budget reflect both long-term and short-term academic program objectives that have been identified and reaffirmed in the University's ongoing planning process. The budget is developed through a decision-making process that involves faculty, students, administrators, and The Regents.

### **University Missions**

The University's fundamental missions are teaching, research, and public service. Undergraduate instructional programs are available to all eligible California high school graduates and transfer students from the California Community Colleges who wish to attend the University of California. The California Master Plan for Higher Education designates the University as the primary State-supported academic agency for research with exclusive jurisdiction in public higher education over instruction in law and graduate instruction in medicine, dentistry, and veterinary medicine. Sole authority among public higher education institutions is also vested in the University to award doctoral degrees in all fields, except that joint doctoral degrees with the California State University may be awarded.

The Master Plan was comprehensively reviewed in March 1985, first by a blue-ribbon citizens' commission and later by the Joint Legislative Committee for Review of the Master Plan for Higher Education. Subsequently, the Legislature approved and the Governor signed legislation that reaffirms the University's missions. The Legislature is again in the process of reviewing the Master Plan with an eye towards developing a plan that begins with K-12 education and extends through higher education.

### **University Programs**

The University of California is internationally renowned for the quality of its academic programs and consistently ranks among the world's leading institutions in the number of faculty and researchers singled out for awards and distinctions, election to academic and scientific organizations, and other honors.

UC faculty are well represented in the membership of prestigious organizations such as the National Academy of Sciences and among winners of the Nobel Prize and Guggenheim Fellowships. In the past year, three researchers were awarded Nobel Prizes for work they had done at UC and an affiliated national laboratory. Since 1939, UC researchers have won 35 Nobles, more than any other public university. Current UC faculty include 19 Nobel laureates. In 1998, a UC faculty member was awarded the National Medal of Science, the nation's highest honor for groundbreaking scientific research. In May of 1999, 15 of the 60 new members of

the National Academy of Sciences (NAS) were University of California faculty members. Election to membership in the NAS is one of the highest honors a scientist may receive. With the recent NAS election, UC has a total of 300 faculty memberships in the organization, more than any other college or university in the nation. Also in 1999, five UC faculty were elected to the National Academy of Engineering and 18 UC and affiliated national laboratory researchers were elected to the American Academy of Arts and Sciences. Additionally, during the year, 29 UC faculty were named as Full bright scholars to lecture, consult or conduct research abroad during the 1999-2000 academic year. Also in 1999, four UC researchers received the nation's coveted prizes, MacArthur Foundation Fellowships ("genius grants"). Two UC Chancellors have also been honored this year, one as president of the prestigious American Association for the Advancement of Science (AAAS) and one received the 1999 Bower Award and Prize for Achievement in Science.

In their 1997 book, *The Rise of American Research Universities: Elites and Challengers in the Postwar Era*, authors Graham and Diamond found that UC is in the forefront of research productivity and in creating new knowledge. The book ranked Berkeley number one, and Santa Barbara number two, with the six other general campuses ranked in the top 26 among the nation's public research universities. The Graham-Diamond book reinforced the findings of the most recent rankings of the prestigious National Research Council. Analyzing the doctoral programs of 274 universities, the Council ranked over half of the University's 230 graduate programs at the nine campuses in the top 20 of their field – a performance unmatched by any university system in the country.

In an unprecedented survey, the National Science Foundation (NSF) showed that the University of California and its affiliated national laboratories produce more research leading to patented inventions than any other public or private research university or laboratory. This study, which is the most thorough examination to date of the scientific foundation of American patents, highlights the importance of publicly financed scientific research.

All of these distinctions are evidence of the University's preeminence among the nation's leading universities, an accomplishment that benefits all of California. The quality of programs developed and maintained within the University over the years owes much to the citizens of California, who have long recognized the benefits to the State of supporting a public university of national and international distinction. These benefits are discussed in the sections that follow.

### ***Instruction***

Instructional programs at the undergraduate level transmit knowledge and skills to students and also develop their appreciation of the creative process and their ability to acquire knowledge and evaluate evidence outside the structured classroom environment. At the graduate level, students experience with their instructors the processes of developing and testing new hypotheses and fresh interpretations of knowledge. Education for professional careers, grounded in an understanding of relevant sciences, literature, and research methods, provides individuals with the tools to continue intellectual development over a lifetime and to contribute to the

needs of a changing society.

***Research***

As one of the nation's preeminent research institutions, the University provides a unique environment in which leading scholars and promising students strive together to expand fundamental knowledge of human nature, society, and the natural world. The University's basic research programs yield a multitude of benefits, ranging from increases in industrial and agricultural productivity to advances in health care and improvements in the quality of life. A stimulating research environment at the University attracts outstanding faculty, enhancing the quality of education available to students at all levels. The University, with the support of the State, continues to expand its research partnerships with industry.

***Public Service***

Through its public service programs, the University disseminates research results and translates scientific discoveries into practical knowledge and technological innovations that benefit California and the nation. Through these programs, the faculty and students apply their knowledge and special skills that help to solve the problems of today's society.

## SUMMARY OF THE 2000-01 BUDGET REQUEST

The University's 2000-01 budget plan, which builds upon the successful strategies of the last five years, was developed in anticipation of reaching agreement with the Governor on a new partnership. A new partnership would continue to provide the University with fiscal stability and the resources needed to accommodate projected enrollment growth and to maintain quality. As part of the new partnership, the University would agree to meet several specific accountability measures.

The goals of the University's 2000-01 budget plan are to fund enrollment of an additional 6,000 students, representing nearly a four percent increase over 1999-2000; maintain competitive faculty salaries; continue to fund the University's merit program which is key to recruiting, retaining and rewarding the best faculty and staff; provide for other inflationary adjustments; and strengthen the quality of the University's undergraduate instructional program. The basic budget plan for 2000-01 would also provide funding to operate and maintain new space as well as increased funding for deferred maintenance, and a multi-year program to address the permanent budget shortfalls in ongoing building maintenance, instructional technology, instructional equipment and libraries.

In addition to the increases included in the University's 2000-01 basic budget plan, the University has identified several high priority research and public service initiatives. Funding for these initiatives would be in addition to the funding for the basic budget anticipated as part of a new partnership and would depend upon the State's fiscal situation.

The 2000-01 budget plan assumes that funding equivalent to a 4.5 percent increase in mandatory systemwide student fees will be available to provide for salaries, benefits and cost adjustments to portions of the budget funded by student fee revenue. The budget also assumes that at least one-third of the increased revenue that would be generated by a 4.5 percent increase in student fees would be used to support need-based financial aid. If the budget plan is to be fully funded, either the State will need to provide sufficient funds to the University to keep fees at current levels or student fees will have to be increased.

In each of the last five years, the State has taken action to offset the budgetary impacts of maintaining student fees at 1994-95 levels; and in the last two years to provide funding to offset the revenue lost from reducing fees by 10 percent for California resident undergraduates and five percent for California residents enrolled in graduate academic programs. Thus, while the 2000-01 budget plan is based upon the revenue that would be generated by a 4.5 percent increase in student fees, The Regents will not be asked to take action to change fee levels until after it is known whether funding to offset the need to increase student fees is included in the Governor's January budget.

The University's budget request, which is described in this document, is the minimum needed to maintain quality, to be able to offer a space to all eligible

California high school graduates, and to provide the classes students need to graduate in a timely manner. The budget plan does not address all of the University's pressing financial problems, nor does it seek funding to recover losses incurred during the early 1990s.

### **Historical Perspective**

The University experienced budget reductions of about 20 percent in real dollars during the late 1960s and early 1970s. Faculty positions and research funding were cut, and the student faculty ratio deteriorated by about 20 percent. In the late 1970s and early 1980s, the University again experienced a number of budget cuts. By the early 1980s, faculty salaries lagged far behind comparison institutions and top faculty were being lost to other institutions; buildings needed repair; classrooms, laboratories, and clinics were poorly equipped; libraries suffered; and the building program came virtually to a halt.

The situation improved significantly in the mid-1980s when a period of rebuilding was initiated. Faculty and staff salaries were returned to competitive levels; funds became available for basic needs such as instructional equipment replacement and building maintenance; and research efforts expanded. The capital budget also improved dramatically. There was significant growth in private giving and the University once again became highly competitive for federal research funds.

By the late 1980s, however, the situation began to change. A complicated mix of political and demographic forces and fiscal problems at the State level led to a growing erosion of gains made during the mid-1980s. By 1989-90, UC was struggling with the early stages of a fiscal problem that subsequently turned into a major crisis.

#### ***1990-91 through 1993-94***

The University experienced dramatic shortfalls in State funding during the first four years of the 1990s. Although State funding increased in 1990-91, it was below the level needed to maintain the base budget and fund a normal workload budget. Over the next three years, State funding for the University dropped by \$341 million. At the same time, the University had to cope with inflation, fixed cost increases, and workload growth. Consequently, the University had to make budget cuts totaling \$433 million, equivalent to roughly one out of every five dollars in its State general fund budget in 1989-90. In addition, normal salary cost-of-living increases could not be provided for employees and salaries were cut on a temporary basis for one year. Student fees were raised, though significant increases in financial aid helped to mitigate the impact.

The enormity of the budgetary losses during the early 1990s is difficult to grasp. One way to convey the magnitude of the problem is to consider that the University's 1993-94 State general fund budget was less than it was in 1987-88, even though there had been inflation of over 25 percent and enrollments had grown by about 6,500 students in the interim. Or consider that the University's budget would be

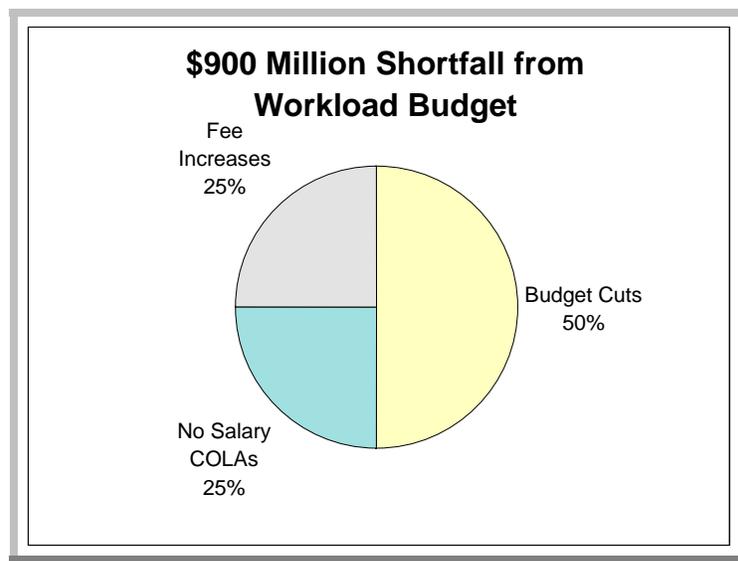
Display 1

Permanent Cuts to Campus and Office of the President Budgets 1990-91 through 1994-95		
1990-91	5% cut in research, public service, and administration.	\$ 25
1991-92	Workforce reduction in both instructional and non-instructional programs; cut in non-salary budgets; undesignated cut.	120
1992-93	Permanent cut of \$200 million phased in over two years.	200
1993-94	Reductions in campus and Office of the President budgets, resulting in further workforce reductions. Part of the cut was based on hospital and health sciences clinical programs; remainder of the cut was to be accommodated through improved management efficiencies.	35
1994-95	Reductions in campus and Office of the President budgets in order to fund restoration of salary funds cut temporarily in 1993-94.	53
<b>Total</b>		<b>\$433</b>

about \$900 million greater if the State had maintained the base and funded normal cost increases and workload growth over the four years from 1990-91 through 1993-94. The University coped with this shortfall, initially, in ways that reflected the limited nature of its options in the short term.

As illustrated in Display 2, about half of the loss was taken through budget cuts, approximately another quarter by providing no salary cost-of-living increases for employees, and the remaining quarter was made up through student fee increases accompanied by increases in student financial aid.

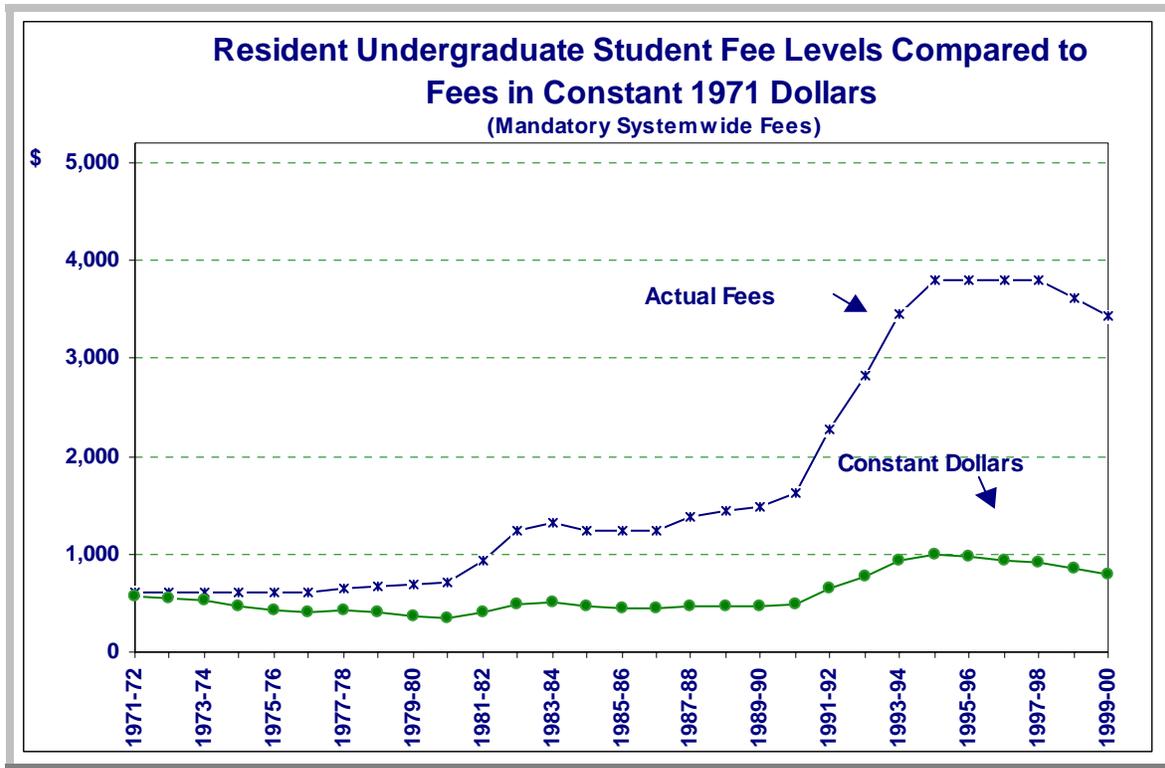
Display 2



As discussed later, while the budget cuts have not been restored, the University has

made significant progress with respect to student fees (Display 3) which for California resident undergraduate students are now ten percent less than they were in 1994-95. For California resident graduate academic students these fees are five percent less than they were in 1994-95; for all other students fees have not been increased since 1994-95. In addition, the University has since been able to restore competitive faculty salaries and provide other employees with increases that have kept pace with inflation.

Display 3



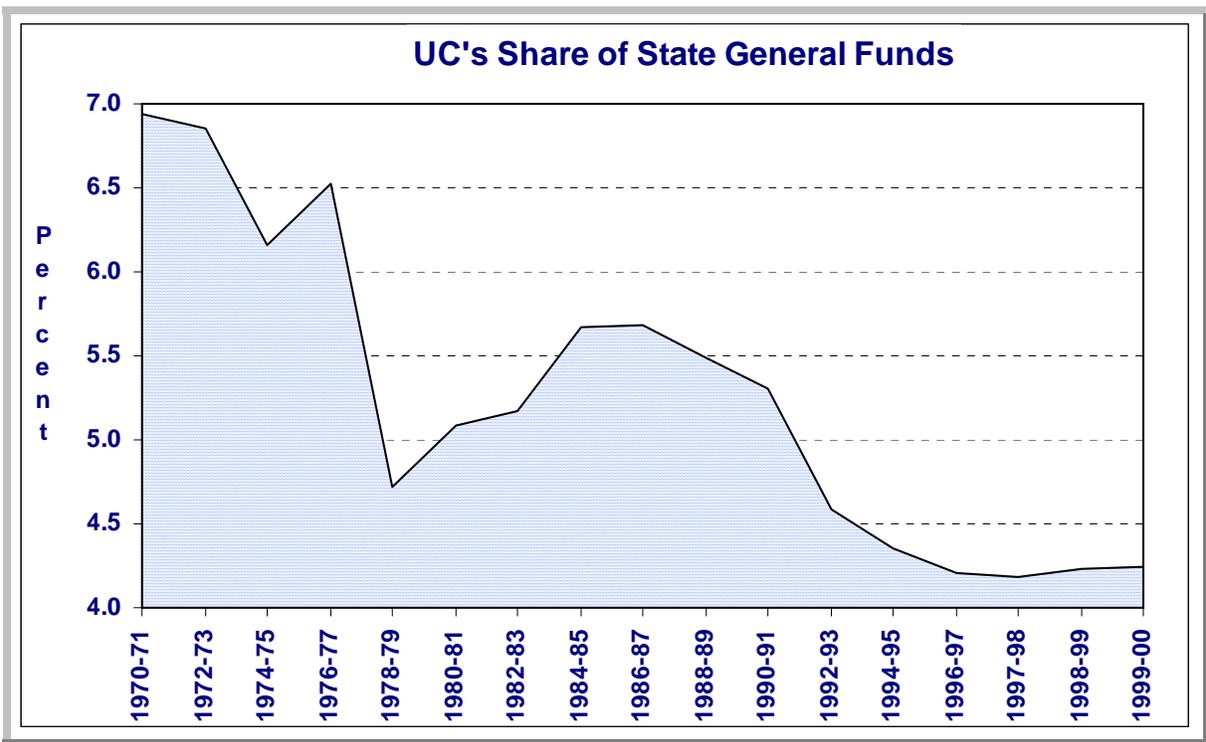
During the early 1990s, the University's general fund workforce declined by a net total of around 5,000 full-time equivalent (FTE) employees. While much of this decline occurred through early retirements – a more humane approach than layoffs – the result was that many fewer people were available to handle the same workload. The instructional program was protected to the extent possible by making deeper cuts in other areas such as administration, research, public service, student services, and maintenance. Administration, especially, was assigned deep cuts both on the campuses and in the Office of the President. In addition, purchase of scholarly journals for the libraries was severely curtailed; the backlog of deferred maintenance projects continued to grow; and the budget for instructional equipment replacement declined to only about half of the amount needed. Although instructional resources were eroded by the budget cuts, the University honored the California Master Plan for Higher Education by continuing to offer a place to all eligible California resident students seeking admission at the undergraduate level and providing students with the classes they needed.

### 1994-95

In 1994-95, after four years of steady erosion, the University finally stopped losing fiscal ground. The State provided the University with a budget increase instead of a decrease for the first time in four years, an increase of about three percent excluding revenue bond payments. Base salary levels were restored following a temporary salary cut in 1993-94, and funding for faculty and staff cost-of-living salary increases (3%) was provided for the first time since 1990-91. The student fee increase was held to ten percent through a compromise agreement to fund deferred maintenance with debt financing. Increases in financial aid accompanied the fee increase, helping to offset the impact on needy students. Over five years, through 1994-95, financial aid grants and other gift aid funded from University sources increased by approximately \$118 million, or nearly 170 percent. A one-time shift of State-funded Clinical Teaching Support from the teaching hospitals, recognizing temporary net gains, helped to meet urgent one-time needs in several critically underfunded areas such as deferred maintenance, instructional equipment replacement, and library books.

While the 1994-95 budget represented a substantial improvement over the previous years, the University nonetheless remained in a precarious financial condition. Its share of the State general fund budget was at the lowest point in 20 years.

Display 4



Recovery did not seem likely in 1994-95 given the stalled California economy and the increasing share of the State budget consumed by workload growth in prisons, health and welfare programs, the K-12 schools, and the community colleges.

Adding to the problem were the constitutional or statutory protections most of those programs enjoy, compared to higher education's unprotected status.

***Governor's Four-Year Compact with Higher Education***

A major turning point came with the introduction of the Governor's 1995-96 Budget, which included the following statement:

*Unfortunately, the fiscal difficulties of the early 1990s prevented the State from fully meeting the needs of higher education, and California's competitiveness has been jeopardized. Now that the State's resources have begun to improve, the investment in higher education must be renewed....A strong system of higher education is critical to our social fabric and our ability to compete in the global markets of the 21st Century.*

Translating this perspective into action and signaling a very welcome message about the priority of higher education, the Governor's 1995 Budget included a compact with higher education covering the four years through 1998-99. Its goal was to provide fiscal stability and allow for growth through a combination of State general funds and student fee revenue. The compact committed to provide general fund budget increases averaging four percent a year over the four year period ending in 1998-99. The compact also included general student fee increases averaging about ten percent a year as well as additional fee increases for students in selected professional schools. At least one-third of new student fee revenue was to be earmarked for financial aid, with the remainder used to help fund the budget. Additional financial aid was to be provided through the State's Cal Grant Program. The compact provided additional funds to cover debt service related to capital outlay projects and deferred maintenance.

Based on the premise that there is a continuing need for efficiencies in order to maintain student access and program quality within available resources, the compact also included a \$10 million budget reduction each year for four years, reflecting \$40 million in savings to be achieved through productivity improvements. For the capital budget, the compact provided \$150 million a year, with priority given to seismic and life-safety projects, infrastructure, and educational technology.

During the four years beginning in 1995-96 and ending in 1998-99, the Legislature and the Governor honored the compact. In fact, during these years funding was provided above the levels envisioned in the compact to eliminate the need to increase, and eventually to reduce student fees as well as to support a number of high priority research efforts and K-12 student academic development and outreach programs.

***1995-96***

In January 1995, the University developed a 1995-96 budget plan based on the Governor's compact, which received widespread support in the Legislature and was generally approved. The only change concerned the proposed ten percent student fee increase. A compromise agreement was worked out among the Governor, the Legislature, and the University which provided that there would be no general

student fee increase in 1995-96; instead, an additional \$28.5 million in State funds was provided to help offset the loss of fee revenue. The added funds represented

about three-quarters of the revenue that would have been generated by a ten percent student fee increase net of financial aid, leaving the University with a budget shortfall of \$9.5 million. This shortfall was dealt with through one-time actions, pending restoration of the funds in 1996-97.

### ***1996-97 Budget***

The University's 1996-97 budget plan was developed on the basis of the compact and again, received widespread support in the Legislature. In addition to providing the University with \$82.9 million under the compact, the Legislature and the Governor provided an additional \$27 million in State general funds so that UC students would not have a general fee increase in 1996-97. The 1996 State Budget Act also provided funding, above the compact, for several high priorities. These priorities included \$5 million for the first phase of the Industry-University Cooperative Research Program, \$1 million for the California Supercomputer Center, and \$1 million to expand the University's academic outreach programs. The 1996 State Budget also included \$147 million in general obligation bonds to support the University's capital outlay program and an additional \$5 million in general obligation bonds for high priority deferred maintenance projects.

### ***1997-98 Budget***

The University's 1997-98 budget, the third consecutive budget to be developed on the basis of the compact, received widespread support by both houses of the Legislature during the budget process. The 1997-98 budget provided the University with \$78.5 million under the compact and an additional \$37 million in State general funds so that UC students would not have a general fee increase for a third consecutive year. The 1997 State Budget Act also provided funding to support the California Supercomputer Center (\$2 million), expand student academic outreach (\$1 million), and make permanent the \$5 million for the Industry-University Cooperative Research Program. In addition, funds were provided for several initiatives including \$4.9 million to begin planning for the tenth campus and to expand academic programs in the San Joaquin Valley, \$4.5 million for the UCSF-Fresno Rural Health Initiative, and \$1.1 million for other legislative initiatives. The 1997 State Budget also included \$150 million in State general obligation bonds to support the University's capital outlay program and an additional \$21.7 million in State general obligation bonds to be used to match Federal Emergency Management Agency (FEMA) funds to replace the earthquake-damaged medical center at UCLA.

As a result of a court-ordered payment to the Public Employees Retirement System (PERS), the State found it necessary to make last-minute cuts of more than \$1.5 billion. As a result, the University's 1997-98 budget included a one-time undesignated cut of \$9.5 million.

### ***1998-99 Budget***

The University's 1998-99 budget plan was developed on the basis of the four-year compact with higher education and recognized the enactment of AB 1318 (Ducheny), which provided for a five percent reduction in mandatory systemwide fees for California residents enrolled in undergraduate programs.

The final 1998-99 State Budget Act provided the University with an increase of \$270 million in permanent State general funds and an additional \$70 million in one-time funds to address critical infrastructure needs. As a result, the University's 1998-99 State general fund budget totaled \$2.519 billion, an increase of \$340 million (15.6% increase) over 1997-98. Because a portion of the State funding increase offset a loss of student fee revenue, the University's real spending increase from a combination of State funds and fee revenue was about 11.4 percent in 1998-99.

In addition to providing the University with approximately \$93 million under the compact (included restoration of the one-time undesignated cut of \$9.5 million), an increase of \$9.5 million for debt service on capital outlay projects and annuitant health benefits, and \$62 million to "buy out" a proposed fee increase of 10 percent and to reduce mandatory systemwide fees by five percent for resident undergraduate students, the Legislature and the Governor augmented the University's 1998-99 budget plan for a number of very important programs including:

- \$23 million to fund the 3,200 students the University had projected it would over enroll in 1998-99; and \$6 million to support an additional 800 undergraduate students enrolled in engineering and computer sciences. In total, the 1998-99 budget provided funding to support 6,000 more students than were supported in 1997-98.
- \$33.5 million to expand the University's outreach program. This \$33.5 million was in addition to the \$5 million of University funds the Legislature and the Governor asked the University to reallocate internally, which brought the total increase in outreach funds to \$38.5 million in 1998-99. The budget requires a one-to-one match from participating K-12 schools for the student academic programs and for the K-12 school partnerships. With the \$31 million in required matching funds, total outreach spending was about \$137 million in 1998-99, exceeding the University's funding goals recommended by the Outreach Task Force.
- Funding for other important outreach programs included preservation of the \$12.2 million for the California Subject Matter Projects; \$1.5 million to expand the UC ArtsBridge program and \$1.5 million to expand the Teaching Internships in Math and Science program.
- \$6.5 million for the start-up of academic programs and planning for the Merced campus, including \$1.5 million in one-time funds to develop distributed learning centers. With this augmentation, the total core funding for the Merced campus was \$10 million in 1998-99.

- Nearly \$30 million in new funds to expand the University's research programs, including \$5 million to increase funding for the Industry-University Cooperative Research Program; \$16.8 million for medical research related to alcohol and substance abuse; \$2.75 million for agricultural research; \$2 million for neurodevelopmental research; \$400,000 to match federal funds for the International Thermonuclear Experimental Reactor; and \$265,000 for enology and viticulture research.
- \$2.5 million to increase enrollment at the School of Veterinary Medicine and to establish a clinical site in Southern California; \$1 million to help pay for the space needs of the UCSF Fresno Rural Health Program; and, \$3 million for other public service program improvements including research relating to CalWORKS, the Teratogen Information Service and Clinical Research Program, and the Drew School of Medicine.

The final 1998-99 budget also included \$70 million in one-time funds for critical infrastructure needs including deferred maintenance, instructional equipment, instructional technology, and library materials.

### **1999-2000**

In 1999-2000, the State provided the University with a permanent increase of \$261.6 million in State general funds. When the reduction of the \$72.5 million in one-time funds provided in 1998-99 is taken into account, the net increase in 1999-2000 is \$189 million in State general funds. With this level of increase, the University's 1999-2000 State general fund budget totals \$2.708 billion, a 7.5 percent increase over 1998-99.

Included in the total funds are: (1) \$94.2 million, which represents a four percent increase to the prior year's general fund base, to support the University's basic budget, (2) \$43.3 million to fund budgeted enrollment growth of 5,500 FTE students (3.7% increase) at the agreed-upon marginal cost, (3) \$16.6 million to offset the revenue loss associated with holding fees constant, (4) \$4.8 million for the increase in debt service related to capital outlay projects funded by lease revenue bonds, and (5) \$8.5 million for the increased cost of annuitant health benefits.

Under the University's basic budget, sufficient funds are available to support an average two percent cost-of-living salary adjustment for all eligible faculty and staff; an additional salary adjustment for ladder-rank faculty of 0.9 percent (the amount estimated to maintain parity with the average faculty salary level at comparison institutions); market adjustments of about five percent for Cooperative Extension Specialists and information technology employees; provide a price increase of 2.5 percent to support cost increases in the non-salary budget; continue the University's program to use long-term debt to pay for about \$64 million in high priority deferred maintenance projects; and invest additional resources in ongoing building maintenance (\$4 million) instructional technology (\$6 million), and instructional equipment (\$3.3 million).

In addition to funding the basic budget as described above, the final 1999-2000 State Budget provides support for a number of important initiatives. These initiatives were either proposed by the University as high priorities for funding in addition to the increases in the basic budget, proposed by the Governor or initiated by the Legislature and approved by the Governor. Among the initiatives funded in the final State Budget are:

- \$25 million to support core needs, including deferred maintenance (\$7.1 million), instructional technology (\$7.1 million), instructional equipment (\$7.1 million) and library materials (\$3.7 million). These funds are in addition to the funding provided under the basic budget. The 1998-99 State budget provided \$70 million in one-time funding for these purposes and the Regents had requested that these funds be continued in the 1999-2000. Rather than continue to address these problems on an ad hoc basis, as one-time funds are available, the Legislature proposed and the Governor agreed to provide permanent funding. As a result, the Legislature augmented the University's budget by \$25 million. The Governor sustained the funding and noted that *"future funding for these purposes will be agreed upon with the University of California as part of the partnership agreement currently being negotiated."*
- \$26.5 million to reduce fees by five percent for California residents enrolled in either undergraduate programs or in graduate academic programs. As a result, the total reduction in student fees for California resident undergraduates is 10 percent below 1997-98 levels.
- \$17.2 million for several outreach and K-12 academic improvement initiatives including K-3 Professional Development Reading Institutes, a Teacher Scholars program, a Principal Leadership Institute, a summer pre-intern teaching academy serving teachers who have emergency credentials, English Language Learners Professional Development Institutes, the development of a Summer School for Math and Science for academically talented high school students, the development of on-line Advanced Placement (AP) courses, and \$1.5 million to expand outreach programs for graduate and professional schools, focusing on medical and law schools and engineering and science disciplines.
- Nearly \$21 million in new funding to expand existing State-supported research on alcohol and substance abuse, AIDS, and neurological disorders and to provide State support for research on brain injury and violence prevention. Also included is a \$5 million augmentation for the Industry-University Cooperative Research (IUCR) Program, a collaborative research program initiated by The Regents in 1996-97 that promotes research partnerships between UC and private industry in fields critical to the State's economy, bringing total UC and State funding for this program to \$20 million.
- \$1.5 million to expand the California Digital Library (CDL).
- \$2 million for the University's agricultural Cooperative Extension programs to help restore the additional cuts taken by these programs in the early 1990s.

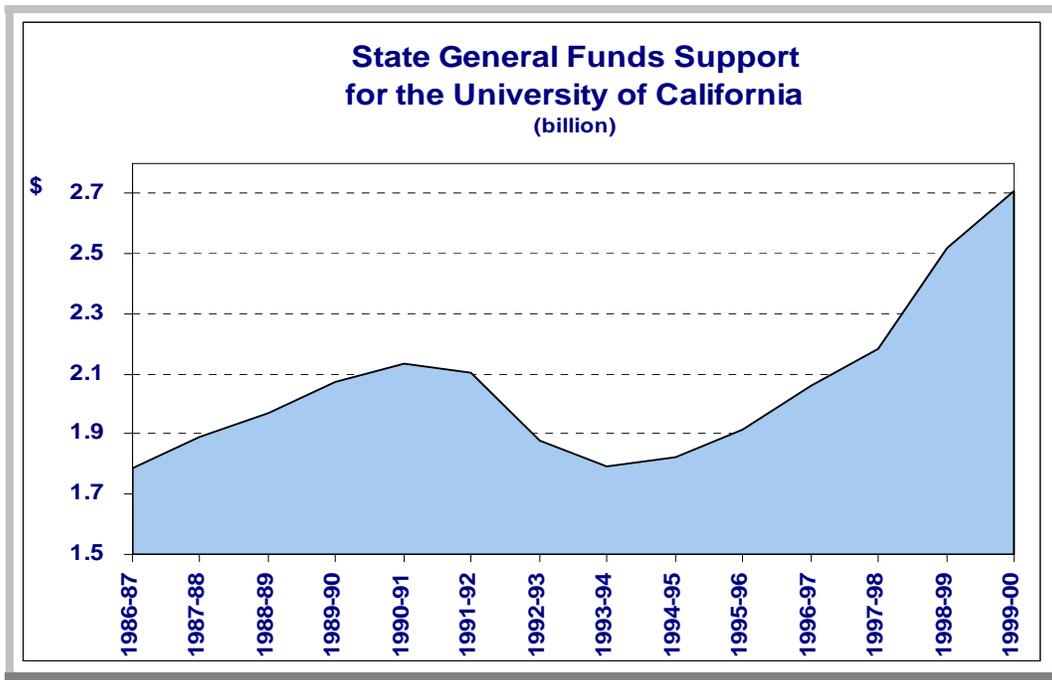
The \$2 million is contingent upon the University transferring to the State property in Santa Clara County that is currently used by Cooperative Extension.

- About \$730,000 for several other initiatives including \$120,000 to do a feasibility study on whether the University of California should support the development of a new law school, \$150,000 to ensure that all students under the age of 18 at the time of enrollment are properly immunized for Hepatitis B, and \$400,000 to assist Merced County in its planning efforts related to the development of the UC Merced campus.

### A New Partnership

The University was helped enormously by the four-year compact introduced by the Governor as part of his January 1995-96 budget, and the continuing support provided in 1999-2000. The compact, which proved to be remarkably successful, provided the University with the fiscal stability needed to begin planning for the future.

Display 5



Display 5 which tracks State general funds appropriated to the University since 1986, shows the consistent increases of State general funds received by the University beginning with the 1995-96 budget. When adjusted by the California per capita personal income, the total of State and UC general funds on a per student basis has remained remarkably stable over the last thirty years. The “ups and downs” have been largely reflective of the State’s economy.

The State has provided funding under the compact that has allowed the University to maintain the quality, accessibility, and affordability that are the hallmarks of

California's system of public higher education. Both the State and the University have exceeded their commitments under the compact. The University has enrolled more students than provided for in the compact, and the State has provided the funding. The average time it takes to earn a degree is decreasing. Graduation rates are at an all-time high. Teaching loads for faculty have risen.

The State has provided funding above the level envisioned in the compact to support high priority programs including outreach and research, and to provide students with relief from fee increases. Since the compact, there have been no increases in mandatory systemwide fees, and California resident undergraduate students will see an additional five percent decrease in fees in 1999-2000 (bringing the total decrease to 10% since 1997-98), and California resident graduate academics will realize a five percent decrease in fees in 1999-2000.

Coincident with the signing of the 1999-2000 budget, the Governor reiterated his commitment to work with UC (and CSU) to finalize a new partnership in the near future, noting that he expects "*...the partnership agreement to encompass funding stability, negotiated goals, measurable performance objectives, and accountability.*" While the University has been working closely with the administration, the proposed principles of a new four-year partnership are still under discussion.

***Proposed State Funding Commitments:***

- An annual average increase of 4% to the prior year's State General Fund base.
- Funding, provided at the agreed-upon marginal cost, for all enrollment growth (which is expected to be about 3% annually).
- An additional 1% increase to the prior year's State General Fund base to phase in full funding to eliminate the annual budgetary shortfalls for ongoing building maintenance, instructional equipment, instructional technology, and libraries.
- Funding for unavoidable costs including debt service related to capital outlay and annuitant health benefits.
- \$210 million a year for each segment, consistent with Proposition 1A, to support capital outlay needs. Support for State general obligation bond measure and/or lease revenue bonds that would provide, beginning in 2002-03, at least \$250 million (in current dollars) annually for each higher education segment.
- Funding for new or expanded special initiatives or programs as approved by the Governor and the Legislature, such as the development of off-campus centers or the opening of new campuses, special research initiatives, outreach and public service programs to improve K-12 schools, the transition to year-round operations, as well as the costs of legislation agreed to and approved by the State. These funds, which would be contingent upon the State's fiscal situation, would be in addition to the funds provided to support the University's basic budget.

- One-time funding as approved by the Governor and the Legislature, contingent upon the State's fiscal situation, for high priority needs such as deferred maintenance, libraries, equipment and instructional technology. These funds, which would be contingent upon the State's fiscal situation, would be in addition to the funds provided to support the University's basic budget.
- Annual increases in mandatory systemwide fees of no more than the increase in the California per capita personal income. The Legislature and the Governor can, in any year, choose to "buy out" these fee increases. These funds would be in addition to the funds provided to support the University's basic budget.

***Proposed UC Commitments:***

- Continue to admit all eligible California high school graduates wishing to attend the University.
- Continue to provide students with the classes needed to graduate in a timely manner by maintaining increased faculty teaching loads. The longer-term goal is to phase in a return to the historical student faculty ratio of 17.6 to one, with the increase in faculty devoted to strengthening the quality of undergraduate education.
- Continue commitment to maintain improved student outcomes with respect to graduation and retention rates.
- Develop, implement, and evaluate the "4% path" to eligibility.
- Continue commitment to maintain competitive faculty salaries, with an emphasis on merit-based salary programs.
- Ensure students have a smooth transition from one segment of public higher education to another by developing and maintaining systemwide agreements between UC, CSU and the California Community Colleges.
- To the extent that the community colleges increase the number of "transfer ready" students, increase the number of California Community College students who transfer to UC consistent the MOU. The goal in the MOU is to enroll at least 14,500 new community college transfer students annually by 2005-06.
- Assume greater responsibility in working with K-12 schools to help improve K-12 student performance; and expand outreach programs to improve the academic preparedness of K-12 students, especially students from disadvantaged backgrounds.

- Commit to playing a greater role in the preparation of K-12 teachers.
- Develop and implement Teacher Scholars Program to provide 400 students the opportunity to earn a combined Masters' and Teacher Credential in 15-months.
- Improve regional cooperation.
- Improve utilization of existing facilities.
- Help maintain California's competitiveness through continued investment in research.
- Place a priority on producing graduates who will meet California's workforce needs, including an increase of at least 40 percent in the number of engineers and computer scientists trained at UC.

### **Planning for the Longer Term**

Consistent with its commitment to maintain access under the Master Plan, the University is continuing to focus its planning efforts on long-term enrollment growth. Recent projections of enrollment from the Department of Finance (DOF) have caused the University to reconsider the number of students that may need to be accommodated by 2010.

If the DOF projections prove to be correct, and UC successfully meets its goal to enroll more community college transfer students and increases the percentage of graduate students, the University will need to plan for 210,000 FTE students by 2010-11, growth of 63,000 FTE over its 1998-99 budgeted level. This means that the University needs to plan for an average annual increase of at least 5,000 FTE, or more than three percent annually through 2010.

Given the capacity of each campus as defined in their approved long-range development plans (LRDP), which go through 2005-06, UC expects to be able to accommodate 34,000 additional students at existing campuses and an additional 5,000 students at the Merced campus. Based on the latest projections of average annual growth, this means that by 2010 the University will need to find a way to accommodate about 24,000 more students (FTE) than can be accommodated under the current LRDPs. The University plans to look at a number of options, including the expanded use of the summer, to address this enrollment growth and report to The Regents by March 2000, and to the Legislature by April 2000.

Undergraduate enrollment projections are based largely on estimates of the number of California high school graduates and the proportion of students who choose to enroll at UC, together with projections of community college transfer students. On an annual basis, the University monitors the key demographic and financial indicators as well as studies and policy changes that affect enrollment. One factor affecting enrollment projections is the actual rate of UC eligibility of public high school graduates.

In fall 1997, the California Postsecondary Education Commission (CPEC) completed a new high school eligibility study, based on 1996 high school seniors, which indicated that 11.1 percent of California high school graduates meet all requirements of admission and are fully eligible for the University. CPEC also found that an additional 9.4 percent of California high school graduates are "potentially eligible," which means these students are missing some aspect of the admissions requirements. Most of the "potentially eligible" students are ineligible for admission to the University because they did not take one or more of the required Scholastic Assessment Tests (SAT).

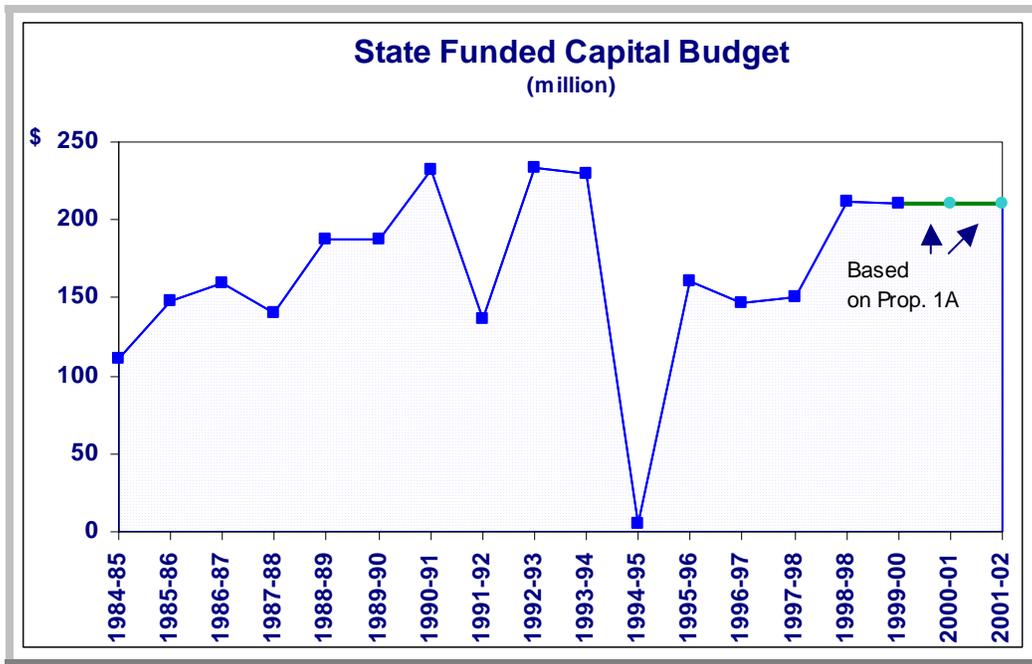
The "potentially eligible" category created some confusion among policymakers and led to disagreement about the size of the pool from which the University is accepting students. From an admissions standpoint, only those students who fulfill all of the requirements are considered to be eligible for admission to UC.

To address both the issues raised in the CPEC eligibility study and to increase the diversity of the UC student body, The Regents approved revised guidelines for freshman admission to the University. Effective in fall 2001, eleventh-grade students who rank in the top four percent of their high school class will be considered eligible for admission to UC if they have completed a University-defined pattern of courses. In addition, all students will be required to meet a new eligibility index which includes a combination of high school grade point average and Scholastic Assessment Test reasoning scores (SAT I) and subject scores (SAT II). Previously, only those applicants with a high school grade point average between 2.82 and 3.3 were required to meet an eligibility index.

In addition, The Regents took action to require all freshman applicants applying for admission beginning in fall 2003 to complete one year of University-approved work in Visual and Performing Arts. This change is intended to bring consistency to the course requirements for admission to UC and CSU.

At the graduate level, student enrollment growth is planned by projecting the needs of higher education, the State and the nation, and balancing that assessment with the State's and the federal government's willingness to provide sufficient resources.

#### **Display 6**



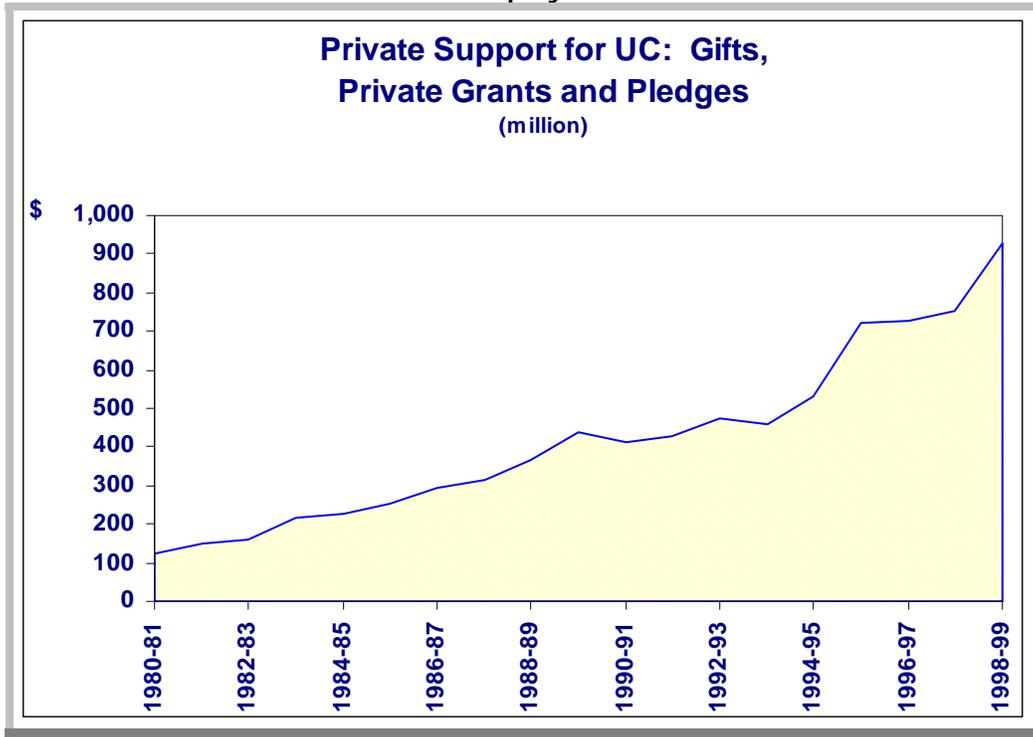
The projected growth over the next decade presents significant challenges. University is very concerned that the capital resources will not be sufficient to support the renewal and modernization of existing facilities and to accommodate projected enrollment growth. In November 1998, voters overwhelmingly approved Proposition 1A which provides higher education with \$2.5 billion in general obligation bonds over four years. The University's share will be about \$210 million a year and the University is concerned that this level of capital outlay funding will leave a number of the campuses short of adequate space needed to accommodate projected enrollment growth.

While this level of funding is substantially more than the \$150 million (Display 6) a year the State providing in the mid-1990s to support the University's capital improvement program, it is less than the \$250 million a year the University needs from the State.

The University has already recognized that the State would not be able to meet the full annual State-supportable capital outlay needs, estimated to be about \$500 million annually, and has committed to meeting a portion of this need through private fundraising and by using a portion of the increase in State and UC general funds to pay for debt service on long-term financing.

The University continues to be aggressive in searching out and developing non-State revenue sources, particularly private funds. As shown in Display 7, there has been significant growth in gifts, private grants and pledges for the fourth consecutive year in 1998-99, reaching an historic high of more than \$900 million. (Note: these are not expenditures).

Display 7



### Overview of the 2000-01 Budget Request

This budget document discusses how the base budget is spent as well as the need for funding increases for fixed costs, workload and program growth anticipated to be funded as part of a new partnership to support the University's basic budget. Display 8 identifies the components of the 2000-01 budget plan totaling \$253.8 million, including \$182.2 million in State general funds, \$26.8 million in revenue equivalent to what would be generated if mandatory systemwide fees were increased by 4.5% (the estimated growth in the California per capita personal income), \$20.3 million increase in student fee income related to enrollment growth, and \$24.5 million in UC general funds (including a 4.5% increase in nonresident tuition).

The \$182.2 million increase in State general funds comprises: (1) \$104.5 million which represents a four percent increase to the prior year's State general fund budget, excluding debt service; (2) \$26.1 million which represents a one percent increase to the prior year's State general fund to reduce permanent budget shortfalls in ongoing building maintenance, instructional technology, instructional equipment and library materials; and (3) \$51.6 million to fund four percent enrollment growth at the agreed-upon marginal cost.

Also included in the budget is a proposal to increase nonresident tuition by 4.5 percent (\$440) which is approximately the estimated growth in the California per-

capita personal income. Statewide policy calls for consideration of the following in setting the level of nonresident tuition: (1) the total nonresident charges imposed by the public salary comparison institutions and (2) the cost of instruction. With a \$440 increase, total fees and tuition charged to nonresident students at the University will continue to be less than projected tuition and fees at the public higher education institutions that are used by the University for faculty salary purposes.

The budget plan does not, at this time, include a proposal to increase the Fees for Selected Professional School Students. A proposal to increase these fees will be considered separately, contingent upon discussions with the Governor.

The total requested budget increase from all fund sources is about seven percent when calculated on a base that includes programs funded from State and UC General funds and student fees (Educational Fee, University Registration Fee, and the Fee for Selected Professional School Students).

### **Fixed Costs and Economic Factors**

#### ***Continuation Cost of 1999-2000 Salary Increases***

The 1999-2000 budget included funding to support an average salary increase of two percent for University employees, an additional 0.9 percent parity salary increase for faculty only, and a five percent market adjustment for Cooperative Extension Specialists and information technology professionals effective October 1, 1999. Because 1999-2000 funding is sufficient to pay the salary increases for only nine months, from October through June, full-year funding must be provided in 2000-01.

**Display 8**

#### **UNIVERSITY OF CALIFORNIA**

2000-01 Budget Request  
(\$ millions)

1999-2000 Operating Budget -- Estimated State Funds.....	\$ 2,708
1999-2000 Estimated State and UC General Funds plus Student Fee Income.....	3,644

#### **PROPOSED INCREASES IN EXPENDITURES**

(Based on a New Partnership)

##### Fixed Costs

Three-month continuation costs of 1999-00 salary increases.....	\$ 14.1
Merit increases for faculty and staff.....	39.0
Funding equivalent to an average 2% cost-of-living salary adjustment for faculty and staff .....	35.2
Parity adjustments of 1% for faculty .....	6.7

Market adjustment of 5% for Coop. Ext. Specialists and info. tech. employees.....	4.1
Funds to support 8% increase in health benefit costs for faculty and staff .....	10.6
Price increase for nonsalary budgets (2.5%) .....	21.3

Workload and Program Growth

Enrollment growth (6,000 FTE students)	
State funds.....	51.6
Student fee funds.....	20.3
Strengthening the quality of undergraduate education.....	6.0
Financial aid associated with 4.5% fee increase.....	8.9
Operation and maintenance of new space.....	4.0
Deferred maintenance (debt service).....	6.0
Ongoing maintenance.....	8.0
Instructional technology.....	8.0
Instructional equipment.....	5.0
Library materials.....	5.0
<b>Total Increase Under New Partnership</b>	<b>\$ 253.8</b>
<i>% increase over base of State and UC General Funds and Student Fee Income</i>	<i>7.0%</i>

**PROPOSED INCREASES IN INCOME**

State general funds (4% increase to the base, excludes debt service for capital outlay).....	\$ 104.5
State general funds (1% increase to the base for core needs).....	26.1
State general funds for enrollment growth (marginal cost rate).....	51.6
Revenue equivalent to 4.5% fee increase .....	26.8
Increase in fee income related to increase in enrollment .....	20.3
UC General Fund income (including 4.5% increase in nonresident tuition) .....	24.5
<b>Total Increase in State and UC General Fund Income</b>	<b>\$ 253.8</b>

### ***Merit Salary Increases for All Eligible Employees***

Funding for merit salary increases, which are increases within existing salary scales, is again among the University's highest budget priorities. The merit salary program recognizes and rewards excellence and is critical to the preservation of quality. Merit salary increases are not automatic. Academic merit salary increases are awarded only after extensive review of individual achievements. Staff merit salary increases are awarded to eligible individuals on the basis of performance.

### ***Cost-of-Living Salary Increase on 10/1/2000***

The University is requesting funding to support an average two percent salary increase for University employees. The budget plan also includes a request for an additional one percent parity adjustment for faculty only to maintain competitive faculty salaries in 2000-01.

The University's goal is to maintain competitive faculty salaries by providing the average of the salaries provided at the comparison institutions, and, through a combination of merits and cost-of-living-adjustments, to provide salary increases for other employees that, on average, at least keep pace with inflation.

This year's budget also seeks to provide a salary adjustment for two categories of employees – cooperative extension specialists and information technology employees whose salaries lag significantly behind the market. Actual salary and benefit actions for University employees may be subject to notice, meeting-and-conferring, and/or consulting requirements under the Higher Education Employer-Employee Relations Act (HEERA).

### ***Market Adjustments Effective 10/ 1/ 2000***

**Faculty Parity Salary Increase.** Funding for an additional one percent parity salary increase for faculty only is requested to maintain faculty salaries at the average salary level of the eight comparison institutions. With funding for normal merit increases, a cost-of-living salary increase averaging two percent, and a parity salary increase averaging one percent, preliminary estimates indicate that salaries of University faculty will remain competitive with faculty salaries at the comparison institutions. Updated projections will be available in November.

A lag in faculty salaries sends a negative message about the University across the nation, making it more difficult to recruit and retain individuals who meet UC's traditional high standards. Nothing is more certain to undermine quality than a persistent inability to offer competitive salaries. Maintenance of the University's historic position in the marketplace is essential if its quality is to be maintained.

**Adjustment for Cooperative Extension Specialists.** The University is requesting funding equivalent to a five percent increase for Cooperative Extension Specialists. This group of academics, which are recruited from the same pool of faculty as other ladder rank faculty, was not eligible for earlier parity adjustments provided to faculty. Thus, their salaries have fallen behind the marketplace in which the University competes for faculty. A similar market adjustment was provided in 1999-2000.

**Market Adjustment for Information Technology Employees.** The University is requesting funding equivalent to a five percent market adjustment for information technology (IT) employees in positions that were initially identified as lagging the market. This is the second step in a multi-year plan to provide competitive salaries for this group of University employees. With the use of technology commonplace in the workplace and advanced technology found throughout the University's teaching and research programs, the University has found it increasingly difficult to maintain a stable and qualified information technology workforce. The difficulty in recruiting information technology employees is linked to salary lags relative to the market and the escalating use of technology across all industries and business settings, public and private.

***Increases in Benefit Costs***

The University is requesting funding for increases, estimated to be about eight percent, in the cost of health and dental insurance for its employees. This request is based on estimated cost increases of about eight percent. Notwithstanding the success of the University in reducing the cost of health benefits in recent years and a commitment to continue efforts to control costs, employee benefit costs are expected to increase over the next several years.

***Price Increases***

In order to offset the impact of inflation on the non-salary budget and maintain the University's purchasing power, funds are requested to cover price increases averaging 2.5 percent. Although the University purchases many commodities – library materials, technical supplies, specialized equipment – whose costs exceed current inflation estimates, the request for funding is limited to estimates of general inflationary increases.

**Workload**

***Funding for Enrollment Growth of 6,000 FTE Students***

The University is seeking \$51.6 million in State funds, or about \$8,600 per student, to support an increase of 6,000 FTE students, bringing total budgeted general campus enrollment to 158,400 FTE in 2000-01. The \$8,600 per student is based on a negotiated agreement with the State regarding the level of support the State is willing to provide for each new budgeted student. The added funding will provide salary and benefits for additional faculty positions; related instructional support such as clerical and technical personnel, supplies and equipment; support for teaching assistant positions; institutional support; and support for libraries and student services.

Included in the proposed enrollment growth of 6,000 FTE students are an estimated 450 FTE students who would enroll in teacher credential programs as part of the University's commitment to more than double the number of students enrolled in these programs by 2002-03. Helping to meet California's growing need for highly qualified K-12 teachers is an integral part of the University's role in working with

California schools and students.

Also within the overall enrollment growth proposed in 2000-01, the University is proposing to target growth of 1,000 FTE students in engineering and computer and information sciences. This is the third year of an eight-year plan that will increase enrollment in these fields by at least 40 percent by 2005-06, bringing total enrollment in these fields to about 24,000 students. The University's proposal to increase the number of students in these disciplines is in direct response to student and industry demand. Demand continues to outpace supply and the competition for graduates is increasing at a time when there are not adequate numbers of qualified students to meet industry's current workforce needs.

By 2000-01, UC enrollments will be at an all-time high. Given annual growth in budgeted enrollments and an 18.7 to one student faculty ratio, the University will be functioning with about 400 more faculty by 2000-01 than it did in 1990-91, while accommodating about 16,400 more students.

### ***Strengthening the Quality of Undergraduate Programs***

The University's 2000-01 budget includes an increase of \$6 million, as the first step in a multi-year plan, to strengthen the quality of undergraduate programs. Faced with projections of unprecedented growth over a sustained period of time, the University is prepared to invest funds in a variety of ways to maintain the quality of its academic programs as enrollment continues to grow. Strengthening the quality of undergraduate programs could take many forms ranging from hiring additional faculty with the goal of reducing class size, offering additional lower division seminars or providing tutorials for students working on senior projects; providing undergraduates with increased opportunities to work with faculty on research projects; providing additional instructional support to academic departments and existing faculty; as well as increasing academic advising for students. Over time, the University will work towards restoring the historical student faculty ratio of 17.6 to one.

### ***New Space To Be Maintained***

The University is requesting \$4 million to support basic maintenance of additional space to be occupied in 2000-01 by programs eligible for State funding.

### ***Deferred Maintenance and Facilities Renewal***

The 2000-01 budget plan continues to place an emphasis on rebuilding and maintaining the University's physical plant. The combined effects of annual underfunding for ongoing building maintenance, the lack of permanent funding for deferred maintenance, and the fact that only a fraction of the University's capital improvement budget is used to replace worn-out building systems has resulted in a backlog of deferred maintenance projects that in 1997-98 exceeded \$500 million. The 2000-01 budget proposes, for a third year, to use \$6 million of the increase in UC general funds (income from nonresident tuition) as debt service to pay for the long-term financing of deferred maintenance and infrastructure projects totaling \$60 to \$65 million (depending on market conditions at the time of financing).

### ***Ongoing Building Maintenance***

Consistent with the concept supported by the Legislature to fully fund ongoing building maintenance over a number of years, the University is requesting an increase of \$8 million for ongoing building maintenance. The \$8 million represents the University's commitment to continue with its multi-year plan to properly fund the University's building maintenance program, which even with this increase will be underfunded by more than \$34 million annually. This continues to be a high priority for The Regents and the Legislature and, consistent with the principles of a new partnership, would be funded from the one percent increase to the prior year's State general fund base committed to addressing permanent budget shortfalls in several critical areas.

### ***Instructional Technology***

The 2000-01 budget plan includes \$8 million as part of its continuing plan to support the escalating use of technology, a critical element of the University's continued commitment to maintain the quality of its teaching and research programs. Additional funding is needed to create and maintain the infrastructure and technical capability to operate and provide students with access to technology. Even a modest scenario would imply a permanent budget increase of almost \$30 million to satisfy only the highest priorities of individual campus plans, which emphasize increases in technical support, classroom technology, and additional computer lab seats. Consistent with the principles of a new partnership, this would be funded

from the one percent increase to the prior year's State general fund base committed to addressing permanent budget shortfalls in several critical areas.

New investments are required. A fully functional digital environment for teaching and learning is not a steady state that can be achieved with a one-time expenditure. The rapid evolution of hardware and software requires a continuous cycle of replacement and upgrade, and technology-enhanced teaching and learning requires recurring expenditures for maintenance and support.

### ***Instructional Equipment***

The University's 2000-01 budget plan includes \$5 million as part of a four-year plan to fully fund the replacement of aging and obsolete equipment, a critical component of the University's teaching and research programs. Consistent with the principles of a new partnership, this would be funded from the one percent increase to the prior year's State general fund base committed to addressing permanent budget shortfalls in several critical areas.

The additional funding proposed for 2000-01 should close the permanent budget gap. Over time, as new equipment is purchased and depreciated the annual need will increase. Because of past underfunding, however, the University has one-time needs of about \$200 million.

Obsolete equipment ranges from equipment that is functional but lacks the capability and efficiency of modern replacements, to pieces that are of limited use because replacement parts are not readily available, or the equipment is costly to

operate and maintain.

Many of the University's instructional programs rely heavily on equipment, but reliable, up-to-date equipment is most critical in the sciences, where 90 percent of the equipment is used. These are also the disciplines in which the University is planning to grow over the next decade and, often, equipment is the key to staying on the cutting edge of a particular discipline.

***Library Materials.***

The University's 2000-01 budget plan includes \$5 million for library materials as the next step in a multi-year plan to address a permanent budget shortfall of about \$30 million. Over the last decade the combined effects of growth in enrollments and academic programs, inflation, and reduced budgets, have seriously eroded the libraries' ability to support the University's academic programs. Consistent with the principles of a new partnership, funding for library materials would be funded from the one percent increase to the prior year's State general fund base committed to addressing permanent budget shortfalls in several critical areas.

**Proposed Increases Above  
The Levels Anticipated in a New Partnership  
To Support the Basic Budget**

As part of the negotiations regarding a new partnership, the Governor and the University are working on a set of principles to identify the types of initiatives for which the University could request funding above the funding levels provided to support the University's basic budget. Funding, which would require approval of the Legislature and the Governor, would be dependent upon the State's fiscal situation.

Consistent with this principle, the University is requesting support for the following initiatives (please note that the specific initiatives are not presented in priority order):

- \$15 million for several initiatives that focus on areas of research that are of significant economic impact to the State.
- \$10 million to support the second phase of the University's Internet2 Initiative, a major technology initiative to provide access for UC faculty and students to the Internet2 for educational purposes and to facilitate collaborative research with Mexico and cooperative research efforts with private industry.
- \$6 million to support additional outreach efforts including a UC-California Community College Transfer Initiative, a statewide Algebra Professional Development Institute for Middle and High School Teachers, an expansion of graduate and professional school outreach efforts, and expanded research and evaluation of educational access and equity.
- \$2.5 million to expand the California Digital Library (CDL) and to provide access

to the information at UC's libraries to all Californians.

- \$2.5 million to support the first phase of a multi-year plan to develop an off-campus center in the Santa Clara Valley.
- \$2 million to expand the University's Cooperative Extension programs designed to take the results of agricultural research from the University's laboratories to the State's agricultural industry.

**Display 8**

<b>Initiatives Above Funding for Basic Budget In New Partnership (millions)</b>	
<b><i>Research Initiatives</i></b>	
Engineering & Computer Sciences	<b>\$5.0</b>
Environmental Science	<b>5.0</b>
UC-Mexico Collaborative Research Initiative	<b>5.0</b>
Internet2 Initiative	<b>10.0</b>
<b><i>Academic Development and Outreach Initiatives</i></b>	
UC-Community College Initiative	<b>2.5</b>
Graduate and Professional School Outreach	<b>1.5</b>
Algebra Institutes	<b>1.0</b>
Research on Educational Access and Equity	<b>1.0</b>
<b><i>California Digital Library</i></b>	<b>2.5</b>
<b><i>Off-Campus Center (Santa Clara Valley Regional Center)</i></b>	<b>2.5</b>
<b><i>Agricultural Cooperative Extension</i></b>	<b>2.0</b>

### **Research Initiatives**

#### ***Engineering and Computer Sciences Research***

The University is seeking \$5 million to increase its research efforts in economically strategic areas by supporting additional graduate student research in engineering and computer science. As a high-technology State, California's economy will continue to rely on cutting edge research and highly trained graduate students, especially in the fields of engineering and computer science. The University is planning at least a 40 percent increase in the numbers of students enrolled in these programs, including an increase of nearly 3,000 graduate students. Graduate students are a critical part of the research teams that have enabled UC to attain the highest levels of research excellence and productivity. Perhaps the most striking example is the group of graduate students who worked with the faculty who pioneered the Internet more than 30 years ago at UCLA.

#### ***Environmental Sciences Research Initiative***

The University is seeking \$5 million to establish a universitywide program to support multi-disciplinary research related to the current and future quality of life affecting all Californians. Peer-reviewed grants would be available to support basic scientific understanding of the natural resources, which are critical to sustaining

California's environment. Research would focus in areas such as coastal ocean health, inland water resources and energy and atmospheric quality. The natural resource base of California, which includes watersheds, marine resources, and estuaries that link the oceans with inland valleys and mountains are diminishing at ever faster rates as exponentially increasing population growth creates serious conflict with the environment. The longer-term goal is to develop an integrated resource management plan that will continue to foster a robust California economy, a productive habitat for wildlife and maintain the quality of life for all Californians. Recognizing the critical role graduate students play in the University's research efforts, at least half of the funding would be used to support graduate student research.

### ***UC-Mexico Collaborative Research***

The University is requesting \$5 million to support collaborative research focusing on issues of critical interest to California and its neighbor, Mexico, building upon the State's interest in working more closely with Mexico. This initiative would provide a vehicle to engage the research and scientific infrastructure of California and Mexico and to focus the joint intellectual resources on important bi-national questions in critical economic areas such as trade and economic development, the environment, food and agriculture, and health with an emphasis on public health, primary care and preventive medicine. Through the involvement of graduate students, California and Mexico will also train the next generation of scientists and scholars who will continue to expand a growing tradition of intellectual and research collaboration between the two nations. The relationship between California and Mexico is of great mutual importance. Despite the special challenges presented by trans-border contrasts in wealth and economic power, the people have much in common, and there is a unique interdependence of economy, commerce, and society.

### ***Internet2 Initiative***

Internet2, the next generation national high-speed electronic highway, will be able to deliver information in ways more varied and with greater reliability and speed than is possible with today's congested Internet. CalREN2 will link California universities to each other and to Internet2 to provide shared access to high-performance research instruments; distributed computation on massive databases; telemedicine and collaborative pharmaceutical research; interactive seminars; and a host of other activities. To ensure that faculty and students can connect to these advanced communication networks, and to encourage cooperative research initiatives with industry, the University is requesting \$10 million to enhance the University's network infrastructure.

The University was a founding member of the national Internet2 initiative, and of the consortium of California universities that is building CalREN2, California's leading electronic highway that brings Internet2 to the doorstep of the campuses. Of the \$10 million, \$7.5 million will be used to ensure that faculty and students have access to the advanced services of Internet2 by completing the connections from the doorstep of the campuses to the desktops of faculty. This requires an upgrade of the campus networks and support infrastructure, and for staff to support faculty and student access.

The University will dedicate \$2.5 million to expand access to Internet2 to encourage and facilitate faculty collaboration with researchers in industry. The new capabilities of the Internet2 extend, with few exceptions, only to the academic community due to current funding and policy constraints. However, much will be gained by extending the reach of Internet2 to a broad range of private industry. Thus, the \$2.5 million in State funds will be used to leverage matching funds from industry to develop partnerships with industry which will play an essential role in speeding the transfer of UC's research to industry, providing UC faculty and students access to resources and instrumentation only available in industry, and facilitating student internships with California industry by diminishing the importance of physical location. Participation in such a research process and mastery of the skills and the analytical rigor that it engenders will be lifelong assets for students, regardless of their field of study.

### **Academic Development and Outreach Initiatives**

#### ***UC-Community College Initiative***

The University is requesting \$2.5 million to raise substantially the number of community college students transferring to UC, especially from those community colleges which currently have low transfer rates. Community Colleges would be required to provide matching funds. This project will support the commitment of the University, as expressed in a Memorandum of Understanding, with the California Community Colleges to increase the number of students transferring from the community colleges to UC to 14,500 annually by 2005-06.

#### ***Graduate and Professional School Outreach***

The University is seeking to invest an additional \$1.5 million to help identify, prepare, and encourage students from educationally disadvantaged backgrounds to attend and succeed in graduate and professional school. The goal is to enroll more students from educationally disadvantaged background enrolled in graduate science, engineering, and mathematics programs, as well as in professional schools. Identified students would participate in activities that range from campus academic enrichment opportunities and annual Universitywide symposia to summer research programs. Outreach activities for professional schools would range from tutoring, regional orientations, advising, and summer workshops designed to strengthen writing and study techniques in order to prepare applications.

#### ***Algebra Institutes for Middle and High School Teachers***

The University is requesting \$1 million to improve the quality of mathematics instruction by providing middle and high school mathematics teachers with professional development in the teaching of algebra. Middle school algebra courses serve as the gateway into higher level mathematics and science courses in high school. Research has shown that if students do not pass algebra by eighth or ninth grade, their ability to complete the college preparatory coursework necessary to attend college drops significantly, potentially closing the door to higher education. This program builds on the University's commitment to increase its role in the

preparation and continued development of K-12 teachers and will be administered through the California Mathematics Project.

### ***Research on Educational Access and Equity***

The University is seeking an additional \$1 million to expand research efforts to examine the problems and challenges of access to higher education by California's educationally disadvantaged schoolchildren. The research will identify features of the educational process that lead to inequities and disparities in access and will be used to devise strategies to overcome barriers to learning and academic achievement. The University, with tremendous support from the State, has made a substantial long-term commitment to improving the academic preparedness of K-12 students and to increasing significantly its efforts to provide professional development for K-12 teachers. This research initiative supports this commitment and will help develop new paths to educational access and equity.

### **California Digital Library**

The University is requesting \$2.5 million to expand the California Digital Library (CDL) and increase access, for all Californians, to the information in UC's libraries. Since its founding in 1997, the CDL has made available the digital versions of over 3,500 journals, primarily in the sciences, and is working towards providing a similar array of digital resources across all academic areas. As a collaborative effort of all UC campuses, the CDL is able to utilize institutional strength to negotiate with external vendors, alleviate pressures on print collections, achieve economies of scale, and reduce duplication across the system. The CDL is paving the way for a time when the University's distinguished library collections developed to support the teaching, learning, and research of the faculty and staff will be available without regard to the conventional limits of time and space.

### **Santa Clara Valley Regional Center**

The University is requesting \$2.5 million to begin development of an off-campus center in the Santa Clara Valley, an important step in the University's longer-range planning efforts.

While the Center is one of several strategies to help the University accommodate projected enrollment growth, the Center will also be used to: (1) provide coordinated academic outreach for students from high schools in the Valley, focusing on those schools that do not currently send many students to the University; (2) offer University Extension courses; (3) offer graduate-level programs such as the newly-created Masters in Advanced Studies (M.A.S.) targeted at working professionals or teacher training; and (4) facilitate collaborative research efforts with industry and provide new research and internship opportunities for students.

The \$2.5 million represents the initial funding needed to develop the Santa Clara

Valley Regional Center and will be used in several key areas, including support for core staff and academic administration; academic program development, including coordination with the California Postsecondary Education Commission (CPEC); physical planning activities including facilities planning and associated environmental impact assessments; the initial increment of operational, business and technical services; outreach; as well as leasing costs, tenant improvements and start-up funds for equipment to adapt classrooms with technology to accommodate distributed learning.

### **Cooperative Extension**

The University is requesting \$2 million to expand Cooperative Extension programs, allowing the University to emphasize high priority programs and develop new county- and campus-based programs to address the emerging issues and challenges facing California agriculture.

The University's cooperative extension programs range from technical assistance to farmers to nutritional education for low-income families and 4-H programs for youth. The Cooperative Extension programs are designed to develop applications of research knowledge and bring about their uses by people located in communities beyond the University, and to bring problems and issues back for exploration and research in agriculture which, from farm to retailer, is an \$80 billion industry and accounts for nearly one million jobs in California. It is an industry that is highly dependent upon the application of University research.

### **Budget-Related Issues**

#### ***Federal Funding***

Federal funding is a major source of financial support for the University. The federal government provides nearly 55 percent of University research expenditures, almost all of the loan and work study funds and about 25 percent of grant aid its students receive; and about one-third of the net operating revenue of the teaching hospitals. The three Department of Energy Laboratories, for which the University has management responsibility, are entirely supported by federal funds.

Notwithstanding the dire predictions of the last several years, the deep cuts in federally-supported research did not materialize because favorable economic conditions have prevailed, allowing the federal budget to be balanced almost two years ahead of schedule and to generate a surplus, the first in over a generation. Now, however, despite projections of a federal budget surplus for the next 10 to 15 years, the University is anticipating that federal funding for research could remain static or even lose ground to inflation.

There is a great deal of uncertainty about the outcome of the federal budget given differences between Congress and the President regarding the projected surplus. The Congress appears headed toward larger tax cuts, while the President appears

interested in more modest tax cuts and increasing investments in Medicare. Also complicating the outcome are the caps on domestic spending, included as part of the 1997 agreement between the President and Congress to balance the federal budget.

The President recently vetoed legislation which would have provided almost \$800 billion in tax cuts over a 10-year period. Included in this veto was a five-year \$1.5 billion extension of the research and development credit, a top priority for the high-technology industry in California. While this veto serves to highlight the vast differences in budget strategy between the President and the Congress, it sets the stage for negotiations. Thus, although Congress may finish "marking up" the various spending authorization bills before the start of the new federal fiscal year, it is unlikely that there will be a budget in place by October 1<sup>st</sup>. Anticipating difficult negotiations, Congress is hoping to avoid a repeat of several years ago when the federal government was "shut down" and has begun to develop a Continuing Resolution that would keep the government operational after the start of the new fiscal year.

In addition to concerns over the level of federal funding for research, the University has serious concerns regarding future federal funding for its academic medical centers given the sweeping changes to Medicare and Medicaid included in the Balanced Budget Act of 1997. The changes will reduce Medicare payments to providers by \$115 billion nationwide and Medicaid payments by about \$10 billion nationwide over the five-year period ending in 2002. UC's academic medical centers are expected to see a decline of about \$45 million in Medicare payments for patient care and more than \$70 million in reduced payments for direct and indirect costs of medical education over this five year period. Under the provisions of the agreement to balance the budget, the Congress and the President are intending to slow the growth of Medicaid in part, by capping or reducing payments to disproportionate share providers. These reductions will greatly impact the University.

As of this writing, Federal support for student aid programs also remains uncertain for 2000. In general, however, anticipated changes in programs and funding levels are expected to have only marginal overall impact on UC students and University students will continue to benefit from the tax credits and other provisions that were approved in 1997.

### **Capital Improvements**

The University's 2000-01 request for State funds for capital improvements is discussed in a companion document titled *2000-01 Budget for Capital Improvements*.

The University's 2000-01 capital budget request of \$212.7 million in State funds to support its capital outlay program is funded from general obligation bonds that were overwhelmingly approved by voters in November 1998. This level of funding is

essential to maintain progress on seismic and other life-safety improvements, to address essential infrastructure and building renewal needs, and to upgrade and expand academic facilities necessary to support the resumption of enrollment growth, particularly in the sciences and engineering.

The 2000-01 State capital budget request includes \$3.1 million to equip four projects for which construction has already been approved by the State, \$14.3 million for the design and construction of the initial infrastructure and the design of the first two buildings on the Merced campus, and \$195.3 million to fund 32 major capital projects. Of the 32 major capital projects, funds are requested to support construction or complete design and undertake construction for 24 projects, and to begin or continue design on 8 projects.

Twelve of the 32 major capital projects correct serious seismic life-safety hazards; 6 projects involve the modernization and renovation of buildings to accommodate academic programs; 8 projects involve new buildings to expand instruction, research, and academic support facilities to accommodate enrollment growth; and infrastructure renewal or expansion is the focus of 6 projects.

## GENERAL CAMPUS INSTRUCTION

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 1,543,763,000</b>
General Funds	1,219,963,000
Restricted Funds	323,800,000

<b>2000-01 INCREASE</b>	
General Funds	70,600,000
Restricted Funds	19,061,000

The general campus Instruction and Research (I&R) budget includes direct instructional resources associated with schools and colleges located on the eight general campuses. The major elements and their percentages of the I&R base budget are faculty and teaching assistant salaries, 60 percent; employee benefits, 10 percent; instructional support, 25 percent, which includes salaries of laboratory assistants, supervisory, clerical, and technical personnel, and some academic administrators, as well as costs of instructional department supplies; and instructional equipment and technology, 5 percent.

The University's 2000-01 budget plan includes a request for \$51.6 million to support a budgeted enrollment increase of 6,000 FTE (full-time-equivalent) students, including 1,000 FTE students in engineering and computer and information sciences and 450 FTE targeted for students in teacher education programs in keeping with the University's commitment to more than double the number of its credential students by 2002-03. The proposed budgeted enrollment growth also reflects the University's commitment to increase the number of new students transferring to UC from the California Community Colleges. The increase of 6,000 FTE students is consistent with the levels of enrollment growth of the last few years. The State provided funds to support growth of 6,000 FTE students in 1998-99 and an additional 5,400 in 1999-2000. Based on recent enrollment projections, the University anticipates that enrollment growth will continue to grow at about 5,000 FTE a year at least through 2010.

In addition to securing resources for all projected enrollment growth, a key element of the University's 2000-01 budget plan is an increase of \$6 million devoted specifically to campus-based efforts to strengthen the quality of the University's undergraduate programs. The 2000-01 budget plan also includes an increase of \$5 million to replace outdated instructional equipment and an increase of \$8 million for instructional technology.

## Instructional Programs

Preserving student access to high-quality education is the hallmark of the University's 2000-01 budget plan. Consistent with the California Master Plan for Higher Education, the University provides undergraduate, professional, and graduate academic education through the doctorate level and serves as the primary State-supported academic agency for research. A fundamental mission of the University is to educate students at all levels, from undergraduate to the most advanced graduate level, and to offer motivated students the opportunity to realize their full potential. Ideally, this means that the University should be able to accommodate all qualified undergraduates, and also provide graduate academic and professional instruction in accordance with standards of excellence, societal need, and available resources. To do this, the University must maintain a core of well-balanced, quality programs and in addition provide support for rapidly developing and newly emerging fields of knowledge.

The University offers instructional programs spanning more than 150 disciplines from agriculture to zoology on its eight general campuses; the San Francisco campus offers health sciences programs exclusively. Courses offered within instructional programs are authorized and supervised by the Academic Senate of the University, which also determines the conditions for admission, degrees, and credentials. Undergraduate, graduate, and professional schools and colleges offer the bachelor's degree, master's degree, Ph.D., and professional degrees – nearly 600 degree programs in all. The University began awarding degrees in 1870 and since then has conferred more than one million degrees.

The University's undergraduate programs, especially lower division offerings, seek to accomplish several objectives: growth of general analytic and communication skills; exposure to a range of intellectual traditions; development of an appreciation of the great ideas, concepts, and events that have shaped cultures throughout the world; and preparation to work in a world that is increasingly knowledge-based. After students complete their general education requirements, customarily during their first two years, they choose a major in a particular area that is administered by an academic department. A major is designed to develop a depth of knowledge within a specialized area of study.

The purpose of graduate programs is to inspire independence and originality of thought in the pursuit of knowledge. Doctoral students are expected to achieve mastery of a chosen field through advanced study and research. Master's degrees are awarded in recognition of several achievements, including satisfactory preparation for doctoral study and qualification for entry into professional fields such as business. Graduate degrees fall into two broad categories: professional, such as a master of business administration; and academic, in which degrees are awarded in recognition of a student's ability to advance knowledge in a given field of study.

Under the California Master Plan for Higher Education, the University has sole responsibility among publicly supported institutions to prepare professional students to help meet California's and the nation's workforce needs. The Master Plan for

Higher Education recommended that UC make periodic studies "of the relation of supply to demand ... for the purpose of determining what steps the University should take to meet its responsibility in these professional fields."

As part of the University's academic planning, UC has examined the need for new law schools on several occasions over the past 35 years. Conclusions regarding the need for new law schools depend on various factors, including the State's fiscal circumstances, labor force projections, employment rates of law graduates, quality of existing programs, potential effects on existing law schools, and student demand. Consistent with the intent of the Legislature and the funding provided in the 1999 State Budget, the University currently is engaged in a study to determine whether UC should open another law school, and if so, where it should be located. The study will take into consideration both statewide and regional needs.

The University is launching a new degree initiative that will expand UC's advanced degree programming for working adult professionals, the Master of Advanced Study (M.A.S.). The M.A.S. program will offer UC-quality instruction in a manner that accommodates the schedules of working adults. Adding to workers' knowledge during the course of their careers is becoming critical as new professions are emerging, multiple career changes are becoming common, and the workplace is evolving to an information-based economy. The University has an important contribution to make in meeting this need for advanced degrees.

Currently, the University offers full-time master's degree programs in the liberal arts and professions, as well as part-time, self-supporting programs on some campuses in business administration, education, engineering, and public health. The new degree program will offer working adults an additional, convenient set of options for attaining an advanced degree congruent with their professional and personal interests.

Generally, University courses are taught on one of the UC campuses. However, given the long-term enrollment demand that is projected for the next ten years, the University is developing various options to handle enrollment growth. One of these options could be an off-campus center, where students can enroll either full-time or part-time in University degree programs. Currently UC Santa Barbara provides the only UC off-campus learning center, the Ventura Center, although a second off-campus center is being proposed in the Santa Clara Valley. In addition, the Merced campus is developing a number of distributed learning centers in the San Joaquin Valley. The UC Center in Fresno opened in 1997 and the Merced Tri-College Center opened in early 1999. The Tri-College Center houses programs from UC, CSU Stanislaus and Merced College. A primary focus of the Center is to facilitate transfer of Merced area students to either UC or CSU. Two other centers are being planned at this time. A UC Center in Modesto will be located at the Stanislaus Agricultural Center and a UC Center in Bakersfield is being planned in cooperation with the Kern County Office of Education. These distributed learning centers will provide access to a variety of academic programs including University Extension courses and certificate programs.

The Ventura Center provides instruction to students who are taught by regular UC

faculty and instructors, either in person or interactively via closed-circuit television. Broadcast-quality, full motion video is transmitted from live classes on the Santa Barbara campus to the Ventura Center, and an audio connection is provided for students at the Ventura Center to ask questions and participate in live classroom discussions. Both e-mail and course Web sites further provide communication between students enrolled at the Ventura Center and their professors and fellow students. Videotapes allow students at the Ventura Center, many of whom work, to review lectures at times that fit into their schedules. The Ventura Center model is being examined as a prototype for off-campus educational centers at other UC campuses.

In addition to the University's regular academic-year offerings, students may enroll in courses through University Extension and during Summer Sessions. The University offered its first Extension courses to students beyond the immediate campus community more than 100 years ago. Since then, University Extension has grown into one of the largest continuing education providers in the country. The University's Summer Sessions, which are not supported currently by the State, offer a broad spectrum of degree-credit instruction, with each campus determining its own course offerings. University Extension and Summer Sessions are discussed more fully in their respective sections of this document.

### **New Faculty Positions and Related Support (\$51,600,000 Increase)**

Funding for enrollment growth is critical to the ability of the University to recruit and retain excellent faculty, which in turn affects the quality of instructional programs, and thus, funding for enrollment remains a high priority for the University. The University's budget plan includes a request for \$51.6 million to support enrollment growth of 6,000 full-time equivalent (FTE) students in 2000-01, growth of about four percent over the current year.

The State provides funding for each additional FTE student added to the University's current budgeted enrollment level based on an agreed-upon methodology (the marginal cost of instruction). For 2000-01, this methodology results in a marginal cost of approximately \$8,600 per FTE student. Based on a student faculty ratio of 18.7 to one, this funding will provide salary and benefits for 320.9 FTE faculty positions and related instructional support, instructional equipment, support for teaching assistant positions, institutional support, and support for libraries and student services. The Appendix contains campuses' actual FTE enrollments in 1998-99 and budgeted FTE enrollments for 1999-2000 and 2000-01.

Display 1 shows what happened to the University's enrollments during the 1990s. Although the early 1990s were a time of dramatic reductions in State funding, with a three-year hiatus in budgeted enrollment agreements with UC, actual enrollments dropped by only three percent. In subsequent years the University's enrollment continued to exceed the level supported by the State. Actual faculty levels in Display 1 are net figures that include faculty resignations and retirements as well as new hires, both permanent and temporary.

Display 1

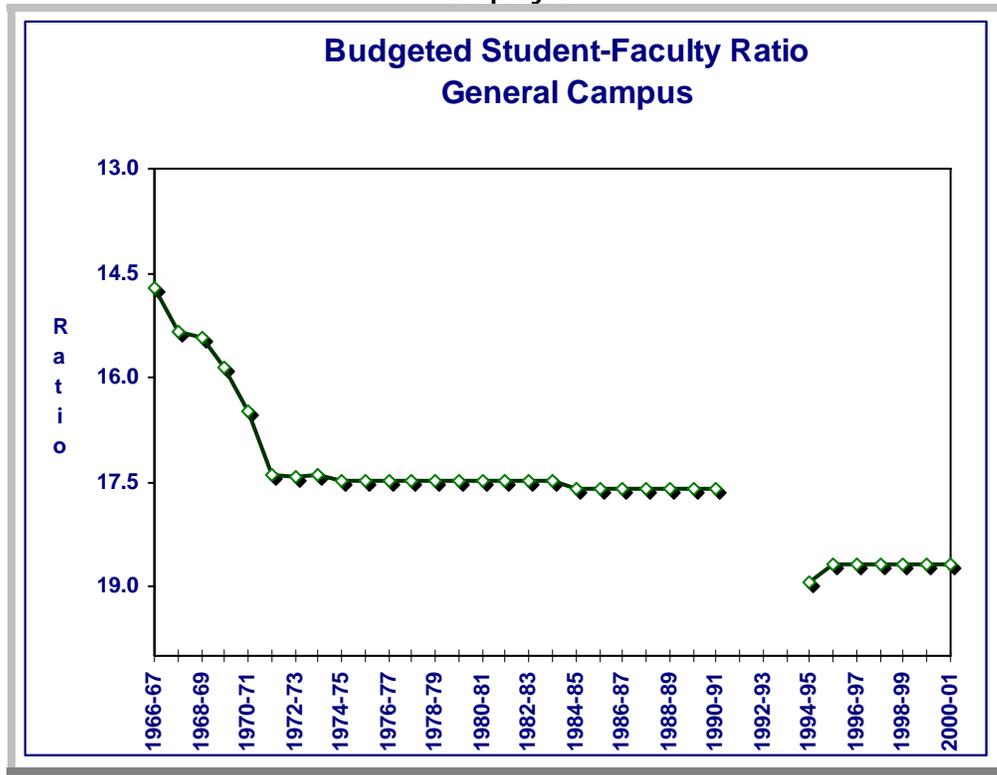
<b>Actual and Budgeted General Campus FTE Enrollment and Faculty</b>						
	<b>Actual</b>			<b>Budgeted</b>		
	<b>Enrollment</b>	<b>Faculty</b>	<b>Ratio</b>	<b>Enrollment</b>	<b>Faculty</b>	<b>Ratio</b>
1990-91	143,344	7,981	18.0:1	142,079	8,067	17.6:1
1991-92	143,808	7,686	18.7:1			
1992-93	141,507	7,620	18.6:1			
1993-94	139,478	7,582	18.4:1			
1994-95	139,415	7,067	19.7:1	137,481	7,260	18.9:1
1995-96	141,522	7,232	19.6:1	138,000	7,380	18.7:1
1996-97	142,783	7,358	19.4:1	139,500	7,460	18.7:1
1997-98	145,534	7,531	19.3:1	141,000	7,540	18.7:1
1998-99	148,856	7,651	19.5:1	147,000	7,861	18.7:1
1999-00 (estimated)	152,400	8,150	18.7:1	152,400	8,150	18.7:1
2000-01 (proposed)	158,400	8,471	18.7:1	158,400	8,471	18.7:1

Throughout the 1990s, University enrollment exceeded budgeted levels, by as many as 4,500 FTE students in 1997-98, and threatened to undermine the quality of the University's academic programs. As the State's economy improved, the State increased its support for the University and provided funding for budgeted enrollment that was above the levels envisioned in the four-year compact. Recognizing that a high-quality education cannot be maintained unless funding is provided to support all eligible students choosing to enroll in the University, the State provided funding for all 152,400 FTE students projected for 1999-2000. Display 1 shows actual enrollment equivalent to this budgeted level. In mid-November, the University will have better information on actual enrollments for 1999-2000. The University expects that actual enrollment may exceed budgeted levels by 500 to 1,000 students.

Throughout the years of budget cuts, the University kept its historic promise to the citizens of California by continuing to offer admission to all eligible Californians applying at the undergraduate level and it managed, through extra efforts of its faculty, to provide quality education. During the first half of the 1990s, enrollment at the University dipped and then returned to about 143,000 FTE students, albeit at a higher student faculty ratio. The University needs to hire new faculty to accommodate planned enrollment growth and to fill faculty positions left vacant by retirements and other separations if the University is to maintain both student access and instructional quality.

Before the cuts of the early 1990s, the University's student faculty ratio was 17.6 to one. In 1994, the University and the Legislature agreed on supplemental budget language to phase in a funding ratio of one faculty position for every additional 18.7 FTE students added to the University's budgeted enrollment.

Display 2



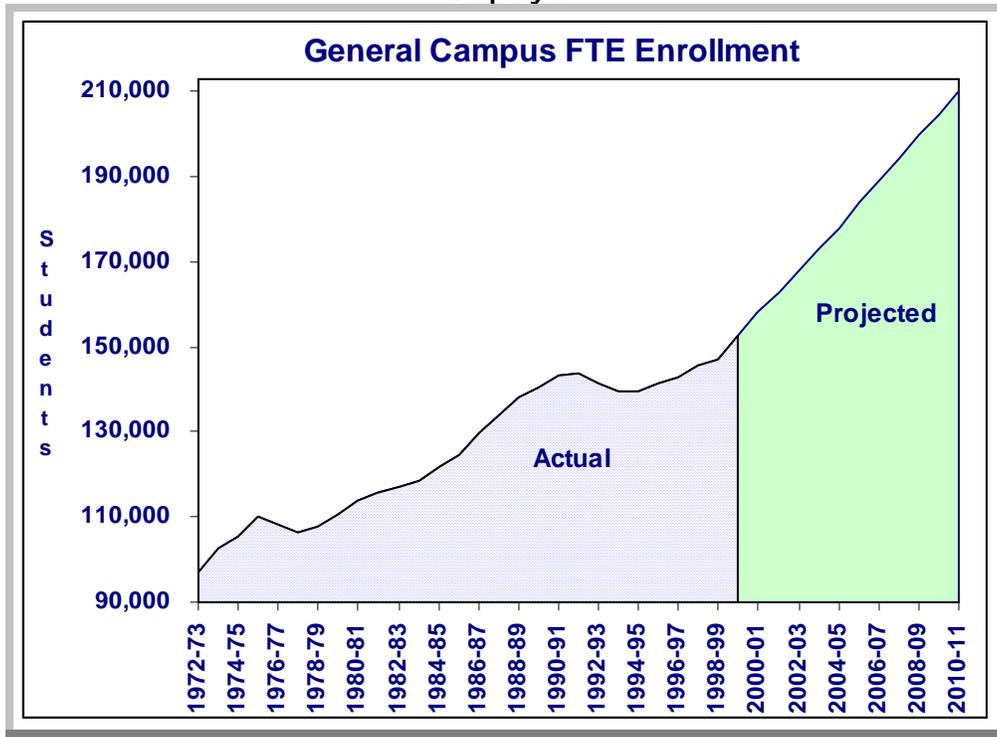
However, the *actual* ratio of students to faculty during the 1990s, which ranged from 18.0:1 to 19.7:1, was much higher than the budgeted ratio shown in Display 2 because the University continued to honor the Master Plan for Higher Education and take more students than were funded by the State. As discussed later in this section, the University's budget plan includes \$6 million to embark on a focused initiative to strengthen undergraduate education. Over time, these funds will be used to move the University closer to the historic student faculty ratio of 17.6 to one.

Based on the latest projections regarding undergraduate enrollment from the Department of Finance and returning UC's graduate enrollment to 18.3 percent of the University's total, UC will need to plan to enroll 210,000 FTE students by 2010-11, growth of 63,000 (averaging about 3% annually) over its 1998-99 budgeted level, as shown in Display 3. Assuming that the Merced campus will accommodate 5,000 students, this projected enrollment exceeds by 24,000 FTE students the capacity of existing campuses as defined by their approved long-range development plans (LRDP) which go through 2005-06.

### ***Initiative to Expand Education Credential Programs***

The University is committed to increasing its role in the training and preparation of K-12 teachers. As the first step in a commitment to more than double the number of students enrolled in credential programs by 2002-03, the 2000-01 budget plan targets enrollment growth of 450 FTE students for education credential programs, an increase of about 50 over 1999-2000.

Display 3



In 1999-2000, the State provided the University with \$500,000 for the planning and development of the Governor's Teacher Scholars Program, a program intended to attract well-qualified students into the teaching profession by offering scholarship support and shortening the time it takes to earn a credential and engage in classroom instruction. In 2000-01, up to 200 FTE students are expected to enroll in this program which will culminate in the award of a credential and master's degree.

When fully operational, the program will enroll up to 400 FTE students, with at least 100 students enrolled at UC Berkeley and 100 students enrolled at UCLA. Participants, who will receive scholarships to cover the cost of their fees, will be required to teach for at least four years in a low-income student populated school; and be required to repay their scholarship assistance if they teach for less than four years.

The University is also in the process of developing the Governor's Principal Leadership Program. The 1999-2000 budget provided \$500,000 for planning and development of the program which, beginning in 2000-01, will offer broad-based training and scholarships to highly talented prospective school principals in exchange for their service as principals in schools which are the most difficult to staff.

When fully operational, the two-year program will serve a total of 400 FTE students. The program will culminate in the award of at least a master's degree (with coursework applying to a doctoral degree), and will be interdisciplinary in design, drawing upon the faculty expertise of a wide variety of professional schools, including the schools of education, law, business and management, and public health. Participants, who will receive scholarships to cover the cost of their fees,

will be required to make a commitment to serve four years as a principal, vice-principal, or other administrator in a public elementary or secondary school, and will be required to repay their scholarship assistance if they leave administrative service before their four-year commitment is completed.

Research on effective schools has repeatedly found that a strong principal is an essential component in school success. However, leading a school is a very challenging career, demanding expertise in a wide variety of areas including business and management, legal issues, and curriculum and instruction. School districts all across California are experiencing a growing shortage of available personnel to serve as principals, partially as a result of the demanding nature of the profession.

In addition to these focused efforts, the University plans to support growth of additional single and multiple credential students in 2000-01, for a total of up to 450 new FTE credential students.

The University takes seriously its increased role in helping the State meet workforce needs in education, especially at a time when additional well-qualified teachers are needed. California's public school population is projected to increase more than 20 percent by 2006-07, according to the California Department of Finance. At the same time, one out of six California teachers is over 55 years of age, which implies that a significant portion of the State's teachers will soon retire. These factors, plus the continued implementation of class size reduction, presage a need for 20,000 to 25,000 new teachers annually, as much as a 50 percent increase from the number of credentials awarded in California in 1997-98.

#### ***Engineering and Computer and Information Sciences Initiative.***

The University's 2000-01 budget plan includes annual growth of about 1,000 FTE students in engineering and computer and information sciences as part of the University's 8-year plan to expand programs in these fields to 24,000 students by 2005-06. The University had committed to a 40 percent enrollment increase, but current planning is for an increase of about 50 percent if resources are available. As a high-technology state, California will increasingly rely on highly educated workers. As a consequence, as much one third of the growth in graduate students that the University is considering could come in engineering and computer sciences.

The University is well recognized for its role in the continued economic growth of the State and has a major role in helping to meet the State's need for a highly trained workforce. Mid-sized California-based companies, as well as small companies and start-ups, the very companies that helped lead California out of the deep recession of the early 1990s, continue to be concerned about the availability of engineering and computer and information science graduates. Large companies share this concern as they seek to achieve a qualified and competitive workforce in an economy that is increasingly based on high technology.

Technology is driving demand for more employees with degrees in these disciplines. The Department of Commerce predicts the nation will need a million more information-technology workers by the year 2005 than will be available. The National Research Council argues that as the country moves further into an

information-based economy, demand will increase from non-engineering employers for engineers and computer scientists. Demand has been deepening not only in traditional employment sectors but also notably from film and entertainment, an industry leader in California's economic recovery. New fields of research in bioinformatics and genomics, nanotechnology, and climate modeling are placing increased demands on the pool of available engineers.

At the same time that California's high-technology industry is experiencing remarkable growth, the number of California degrees in engineering and computer and information science has remained steady. There are not adequate numbers of students to meet industry's workforce needs, as demand continues to outpace supply and the competition for graduates is increasing. Companies are reported to be putting projects on hold because of a shortage of Ph.D. engineers. There is an all-time low unemployment rate of 0.4 percent among electrical engineers in California. Targeting enrollment growth in the engineering and computer and information sciences is an investment in the State's economic future.

### **Instructional Equipment Replacement Program (\$5,000,000 Increase)**

Among the principles of a new partnership being negotiated with the Governor, the State would provide the University with a one percent increase to the prior year's State general fund base with these funds being used to address the permanent budget shortfalls in a variety of critical core areas, including the replacement of instructional equipment. Consistent with this principle, the University's budget plan includes an increase of \$5 million to replace instructional equipment.

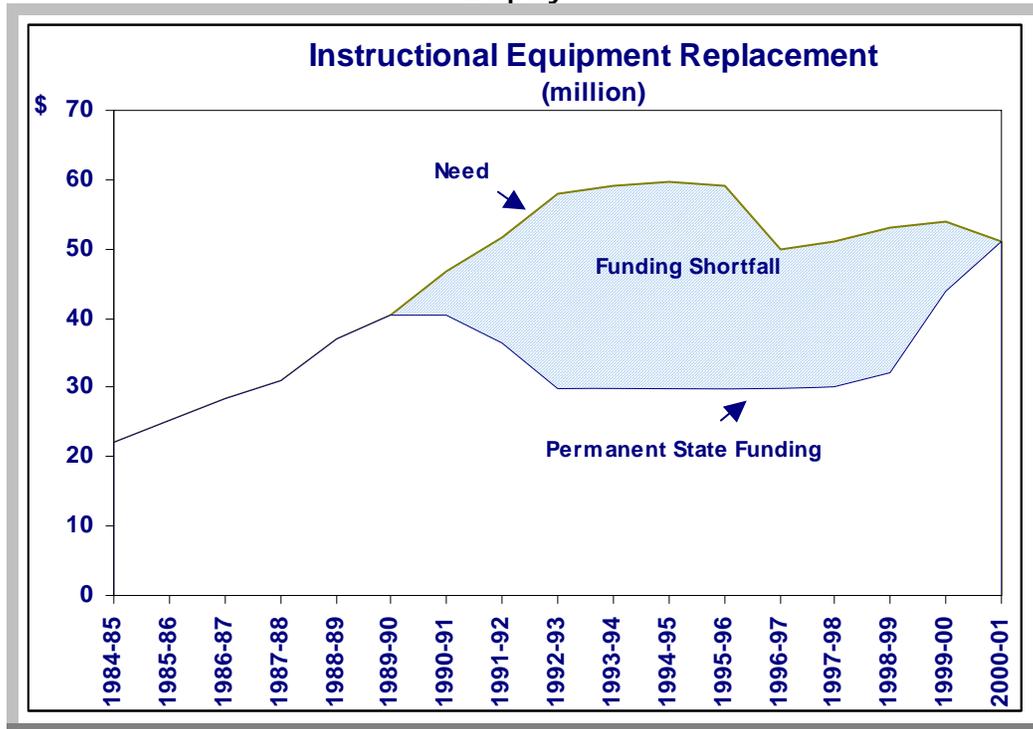
The State began funding the replacement of instructional equipment (IER) in 1976-77, and provided full funding from 1984-85 to 1989-90. State funding fell significantly short of IER need from 1990-91 through 1998-99 when the State provided \$20 million in one-time funds. In 1999-2000, the State provided an increase of \$10.4 million in permanent funds for instructional equipment, which cut the annual funding gap almost in half. The additional funding proposed for 2000-01 should close the gap. Over time, as new equipment is purchased and depreciated the annual need will increase. Because of the years of underfunding, the cumulative shortfall, depicted by the shaded area in Display 4, exceeds \$200 million in 1999.

For budgetary purposes, the University's IER need is defined as the annual depreciation of instructional equipment, such as that used in foreign languages or science laboratories, over the period of its useful life. The life span of most University instructional equipment is from 3 to 15 years and by now much of the equipment still in use is obsolete.

Instructional equipment is essential to maintain the high quality of the instructional program. New equipment is needed in student computer labs; as an aid in teaching presentations; to teach students how to operate the equipment itself, if it is important for them to learn those techniques; and by students who are working with faculty members on research, as part of their academic training. IER funds can be used to leverage extramural funding for equipment that faculty can use in

teaching graduates and advanced undergraduates, as well as in their research.

Display 4



The need for equipment in engineering and the sciences, disciplines which are expected to grow significantly, is especially crucial because laboratory sciences require more instructional equipment; the equipment is more expensive; and technological advances occur more rapidly, which results in a need to upgrade as well as replace existing equipment.

Unless the University can provide high technology instructional equipment, it could lose its best faculty and students to other institutions that can provide the necessary facilities and equipment. This will weaken the University's instructional programs and reduce the University's ability to provide the highly skilled personnel needed for California's high technology industries.

### **Instructional Technology Initiative (\$8,000,000 Increase)**

The University will need substantial increases in funding to address the growing importance of technology for instruction. From the one percent increase in funding committed to addressing the permanent shortfalls in core budget areas, the University's 2000-01 budget plan proposes to increase permanent funding for instructional technology by \$8 million. Although this increase is significant, the University continues have a substantial gap between need and available funds.

In 1997, the University developed a preliminary quantitative model to estimate costs of instructional technology at UC. Based on this model, the cost to the University for instructional technology in 1996-97 was estimated to be

approximately \$136 million, funded by the State, internal budgetary reallocations, one-time extramural grants, gifts, and miscellaneous sources.

According to the model, a minimum increase of \$50 million over the 1996-97 base would be required to provide a modest upgrade in instructional technology, based on then-current planning and enrollment and cost levels. Beginning in 1997-98, the State began to fund this need, and by 1999-2000 had provided \$21.1 million in additional funding for instructional technology.

### ***Technology is Critical to Maintaining the Quality of Academic Programs***

Technology dramatically improves data handling, process simulation, problem solving, creative presentations, and communication. New technologies are making possible unprecedented interaction with primary data and are enabling complex networks of communication among students and faculty. For students, these technologies create opportunities to grapple with real data and real problems early in their learning careers, linking them directly to the research enterprise.

Participation in the research process and the mastery of the skills and analytical rigor that it engenders will be lifelong assets for graduates who seek professional opportunities and advanced degrees in any field.

In just the past few years, digital applications have become so powerful and pervasive that faculty, students, and instructional staff risk being isolated from the academic mainstream if they do not have ready access to such electronic capabilities as e-mail, Web browsers, electronic journals and data banks, word-processing, and spreadsheet applications. Technological competence is an essential skill for students to succeed in an information-based economy. For the University to compete for the best students and ensure they are able to benefit fully from the applications and services made possible by technology, continuing investments are required not only in infrastructure but also in technical support for faculty, staff and students so that these new systems can be used effectively.

The use of information-based technologies to manage the curriculum and maintain the quality of instructional programs became increasingly significant beginning in the early 1990s. Today, academic departments across the UC system are using electronic means to communicate with their students via the use of e-mail and the Web to disseminate information on departmental policies and procedures, major and minor requirements, lectures, fellowships and internships, events and class scheduling. Even students studying abroad receive rapid responses to their requests for advice.

Information technology also has improved students' access to course material. In 1996-97, for example, the College of Letters and Science at UCLA launched a program to provide a Web site for every undergraduate course in the College. Most Web sites include the course syllabus, instructor data, links to the library, bulletin boards, and other items such as online quizzes and lecture notes.

Some Web sites are significantly richer. For example, one course Web site contains an online gallery of interactive student artwork. Another faculty member in a Department of Asian American Studies asked each of her students to contribute an oral history of an Asian immigrant. Each oral history included a brief digitized video of the interview subject, an audio excerpt from the interview, a map showing the

subject's migration route, and a timeline that placed the immigrant's life in the context of Asian history.

Such experimentation is underway in classrooms across the UC system. UC Riverside, for example, has installed an interactive electronic whiteboard in a general assignment classroom. Infrared lasers continuously scan the writing area and transfer the handwritten data to a Web site for students to access. Campuses are putting entire courses on the Web and organizing students in the class into a virtual "chat room" discussion section.

The Web has also facilitated placement testing, section quizzes and other forms of assessment. UC Santa Cruz, for example, is using online placement exams in its language and chemistry programs and working to expand this to mathematics, biology and writing. The Department of Linguistics at UC San Diego has put many quizzes and midterms on the Web while a faculty member in Anthropology has developed a Web-based system for creating self-correcting quizzes.

Across the UC system programs are being developed to help faculty introduce new instructional technologies into the classroom. UCLA has established the Media Center to support faculty with instructional projects. Hundreds of faculty have attended workshops on integrating multimedia slide shows and the Web into classroom teaching. UC Davis has created the Arbor, which offers a range of services including consultation, workshops, seminars and guest speakers, to assist faculty with instructional technology. In 1997-98, the Arbor served 193 faculty, enhancing 250 courses that affected over 6,000 students.

Faculty who utilize information technology in their teaching depend on classrooms with state-of-the-art technology. However, campuses have a shortage of connected classrooms. At UCLA, for example, only about one-half of the 196 general assignment classrooms are connected to the Web.

UC campuses use technology to collaborate. UCLA, for example, has provided eleven courses that were electronically received by five other UC campuses (Irvine, Riverside, San Diego, Santa Barbara, and Berkeley). UC Santa Cruz and UC Davis jointly offered Hebrew instruction via distance learning. Two professors in Nuclear Engineering at UC Berkeley collaborated with instructors at UC San Francisco to teach a new course on the *Physics of Medical Imaging* for undergraduates.

### ***Recurring Costs of Technology***

The main benefits of technology are improvements in quality, depth and complexity of what students can learn – benefits that are difficult to quantify. There is a price tag that accompanies these improvements and, rather than reducing costs, the use of technology can increase or shift costs. Academic initiatives that make use of digital technology rely on an extensive infrastructure that is expensive to develop and maintain.

The University plans to increase funding every year to help narrow the gap between current funding from the State plus what the University has allocated from other fund sources, and what is needed in the longer term. From a budgetary standpoint, the key challenge is to view closing the gap between current and needed expenditures not as a one-time expenditure but as a permanent commitment to

staying abreast of evolving technology and its relationship to higher education in the 21<sup>st</sup> century.

Display 5

***Instructional Technology Expenditure Categories***

<b>Category</b>	<b>Definition</b>
<i>Computer Labs</i>	Workstations and software in student computer labs; training and direct support for students in labs
<i>Classroom Improvements</i>	Computers installed in classrooms; classroom connections to campus network; audiovisual and multimedia support
<i>Workstations and software for faculty and staff</i>	Workstations and software in faculty and staff offices used to support the instructional program
<i>Curricular Development</i>	Grants to faculty to introduce technology into courses
<i>Instructional Support</i>	Technological support for class Web sites and computer workstations; faculty computer training and help
<i>Instructional Infrastructure</i>	Resources to support e-mail and network access (students and faculty)
<i>On-line Access to Instructional Resources</i>	Access to databases, library materials, and other instructional resources

Every component of the instructional technology infrastructure is a recurring expense. Hardware must be replaced and upgraded regularly, although it is a decreasing portion of instructional technology costs. Software requires major expenditures as well, both for new applications and for upgrades of applications already in use. Technical staffs are required to run and maintain networks and workstations. The need for training and technical support staff continues to grow exponentially as the use of technology spreads through more and more day-to-day teaching and learning activities.

Each UC campus has a consultative process in place to develop and implement plans that meet its distinctive priorities and needs. These priorities and needs can be organized into seven categories as described in Display 5.

Of the State funds provided for instructional technology, about one-third is being spent to expand and upgrade computer labs, about 20 percent to add computers to classrooms, about 25 percent on curricular development and instructional support, and the balance on instructional infrastructure and on-line access to instructional resources.

***Future Needs***

The largest component of the gap between today's expenditures and what would be required to support use of advanced technology in every classroom and teaching encounter is the provision of adequate technical support staff. In 1996-97, there was one technical support staff for every 100 faculty and staff who use computers.

That ratio needs to be cut to 40:1 at the same time that support to students is substantially improved. Without adequate training and support, faculty cannot take full advantage of their workstations or use the technology in their courses.

For technology to be integrated fully into the curriculum, the ratio of students to computer lab seats would need to drop significantly, from 14 students for every seat to a ratio of 8:1. Also, workstations would need to be replaced more frequently – every three years in the most optimistic case, compared with over four years today – to keep pace with the opportunities afforded by changing technologies. Most classrooms would need to be connected to the network and equipped with projection and other equipment to make group work feasible in class meetings.

### **Strengthening the Quality of Undergraduate Education (\$6,000,000 Increase)**

The University is committed to preserving student access as defined by the California Master Plan for Higher Education. Access remains meaningful, however, only if it provides the opportunity for a quality education and leads to a university degree that continues to enjoy broad recognition and respect. Thus, the University's budget plan for 2000-01 includes a request for \$6 million, as the first step in a multi-year plan, to strengthen the quality of undergraduate programs. Over time, the goal is to provide \$50 million in permanent budget support which is equivalent to the funding that would be needed to restore the University's student faculty ratio to its historic level of 17.6 to one.

In addition to providing students with the courses they need to graduate in a timely manner, a quality education depends on providing students with the opportunity for more personal contact with faculty. Thus, strengthening the quality of undergraduate programs could take many forms ranging from hiring additional faculty with the goal of reducing class size and offering additional seminars or tutorials; providing undergraduates with increased opportunities to work with faculty on their research projects; providing additional instructional support to academic departments and faculty; and increasing academic advising for students.

Before the cuts of the early 1990s, the University's student faculty ratio was 17.6 to one. In 1994, the University and the Legislature agreed on supplemental budget language to phase in a funding ratio of one faculty position for every additional 18.7 FTE students added to the University's budgeted enrollment. This represented a further deterioration in the budgeted ratio, continuing the erosion that began in the 1960s. The University's student faculty ratio compares unfavorably to its eight comparison institutions, which average 17 to one at the public institutions and 10.4 to one at the private institutions. Improving the student faculty ratio, one important indicator of quality, is a high priority to The Regents.

To maintain its commitment to the Master Plan for Higher Education in the face of enormous enrollment growth in a relatively short period of time, since 1994-95 the University has enrolled more students than were provided for in the budget, resulting in a student faculty ratio that has been hovering close to 19.5 to one,

rather than the lower budgeted ratio of 18.7 to one.

Despite this, UC faculty have worked hard to provide required courses and to sustain interaction with undergraduate students. The average 1997-98 primary-class teaching load has increased 12.1 percent since 1990-91. This faculty commitment is the most important factor that has made it possible for the University to preserve its instructional program through the worst of the budget shortfalls, and, with renewed budgetary stability, to begin to prepare for the future. One outcome of this proposed funding initiative is that, over time, campuses would be able to improve the student faculty ratio by hiring additional faculty in the traditional ways or, for example, by implementing a proposed Faculty Fellows Program. The proposed Faculty Fellows Program would enable campuses to provide UC Ph.D.'s with appointments that offer mentored training and experience in the design and conduct of instructional courses and research. Both of these patterns will increase undergraduate students' access to faculty.

Programs that enhance faculty interaction with undergraduates exist on all campuses. For example, in 1997-98 UC Berkeley enrolled nearly 2,000 students in freshman seminars. Last year UC Davis enrolled about 650 students in 15-student freshman seminars. Some departments at UC San Diego now require all faculty to teach a freshman seminar. The College of Letters and Science at UC Santa Barbara offers small seminars through its freshman seminar program. Faculty who teach large introductory courses also teach discussion sections for honors students enrolled in these courses. UC Santa Cruz requires entering freshmen to take a seminar course in their college. These courses are designed to enhance students' powers of critical thinking and analysis and to provide them with a setting in which to express effectively their opinions orally and in writing.

While faculty commitment to small seminars remains strong, the faculty resources needed to expand these efforts have been limited. Current student faculty ratios tend to create large classes and decrease the chance for one-to-one contact in independent studies and opportunities for small group seminars.

Campuses may also choose to provide undergraduate students with greater opportunities to participate in research. Recently, the Boyer Commission Report, *Reinventing Undergraduate Education: A Blueprint for American Research Universities* drew the nation's attention to the problems and potential strengths of the research university. The report's defining recommendation is that research universities like those in the UC system should make research-based learning the standard.

UC currently offers undergraduate students many opportunities to participate in research as members of research teams in laboratories across many disciplines, and through conducting independent research under close faculty guidance on senior thesis and other extended analytical writing projects. Funding from the State would enhance the depth and breadth of the undergraduate experience in research in a number of ways, all characterized by increasing the interaction between faculty and undergraduate students.

Undergraduate education at the University could also be strengthened with

increased investments in academic advising or providing academic departments and individual faculty with increased instructional support. Such funds would be used, for example, to facilitate the offering of more small discussion sections in large courses, for one-to-one and small group tutoring to help students master class assignments, and to assist faculty efforts to develop electronic enhancements of traditional classroom learning experiences.

### **Santa Clara Valley Regional Center (\$2,500,000 Increase)**

In addition to the funding levels anticipated in a new partnership agreement with the Governor to support the University's basic budget, the University is requesting an increase of \$2.5 million to begin development of an off-campus center in the Santa Clara Valley, an important step in the University's long-range planning efforts to expand outreach programs with K-12 schools and students, accommodate projected enrollment demand, and increase collaborative research with industry.

The Center, which would build upon the instructional efforts of UC Santa Cruz, such as the computer engineering program that is delivered simultaneously on campus and in Cupertino using video conferencing and other distance education technologies, would enable the University to begin offering programs in the fall of 2000.

An important component of the Center currently being discussed is the Santa Cruz Academy, which, in cooperation with local colleges, could provide undergraduate courses tailored to the needs of students from the Santa Clara Valley. It eventually could offer graduate programs for working professionals and teachers.

While the Center is one of several strategies to help the University accommodate projected enrollment growth, the Center would also be used to: (1) provide coordinated academic outreach for students from high schools in the Valley, focusing on those schools that do not currently send many students to the University; (2) offer University Extension courses; (3) offer graduate-level programs such as the newly-created Masters in Advanced Studies (M.A.S.) targeted at working professionals or teacher training; and (4) facilitate collaborative research efforts with industry and provide new research and internship opportunities for students.

The \$2.5 million represents the initial funding needed to develop the Santa Clara Valley Regional Center and will be used in several key areas, including support for core staff and academic administration; academic program development, including coordination with the California Postsecondary Education Commission (CPEC); physical planning activities including facilities planning and associated environmental impact assessments; the initial increment of operational, business and technical services; outreach; as well as leasing costs, tenant improvements and start-up funds for equipment to adapt classrooms with technology to accommodate distributed learning.

## **The University of California, Merced**

Development of the tenth campus in Merced is part of the University's strategy to increase its enrollment capacity and provide the benefits of a research university to Californians in the San Joaquin Valley. The University expects to enroll its first on-campus students in fall 2005, with 5,000 students projected to enroll by 2010. The Merced campus is critical to the University's longer-term ability to accommodate projected enrollment growth of about 40 percent over the next decade.

The State has provided \$9.9 million in the University's base budget for planning and start-up costs associated with academic programs to be offered in the San Joaquin Valley and planning, start-up costs and ongoing support for the Merced campus. This core funding will be used to continue the development of academic programs, site planning, including the long-range development plan and associated environmental analyses; support for initial campus staff and faculty; and other one-time development costs. An additional \$1.5 million in one-time funding was provided in 1998-99 to establish distributed learning centers for on-site and distance learning instruction. In addition, the State provided \$400,000 to help the County of Merced with its planning efforts associated with the development of the new campus.

In July 1999 The Regents appointed a Chancellor who will guide the early academic and physical planning of the campus, as well as recruit the founding faculty. The Chancellor is moving forward with space plans to relocate staff and to bring services to Merced. Consistent with the intent of the Legislature, the campus is in the process of identifying a facility in Merced to accommodate faculty and staff prior to the opening of the campus in 2005-06.

Preparation of the Long-Range Development Plan (LRDP) and the associated environmental impact report (EIR) for the Merced campus is underway. The LRDP will establish the character of the campus and the physical development needed to support academic and student programs for an ultimate capacity of 25,000 students. The requirements of the first phase of development to support 5,000 students will be defined during the LRDP process and a master plan for utilities, infrastructure, and roads will be completed during this same period. This master planning phase is targeted for completion by late fall 2000 or early winter 2001. The development of the LRDP is being closely integrated with the development of the University Community Plan for the 8,300 acres adjacent to the campus. The County of Merced is preparing the Community Plan on a parallel schedule to the LRDP, and the University and the County are jointly preparing a wide range of site studies for both areas.

The University's 2000-01 Budget for Capital Improvements outlines the preliminary five-year capital funding schedule for the Merced campus, including projects required to open the campus for instruction in fall 2005. This plan will be refined during the year as master planning for the campus proceeds. A request for \$14.3 million is included in the 2000-01 budget plan to provide funding for the initial set of capital projects for the Merced campus. This includes design and construction funding for the first increment of site development and infrastructure, and preliminary planning funds for the first two academic buildings, the Science and

Engineering Building and the Library/Information Technology Center.

### **Long-Range Enrollment Planning: 2001 through 2010**

UC's undergraduate enrollment planning is based on a commitment to access under the Master Plan for Higher Education, which provides that the top 12.5 percent of California public high school graduates, as well as those transfer students from the California Community Colleges who have successfully completed specified college work, are eligible for admission to the University. Graduate and professional enrollment planning is based on assessments of State and national needs, program quality, and available financial support for students.

The University is planning for enrollment growth of about 63,000 FTE students, average annual growth of about 3 percent, over a 12-year period (1998-99 through 2010-2011). Assuming UC Merced will enroll 5,000 FTE students, this projected enrollment exceeds the capacity, as defined by current Long-Range Development Plans (LRDP), which go through 2005-06, of the existing nine campuses by about 24,000 FTE students.

The University is pursuing a number of options to address enrollment growth. In its February 1999 report to The Regents, UC identified a range of options to expand undergraduate capacity, including more intensive use of facilities during the summer, off-campus centers, changes to the instructional schedule, increasing LRDP enrollment levels at one or more existing campuses, and developing an eleventh campus.

This past year, the Legislature adopted supplemental budget language asking the University to look at the costs and benefits of year-round operations as one strategy to address projected enrollment growth:

*It is the intent of the Legislature that the California State University (CSU) and the University of California (UC) conduct feasibility studies to examine the advantages and disadvantages of implementing year-round academic programs as one means of helping to accommodate significant projected enrollment growth over the next 10 to 15 years and improving student progress to degree. The segments' feasibility studies should include consideration of the cost-effectiveness of implementing YRO in a higher education setting and the degree to which YRO can help expand access to higher education, reduce time-to-degree, and maximize the use of existing instructional facilities. The feasibility studies shall include consideration of the complexities involved in implementing year-round operations and recommendations for the resolution of identified problems, such as the impact on the segments' capital needs, scheduling routine, and deferred maintenance that usually occurs during low-occupancy periods, student housing, and the implications for current campus long-range development plans, among other issues. The segments' studies should also include consideration of incentives that should be implemented to encourage*

*students to attend school year round.*

*The segments' feasibility studies should be based on at least the following assumptions:*

- *Campuses shall be of sufficient size to warrant the addition of a summer term; new campuses, small campuses with enrollments of less than 5,000 full-time equivalent students, and off-campus centers shall create sufficient academic infrastructure, both in terms of instructional facilities and teaching capabilities, before implementing significant year-round academic programs.*
- *Input should be received from interested groups, including students, faculty, and staff, regarding the implementation of year-round academic programs.*
- *The segments should maintain flexibility to implement year-round academic programs differently on individual campuses, recognizing the differences in circumstances among the campuses.*
- *That fees charged to students attending state-supported summer programs shall be equivalent to the fees paid during the regular academic year.*
- *The state will provide adequate resources to support existing summer enrollments and all enrollment growth and maintain the quality of academic programs, regardless of the term in which it occurs based on the agreed-upon marginal cost of instruction, as well as funding for plant maintenance and utility costs associated with increased facility usage, capital outlay support to provide adequate space for classrooms, class laboratories, faculty offices, instructional support, and research in accordance with appropriate standards.*
- *The state will provide financial aid, similar to that provided in other academic terms, to summer-term students in order to ensure accessibility and affordability.*
- *Assume that important public service programs, such as summer outreach, teacher training, new student orientation, and extension programs should be included in estimates of utilization of facilities and should not be displaced by implementation of state-supported summer programs.*

*Further, it is the intent of the Legislature that the CSU and the UC each submit their feasibility studies on or before April 1, 2000, to the Governor, the Department of Finance, the Joint Legislative Budget Committee, the appropriate policy committee and budget subcommittees of each house of the Legislature with higher education subject matter jurisdiction, the Legislative Analyst, and the California Postsecondary Education Commission.*

A report will be provided to The Regents by March 2000 and then to the Legislature in April 2000 that looks at the strategy of year-round operations within the context

of the myriad strategies that may be pursued to accommodate projections of sustained enrollment growth through 2010.

The University is very concerned that there will not be sufficient capital resources to support the renewal and modernization of existing facilities and to accommodate growth. The University has already recognized that the State would not be able to meet the full annual capital outlay needs, estimated to be about \$500 million for state-supported facilities, and has committed to meeting a portion of this need through private fundraising and by using a portion of the *increase* in UC general funds to pay for debt service on long-term financing (the decision to use up to \$6 million a year in the increase in nonresident tuition for this purpose is described in the Operation and Maintenance of Plant section later in this document). The University is concerned that the \$210 million per year in State funding that is currently available for capital outlay as a result of the voters approving a general bond measure for public higher education in November 1998 will leave a number of the campuses short of adequate space needed to accommodate projected enrollment growth.

### **Graduate Academic and Professional Enrollment**

While the University fully intends to meet its commitment to accommodate all eligible California undergraduates who choose to attend, graduate enrollments in high quality programs are also essential to the State's economic development. The University has been reexamining the future of graduate academic and professional education at the University of California, and presented its findings in its February 1999 report to The Regents: *Educating the Next Generation of Californians in a Research University Context*.

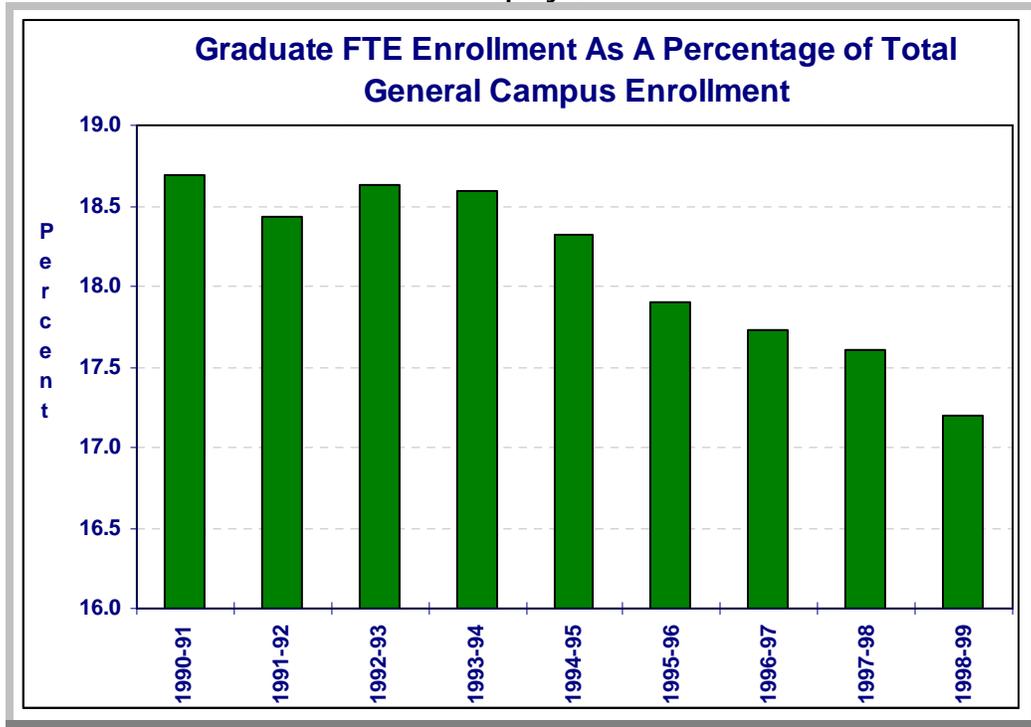
UC graduate programs are of the highest quality as measured by national rankings, high selectivity, strong placement records, and unrivaled federal research support. More than one-third of all UC doctoral programs rank in the top ten nationally. Job placement of new UC Ph.D. recipients exceeds national rates.

Despite high quality programs and strong student demand, enrollments in the University's graduate programs are lower today than they were a decade ago, both in number and percent of total enrollment. Compared to other states, California educates a very low proportion of graduate students, falling in the lower third of all states in terms of graduate students per state resident aged 25-64 and per state resident with a bachelor's degree. California is one of only five states in which graduate enrollments have declined in the last decade.

Currently, 17.2 percent of the full-time equivalent students on UC general campuses are enrolled at the graduate level, a substantial drop from 18.7 percent in 1990-91. Most of the decrease in percentage of graduate students was due to

substantial growth in undergraduate enrollment compared to the modest increase in graduate enrollment.

Display 6



Several factors are driving the need for growth in graduate enrollment:

- As a high-technology state, California will rely on more highly educated workers. As a consequence, as much as one-third of the proposed UC enrollment growth could come from engineering and computer science programs.
- U.S. and state economies are spurring enrollment growth in non-science areas, with emphasis within UC, for example, on curriculum related to management of high-tech business and digital arts programs. The service sector, which now outpaces manufacturing in the U.S. economy, requires more technical expertise than ever before because of the advent of computers and the flood of available information.
- California's future is tied to its leadership role in an international economy, particularly focused on the Pacific Rim.
- California and the U.S. face many social and economic challenges. UC campuses are proposing growth in programs that will benefit K-12 education and will address challenges arising from immigration, poverty, health care, crime, urbanization, and the environment. Drawing on their own research strengths, campuses are expanding and developing programs that will benefit their regional economy and social and cultural environments.

- Graduate student growth proposals assume modest increases in demand for college and university faculty across the U.S., although lower than projections made a decade ago. UC Ph.D.'s comprise more than 20 percent of the faculty in both UC and CSU. With large enrollment growth projected for both systems, many additional UC Ph.D.'s will be needed to teach the State's college students. In addition, the University plans to expand its K-12 credential programs as well as preparing more faculty for teacher education programs throughout the state.
- Especially as undergraduate enrollment growth continues, growth in graduate enrollments is necessary to maintain the University's excellence in research and education, distinctly part of UC's mission. More graduate students will be needed to enable campuses to recruit and retain the highest quality faculty, maintain University research productivity, and preserve the overall research environment that characterizes UC campuses at both graduate and undergraduate levels.
- Indications are that the University's graduates fare well in the job market. California companies indicate the need for more graduates with master's and doctoral degrees from California universities. California's economy, demographics, and social structure differ from the rest of the nation, and there are more opportunities and needs for a highly educated population. UC graduates are successful in finding employment due to the high quality of their degrees. Campuses are proposing to direct substantial graduate growth toward master's education, where many new opportunities are emerging.
- Graduate education is already the University's most effective technology transfer mechanism. This role will become more important, as emerging industries continue to locate near UC campuses in order to capitalize on collaborations with faculty and graduate students and to be near sources of future employees.

### **Accomplishments Under the Compact with Higher Education**

In January 1995 the Governor proposed a four-year compact with higher education designed to provide the University and California State University with a framework for budgetary stability. Both the State and the University have more than honored their commitments in the compact. The University has focused on maintaining access for qualified students, providing the classes students need to graduate in a timely manner, and working cooperatively with other segments of higher education. The University takes these commitments seriously and is proud of its accomplishments which include:

- Consistently meeting and exceeding the enrollment goals of the compact;
- Improving time to degree and graduation rates which have never been higher;
- Providing required courses, partly through increased faculty teaching efforts, and ensuring that there are no institutional barriers that prevent students from moving quickly through their programs;

- Improving the University admission process for both freshman and for transfer students by utilizing technology in the creation of Pathways and ASSIST, Web-based application assistance.
- Increasing transferability of courses between the other segments and the University through such efforts as expanded counselor training institutes, transfer center programs, and transfer information such as that offered through ASSIST's Web site;
- Offering more joint activities, including doctoral programs, with CSU; and,
- Making productivity improvements totaling more than \$40 million.

### ***Student Access***

The University is maintaining its commitment to the Master Plan for Higher Education to provide a place on one of the UC campuses to all eligible California applicants who wish to attend, and in most years has enrolled more students than funded by the State. Campuses received applications for fall 1999 admission from over 55,400 California high school seniors. Of those admitted, more than 27,000 California high school graduates are planning to attend the University, an increase of about 5.7 percent from 1998.

The University continues to examine and refine its admissions process to ensure that there are no barriers to all eligible students. One effort to maintain access is Pathways, the University's Web-based application and advising system. Pathways allows prospective applicants to access up-to-date, detailed campus information via the Web, receive admissions and financial aid information, and complete their application for admission on the Web.

### ***Timely Graduation***

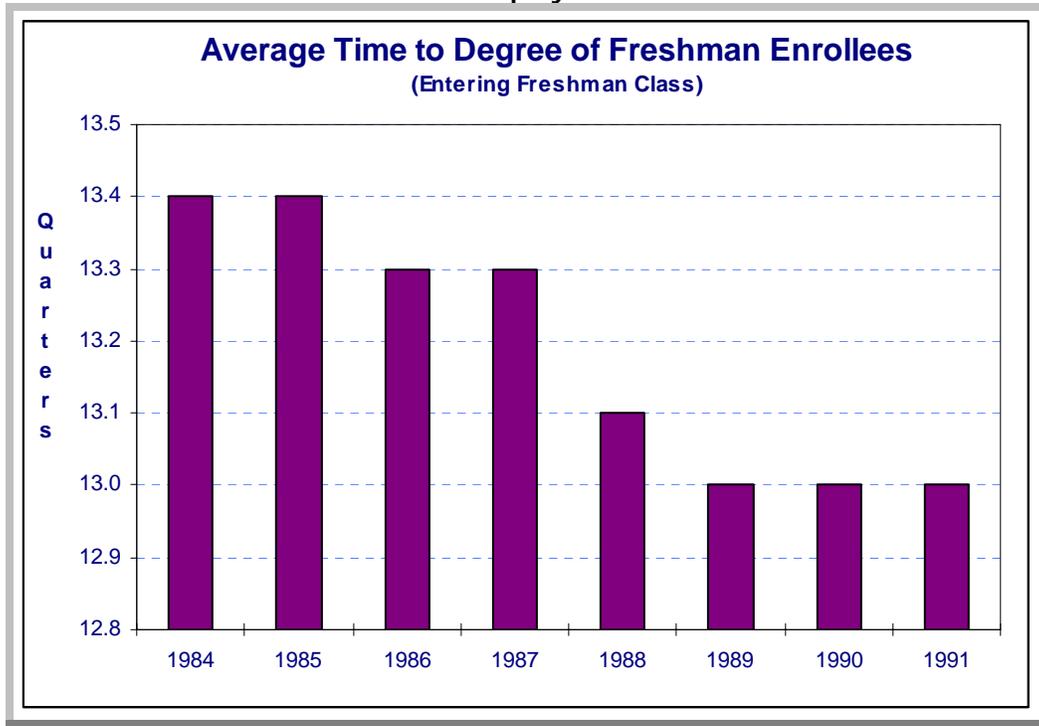
In the 1950s, only half of the University's new freshmen graduated within six years following matriculation. Today, more students are graduating, and they are graduating faster. Four-year graduation rates have improved from 31 percent of the 1984 entering freshman class to 37 percent of the 1993 freshman cohort. Those who do not graduate in four years typically require only one more academic quarter to earn their degree, as reflected by the fact that 69 percent of the 1993 entering freshman class received a baccalaureate degree within five years, up from 67 percent of the 1984 entering freshman class. Also, three-quarters of those students who transfer to the University from the California Community Colleges will earn a UC baccalaureate degree within four years.

Persistence rates – the proportion of an entering class of students who return to enroll in their second and subsequent years – also have shown gains over the past decade. The proportion of freshmen who returned to enroll in their second year increased from about 88 percent of the 1984 cohort to 92 percent of the 1997 cohort. Two-year persistence increased from 76 percent of those entering in fall 1984 to 84 percent of those entering in fall 1996 (the most recent data available).

The University continues to have a good record with respect to the amount of enrolled time it takes a student to complete an undergraduate program. As shown

in Display 7, time to degree has dropped from 13.4 enrolled quarters (where a four-year degree equals 12 quarters) for the 1984 entering freshman class to 13.0 for the 1991 freshman cohort (the most recent data available).

Display 7



All eight of the general campuses have implemented “finish-in-four” plans which have as their primary goal the provision of information to students that will enable them to make plans and decisions which will result in completing a degree in four years. Finish-in-four initiatives are only one of several actions that the University has taken to enable students to complete their degrees in a timely fashion. Some campuses have recently undertaken systematic examinations of all of their student advising systems. Campuses continue to ensure course availability by sustaining increases in faculty teaching effort, creatively managing the curriculum and its delivery, recalling retired faculty, using technology, and cooperating across campuses deliver instruction.

In March 1999, the University submitted its sixth annual report to the Legislature titled *Undergraduate Instruction and Faculty Teaching Activities*. The report describes faculty efforts to maintain and improve the quality of undergraduate education even in a constrained budgetary context. UC faculty have worked hard to provide required courses and to sustain interaction with undergraduate students. The average 1997-98 primary-class teaching load has increased 12.1 percent since 1990-91. In the final analysis, this faculty commitment is the most important factor that has made it possible for the University to preserve its instructional program through the worst of the budget shortfalls, and, with renewed budgetary stability, to begin to prepare for the future.

### ***Intersegmental Cooperation***

At the graduate level, the University has established several joint programs with the California State University (CSU). A wide range of UC academic departments collaborate with CSU in the California Pre-Doctoral Program, which encourages CSU's best master's degree students to pursue doctoral training at the University. Various UC and CSU campuses offer joint doctoral programs in education, public health, and geography. For example, UC Davis and CSU Fresno offer a Joint Doctoral Program in Educational Leadership. Other joint programs have been established between UC San Diego and San Diego State University, UCLA and Los Angeles State University, UC Berkeley and San Francisco State University, and UC Santa Barbara and San Diego State University.

The University and CSU are proposing to develop improved collaborations in doctoral training. Such collaboration would offer specialized degrees that might not otherwise be possible, enhance opportunities for joint research projects, improve outreach to segments of the population that are underrepresented in graduate studies, and allow sharing of instructional resources in support of graduate study. Collaboration would be based on two models. In disciplines where CSU has an existing Master's program and UC has a complementary Doctoral program, students would move along an integrated path from the CSU master's degree to the UC doctoral degree. A second model has UC and CSU faculty jointly offering the graduate program throughout the student's tenure.

UC Merced is developing distributed education centers that feature arrangements with other institutions of higher education in the Valley. The UC Center in Fresno is the first of the UC Merced network of distributed education centers. A second center, the Merced Tri-College Center, opened in February 1999. At this center, UC Merced, CSU Stanislaus and Merced College share classroom and office space. A third center will open in Modesto in fall 1999 and a fourth is being planned in Bakersfield.

At the undergraduate level, a number of UC campuses have developed programs with CSU and the Community College System. UC Davis, for example, encourages its students to enroll in Spanish at CSU Sacramento and Sacramento City College. It also continues its cooperative agreement with Sacramento City College to teach remedial courses in English and math and has expanded that to include a remedial course in chemistry.

UC Santa Barbara has developed a three year bachelor's degree and accelerated learning program with Santa Barbara City College and two local high school districts that allows local high school students to complete up to one year of college while still in high school. Students in the College of Engineering at UC Santa Barbara also participated in a summer internship program offered in conjunction with Santa Barbara City College.

Systemwide, the University and the California Community Colleges (CCC) have entered into a Memorandum of Understanding (MOU) which seeks to increase the number of CCC students transferring to the University. The MOU sets a target of 14,500 new CCC students transferring to the University by 2005-06, up from about 10,200 students transferring in 1997-98. The MOU calls for joint efforts to improve

information and services to CCC students intending to transfer to the University. Increased outreach, a more seamless financial aid system, more data sharing between the systems, and strengthened academic advising will help increase the numbers of transfers to the University. The 2000-01 budget includes a proposal for outreach to the CCCs that is discussed in the Public Service section of this budget.

UC and CCC have many collaborative efforts, which help students successfully manage the transfer process. Currently, the University provides; (1) transfer-specific training institutes for CCC counselors; (2) expanded articulation with the CCC through inter-institutional transfer agreements; (3) increased access to transfer information to students throughout the State; and (4) co-sponsorship of the Transfer Center Program.

To make sure that up-to-date and accurate information about transfer preparation and application are widely available at CCC, the University (in cooperation with CSU) sponsors in the fall the *Ensuring Transfer Success* Counselor Institute and each spring several intensive two-day workshops exploring all major aspects of the process. Experts from each UC campus and from the system office discuss recent changes and trends in transfer application and enrollment, provide detailed campus-by-campus information on how to prepare for specific majors, explain the University's financial aid process, and explore new developments in articulation and use of technology to keep abreast of changes on a regular and frequent basis. The University is currently working to develop common transfer requirements for certain majors that would apply across all UC campuses.

Most UC campuses now offer "contracts" to individual CCC students that guarantee the student a space after the successful completion of a prescribed set of courses. For many students this "contract" helps to set goals and inspires confidence that their good efforts will be rewarded, which in turn promotes higher achievement.

All 106 CCCs receive a complete review of their entire curriculum every year, identifying which courses will provide academic credit that meets requirements for transfer to the University. Also, all UC campuses use the Intersegmental General Education Transfer Curriculum (IGETC) which satisfies all UC general education breadth requirements, and allows transferring students who complete the CCC curriculum to enroll in courses for their major upon entry to the University, reducing their time-to-degree significantly. Recent changes will facilitate transfer students' ability to meet IGETC requirements. Finally, in a review that has resulted in new transfer eligibility requirements that took effect in fall 1998, UC faculty recommended a greater emphasis on CCC coursework rather than high school eligibility and specified in more detail the elements of a CCC curriculum that will help to ensure students' academic preparation for upper division work at the University.

In 1997, ASSIST (*Articulation System Stimulating Interinstitutional Student Transfer*) was integrated into a Web site, making articulation information available to students, counselors, and other transfer personnel throughout the state. ASSIST, which was developed by the University in concert with CSU and the CCC, is the official repository of articulation agreements. As a Web-based transfer planning system, it provides students and counselors with access to information about the

transferability of CCC course credits to specific UC and CSU campuses. The database contains transfer agreements with local CCCs that provide the transfer student with a set of precise requirements necessary to satisfy admission to many of the specific majors or colleges on all UC campuses.

The Transfer Center Program was initiated in 1985-86 as an intersegmental program involving the University, the CSU, and the CCC. Transfer Centers are located on CCC campuses and serve as the focus of transfer activities. Center staff provides direct services to identify, encourage, and assist potential transfer students. The Center helps students prepare for upper division work by providing academic planning services and employing articulation agreements to ensure that CCC course work will be accepted for transfer.

In addition to building on these successful transfer program efforts, the MOU addresses some areas where greater attention is needed. These include identifying potential transfer students earlier, cultivating faculty-to-faculty dialogue, creating special financial aid packages for transfer students covering both pre- and post-transfer years, more part-time enrollment at University campuses, and closer alliances between University transfer outreach staff and CCC transfer centers.

The MOU is directed by an intersegmental committee consisting of University and CCC systemwide and campus administrators, Academic Senate representatives, and students. During the 1998-99 academic year, the MOU Committee reviewed transfer-related admissions policies, procedures, and activities in order to assess their effectiveness and make recommendations for improvement. The MOU Committee is focusing its efforts in several areas: (1) enhancing financial aid opportunities for students who wish to transfer to UC from a CCC campus; (2) improving faculty-to-faculty dialogue to help assure that transfer students complete appropriate preparatory courses for their major and that UC and CCC courses and curricula are closely aligned to facilitate the transfer process; (3) increasing data-exchange between UC and the CCC to better assess the effectiveness of the transfer function; and (4) exploring part-time enrollment options for community college transfer students who wish to attend the University but who cannot do so on a full-time basis because of family responsibilities, health concerns, or employment commitments.

### **Changes in Admissions Policy**

The University continues to be committed to offer a place to all eligible California public high school graduates and qualified California Community College transfer students who apply for admission. Every few years, the California Postsecondary Education Commission (CPEC) conducts a study of eligibility of California public high school graduates for admission to UC and CSU. The most recent report, based on 1996 high school graduates and released in fall 1997, indicated that 11.1 percent of California high school graduates are fully eligible for the University (that is, these students meet all of the academic course, scholarship, and test requirements specified by UC), less than the 12.5 percent recommended by the California Master Plan for Higher Education. In addition to the 11.1 percent fully eligible students, CPEC found that an additional 9.4 percent are "potentially eligible," i.e., they

complete all the UC requirements except for the fact that they did not take one or more of the tests required for admission.

The existence of the "potentially eligible" category created some confusion and led to disagreement about the size of the pool from which the University is drawing its freshman students. From an admissions standpoint, only those who fulfill all of the requirements are considered to be eligible for admission to the University.

In March 1999 the Regents approved revised guidelines for freshman admission to University. The new guidelines, developed by the UC Academic Senate through its Board of Admissions and Relations with Schools (BOARS), addressed issues raised by the CPEC eligibility study. Beginning with freshman applicants entering the University in fall 2001, a new path to eligibility will be added. This path, called "eligibility by local context," designates those eleventh-grade students who rank in the top four percent of their high school class as eligible for admission to UC if they have completed a University-defined pattern of courses.

In addition, the current path to eligibility will be revised so that, in order to be eligible for the University, all students must meet or exceed a minimum score on the new eligibility index which includes a combination of high school grade point average and Scholastic Assessment Test *reasoning* scores (SAT I), and *subject* scores (SAT II). In the past, SAT II tests were required of all students but not included in the eligibility index. In effect, this strategy eliminates the "potentially eligible" group identified by CPEC.

The Regents have also adopted a change in the coursework required for UC admission. Beginning with freshman applicants entering the University in fall 2003, students will be required to complete one year of University approved course work in Visual and Performing Arts. This change, along with a change at CSU that adds a history course and a laboratory science course, means that the two systems will have consistent course requirements for the first time.

UC's current admissions selection guidelines, which were issued by the University in 1996 and implemented in spring 1997, conform to Proposition 209, which went into effect in August 1997 as Section 31 of Article 1 of the California State Constitution. This constitutional amendment (which has a similar impact on the University's admissions policy as The Regents' Resolution SP-1 adopted in 1995), stipulates that the State, including the University, "shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting."

Displays 8 and 9 show the ethnicity of general campus and health sciences students enrolled at the University in fall 1980 and, nearly two decades later, in fall 1998.

Display 8

<b>Domestic Undergraduate Headcount Fall 1980 - 1998</b>				
	1980	1998	Change	Percent Change
African American	3,474	4,764	1,290	37%
American Indian	483	1,155	672	139%
Chicano	3,816	12,299	8,483	222%
Latino	1,539	4,679	3,140	204%
Subtotal	9,312	22,897	13,585	146%
Asian	10,700	36,667	25,967	243%
Filipino	1,304	5,967	4,663	358%
White/Other	68,200	56,055	(12,145)	-18%
Decline to State	5,362	8,457	3,095	58%
<b>TOTAL</b>	<b>94,878</b>	<b>130,043</b>	<b>35,165</b>	<b>37%</b>

Display 9

<b>Domestic Graduate Headcount Fall 1980 - 1998</b>				
	1980	1998	Change	Percent Change
African American	996	1,259	263	26%
American Indian	132	244	112	85%
Chicano	900	1,595	695	77%
Latino	579	1,191	612	106%
Subtotal	2,607	4,289	1,682	65%
Asian	2,145	6,129	3,984	186%
Filipino	117	532	415	355%
White/Other	20,394	22,517	2,123	10%
Decline to State	5,354	1,937	(3,417)	-64%
<b>TOTAL</b>	<b>30,617</b>	<b>35,404</b>	<b>4,787</b>	<b>16%</b>

Note: Includes general campus and health sciences enrollment.

## HEALTH SCIENCES INSTRUCTION

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 655,261,000</b>
General Funds	306,942,000
Restricted Funds	348,319,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	17,275,000

The instructional program in the health sciences is conducted principally in fourteen health professional schools, which provide education to students preparing for various careers in health care, teaching, and research. The health sciences schools are located on six campuses and include five schools of medicine, two schools of dentistry, two schools of nursing, two schools of public health, one school of optometry, one school of pharmacy, and one school of veterinary medicine. In addition, the University operates four programs in medical education conducted at Berkeley and Riverside, in Fresno and at the Charles R. Drew University of Medicine and Science in Los Angeles. Professional and academic students, residents, postdoctoral fellows, students in allied health programs, and graduate students who will become teachers and researchers participate in the programs of the health sciences schools. The physical, biological, and behavioral science programs of the general campuses are important complements to the programs of the health sciences schools.

In order to operate the instructional program, the health sciences schools require faculty, administrative and staff personnel, supplies, and equipment. Faculty requirements are determined in accordance with student faculty ratios, which have been established for each type of school and for each of the categories of students enrolled in these schools. As examples, the historical budgeted student faculty ratio for medical students is 3.5:1; for dentistry students, 4:1; and for pharmacy students, 11:1.

Faculty salary costs constitute about 64 percent of the total budget for the health sciences instructional program. Instructional support costs represent 14 percent of the program's budget. These costs include non-faculty personnel, equipment, and supplies, which are provided for each faculty position, based on support levels determined for each school. The remaining 22 percent of the program's budget provides funding for other expenses including employee benefits, partial support of

stipends paid to interns and residents, and a portion of malpractice insurance premiums.

In addition to the resources provided in the instruction budget, the cost of clinical training traditionally has been supplemented by physician and other professional fee income and by revenues generated by the medical centers. Financial support for medical education and clinical training has been declining as a result of recent changes in the organization and delivery of health services. These changes include the financial impact on professional and teaching hospital revenues due to the growth of managed care and changes in the Medicare and Medicaid programs resulting from the effort to balance the federal budget. These changes are discussed in more detail in the Teaching Hospitals section of this document. As a result, there is a need to broaden the sources of financial support to help pay for the costs of medical education, and to expand the coverage to include the costs of teaching that are increasingly incurred in outpatient settings.

In 1996-97, the University was successful in obtaining \$50 million in additional federal Medicaid funds to help support the medical education costs related to services provided to the State's Medi-Cal population. Under this program, the Medi-Cal Medical Education Supplemental Payment (MMESP) program, the medical centers received \$35 million in 1997-98 and \$38 million in 1998-99. These Medi-Cal funds, along with the graduate medical education payments that have long been a part of Medicare, have provided essential resources for the University and other teaching hospitals in support of their teaching and patient care missions.

The program, which was to sunset on June 30, 1999, has been extended through June 30, 2000. The University is hoping to reach agreement with the Legislature to extend the program for at least another two years beyond that to give UC, and the teaching hospitals that benefit from this fund, time to develop a long-term funding strategy for medical graduate education costs. The University is working with other teaching hospitals to develop an alternative long-term funding model for supporting medical education that will replace MMESP. Until such a model can be developed and adopted by the State, however, the continuation of the Medi-Cal Medical Education Supplemental Payment program funding is essential.

As the University plans for the 21<sup>st</sup> century, continuing efforts will be focused on supporting and sustaining high quality programs in health sciences education, research, and patient care. Important initiatives for UC medical schools will continue to address issues of diversity and outreach, specialty balance and workforce needs, and the critical need to develop stable long-term financing mechanisms to provide support for graduate medical education and other health professions training. These efforts will be guided by workforce projections, marketplace realities, public interests, and the recommendations of state and national policymakers. Continued partnerships with the Legislature, State agencies, and other stakeholders will be necessary to address current State needs for improving access to care in underserved communities, improving the diversity of the California health workforce, providing care for the poor and uninsured, and supporting the health providers and institutions dedicated to filling these needs.

The

University stands ready to contribute to this effort and looks forward to collaboration with others to meet these challenges successfully.

### **Health Sciences Enrollments Nationally and Within UC**

The University's long-range academic planning for the health sciences is influenced by a variety of internal and external factors. External factors include the State's need for health professionals, federal and State policies for funding health sciences education, access to and reimbursement for health services for the poor, and the State's overall financial circumstances. These external factors have influenced health sciences enrollment planning at the Universitywide level which, in turn, has provided broad parameters for the internal, decentralized planning process through which campuses initiate proposals to address programmatic concerns.

National health care workforce projections are considered within the context of the University's health sciences planning process and have had a long history in this country. In the early 1970s, the Graduate Medical Education National Advisory Committee (GMENAC) predicted a shortage of physicians. By the early 1990s, however, projections warned of a national shortage of generalists and a significant oversupply of specialists by the year 2000.

More recent analyses, including a 1995 study published in the Journal of the American Medical Association and a 1997 report issued by the Center for the Health Professions at UCSF, support the notion that there will be an oversupply of specialists but that the generalist workforce falls within the range necessary for the future. These examples underscore the need to continually re-examine workforce projections for medicine and for all the health professions.

In 1997, the Center for Health Workforce Studies, with support from the federal Health Resources and Services Administration and in collaboration with the Center for the Health Professions at the University of California at San Francisco, undertook a comparative study of medical education, physician training and physician supply and distribution in New York and California (study was updated in 1998 to include Texas). The following are among the findings of special relevance to California:

- For a state of its size and population, California has a relatively limited medical education and training system.
- The State has an adequate overall physician supply because of the high rate of retention of doctors trained in California (nearly 70%) and because of the immigration of physicians trained elsewhere.
- California significantly trails the national average in educational opportunities for medical students. By contrast to a U.S. average of 28.5 medical students per 100,000 population, and a New York enrollment of 44 medical students per

100,000, California trained only 15.9 students per 100,000 during the years 1985-97. When adjusted for population growth, the net effect has been a five percent decrease in California medical school enrollment during this time.

- Whereas the national per capita medical resident enrollment increased by 10.5 percent during the years 1988-97, California enrollment decreased by nearly four percent during this time. By comparison, the ratio went up slightly in Texas, and sharply in New York, which already had the highest resident-to-population ratio in the nation at 81.8 residents per 100,000—more than three times the California average of 26.1 per 100,000.
- All three states have experienced strong growth in the number of practicing physicians during the years 1985-96, ranging from 23 percent in California to 40 percent in Texas. When adjusted for population growth, and in contrast to a national increase of 22.4 percent, California's physician-to-population ratio increased by only 2.6 percent.
- California trains comparatively few international medical graduates (IMGs). On a per capita basis, the difference is particularly striking with New York training 41.5 IMGs per 100,000, Texas training 6.0, and California training only 3.4 per 100,000.

In March 1999, the Council on Graduate Medical Education (COGME), which was authorized by Congress in 1986 to provide an ongoing assessment of physician workforce trends and federal and private sector efforts to address workforce needs, issued its most recent report. Among the major findings are:

- The national rate of growth in physician supply has moderated slightly, but is still likely to lead to a surplus in some regions;
- The number of generalists is increasing with an appropriate overall supply likely to be achieved in the next few years;
- The dependence on hospital inpatient reimbursement to support graduate medical education poses a threat to the nation's training sites;
- The advent of managed care and other recent developments "do not bode well... for teaching hospitals that serve as safety net providers";
- The increase in the number of women physicians and growth in the number of non-physician clinicians will impact the health workforce and should be given careful consideration in the future.

Also included in the COGME report are recommendations calling for promotion of a more effective marketplace, development of an integrated workforce planning process, utilization of financial incentives to achieve priority goals, and increased advocacy for a stable financing system to provide long-term support for graduate medical education (GME).

Although California's supply of primary care physicians (at 72 per 100,000) falls within COGME's recommended range of 60 to 80 physicians per 100,000, six of the State's ten regions were below the COGME range, and two others were only slightly above the minimum. These findings underscore the need to develop new strategies

to improve access to care through improved distribution of physicians, particularly in the State's rural areas and inner-cities.

**Health Sciences Enrollments in the University**

After peaking in the early 1980s, budgeted enrollments in the health sciences remained relatively steady through 1997-98. Display 1 shows total University health sciences enrollment and the first-year class size for selected professional programs for the academic years 1970-71, 1981-82, 1989-90 and 1999-2000 (budgeted). Display 1 also shows that after increases through 1981-82, enrollments began to decrease. These decreases were due, in large part to budget cuts sustained by the University.

**Display 1**

<b>Health Sciences Year-Average Headcount Enrollments: Total Enrollment And First-Year Class Size for Selected Programs</b>					
	1970-71 Budget	1981-82 Budget	1982-83 Budget	1989-90 Budget	2000-01 Budget Plan
Total Enrollment	7,015	12,750	12,217	12,022	12,166 (a)
First Year Class Size:					
Medicine	429	652	622	622	622
Dentistry	175	216	197	176	168
Veterinary Medicine	83	129	122	122	131 (a)
Pharmacy	93	120	117	117	117
Optometry	54	68	65	65	65

(a) By agreement, the actual enrollment increase from 122 to the new budgeted level of 131 will be phased in over a multi-year period which began in 1998-99 and will end in 2007-2008.

The 1998-99 State Budget included an augmentation of \$2.5 million to support an increase in the Doctor of Veterinary Medicine (DVM) entering class from 122 to 131, along with an increase of 30 veterinary residents. The actual DVM enrollment increase – nine students per year for each of the four years of the program totaling 36 – will be phased in over a number of years.

Except for a 100-graduate student academic increase for 1999-2000 and a proposed increase for next year, budgeted health sciences enrollments are expected to remain essentially steady through 2005. Within budgeted enrollments for the various schools and colleges, however, programs are being modified in response to workforce concerns. For example, among medical residents, there has been an increased emphasis on training primary care physicians and a concurrent reduction in the number of specialists trained.

**History**

**The 1970s**

In spring 1975, the University developed a plan for the health sciences, based on an extensive reevaluation of programs and resource requirements and an attempt to provide a reasonable balance between the State's needs for health care

professionals and the State's ability to finance the projected growth. This plan was accepted within the University and approved by the State and the operating budget resources to accommodate health sciences enrollment growth were provided by the State. Facilities to accommodate the enrollment growth were funded by a Health Sciences Bond Issue on the 1972 ballot. Enrollment levels envisioned in the 1975 plan were largely achieved by 1981-82.

### ***The 1980s***

By 1982-83, however, the State's fiscal problems and downward revisions of estimated future health workforce needs led to a number of decisions which significantly reduced the enrollment levels achieved as a result of the earlier plan. As a result of this and other factors discussed below, health sciences budgets were reduced by \$12.6 million during the period 1982-83 through 1988-89, resulting in enrollment reductions totaling 1,193 students in existing programs. Some of this decline was offset by an increase of 384 students in selected or new programs, including 218 students in the Drew/UCLA Medical Education Program. The following is a brief summary of the enrollment reductions of the 1980s.

- A four-year phased reduction of 388 students in medicine, dentistry, nursing and veterinary medicine taken in response to a 2.5 percent reduction in the University's base budget included in the 1982 State Budget.
- A reduction of an additional 140 professional students in the health sciences schools as a result of losing federal capitation funds. These funds had been provided by the federal government beginning in 1972-73 to encourage the expansion of enrollments in the health sciences. The federal capitation funds for the University peaked at \$6.4 million in 1974-75 and were phased out by 1990-91.
- Elimination of 267 medical residency positions in non-primary care specialties in response to a \$2 million budget reduction included in the 1982-83 State Budget.
- Reduction of 398 students, (including 210 residents and 42 family nurse practitioners, 84 dental students and 21 residents, 37 graduate professional nurses, 50 B.S. students and 6 graduate professional students in public health.) The decrease was partially offset by an increase of 24 graduate academic students in nursing and 28 graduate academic students in public health.

### ***The Early 1990s***

The State began to experience further fiscal problems in the late 1980s. These problems escalated in the early 1990s, eventually developing into a major fiscal crisis for the State. As part of an overall plan to accommodate over \$400 million in budget cuts in the early 1990s, the University reduced total budgeted enrollments by 5,500 FTEs, which included 412 health sciences students. Although the 1992-93 Governor's Budget provided funding for new enrollment growth of 100 health sciences graduate academic students, the funding increase associated with this enrollment growth was more than offset by an undesignated cut of \$224 million in the 1992 State Budget Act.

As one means of coping with cuts of this magnitude in such a short time frame, the University offered three early retirement programs. As a result, health sciences programs lost a number of senior faculty, and student faculty ratios deteriorated. In order to maintain the quality of the health sciences instructional program, a substantial portion of the vacant faculty positions must be refilled. Income from the Fee for Selected Professional School Students (net of financial aid) is being used in part for this purpose.

### ***Fee for Students in Selected Professional Schools***

The Fee for Selected Professional School Students was charged to first-time students in fall 1994 and became a permanent feature for that class and all subsequent classes in medicine, dentistry and veterinary medicine. Since fall 1996, a similar fee has been charged to students in nursing, optometry and pharmacy. In charging the fee, the University reconfirmed its commitment to maintain academic quality and enrollment in the designated professional school programs. An amount equivalent to at least one-third of the total fee revenue is used to provide financial aid to help maintain the affordability of a professional school education. The remaining revenue is used to sustain and enhance the quality of the professional schools' academic programs and student services, and to fund costs related to instruction. Income from the Professional School Student Fee is being used to help fill a portion of faculty positions vacated through early retirements and, thus, to support student enrollments now restored to 1990-91 budgeted levels. The Fee for Selected Professional School Students is discussed in more detail in the Student Fees section of this document.

## **Issues in Medical Education**

### ***Increasing the Training of Generalists***

While the changing workforce requirements of a reformed health care system will affect all of the health sciences professions, initial projections have tended to focus on the nation's supply of generalist and specialist physicians, and the extent to which the number and distribution of such physicians are consistent with foreseeable workforce needs. In response to the increasing emphasis on primary care at the national level and to a specific legislative initiative in California, the University undertook a planning effort related to the State's need for primary care physicians and the University's role in filling this need.

A first report in June 1993, titled *Changing Directions in Medical Education: A Systemwide Plan for Increasing the Training of Generalists*, outlined the University's plans to increase emphasis on primary care training for medical students and residents. These planned changes included, but were not limited to, changes in medical student admission processes and curriculum, increases in the number and proportion of primary care residency positions at each campus, and significant concurrent reductions in the total systemwide number of non-primary care

positions.

At the request of the Governor, the University assessed its ability to accelerate the original timetable for achieving the planned increases in primary care residency training and planned decreases in non-primary care specialty training. In June 1994, the University submitted a second report, which incorporated revised goals for 2001-02. These goals exceeded those identified in the first report by increasing the number of medical residents training in primary care specialties.

In response to a request from the Governor, the University also developed a memorandum of understanding with the Office of Statewide Health Planning and Development regarding issues related to the University's primary care training goals.

Consistent with the provisions of supplemental language adopted in conjunction with the 1994 State Budget, the University has provided a series of six annual reports to the Governor and the Legislature detailing progress toward meeting its primary care expansion goals.

**Display 2**

<b>PLANNED CHANGES IN NUMBER OF MEDICAL RESIDENTS <sup>(1)</sup></b>								
<b>Progress Toward Increasing the Number of Primary Care Residents</b>								
Medical Residents by Speciality: Number and Percent								
1992-93 Base Year Compared with 1998-99 Actual and 2001-02 Goals								
<b>Speciality</b>	Base Year 1992-93		Actual 1998-99		Actual Change From 1992-93 Base		Target 2001-02	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Family Practice	521	12%	752	17%	231	44%	885	20%
Other Primary Care	1,413	33%	1,559	35%	146	10%	1,494	34%
Subtotal Primary Care	1,934	45%	2,311	52%	377	20%	2,379	55%
Non-Primary Care	2,405	55%	2,165	48%	-240	-10%	1,953	45%
<b>GRAND TOTAL</b>	<b>4,339</b>	<b>100%</b>	<b>4,476</b>	<b>100%</b>	<b>137</b>	<b>3%</b>	<b>4,332</b>	<b>100%</b>

(1) Prepared for the University's June 1999 report titled, "Changing Direction in Medical Education: 1999 Update on Systemwide Efforts to Increase the Training of Generalists." (in progress)

Data in the most recent report, issued in July 1999, demonstrate that significant progress has been made toward meeting the goals of the University's 1994 plan. These efforts reflect the seriousness of the University's commitment to maintaining a tradition of excellence in medical education and responsiveness to societal health needs. The report documents:

- Achievement of a 50:50 balance in the systemwide distribution of primary care and non-primary care residency positions by July 1996, one year in advance of the target initially projected.

- Continuing shifts in the distribution of UC residency positions resulting in a 1998-99 enrollment that includes 52 percent primary care and 48 percent non-primary care positions, with nearly 17 percent of all positions in family practice.
- Continuing growth in the number and proportion of UC and UC-affiliated family practice positions, with a 1998-99 enrollment of 752 residents (which represents a 44 percent increase over the University's 1992-93 base year enrollment of 521). This increase has occurred through four primary pathways, including growth in University-based programs, growth in community-based programs previously affiliated with UC, creation of new community-based programs, and development of new affiliations with previously established programs.
- Continuing reductions in non-primary care training programs, with a systemwide reduction of 240 specialty positions since 1992-93.

Continuing strong student interest in generalist specialties. Among the University's 1998 medical school graduates participating in the National Resident Matching Program (NRMP), nearly 60 percent selected primary care residencies, with approximately 16 percent choosing family medicine.

As further confirmation of the University's success in responding to the need for primary care services, a 1998 study by *U.S. News and World Report* of three UC medical schools (UC Davis, UC Los Angeles, and UC San Francisco) as among the nation's top twenty primary care medical schools, based upon academic reputation, student selectivity, quality of faculty, and other factors.

### ***Paying for the Costs of Health Sciences Education***

Over the next few years, one of the major issues that the UC health sciences will continue to face is how to maintain high-quality training of doctors and other health care professionals in a price-sensitive, competitive, managed care environment. Strong academic medical centers are an essential part of this effort.

Medicare reimbursements currently recognize teaching costs but are expected to decline as a result of commitments to balance the federal budget. Despite substantial success in containing costs, the cost of services provided by academic medical centers are higher than non-teaching institutions. For example, there are the direct and indirect costs associated with training medical students and residents, and research and development costs associated with keeping the academic program current. Increasingly, the negotiated rates the teaching hospitals are forced to accept do not recognize these instructional costs, and there are reduced opportunities for offsetting the resulting reimbursement shortfall to charge-paying private patients. Unless current government subsidies for medical education are continued or alternative sources of funding are found to support education-related costs, enabling the medical centers to compete with non-teaching institutions for market share, the operating margins of the University's medical centers will decline, with negative consequences for the academic program.

In addition, there is continuing pressure from accrediting bodies, managed care plans, and other policy makers to shift the locus of medical training from inpatient

to outpatient care sites. Currently, government funding for ambulatory care does not include increments for teaching. The University is reviewing many options for funding medical and health sciences education in both the short-term and over the long-term.

## SUMMER SESSION

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 31,500,000</b>
General Funds	--
Restricted Funds	31,500,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	1,260,000

In addition to the University's course offerings during the regular academic year, students may enroll in courses during the University of California Summer Session which is supported from student course and registration fees. Campuses offer between two and five sessions during the summer, lasting from four to nine weeks. Courses are offered both for degree credit and in selected specialized programs. Summer degree programs offer a broad spectrum of instruction, with each campus determining its own course offerings. Specialized programs provide refresher courses for new and continuing students and enable students to accelerate progress toward degrees. In addition, most campuses have special programs for new or potential students who have academic deficiencies. Instruction during summer sessions is provided by UC faculty, visitors from other universities, and lecturers. Over 400 Academic Senate faculty taught summer courses in 1998.

In 1998, approximately 52,000 students registered in Summer Sessions in order to, for example, accelerate their progress toward their degrees; take courses that are hard to fit into their schedule during the regular academic year; earn course credits to satisfy degree requirements while at home during the summer; and, while still in high school, get a head start on college course work.

Given the enrollment demand that is projected for the next ten years, the University is developing various options to handle enrollment growth. One of these options is to increase instructional activity during the summer, significantly increasing summer enrollment and taking some of the enrollment pressure off courses offered during the rest of the year.

## UNIVERSITY EXTENSION

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 208,950,000</b>
General Funds	--
Restricted Funds	208,950,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	8,358,000

UC Extension is the largest continuing education program in the nation, providing courses to nearly half a million registrants who are typically employed adult learners with a bachelor's degree. UC Extension is a self-supporting operation and its offerings are dependent upon user demand.

The University offered its first Extension courses to students beyond the immediate campus community more than 100 years ago. Today, Extension divisions at each of UC's eight general campuses offer over 21,000 different courses, programs, seminars, conferences, and field studies throughout California and in a number of foreign countries. Over 250 courses are offered on the Web, allowing students to take the courses largely from wherever their computer is located. In addition to studying on-line, the Center for Media and Independent Learning, a statewide division of Extension, offers more than 180 high school, university, and professional development courses by mail, e-mail, and fax.

Almost 60 percent of Extension's offerings are designed to serve the continuing educational needs of professionals. Over 380 certificate programs are offered in such areas as computing and information technology, graphics and digital arts, and health and behavioral sciences.

The other 40 percent of Extension's offerings provide degree-equivalent study in undergraduate education programs, and cultural enrichment and public service programs. Various kinds of undergraduate degree credit courses are available, either as replications of existing UC campus courses or structured as undergraduate classes but with content not found in an existing campus offering. Extension explores history, literature, and the arts in traditional and innovative ways, providing cultural enrichment to Californians. In addition to classes, Extension also organizes lecture series, summer institutes, public affairs forums, and other events for the general public.

## RESEARCH

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 446,035,000</b>
General Funds	270,890,000
Restricted Funds	175,145,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	7,996,000

The California Master Plan for Higher Education designates the University as the primary State-supported academic agency for research. As one of the nation's preeminent research institutions, the University provides a unique environment in which leading scholars and promising students strive to expand fundamental knowledge of the physical world, human nature and society. Knowledge discovered in the University's basic research programs has yielded a multitude of benefits, ranging from technological applications which increase industrial and agricultural productivity to insights into social and personal behavior which help improve the quality of human life. Through its public service activities, the University strives to improve the dissemination of research results and to translate scientific discoveries into practical knowledge and technological innovations that benefit the State and nation.

Economists attribute fifty percent of this nation's economic growth since World War II to innovation resulting from research and development, with university research playing a key role. Many similarly believe that California's recovery from the recession of the early 1990s was due, in large part, to the commercial impacts of research and training conducted by major institutions like the University of California. As California's economy continues to grow, it remains essential to continue to invest in the research necessary to fuel the creation of new products and processes which, when eventually developed in the marketplace, boost productivity and create jobs. As other states have launched aggressive and well-financed campaigns to lure away California's high technology businesses, California has responded with the Industry-University Cooperative Research Program and other aggressive strategies including tax benefits to keep these businesses here and to attract more.

As it furthers fundamental knowledge and helps to sustain California's economy as

evidenced by whole new industries that have been spun off, faculty research also enhances instruction in several significant ways. By engaging in research, an instructor keeps up with developments in the field and is able to communicate to students firsthand the sense of excitement and adventure that accompanies the pursuit and discovery. Faculty research also stimulates change in the curriculum, improvement of teaching material, and development of new courses and even new disciplines, particularly in rapidly advancing fields like genetics, microelectronics, and information and computer sciences.

Moreover, it affords students the opportunity to develop research skills and work in a creative research environment, alongside top scholars engaged at the cutting edge of knowledge in their fields. Undergraduate students on all campuses are able to participate in research projects under the direct guidance of a faculty member, fostering the development of skills of inquiry and problem solving, and acquisition of knowledge in a discipline of interest. Finally, through collaborative research with industry, students experience how discoveries are transformed into public benefits, as well as the relevance of their education to future careers in industry.

Recent national studies of research universities confirm the research excellence of the University of California.

- In their 1997 book, *The Rise of American Research Universities*, Hugh D. Graham and Nancy Diamond quantitatively measure and compare institutional research performance at 203 public and private universities in the U.S. Based on faculty members' grant, publication, and fellowship award records across different fields, the authors concluded that the University of California as a system leads the nation in research excellence and productivity among public universities. They cite the remarkable rise of the University's smaller, younger campuses as well as the success of its large, established ones.
- Another indicator of how well UC does relative to other research universities is the National Science Foundation study on the scientific foundation of American patents. UC produced more research leading to patented inventions than any other public or private research university or laboratory during the periods studied.

### **Research Support**

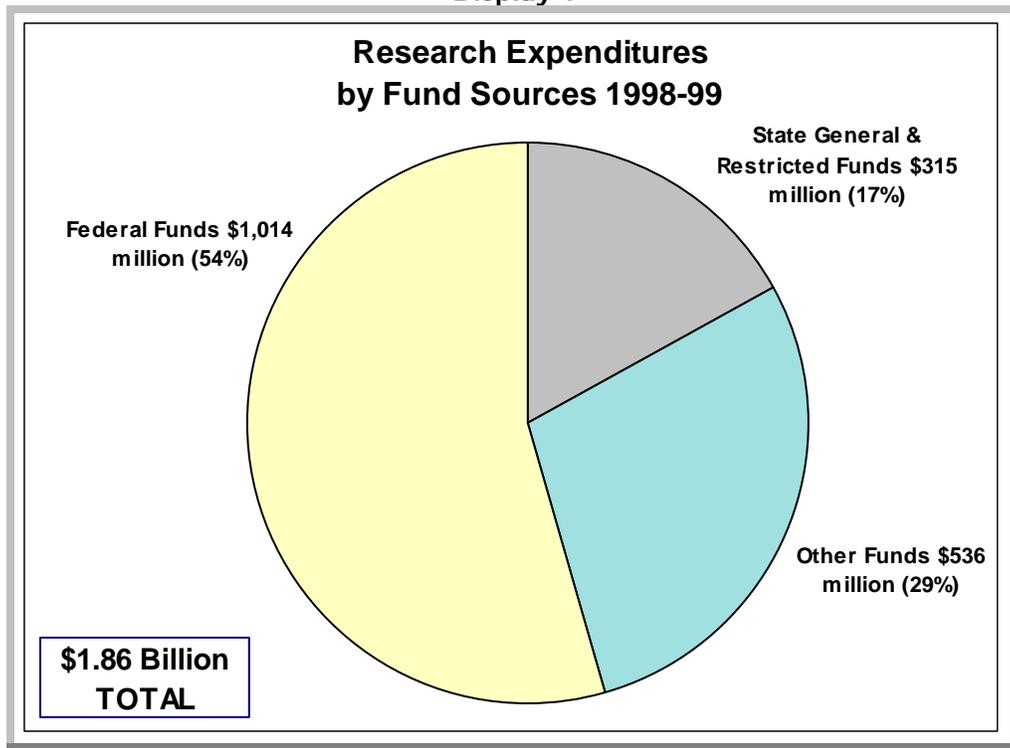
The 1999 State Budget reaffirms the State's recognition of the role of UC research in sustaining California's economy by providing over \$20 million in new State general funds to support high-priority research programs at the University.

Among the research programs which received increased funding in 1999-2000 are: (1) an additional \$5 million for the Industry-University Cooperative Research Program, which will bring the total State and University funds to \$20 million and industry matching funds to an equivalent amount, to increase research partnerships between UC and industry in fields critical to the State's economy; (2) an additional

\$5.5 million for medical research on substance and alcohol abuse, bringing the total to \$22.3 million; (3) an additional \$2 million for AIDS research and an additional \$1 million for AIDS-related liver and kidney transplant research, bringing the total to nearly \$12 million; (4) \$5 million to support research on brain injury research; and (5) an additional \$2 million (bringing the total to \$4 million in State general funds) for a center to conduct basic science research on various neurodevelopmental disorders and to develop effective treatments. In addition, the final budget provided an increase of \$7.735 million of non-general funds for the Tobacco-Related Disease Research Program bringing the total funding to \$36.7 million for 1999-2000.

For many University research programs, State funds are the core that attract extramural funds necessary for the conduct of major research projects. As shown in Display 1, the University's research expenditures in 1998-99 included about \$315 million in State funds and an additional \$1.55 billion in non-State funds, a ratio of nearly 5 to one.

Display 1



The University has maintained the vitality of its highly competitive research programs through effective management of the Organized Research base. The inherent difficulty the University has always faced in the funding of research is achieving a desirable balance between the need to accommodate initiatives in new and promising research areas and the need to maintain support for existing research programs that are strong and viable. To pursue one at the expense of the other is incompatible with the mission of an outstanding research university; both are essential. In attempting to achieve such a balance, the University has

maintained a regular and extensive process of program review and reallocation of the Organized Research base. This has included the merger, establishment, or disestablishment of ORUs, MRUs and other research activities; the internal reallocation of funds among units; and the redirection of research effort within existing units to address changing priorities. Moreover, promising new research programs have been supported through allocations of temporary resources as "seed money."

University research is supported from a variety of fund sources. Display 1 shows actual research expenditures, totaling \$1.865 billion, by fund source for 1998-99. In 1999-2000, research expenditures are projected to increase to approximately \$2.1 billion. This includes \$1.6 billion from extramural sources (i.e., federal government, private individuals, foundations, industry), \$70 million from Regents' funds, \$270 million from State general funds, and \$175 million from restricted funds (State and non-State). The \$175 million in restricted funds includes \$56 million of State restricted funds. Examples of State restricted funds include approximately \$17.5 million from special State funds to support a program on breast cancer research, and \$36.7 million from special State funds to support a coordinated statewide program of tobacco-related disease research administered by the University.

Of the \$270 million in State general funds approximately 49 percent is allocated to Agriculture; 20 percent to single-campus Organized Research Units (ORUs); six percent to Multicampus Research Units (MRUs), which are ORUs involving several campuses; 22 percent to other research activities not formally constituted as ORUs or MRUs, such as the Universitywide programs in AIDS, microelectronics, Industry-University Cooperative Research Program, substance and alcohol abuse prevention, neurodevelopmental disorders, biotechnology, and toxic substances research; and three percent to individual faculty research.

### **Federal Funding**

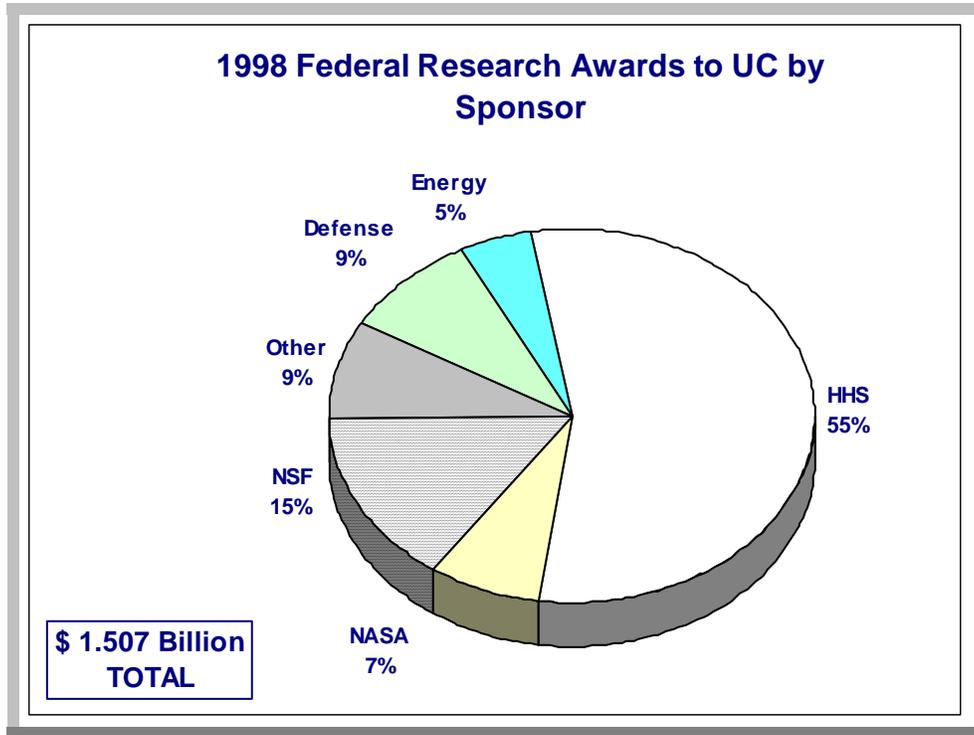
Federal funds are the University's single largest source of support for research, accounting for approximately 54 percent of all University research expenditures in 1998-99.

The University remains highly competitive for federal research funding with fluctuations in the University's funding closely paralleling the changes in the budgets of federal research granting agencies. Thus, the outcome of the annual federal budget process has important ramifications for the University's research budget.

As shown in Display 2, about 70 percent of the University's 1998 federal research awards came from two federal agencies, Health and Human Services (HHS), primarily through the National Institutes of Health (NIH), and the National Science Foundation (NSF). Other agencies that figure prominently in the University's awards are Defense, NASA and the Department of Energy.

The FY1999 budget provided substantial increases over FY1998 for NIH (14%) and NSF (8%).

Display 2



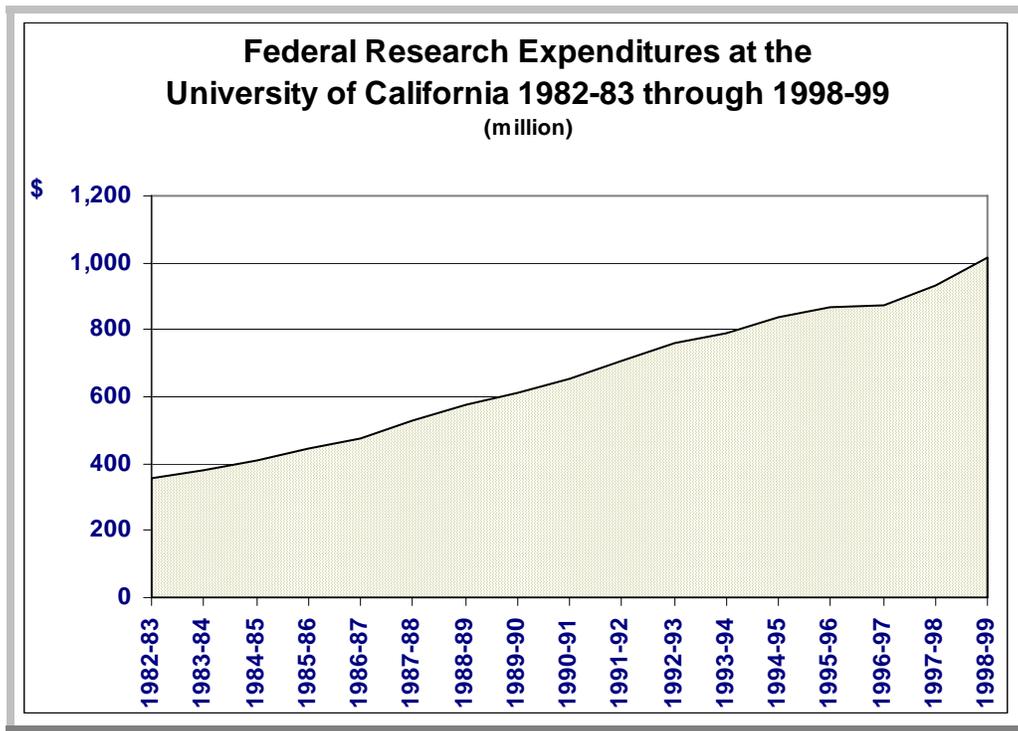
### ***Historical Trends in University Federal Research Funding***

Display 3 illustrates trends in federal research funding for the University over a seventeen-year period. In the decade between 1982-83 and 1992-93, federal support for research at the University grew dramatically. With a commitment to research established as a national priority by both the President and the Congress, annual federal research expenditures at the University increased by an average of almost ten percent during this period. After 1992-93, however, the focus of the federal government was on deficit reduction. As a result, while the University's expenditure of federal research dollars continued to increase, the rate of growth slowed down. Between 1992-93 and 1995-96, federal research expenditures at the University increased by an average of about four percent per year, and in 1996-97 they were essentially flat. Progress toward a balanced budget and continued administrative and congressional support for investments in research again resulted in gains for federal research programs and the University's federal research expenditures increased by seven percent in 1997-98 and by over eight percent in FY1998-99.

While projections may change pending the outcome of budget negotiations between the Administration and the Congress, at this point, the University does not expect increases of this magnitude to continue. Despite projections of a federal budget surplus for the next 10-15 years, current projections are that federal funding for research will remain static or lose ground to inflation in FY2000 and thereafter. The

primary causes for the restricted funding are the caps on domestic spending and the priority the Administration and Congress place on using the surplus funds for Social Security, Medicare and tax relief initiatives. Under these constraints, competition for funding between domestic programs, including research, is fierce. Priority programs such as K-12 education and defense are expected to receive increases well above last year's level which will further decrease the amount of funding available for other programs, including research. Federal funding for most research programs is projected to decrease after factoring in inflation, although some programs, such as medical research, will continue to fare better than others.

Display 3



### ***Balanced Budget Agreement***

In 1997, after twenty years of deficits in federal government spending, the President and Congress reached an agreement to balance the federal budget over the five-year period 1998 through 2002. Of specific concern to the University was a part of the budget plan that envisioned no increases in overall domestic discretionary spending during this period; most of UC's federal research funds comes from the discretionary portion of the federal budget. This, in combination with tight spending caps, led to predictions of dramatically reduced funding for University research.

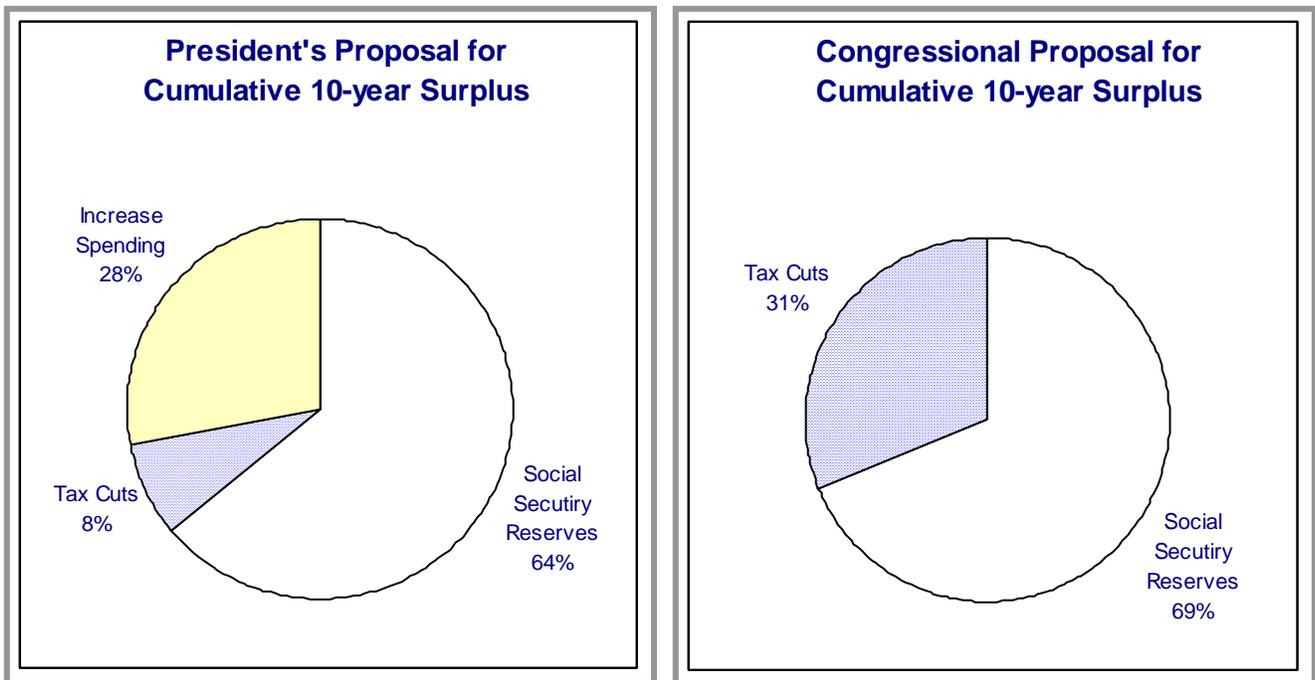
Since the 1997 agreement, however, there has been a dramatic turnaround due in large part to the sustained strength of the national economy. Revenues increased more rapidly than had been projected, and the budget was balanced three years ahead of schedule. By FY1998, the government recorded a surplus in the budget for the first time in three decades.

### **The Surplus**

The President's original FY2000 budget proposal, released in February 1999, anticipated a surplus of \$117 billion dollars for FY2000, and cumulative surpluses totaling \$2.41 trillion over the next 10 years. The entire current year surplus was due to social security revenues exceeding outlays. The July 1999 revised projections for the surplus are even higher than earlier projections and include a small non-social security-related surplus of \$14 billion dollars for FY2000.

There are major differences between the President and the Congress, as well as within the Congress, about proposed short-term (10-year) uses of the projected surplus (Display 4). In principle, both the Congress and the White House have agreed to move the Social Security trust fund "off budget," meaning the money

**Display 4**



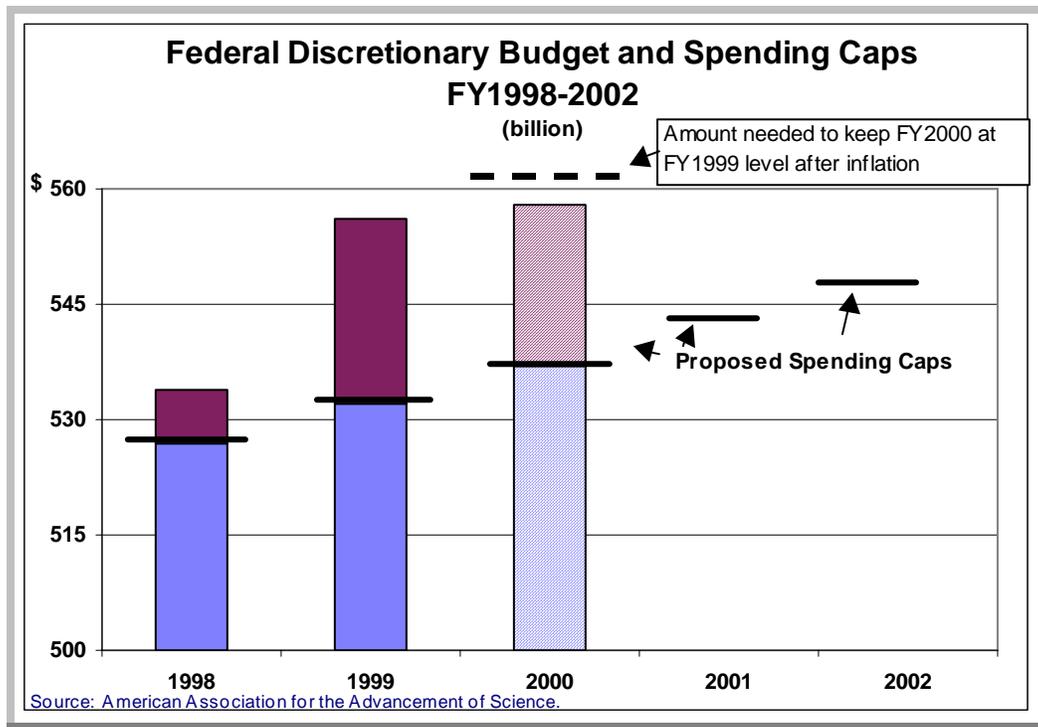
in the fund cannot be counted as part of the surplus. This dramatically reduces the amount of surplus funds available in FY 2000 and in the next several years. Another top priority for the surplus is to ensure the solvency of the Medicare program. Several proposals are under consideration by Congress and the White House, and action is expected sometime next year. In addition, both sides appear agreeable to a tax cut, but the size and distribution of the tax cut proposals are so far apart they may be unable to agree on a final package. Finally, the Administration also proposes to use a portion of the surplus to fund new programs or program expansions, but Congress has been reluctant to use the surplus for new spending.

### **Proposals for FY2000**

The budget for FY2000 is constrained by several factors. Despite the growing federal budget surplus, the Balanced Budget Act of 1997 put in place a \$537 billion

spending cap for FY2000. This cap is \$21 billion below the actual FY1999 spending level, largely due to "emergency" spending during 1999 that funded continuing programs, thereby increasing the FY1999 baseline spending that is carried into FY2000 (Display 5).

Display 5



The President's FY2000 budget request proposed \$558 billion in discretionary spending, a level slightly above 1999 spending levels and well above the spending cap. The President proposes several offsets for the increased spending, including new tobacco revenues and user fees, most of which have been rejected by Congress in the past. In addition, the President also proposes to use a portion of the projected budget surplus to fund a few new programs or program expansions.

Within the President's budget request, university-based research is provided a modest 2.3 percent increase in funding, a level slightly below the amount needed to keep pace with inflation. The majority of the increases are in areas of new presidential initiatives, such as information technology, the environment, and biomedical research.

Congress initially rejected the President's budget proposal and vowed to craft a budget that adheres to the \$537 billion spending cap. Several of the 13 individual appropriations bills that will constitute the discretionary portion of the FY2000 budget have been drafted and are moving through Congress. Under the pressure of the spending cap, most research programs in these bills are held to FY 1999 levels, although large reductions are pending in NASA, Agriculture and Energy. Congress has not yet drafted the spending bill that funds the National Institutes of Health (NIH), which is the single largest source of federal funding for research for the

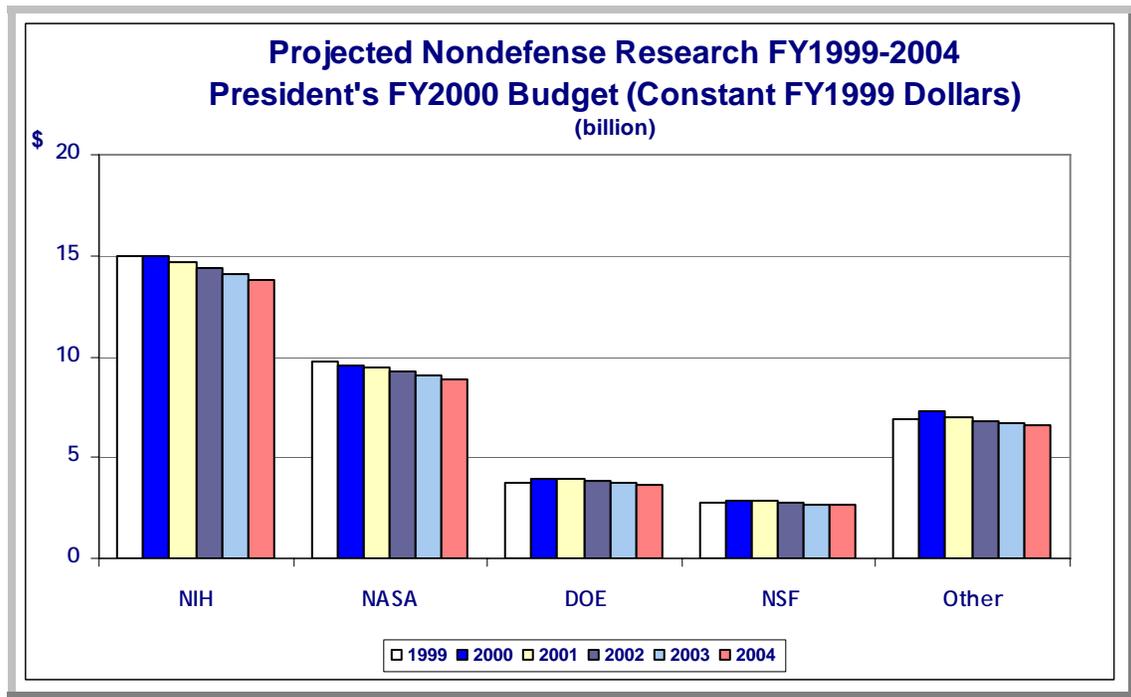
University. It is possible, if the funding caps are eased, that several priority research programs including the NIH, NSF, and NASA will find their funding increased above 1999 levels.

As of this writing, it is uncertain whether Congress will be able to finish the FY 2000 spending bills before the October 1 start of the fiscal year. The President already has vetoed the congressional tax cut bill and threatened vetoes of several of the individual spending bills. Eventually Congress and the White House will need to negotiate. Until they reach a compromise, Congress is likely to maintain funding for federal programs through passage of a Continuing Resolution (CR) that provides funding at current (FY1999) levels. Whether Congress will use any of the surplus for spending on domestic programs is still under active consideration. As the fiscal year draws near, pressure is mounting to use a portion of the surplus to prevent drastic reductions in key programs.

***Future Trends in Research Funding to the Year 2002***

As noted earlier, current projections for FY2000 based upon the administration's proposal and congressional deliberations are for decreases from FY1999 levels for all but a few research programs, and for flat funding in the out-years. Display 6 illustrates the President's FY2000 Budget's potential impact out to 2004 on federal

**Display 6**



research funding for the four agencies which provide most of the research funding for the University.

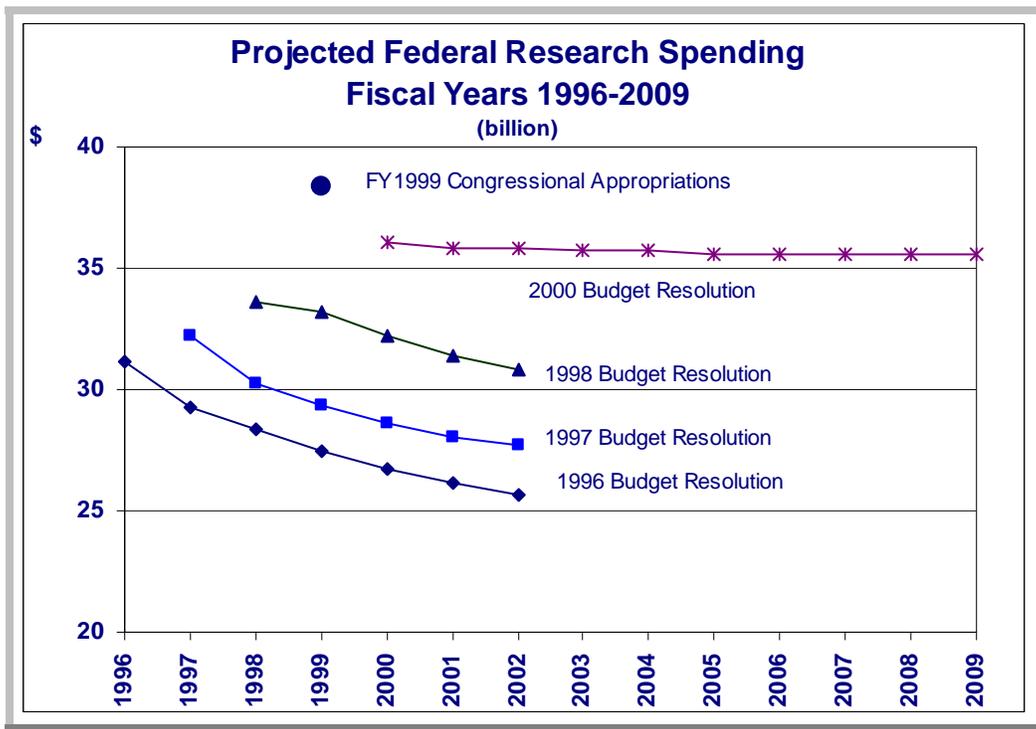
These projections could change. Past experience with projections and actual budget outcomes indicates that such predictions are not always accurate. Changing economic and political environments often result in actual budget appropriations

that differ from proposals and the need for subsequent revisions of out-year projections.

For example, in 1996 the University projected that there could be reductions of as much as 33 percent in federal research funds in real dollars over a seven-year period. The next year, the University revised its projection, estimating a 23 percent reduction. The revised figure reflected the higher priority given to research in that year's Congressional Budget Resolution. Over the last two years, however, the University grew even more optimistic because of the strength of the economy and support for research in the Administration and the Congress.

Display 7 shows the predicted downward trend line to the year 2003 for research spending based upon the 1996 Congressional Budget Resolution, and subsequent revisions based upon the 1997, 1998 and 2000 Resolutions. As shown in Display 7 the actual Congressional Appropriation for FY1999 was much higher than predicted than by the earlier resolutions. Thus, while the 2000 Budget Resolution appears to reduce research spending below FY1999 levels, the final outcome is far from certain. Budget negotiations between the Administration and the Congress could ease the caps on discretionary spending and part of the resulting additional funds could go to support research. On the other hand, if current projections hold, then the University will again be predicting losses in real research dollars over time.

Display 7



2000-01 Funding Request

Among the principles of a new partnership currently being negotiated with the Governor is the principle that the State would provide funding for new or expanded special initiatives or programs, such as the development of off-campus centers or the opening of new campuses, special research initiatives, outreach and public service programs to improve K-12 schools, the transition to year-round operations, as well as the costs of legislation agreed to and approved by the State. These funds, which would be contingent upon the State's fiscal situation, would be in addition to the funds provided to support the University's basic budget.

Consistent with this principle, the University is requesting \$15 million for several high priority research initiatives that focus on areas of research that are of economic significance to the State and \$10 million to support the second phase of the Internet2 Initiative to provide UC faculty and students with access to the Internet2 for educational purposes and to facilitate collaborative research with Mexico and cooperative research efforts with private industry. The following is a summary of each of the initiatives.

### **Research In Engineering And Computer Science (\$5 Million)**

California competes in a new global economy, where research and innovation are essential to economic success. The emergence of the knowledge industries and the intertwining of national economies have made investment in research and development and a highly educated workforce imperative. As a high-technology state, California will continue to rely on cutting edge research and highly educated workers, and the critical need for talented people with advanced degrees is especially important in the fields of engineering and computer science. California and the nation must have more scientists and engineers who can create, invent, and reach solutions to increasingly complex problems.

In order to help meet the need, the University is planning to increase enrollments in engineering and computer/computational science to 24,000 students during by 2005-06, including nearly 3,000 graduate students. Most graduate growth in engineering and computer sciences will be at the masters' level. However, there will be some growth in Ph.D.-level enrollment, both to meet expanding industry needs for researchers and to replenish and expand faculty positions across the nation.

Graduate students are a critical part of the research teams that have enabled UC to attain the highest levels of research excellence and productivity; without them, the ability of faculty to secure extramural funding and produce research is weakened.

Thus, the University is proposing a \$5 million increase, with the funding dedicated to supporting graduate student researchers. The additional State funding would be used to help support research in engineering and computer science by providing about 300 graduate research assistantships. Examples of research areas:

- **Structural Engineering** — studies of emerging technologies, design strategies, and analytical capabilities that help to reduce the cost or increase the safety of structures, transportation and communication systems;
- **Electronics** — development of technologies, such as wireless communications, to reduce the cost and increase the feasibility of access to telecommunications systems, or advanced systems for supporting the large volume of traffic that increased access already generates;
- **Advanced materials** – Using knowledge from engineering, physics, chemistry, and biology to study complex advanced materials, such as composites of two or more dissimilar materials that may be used to build stronger bridges and biomaterials that have applications from drug delivery to artificial skin to prosthetics;
- **Nanotechnology** – the development of ultra-small devices with applications in biotechnology (e.g., very small body implants to deliver insulin) and in manufacturing (e.g., computer chips the size of cells that can perform tasks);
- **Bioengineering** – the study of the engineering principles underlying biological structure and function, including tissue, cellular, molecular, and genetic design; and bioinformatics and genomics (the completion of the sequencing of the human genome) and the use of this information of develop treatment for a broad range of diseases.

Providing support for graduate researchers will promote the continued success of the University's research programs, increase the number of individuals with advanced training in areas of critical importance to the State, enable the University of California to attract a greater share of outstanding applicants to graduate school in these fields, and facilitate students' timely completion of their degree programs.

Graduate education is critical to meeting the needs of our increasingly complex society. It provides for the renewal of our higher education faculty, and it trains the future researchers who will develop the new knowledge, new insights, and new syntheses required for the continued economic vitality of California.

### **Environmental Science (\$5 Million)**

The University is requesting \$5 million to establish a universitywide program to support research related to the current and future quality of life in areas affecting all Californians. This program would provide grants to promote basic scientific understanding of our natural resources and their optimal management, issues which are critical to California's environmental sustainability. Examples of the research areas that would be supported under this initiative include coastal ocean health, inland water resources, and energy and atmospheric quality.

An advisory group with representation from the State, industry and the University would provide overall guidance and direction for an environmental research program with a significant policy component. A coordinating committee comprised of University representatives would provide academic oversight, help identify research fields for consideration, and review and select proposals for annual funding. Recognizing the important role of graduate students in the University's research mission, the University would commit to use at least fifty percent of the funding to support graduate student researchers.

California's quality of life and economic vitality are largely the result of its remarkable geography and once-bountiful natural resources. Yet, the natural resource base of California, which includes watersheds, marine resources, and the estuaries that link the oceans with the inland valleys and the mountains are now diminishing at ever faster rates. Exponentially increasing population growth and its demands on marine, terrestrial, aquatic resources, and energy systems are creating serious conflict. As the world's seventh largest economy and as the most populous state in the United States, California faces the unprecedented challenge of maximizing environmental quality while promoting economic development. Economic development, however, requires energy, and energy generation traditionally threatens environmental quality. This paradox seeks creative solutions and a basic understanding of the governing relationships between California's economic health and environmental resources as the State transitions into the next century.

Energy generation, water use, and air and water quality are interrelated issues, and their interactions and interdependencies can best be addressed by cooperative research efforts. The University can facilitate the development of a sound resource management plan through innovative multi-disciplinary research and education programs with the goal of allowing California to maintain a strong economy and an enhanced quality of life.

This research initiative will bring the University's natural and social scientists and the State's resource managers and policy makers together to ensure that research informs long term policies that protect, sustain, and enhance the State's environmental quality and natural resource base. Recent technological developments in remote sensing, water quality monitoring, satellite tracking, as well as analytical techniques set the stage for an integrated monitoring systems which are necessary to assess the quality of atmospheric and coastal/inland water systems.

### ***Coastal Ocean Health***

California is a coastal dependent state yet the economic value of its marine resources is largely under-appreciated. Recreation and tourism in California are major economic engines, producing roughly \$10 billion in revenues annually and supporting over 500,000 jobs. The State has six major ports with a yearly economic impact of \$3.4 billion. Commercial and recreational fisheries generate an additional nearly \$1 billion. A 1994 study concluded that seven ocean-dependent industries contributed more than \$17 billion to the State's economy annually.

Coastal oceans and the industries that depend on them need to be healthy and sustainable. However, human activities have led to significant modifications of California's coastal ecological systems, seriously impacting their ability to sustain themselves. Nearshore waters receive wastewater from domestic, industrial and agricultural drainage. Many of the state's marine fisheries have collapsed and former economically valuable species are now on the endangered list. Contaminated sediments have increasingly begun to restrict dredging of our major ports through which 95 percent of our foreign trade must pass.

There is a critical need to initiate a systematic and long term assessment of representative coastal environmental health indicators and to understand how human activity has affected this zone. Just a few examples of indicators include: trends in catch statistics for commercial species, frequency of beach closures, population trends of threatened marine mammals, and coastal water quality trends. These problems and challenges must be addressed in ways that will be useful to legislators, policy makers and managers who must make the decisions required for the long-term sustained health of California's coastal oceans.

### ***Inland Water Resources***

California's vast inland water resources have enabled the State to develop one of the world's greatest economies. However, most of the water resources have been fully developed and providing for increased future water demands, largely driven by population growth, requires innovative management approaches. Further, the quality of some waters is worsening to the point that future use is jeopardized. Water allocation and water quality are major issues to be addressed in California.

Historically, increasing water demands by cities and agriculture was met by constructing new dams and water conveyance networks to deliver the water. Water requirements to preserve wildlife habitats were mostly ignored. Because the opportunity to develop "new" water is severely limited, workable methods to reallocate water among competing users must be developed.

Learning how to utilize and manage waters of impaired quality is becoming increasingly important. Clean up of all waters to a "pure" state is not economically feasible. Agriculture, cities, and the environment have individually unique water quality and quantity requirements, thus providing both challenges and opportunities to cooperatively manage water resources for the collective benefit of society. As an example, treated sewage water is not acceptable for domestic use, but can serve as a source for irrigated agriculture or wetlands. Wetlands not only provide a wildlife habitat, but also serve to remediate impaired water, which can be beneficial to cities and agriculture.

### ***Energy and Atmospheric Quality***

Air quality of high standards is indispensable to a healthy California ecosystem. California's atmosphere directly impacts the health of California citizens, and is intimately connected to the health of all of California's water resources. Further, air quality impacts the California economy through environmental regulations and policies, which often dictate the location of industry and business enterprises.

A threefold threat to the quality of California's atmosphere is the generation, distribution, and utilization (GDU) of energy. Energy is essential for California's industrial and commercial markets, its vast agricultural enterprise, its complex transportation system, and the effective management of its natural resources. As the most pervasive force in the economic health of California, energy GDU is also most responsible for adverse impacts on atmospheric quality. These adverse impacts are today beginning to (1) challenge economic growth in particular California market segments, and (2) impose increasingly restrictive regulations on California commercial, agricultural, and industrial sectors and the introduction of

next generation products into the rapidly expanding and competitive world market. How California reconciles energy GDU requirements with continued economic growth is one of the greatest challenges facing California's leadership in the coming century.

Over the next thirty years, the State's energy system is likely to be greatly altered by utilities deregulation, new energy-efficient technologies, worldwide environmental concerns as outlined in the Kyoto Accords, and the movement of energy generation out of central generating plants to distributed systems. These forces and changes offer opportunities, but also great uncertainties, necessitating the integration of basic research and sophisticated policy research to craft the best solutions and produce the workforce capable of implementing them.

### **California-Mexico Collaborative Research (\$5 million)**

The University is requesting \$5 million to support collaborative research grants focusing on issues of critical interest to California and Mexico. This initiative builds on the Governor's and Legislature's interest to work more closely with Mexico.

The \$5 million would be the first phase of a multi-year effort to support collaborative research grants on critical issues of joint economic interest to California and all our international trading partners, focusing on the Pacific Rim.

The United States and Mexico face many challenges in common that are of critical future importance to the people of California, including environmental protection and resource use, agricultural production and pest control, public health and preventive medicine, and the management of a shared labor force.

In order to integrate and engage the research and scientific infrastructures of Mexico and California and to focus their intellectual resources upon these and other important binational questions, the University is proposing to significantly expand its cooperative research with Mexico. Through the involvement of graduate and postgraduate students in active academic and scientific collaborations, California and Mexico also can begin to train a new generation of scientists and scholars who will continue and expand a growing tradition of intellectual engagement between their academic communities.

Opportunities for UC faculty who want to undertake long-term or sabbatical research and the involvement of graduate students in collaborative research projects are critical components of their training as future researchers. Among the areas of research are:

- Trade and economic development;
- Environment, with a focus on air, water, and earthquakes;
- Biology, with a focus on natural resource conservation and restoration, biodiversity, and management of natural reserves and protected areas;
- Immigration, with a focus on promoting intercultural understanding among diverse immigrant communities, as well as between immigrants and established residents, and understanding the economic, social, and cultural linkages between these groups;
- Food and agriculture, with special focus on nutrition, drylands agriculture, pest control, biotechnology, and agricultural economics; and
- Health, with emphasis on public health, primary care, and preventive medicine.

An advisory group with representation from the State, industry and the University would provide overall guidance and direction for a collaborative US/Mexico research program. A coordinating committee comprised of University representatives would provide academic oversight, help identify research fields for consideration, and review and select proposals for annual funding. Recognizing the important role of graduate students in the University's research mission, one goal of this initiative is to provide support for graduate student researchers.

The relationship between California and Mexico is of great mutual importance. Despite the special challenges presented by trans-border contrasts in wealth and power, the people of California and Mexico have much in common. The California-Mexico connection reflects a unique integration and interdependence of economy, commerce, and society.

Mexico is one of California's most important and fastest growing markets. Communication and cooperation between the two governments and their respective agencies is steadily improving as California works to establish its place in the forefront of U.S. state relationships with Mexico. Corporations, business and politicians have made significant progress in the new environment, and academic institutions must do the same. The University, as the State's premier research institution, is well positioned to work with Mexico's top-ranked institutions in order to enable UC and Mexican scholars to work together to develop solutions to common problems and to advance scientific capacities.

There is a history of collaborative efforts between the University and various universities in Mexico upon which to build. For example, in 1997, the University

signed an agreement with CONACYT, Mexico's national science and technology agency. The agreement provides a framework for UC faculty and students to work and learn at Mexico's finest research institutions (and vice versa), with a focus on the training of future leaders in commerce, academia, and government and the advancement of research and development activities to meet common needs, address shared problems, and promote cultural exchange and understanding.

### **Internet2 Initiative (\$10,000,000)**

The University has been involved in pioneering efforts to develop an advanced, high performance communication network that allows billions of bits of data per second to flow between computers which are critical to enabling faculty and student access to network services, such as the digital library, and for fostering research collaboration among UC faculty and students, and with industry researchers. In order to assure that faculty and students have the access they need to encourage cooperative research initiatives with industry and to keep UC and California at the forefront of the nation, the University is requesting funding to enhance the University's network infrastructure: \$7.5 million for the Campus Internet2 Infrastructure Program, and \$2.5 million for the UC-Industry Internet2 Infrastructure.

Internet2 is a high-speed national network developed by 140 participating higher education institutions (including UC). In addition to their own funds, the participating institutions have received about \$35 million in federal funds to help pay for the development of the Internet2, which is generally available only to academic institutions for use on state-of-the-art applications requiring great speed and/or manipulation of large databases of information. Faculty use Internet2 for large, complex problem-solving tasks that require great speed and/or access to huge databases of information.

The Legislature has approved legislation (SB735) which would provide the University with \$2.5 million to complete the link between the northern and southern "hubs" and to begin upgrading campus infrastructure needed to provide direct access to Internet2. As of this writing the Governor has not taken action on the bill. Completion of the link between the northern and southern hubs will enhance the University's ability to move huge databases between the northern and the southern campuses quickly and easily. The completion of the north-south link is in keeping with Governor Davis's agreement with President Zedillo of Mexico provide access to Internet2 for Mexican universities and to increase collaboration with Mexican universities.

#### ***Campus Internet2 Infrastructure***

The University will devote \$7.5 million to ensure that UC faculty and students have greater access to the national high-speed network. California universities and the federal government have already invested millions of dollars to create the California portion of Internet2, called "CalREN2".

This advanced services network is able to deliver information with greater reliability and speed than has been possible, and allows shared access among UC faculty and faculty at independent higher education institutions to advanced applications such as high-performance research instruments, distributed computation on massive databases, telemedicine, and collaborative pharmaceutical research. Internet2 has enabled faculty in research universities throughout the country to tackle some of the nation's most intractable scientific and engineering challenges, as well as issues and problems relating to the networking (Internet2) itself.

But the campuses must be able to access these networks, by completing the connections from the doorstep of the campuses to the desktops of the faculty and students. This requires an upgrade to the University's campus networks and support infrastructure. Currently, the University does not have the campus infrastructure in place to allow other than limited access to Internet2 by faculty on its campuses. Many UC faculty are only able to access the Internet2 network via slow and congested campus networks, "waiting in long lines" to obtain limited access to the high-speed network. The purpose of the current initiative is to use funds to upgrade the University's campus technological infrastructure so that the proper linkages are in place to allow access to Internet2 by individual faculty members nearer to the laboratories where their research is occurring. Without those linkages, access to the Internet2 will continue to be limited to much fewer faculty. The funds that may be provided in 1999-2000, while an important first step, would allow the University to begin a modest and limited effort to upgrade campus infrastructure; additional funding is needed if access is to be provided.

The University is proud of its past contributions to national advances in networking, along with other California institutions. But the existing campus infrastructure must be enhanced and continuously maintained to allow the campuses to adapt and take advantage of the new network and new developments in technology to meet the evolving demands of research and education. The lifecycle of networking technology is an average of three years. Staff, are also key to operating the network and providing support to faculty and students to enable them to take advantage of its capabilities. The new funding will provide a stable source of funding to renew and maintain the campus infrastructure to allow faculty and students to take full advantage of Internet2 and CalREN2 and the new generation of technology.

### ***UC-Industry Internet2 Infrastructure***

The University will use the remaining \$2.5 to support the UC-Industry Internet2 Infrastructure Program. This is a program to expand CalREN2 in order to encourage and facilitate UC faculty collaboration with researchers in industry. The funds would be used to initiate joint projects with California industrial partners on research projects of common interest. State funds would be used to leverage matching funds from industry. The Industry Infrastructure Program would build upon the University's current successful efforts, such as the Industry-University Cooperative Research Program, which seek to increase cooperation with business. The partnerships would play an essential role in speeding the transfer of UC's

academic research to industry, thereby enhancing companies' competitiveness and their contribution to the State's economy.

The new capabilities provided by Internet2 and CalREN2 extend, with few exceptions, only to the academic community due to current funding constraints. However, as with the first generation Internet, much will be gained by extending the reach of CalREN2 to a broad range of corporations.

Participating companies will pay for their access to the CalREN2 network. This high-performance network segment will allow the transit of private industry research traffic to and from California's academic institutions for defined research purposes, and also interconnect the University's growing presence in the Central Valley at Merced and Fresno.

Besides speeding research transfer and maintaining industry competitiveness, there are other benefits to the University and to the State: gaining access to resources and instrumentation only available in industry, facilitating student internships with California's industry by diminishing the importance of physical location, and providing access for new industry partners to the California Supercomputer Center.

Once these campus connections are in place, the University will be in a better position to increase collaboration with Mexican universities, in keeping with Governor Davis' agreement with President Zedillo, and to increase collaboration with researchers in private businesses on projects of common interest to UC faculty and California's high-tech industry, providing access to Internet2 through UC's direct link.

### **Benefits of Research**

The University's research activities yield a multitude of benefits, ranging from increases in industrial and agricultural productivity to advances in health care and improvements in the quality of life. The following discussion presents examples of UC's contributions to the economic and social well being of the State and nation.

#### ***Economic Impact***

In terms of a direct impact on the California economy, University research programs attract large amounts of extramural funds for expenditure within the State. In 1998-99, the University spent over \$1.5 billion dollars received from the federal government and private sources for research – over four times the amount provided from the State for research.

High technology industries such as biotechnology, microelectronics, and information technology stimulate and support the State's economy. Some of these industries have grown directly from UC research. For example, the biotechnology industry was launched as a result of the discovery of recombinant DNA, or "gene splicing," by scientists at UC San Francisco and Stanford. Today, California is the world leader in biotechnology, and home to 376 companies, approximately one-third of all

biotechnology firms in the U.S.

Many commercial enterprises in California are either based on UC-developed technology or were founded by faculty or students trained at UC. Recently, UC San Diego identified 119 such companies nurtured by research from that campus, which together employ more than 15,000 people and generate annual revenues in excess of \$1.8 billion. UC scientists founded one in five biotechnology companies in California, including three of the world's top companies, Genentech Inc. of South San Francisco, Chiron Corp. of Emeryville, and Amgen Inc. of Thousand Oaks. California biotechnology companies collectively account for nearly half of the biotech industry's annual sales in the U.S. and employ more than 40,000 people in California.

### ***Partnerships With Industry***

The Industry-University Cooperative Research Program (IUCR), established in 1996-97, has emerged as an important mechanism for making targeted investments in areas of research that are of strategic importance to the California economy. This competitive matching grant program is modeled, in part, on the University's successful MICRO Program, which demonstrates UC's track record in using research partnerships to enhance economic development. Since its establishment in 1981, MICRO has played an important role in nurturing the development of California's world class microelectronics and computer industries. MICRO has brought more than \$103 million in new private sector funding for University research and education. MICRO invests its annual \$4.6 million funding from the University and State to attract industry to support UC research and training. MICRO awards funds to faculty-initiated research projects that are jointly supported by microelectronics companies. MICRO also provides graduate student fellowships to ensure an uninterrupted supply of well trained scientists and engineers for California's microelectronics industry. As an integral part of the IUCR program, MICRO helps ensure California's continued world leadership in microelectronics.

### ***Agriculture***

Agriculture, which in 1997 was a \$26.8 billion industry and accounted for nearly one in ten jobs in California, is highly dependent on UC research. In a recent study on the payback of the State's investment in agricultural research, it was shown that farm production increased nearly 300 percent from 1949 to 1985, with almost half of this growth directly related to research. This correlation continues today, with UC researchers and Cooperative Extension county advisors helping the State's growers maintain a competitive edge in domestic and export markets through the development and adoption of new technologies and innovative farming practices. Agricultural exports generated \$12 billion in 1996.

A prime example of UC's research contribution to California agriculture is the success of the State's strawberry industry. California produces more than 80 percent of the nation's strawberries, with a 1996 crop value of \$585 million. Average California yields per acre are the highest in the world – more than twice the yields per acre in Florida and five times those in Oregon, the world's next two

largest producers. Nearly 90 percent of California's strawberry acreage is planted in UC-developed varieties.

In attempting to further increase the productivity and diversity of California agriculture, UC scientists are currently applying genetic engineering technologies to areas of key significance. Examples include the cloning of disease resistant genes in plants; modifications of microbes to clean up toxic wastes; novel microbial insecticides; genetic improvement in photosynthetic efficiency and nutritional value of plants; and genetic modification of plants for drought, heat, frost and salt resistance.

### ***Medicine and Other Areas***

UC medical research has led to dramatic improvements in the diagnosis and treatment of disease. The University has assumed a major leadership role in the battle against AIDS. Its researchers were among the first to describe the syndrome and the malignancies associated with it and to isolate the causative agent for AIDS in humans. Molecular biology research has given us relatively inexpensive, safe, and effective vaccines and hormones as well as a variety of other therapeutic agents. Genetic engineering technologies being developed at UC promise to help find cures for some of our most serious health problems – such as cancer, Alzheimer's disease and other illnesses of aging, cardiovascular disease, and arthritis. Other medical advances growing out of UC research include a laser treatment for previously untreatable eye conditions; high energy shock waves to disintegrate urinary stones without surgery; a nicotine skin patch, worn on the upper arm, to wean smokers off cigarettes; corrective surgery before birth for formerly fatal fetus abnormalities; an inner-ear implant that enables the deaf to recognize tones and thus understand language; and a simple, inexpensive blood test to determine the risk for having a Down's syndrome baby.

As previously noted, the 1999-2000 State Budget includes \$22.3 million for medical research on substance and alcohol abuse, \$5 million for brain injury research, and \$4 million for a center to conduct basic science research on various neurodevelopmental disorders and to develop effective treatments.

Coordinated by the UCSF campus, the substance and alcohol abuse funds will be used to study the effects of alcohol on the brain, to develop ways of identify alcoholics and individuals at risk for developing alcoholism because of genetic vulnerability, and to develop new therapies for the prevention and management of alcoholism and alcoholic neurologic disorders.

The \$5 million of State funds will be used to expand UC research on the effects of traumatic head injuries through the Brain Injury Research Center at the Los Angeles campus, including research to provide basic data on metabolic changes occurring in the brains of patients with traumatic head injuries.

The \$4 million of State funds for a neurodevelopmental center at UC Davis will be used to leverage gift funds and federal and state restricted contracts and grants to support research on the impact of these disorders on educational attainment and

employment, and will guide effective medical, educational and social science interventions for individuals with such disorders.

In areas other than medicine, University researchers are exploring methods for predicting the time and location of earthquakes and ways to design new buildings and modify existing buildings so they better withstand the effects. Research on global climate and earth systems is benefiting California fisheries and agriculture by leading to better predictions of hazards such as drought, flooding, and other natural disasters and to more effective means of mitigating their effects. New materials are being developed that could lead to better synthetic products such as prosthetic devices more acceptable to the body and longer-lasting, easy-care contact lenses. California's changing transportation needs are being addressed by UC researchers forging ahead in new research areas such as roadway technologies, alternative fuels, and truck safety. Social science research is furthering our understanding of issues critical to California's social and political well being. Examples include research on the local impact of the global economy, the changing distribution of ethnic and racial groups in the State, implications of the aging of the population, and public responses to technological advances.

## PUBLIC SERVICE

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 210,841,000</b>
General Funds	145,294,000
Restricted Funds	65,547,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	1,311,000

Public service includes a broad range of activities organized by the University to serve local communities, students and teachers in the schools and community colleges, and the public in general. A prominent component of public service is the University's intersegmental outreach programs, designed to provide assistance to K-14 students and schools to encourage more students to become qualified for higher education. Cooperative Extension is the University's largest public service program, providing applied research and educational programs in agriculture and natural resources, family and consumer sciences, community resource development, and 4-H youth development for Californians. Campus public service, which is almost completely supported by user fees and other non-State fund sources, includes such activities as arts and lecture programs and community service projects. In addition, the University's public service programs include two health sciences programs jointly operated with other schools – the Charles R. Drew University of Medicine and Science and the California College of Podiatric Medicine.

### **Outreach and K-14 Improvement Programs New Initiatives for 2000-01 (\$6 million Increase)**

For nearly thirty-five years, the University has been at the forefront of the nation's efforts to develop programs to assist educationally disadvantaged students in gaining access to higher education. The continued development and expansion of outreach programs are among the highest priorities for both the University and the State of California as reflected in the \$38.5 million increase provided by the State for these programs in the University's 1998-99 budget (includes \$33.5 million in new State funds and \$5 million of University funds that were reallocated for this purpose) and the additional \$17.3 million provided by the State in the 1999-2000 budget.

In 1996-97, the University initiated a significant new effort to improve opportunities for California students in disadvantaged circumstances to achieve eligibility and to enroll at UC campuses through a four-point strategy including, school-university partnerships, student academic development programs, informational outreach and recruitment programs, and research and evaluation. The initial years involved a tremendous expansion of successful existing programs as well as exciting new programs. The initiatives proposed for 2000-01 build on these efforts and address four key areas where more resources need to be directed.

In addition to the funding levels anticipated in a new partnership agreement with the Governor to support the University's basic budget, the University is requesting an increase of \$6 million to expand outreach and K-14 improvement programs. The increased funding would be used to develop a UC-California Community College Transfer Partnership Initiative and Professional Algebra Institutes for middle and high school teachers, and to expand the University's graduate and professional outreach efforts and research on educational access and equity.

***UC-California Community College Transfer Partnership (\$2.5 million)***

The purpose of this initiative is to raise substantially the number of community college students transferring to UC, especially from those community colleges with current low transfer rates. This project is intended to support the commitment embodied in the University's Memorandum of Understanding with the California Community Colleges to increase the number of students transferring from the community colleges to UC from about 10,200 at present to 14,500 by 2005-06.

This program would build upon the K-12 school-university partnership model whereby UC campuses work with one or more regional partner community college campuses to help facilitate transfer to a four-year institution. This initiative would identify a group of students immediately upon enrollment at the community colleges, establish individual study plans appropriate for majors at UC and other four-year campuses, and track student progress term by term while also providing advice and academic experiences that improve the odds of transfer success. In addition, the program would link community college, K-12, and UC faculty and staff through joint projects involving curricula development, further development of articulation agreements, and student services. These links will contribute to the alignment of curricula and services among segments and help to eliminate discontinuities that impede student progress from high school through community college to a four-year institution.

The program also would make greater use of electronic tools to promote communication and cooperative work among community college students, faculty and staff, and UC campus personnel. Finally, the program would provide regular counseling about educational financing options both before and after transfer, and offer participants the opportunity to be considered for special scholarships. UC campuses will establish partnerships with community college campuses that commit to match UC resources provided for this program.

***Algebra Institutes (\$1 million)*** build on the University's commitment to play a greater role in the preparation and continued professional development of K-12

teachers by providing standards-based professional development to sixth through ninth grade teachers of mathematics to ensure the successful completion of Algebra by California's secondary students. Priority would be given to teachers from low-performing schools such as those working in partnership with the University as part of the K-12 outreach effort.

The State Board of Education now requires every graduating California high school student to successfully complete Algebra. Middle school algebra courses serve as the gateway into higher level mathematics and science courses in high school. Research has shown that if students do not pass Algebra by 8th or 9th grade, their ability to complete the college preparatory coursework necessary to attend college drops significantly, essentially closing the pipeline to higher education. Furthermore, the failure rate of students who take algebra courses in later grades tends to be very high. In some UC partner schools, the failure rate of students taking algebra is as high as 70 percent.

A major contributor to this problem is California's lack of qualified mathematics teachers. Nearly half the middle and high school teachers currently teaching mathematics have no major or minor in mathematics, and therefore lack the minimal preparation required for a credential.

University of California and other postsecondary mathematics faculty, mathematics educators from the CSU, and accomplished teachers of Algebra from California secondary schools will design the key elements of this program, including the core curriculum for participants. Once designed, the program will be administered through the California Mathematics Project, an intersegmental professional development program. The statewide Algebra Institutes will be modeled on the successful Reading Professional Development Institutes for K-3 Teachers established this past year.

The summer institutes would involve approximately 150 eight-person teams of mathematics teachers from a single school or district. These institutes would be linked to district-sponsored summer school programs, giving participating teachers an opportunity to immediately implement their new skills by working with students in morning classes. In the afternoon, participants would work with university faculty and expert teachers of mathematics to analyze and debrief their lessons, examine student performance, and refine or redesign their strategies in preparation for the next day. Following the summer institutes, teachers would be well-prepared, experienced, and ready to teach in their own classrooms. Approximately 80 hours in follow-up sessions, would be offered at the teachers' school sites and required of each participating teacher team.

### ***Graduate and Professional Outreach (\$1.5 million)***

The University is requesting an increase of \$1.5 million to expand programs to identify, prepare, and encourage students from educationally disadvantaged backgrounds to attend and succeed in graduate and professional school.

Of this, \$600,000 will be used to double the number of students served by the UC Leadership Excellence through Advanced Degrees (UC LEADS) Program.

This program was designed to identify undergraduate students from educationally disadvantaged backgrounds enrolled in science, engineering, and mathematics programs at the University of California, and to provide these students with undergraduate educational experiences that will prepare them to assume positions in industry, government, public service, and academia following the completion of their doctoral degree at the University of California.

In 1999-2000, the University received \$562,500 in State funds (to be matched by \$562,500 from the graduate schools) to establish the UC LEADS Program. Given the two-year nature of the program, funds are being used to appoint 74 UC LEADS scholars every other year. The scholars are appointed in their sophomore year and supported in a number of scholarship opportunities including: an undergraduate mentorship experience, campus academic enrichment opportunities and annual University-wide symposia, summer research programs, involvement in professional and scientific societies, and travel to other UC campuses for training and exposure to graduate study. UC LEADS activities are intended to be coordinated with already existing programs, such as California Alliance for Minority Participation (CAMP) and Mathematics, Engineering, Science Achievement (MESA), that encourage and prepare UC undergraduates for graduate study.

The additional support requested in 2000-01 would double the number of UC LEADS scholars, bringing the program to a steady-state level of 148 first- and second-year participants. Additional funding would also expand the program to include scholars from CSU and other non-UC colleges in California in the summer internship portions of the Programs. Further, while maintaining a focus on science, engineering, and mathematics students, the additional funding would be used to prepare the Scholars to take crucial leadership roles in the State in areas where the critical participation of individuals from educationally disadvantaged backgrounds is lacking. Such areas include K-12 teaching, city and regional planning, architecture, social welfare, and nursing.

Given the need to increase diversity in all of the University's professional schools, the remaining \$900,000 will be used to provide outreach funding to those UC professional schools that have not received outreach funding over the past ten years: Business, Dentistry, Optometry, Pharmacy, and Veterinary Medicine. Programs in these schools will be modeled after programs recently developed in Medicine and Law. State funds provided in 2000-01 will be matched by funds from the respective professional schools.

Over the past two years, the five UC medical schools were allocated \$875,000 in state funds to be matched equally by the medical schools (\$312,500 in 1998-99 and \$562,500 in 1999-2000). In combination, these funds are being used for post-baccalaureate re-applicant and applicant programs which support students who need to improve their eligibility status; undergraduate medical school preparation programs; liaisons with local community colleges which focus on academic

preparation for medical school; and a variety of other informational outreach activities.

Over the same two-year period, UC's three law schools were allocated \$562,500, also requiring a one-to-one match (\$187,500 in 1998 and \$375,999 in 1999-2000). These funds are being used to identify potential students, and prepare and encourage them to apply to law school through programs such as: summer opportunities to strengthen writing and study techniques; visits to undergraduate institutions nationwide; regional and national law forums; and support for student organizations' efforts to recruit diverse student populations. Law schools are also using these funds to expand efforts by staff, faculty, alumni, student organizations, and law students themselves to encourage applicants who have been admitted to UC law schools to select UC over other higher education institutions. These efforts include regional orientations and receptions; pre-law advising on admitted applicants' undergraduate campuses; and hosting admitted applicants for campus visits, tours, and receptions.

Given the need to increase the diversity in all of the University's professional schools, the University will use \$900,000 in 2000-01, and require a match from the professional schools, to support the creation and expansion of outreach initiatives for prospective students from educationally disadvantaged backgrounds in the professional programs listed above.

***Research on Educational Access and Equity (\$1 million)***

The Outreach Task Force recommended using the University's research expertise to identify the root causes of educational disparity within California's school system from K-12 through postsecondary education. In response to this charge, a systemwide faculty planning group has recommended the creation of the UC All Campus Collaborative on Outreach Research and Dissemination (UC ACCORD) that builds on existing faculty expertise and research infrastructure to address critical problems of education and equity.

The University is requesting \$1 million to support a major research initiative that examines the problems and challenges of access to higher education by California's educationally disadvantaged schoolchildren. The research will identify features of the educational process that lead to inequities and disparities in access to higher education. Research results will be used to devise strategies to identify and overcome barriers to learning and academic achievement and a set of best practices to enhance these critical abilities.

Interest in outreach has intensified, as educators and policymakers strive to preserve a diverse academy in a post-affirmative action world and to provide access to a higher education to all segments of California's population. Higher education must keep up with the profound changes that are taking place in society. California, in particular, faces the challenge of affording educational opportunities to an extraordinarily large, diverse population of youth in the K-12 pipeline. If the University's overall outreach efforts are to be successful, it must have a better, more in-depth understanding of those elements of the educational process that lead to inequities and disparities in access to higher education.

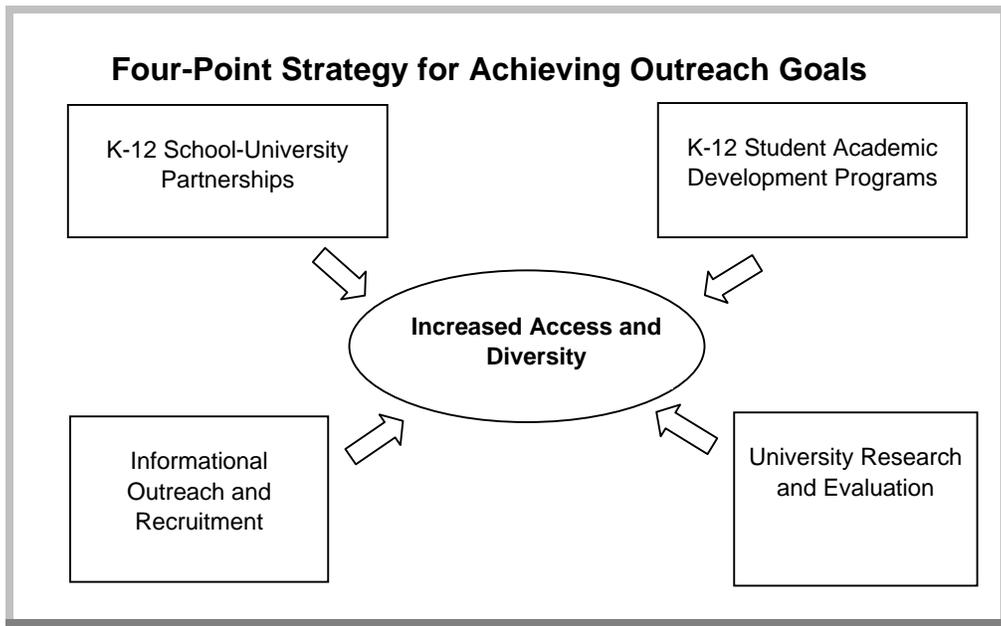
The University of California has made a substantial, long-term commitment to improving access to education for California’s schoolchildren by developing a multi-pronged approach to tackling this immense challenge. The research initiative is necessary to help fuel the commitment and point to solutions in ways useful to policymakers, teachers, students, and parents.

There are three major components of this collaborative effort. The first is to establish a clearinghouse to synthesize and disseminate research findings and identify critical areas for new research initiatives. The second is to create Collaborative Research Groups that bring together university and college researchers (UC, CSU, and CCC), K-12 practitioners, and local, regional, and state policymakers. The third is to develop and disseminate educational research products using flexible formats (summary reports on a web site, publications, “idea books,” newsletters, CD ROMs, and videotapes) designed to be accessible to a range of audiences.

### **History and Overview of the University’s Outreach And K-12 Improvement Programs**

The goals of the University’s outreach programs are to contribute to the academic enrichment of UC campuses through a diverse student body and to improve opportunities for California students in educationally disadvantaged circumstances to achieve eligibility and to enroll at UC campuses.

**Display 1**



**Systemwide Outreach and K-14 Improvement Programs a)**  
**Annual Funds Available**  
(Includes Funds from all Sources)  
(\$000s)

	1997-98 Base Budget		Augmentations		Annual Estimated	
	State/UC Funds Prior	to Augmentations	1997-98, 1998-99, 1999-2000 State/UC Funds b)	Funds from Other Segments and Private Sources c)	1999-2000 Total Funds Available	
K-12 School-University Partnerships						
Partnerships	\$ --		\$ 14,775	\$ 13,699	\$ 28,474	
Urban Community-School Collaborative	--		457	100	557	
Community Education and Resource Center Initiative (CERC)	--		600	600	1,200	
UC College Preparatory Initiative	--		700	--	700	
Development of On-Line Advanced Placement Courses d)	--		4,000	--	4,000	
UC Nexus	--		807	100	907	
Charter Schools	--		1,000	895	1,895	
GEAR UP	--		--	4,998	4,998	
Other School-University Partnership Programs	203		280	--	483	
Subtotal, K-12 School-University Partnerships	203		22,619	20,392	43,214	
K-12 Student Academic Development Programs						
Early Academic Outreach Program (EAOP)	4,794		9,265	8,300	22,359	
Mathematics, Engineering, Science Achievement (MESA)	4,191		4,250	15,286	23,727	
Puente	162		1,800	3,115	5,077	
Test Preparation Programs	--		750	750	1,500	
Other (including DANR 4-H, UC Links)	--		959	573	1,532	
Subtotal, K-12 Student Academic Development Programs	9,147		17,024	28,024	54,195	
K-12 Professional Development Programs for Teachers and Staff						
California Subject Matter Projects	14,366		250	8,300	22,916	
Reading Professional Institutes for K-3 Teachers	--		6,000	6,000	12,000	
English Language Learners	--		5,000	--	5,000	
Pre-Intern Teacher Academies	--		750	--	750	
Subtotal, K-12 Professional Development Programs	14,366		12,000	14,300	40,666	
Community College Programs	2,078		3,500 e)	15,500 f)	21,078	
Central Valley Programs	--		1,500	1,000	2,500	
Graduate and Professional School Programs	1,893		4,200	--	6,093	
Informational Outreach and Recruitment	4,750		1,350	--	6,100	
Research	--		300	--	300	
Evaluation	--		1,530	--	1,530	
Cost Adjustments on Above Programs	--		2,800	--	2,800	
<b>Total, All Programs</b>	<b>\$ 32,437</b>		<b>\$ 66,823</b>	<b>\$ 79,216</b>	<b>\$ 178,476</b>	

a) This table includes programs that were identified by the Outreach Task Force as programs that would play a major role in the University's outreach initiative, both at the individual student level and through school improvement programs. While there are additional programs not included in this table that are also aimed at helping improve K-14 schools, only those systemwide programs which the Outreach Task Force identified as key elements to the success of the outreach initiative are included in this budget summary. The Outreach Task Force identified \$60 million as the total being spent in 1995-96 for these programs. In this table, that figure has been updated to include community college programs and to reflect inflationary and other adjustments. This table also includes new outreach programs approved by the Legislature and the Governor in the 1998-99 and

1999-2000 budgets.

- b) Includes new funds from 1996-97 which were temporarily allocated in the first year and not made permanent until 1997-98.
- c) Includes \$31 million in K-12 matching funds required for new funding provided in 1998-99. Augmentations prior to 1998-99 did not have a matching requirement.
- d) Includes funds for delivery of on-line advanced placement courses as well as one-time funds for course development.
- e) Includes funds for community college MESA and Puente programs.
- f) Includes estimated community college funding of \$11.6 million from Partnership for Excellence funding provided in 1999-2000 and \$3.9 million related to transfer and articulation programs.

# APPENDIX

The University is meeting these goals through *school-university partnerships* intended to foster long-term, systemic change in low-performing schools; *student academic development programs* designed to help prepare students, including those from disadvantaged backgrounds, for the academic demands of higher education; *informational outreach and recruitment programs*, to provide better and more timely information to students, families, teachers, and counselors to improve planning and preparation for college; and *research and evaluation* to identify the root causes of educational disparity and to evaluate the effectiveness of the University's outreach programs (Display 1).

Over the years, the University's work with California's elementary and secondary schools has grown from a focus on traditional outreach and recruitment programs that encourage students to attend the University to an extensive array of programs across the nine campuses that benefit thousands of K-12 students and their teachers and help improve the quality of K-12 educational programs.

The University works in collaboration with elementary and secondary education as well as other postsecondary institutions, community groups, and business in its efforts to improve student preparation. This collaboration is critical to the success of these programs. Moreover, students who participate in the University's outreach programs will be better prepared for all segments of higher education – the California State University, the community colleges, and private higher education institutions.

The University has a long-standing commitment to the goal of enrolling a student body that reflects the diversity of California. The University's existing outreach programs have been highly successful over the past 35 years, evidenced by the fact that these programs have contributed to creating the most diverse university student body in the nation.

In July 1995, The Regents approved resolutions that prohibit the University from using race, religion, sex, color, ethnicity, or national origin as criteria for admission to the University or in its employment and contracting practices. At the same time, The Regents affirmed their commitment to diversity. Proposition 209, which was approved by the voters in November 1996 and went into effect in August 1997, stipulates that the State, including the University, "shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting." Existing programs have been reconfigured to comply with both the Regents' resolutions adopted in 1995 as well as the provisions of Proposition 209.

Recognizing the potential impact of new admissions criteria on diversity in future student enrollment, The Regents established the Outreach Task Force to identify ways in which outreach programs can help to ensure that the University remains accessible to students of diverse backgrounds. The Outreach Task Force was asked to review current UC outreach efforts and recommend ways to improve and expand existing activities and create new programs. The Task Force began its deliberations

in February 1996 and proposed goals and strategies for UC outreach that were adopted by The Regents in July 1997.

### Funding for Outreach Programs

Prior to implementation of the Outreach Task Force recommendations, the University estimated that approximately \$60 million from all fund sources (including funds from other segments for specified programs) was being spent on the outreach programs that now form the key components of the University's new outreach initiative. The Outreach Task Force set a five-year goal of doubling the resources spent for this effort. With the help of the State and other educational institutions in California, resources available for this initiative have exceeded these funding goals, and earlier than anticipated.

Display 2 shows base budgets and the distribution of new funds, by major program category, from K-12 and higher education segments since the implementation of the Outreach Task Force recommendations. Funds for outreach totaled more than \$137 million in 1998-99 from all fund sources, including other segments. Current funds total more than \$178 million, including the new funding provided in 1999-2000. Display 3 shows augmentations in State and University funds for each year since 1996-97.

Display 3

<b>Additional Outreach and K-12 Partnership Funding State and UC Funds (millions)</b>			
	<b>State Funds</b>	<b>University Funds</b>	<b>Total</b>
1996-97	\$ 1.0	\$ 2.0	\$ 3.0
1997-98	1.0	1.7	2.7
1998-99	33.5	5.0	38.5
1999-00	17.3	1.5	18.8
<b>Total</b>	<b>\$ 52.8</b>	<b>\$ 10.2</b>	<b>\$ 63.0</b>

The detailed outreach budget plan approved by the State for the augmentations provided in 1998-99 is shown in Display 4. The State also required that funds for student academic development programs, school-university programs, and Central Valley programs be matched on a one-to-one basis by K-12 schools.

**Display 4**

<b>1998-99 Outreach Initiatives</b>	
<b>Program</b>	<b>1998-99 Augmentation</b>
Student Academic Development Programs such as Early Academic Outreach, MESA, Puente <sup>(a)</sup>	\$15,000,000
School-University Partnerships <sup>(a)</sup>	15,000,000
Community College Programs	3,500,000
Central Valley <sup>(a)</sup>	1,000,000
Graduate and Professional Schools, with an emphasis on Medicine and Law (includes matching funds from the schools)	500,000
Charter Schools	1,000,000
Information and Recruitment, including Cascades, Gateways	1,000,000
Research and Evaluation	<u>1,500,000</u>
<b>TOTAL</b>	<b>\$38,500,000</b>
<small>(a) Requires a one-to-one match from participating K-12 schools.</small>	

In 1999-2000, the State again provided a significant infusion of funds to expand the University's outreach and K-12 improvement efforts, bringing the total budget for these programs to more than \$178 million. Display 5 identifies the outreach initiatives funded in the 1999-2000 budget. Descriptions of the major programs in the University's Outreach Initiative are included in this section.

**Display 5**

<b>1999-2000 New Outreach Initiatives</b>	
<b>Program</b>	<b>1999-2000 Augmentation</b>
Reading Professional Institutes for K-3 Teachers	\$6,000,000
English Language Learners (Professional Teacher Development Institutes)	5,000,000
Summer Academies (Professional Teacher Development Institutes)	750,000
Development of On-Line Advanced Placement Courses	4,000,000
Graduate and Professional School Outreach (requires matching funds from the schools)	<u>1,500,000</u>
<b>TOTAL</b>	<b>\$17,250,000</b>

### **K-12 School-University Partnerships**

In 1998-99, the State provided the University with \$15 million to expand its efforts to improve opportunities for educationally disadvantaged students in California through comprehensive partnerships with selected elementary, middle, and high schools. The campuses have exceeded the Outreach Task Force goal of developing 50 high school partnerships, and are now engaged in partnerships with 63 high

schools throughout the State. The campuses are also working in partnership with 54 middle schools and 92 elementary schools that feed into these high schools. When developing partnerships, priority is given to schools where average student performance on the SAT has fallen into the lowest two academic quintiles of schools Statewide. School-university partnerships represent a new concept to introduce systemic change in K-12 schools that goes beyond the traditional types of student academic outreach efforts. Partnerships incorporate teacher-centered and curriculum-based programs aimed at training and developing teachers and strengthening the academic foundation at partner schools where students' performance is below the Statewide average.

The goal of the partnerships is to create a coordinated effort among programs and initiatives that are designed to ensure that students have access to high quality instruction and are able to meet high academic standards in "a-f" courses. Each of the UC campuses collaborates with school administrators, families, and students, as well as regional businesses and community-based organizations to effect long-term, broad-scale changes in academic culture and achievement.

Through the work of the partnerships, the University plans to increase the number of UC eligible graduates from partner high schools by 100 percent, or to increase the eligibility rate by four percent, whichever is greater. Additionally, the University's goal is to increase the number of competitively eligible students from partner high schools by 50 percent, or to increase the competitively eligible rate by two percent, whichever is greater.

The following are descriptions of some programs UC initiated to focus on specific aspects of the K-12 school-university partnerships concept.

#### ***The Urban Community-School Collaborative (UCSCol)***

UCSCol is a "seed" grant program through which UC faculty play a pivotal role in carrying out applied research that address major issues affecting K-12 education, the social and economic health of urban and rural communities, and the professional development of teachers. This enables the resources of the UC campuses, local communities, school districts, and other institutions and agencies throughout the State to use their resources collectively to address issues identified by local constituents and individual communities. The "seed" grants are used to leverage additional dollars.

The UCSCol is assisting the campuses in developing the Community Education Resource Centers (CERC) described below which, unlike the UCSCol, are geared toward the creation of an ongoing physical presence within disadvantage communities. Collaboratives initiated by the UCSCol will, when possible, utilize the CERC as the locus of sustained relationships with targeted communities, K-12 schools and community-based organizations.

#### ***Community Education and Resource Center (CERC) Initiative***

The CERC Initiative is intended to create a physical presence within disadvantaged communities to make University services more accessible. The program will be modeled after the University's Agricultural Cooperative Extension program, and will

serve as a conduit through which students and communities derive information about specific outreach programs. It will also serve as a clearinghouse for brokering program-specific services to communities based on the needs of its student population such as tutoring, mentoring, SAT preparation, and internship opportunities. As the centers develop, the University will include other colleges and universities, as well as foundations and corporations, providing them with a vehicle to engage in activities that would likely have a localized impact and strengthen communities. Through these centers, the University will establish long-term relationships with communities in working to collectively address such critical issues as education, economic development, public health, and community safety.

These Centers will have three measurable goals: (1) help strengthen local schools to improve student achievement and raise college-going rates among local K-12 and community college youth; (2) conduct applied research toward the solution of problems that emerge from the local schools and communities; and (3) offer and/or coordinate a range of services based on needs and priorities identified by the schools and communities.

### ***Charter School***

The Outreach Task Force encouraged the University to establish one or more on-campus high schools, or charter schools. The 1997-98 budget included funds for the planning and development costs associated with establishing an outreach high school to serve students from low-income and underrepresented communities. In 1998-99, the State provided an augmentation of \$1 million for the new school.

UC San Diego and the San Diego Unified School District have collaborated to establish a Model Charter School on the San Diego campus for middle and high school students. The school's charter was approved in September 1998. The majority of operating funds for this school will be provided by the San Diego Unified School District. The \$1 million in State funds is being used for a variety of purposes, including research and assessment of student outcomes, instructional equipment and supplies, custodial services, and maintenance and repair of the facilities. In addition, new facilities for the school, estimated at \$13.7 million, are being constructed entirely with private gift funds. The UCSD Model Charter School has been named The Preuss School in recognition of the Preuss family's \$5 million capital contribution.

The Preuss School began operations in temporary facilities on the San Diego campus in September 1999, with a total of 153 students divided among grades 6 through 8, and is expected to reach its steady state enrollment of 700 students in 2003-04. The Preuss School is designed as an intensive college preparatory school for low-income students who will be the first in their families to attend a four-year university.

As a result of the school's affiliation with the San Diego campus, students will benefit from services provided by tutors, interns, and mentors trained through the campus' Teacher Education Program. Students will also benefit from access to libraries, teaching and research laboratories, visual and performing arts facilities and recreational facilities, partnerships with the School of Medicine's adolescent

health program, the California Space Institute's KidSat program, the San Diego Supercomputer Center, the UCSD Birch Aquarium-Museum, and access to cultural and entertainment events. UCSD faculty and staff will participate in instruction, assessment, and research activities involving the charter school. Students who meet the eligibility criteria associated with the campus' Early Admissions Program will have opportunities to enroll in UCSD courses while attending high school.

### ***UC Nexus K-12 Technology Initiative***

Organized in mid-1997, UC Nexus supports campus-based UC/K-12 collaborative projects that investigate and develop effective uses of computers, the Internet, and related technologies for standards-based teaching and learning activities. One resource for this is the UC Nexus web site which provides on-line discussion tools to facilitate communication between UC and K-12 faculty as they work together to prepare and assess learning materials for a wide range of disciplines and grade levels. In addition, the web site provides a central place on the Internet for information about UC's activities with K-12 as well as information about learning materials and best practices for using technology effectively in the classroom. The purpose is to facilitate teachers' and students' access to materials and other resources at all UC campuses that have not previously been available to them and to promote on-line collaboration.

### ***The UC College Preparatory Initiative (UCCP)***

To be eligible for admission to the University, applicants are required to successfully complete a set of high school courses designated "a-f". In addition, the University's admission process takes into consideration the number of University-approved Advanced Placement (AP) and honors courses applicants complete during high school, and how well they performed in the them. The availability of both the "a-f" and AP courses, however, varies widely across the State. To address this disparity, the UC College Preparatory Initiative was developed to offer on-line high school courses required for admission to the University, also known as the "a-f" requirements. In addition, UCCP is offering AP courses as well as study for AP exams via the Internet.

The inaugural efforts of UCCP, which is administered by the Santa Cruz campus, began in late 1998 with 64 students in 14 high schools from Imperial to Santa Cruz counties. Programs are being implemented in high schools in Fresno, Kern, Mariposa, and Merced counties. Courses are also available to the UC partnership schools throughout the State. The courses are acquired from existing curriculum providers and are adapted to meet UC criteria. Courses are also developed by UC faculty, or by high school faculty in consultation with UC faculty. The program is guided by a Policy Committee comprised of representatives from each UC campus chosen by Chancellors and the Academic Senate. Initial funding for the program was provided by the University in 1998-99.

In 1999-2000, the University received \$4 million from the State to build upon this effort to develop on-line Advanced Placement and honors courses. Funding is provided to develop the courses as well as to maintain them over time.

### ***GEAR UP Federal Funding***

In 1999, California received a \$25 million grant, \$5 million in each of the next five years, for GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs), a federal program to encourage more young people to have high expectations, stay in school, study hard and take the right courses to go to college.

The University will administer the grant for the State whose goal is “to develop and sustain the organizational capacity of middle schools to prepare all students for high school and postsecondary education through the establishment of a statewide infrastructure, or network of support, for the adults who influence middle school students, specifically their counselors, faculty, school leaders, and families. As a result of this expanded capacity, a higher proportion of students, particularly those from backgrounds and communities that have not historically pursued a college education, will enroll and succeed in postsecondary education.”

Through California’s GEAR UP grant, 20 percent of the State’s middle schools, educating nearly 260,000 students, will receive direct services from the program; the remaining schools will benefit from several components of the program and 9,195 students will receive academic support services. Components of the grant include:

- Professional development for middle school educators providing information and raising expectations to support all students to reach high achievement levels;
- Articulation of Standards Framework aligning skills in English and mathematics from elementary through high school with higher education’s expectations;
- Support system to provide parents of middle school students with information and skills to assist and encourage their children to meet high academic standards and prepare for college after high school graduation;
- Resource and Materials Clearinghouse containing information, resources, materials, and services to facilitate middle school educators in communicating with students and their families about the importance of preparing for college;
- Public awareness campaign to convince Californians of the importance of high academic achievement;
- Direct service to 9,195 students who previously participated in the National Early Intervention Scholarship Program; and
- Scholarship Awards for students enrolled in a California college or university.

The program is sponsored by the California Education Roundtable, comprised of the six leaders of the educational segments in the State. The program will be conducted in coordination with the California State University, California Community Colleges, Independent College and Universities, the State Department of Education, the California Postsecondary Education Commission, and the Student Aid Commission.

In addition to the overall Statewide grant, many individual K-12 districts and higher education campuses received smaller one-time partnership grants. The San Diego campus received a \$417,000 GEAR UP partnership award to provide tutoring, academic counseling, mentoring, enriched learning opportunities, campus visits, information about financial aid and college preparatory courses, and motivational activities to increase students' achievement and aspirations for attending college.

The project will promote parent involvement and education and facilitate staff development activities to strengthen the ties between home and school and enhance the ability of both staff and parents to work effectively with the students. The program will be conducted in partnership with the California Student Opportunity and Access Program (Cal-Soap), the San Diego Unified School District, the Sweetwater Union High School District, the Advancement Via Individual Determination (AVID) Center, and the Girl Scouts and UC San Diego partnership schools.

The Irvine campus will work with a GEAR UP partnership program with the Santa Ana Unified School District.

### **K-12 Student Academic Development Programs**

Student academic development activities are aimed at enriching students' academic achievement in specific academic areas through special skills-building programs, tutoring, and group study; career counseling; parent involvement; mentoring; and field trips to UC campuses. A key element in the University's K-12 partnership efforts, student academic development programs have been very effective in preparing students to enroll in higher education as measured by the number of program participants who subsequently become eligible for and enroll at UC and other postsecondary education institutions.

Consistent with the Task Force recommendations and the intent of the Legislature, UC has expanded existing successful student academic development programs such as the Early Academic Outreach Program (EAOP), Mathematics, Engineering, Science Achievement Program (MESA), and Puente to reach more high school and community college students. Additionally, the Task Force recommended that academic development programs be created for students and families in primary schools that increase awareness of college preparation early in a student's education. Systemwide UC academic development programs are working to: (1) increase the number of UC-eligible program graduates from disadvantaged backgrounds by 100 percent between 1997 and 2002, and (2) increase the number of competitively eligible program graduates from disadvantaged backgrounds by 50 percent between 1997 and 2002. The following is a description of some of the student academic development programs that are key to the University's overall outreach efforts.

#### ***Early Academic Outreach Program (EAOP)***

The infusion of new outreach funds from the State enabled EAOP to expand significantly during academic year 1998-99. The total number of California students

served by EAOP is up by more than 12 percent in 1999, with 76,207 students participating at more than 500 middle schools and high schools. The number of junior high and middle school students receiving full services nearly doubled, with 15,560 students served at 200 schools, an increase of 25 schools. The number of high schools served is up by more than 10 percent, with 60,647 students receiving services at 305 schools. Of the approximately 10,000 high school seniors that EAOP serves annually, more than half are eligible to attend the University of California, and more than 90 percent will go on to attend college.

While EAOP is best known for its services to high school students and their families, increasingly the programs are reaching out to students in middle school and elementary school and their families. In the lower grades, EAOP encourages students to develop good study habits and to begin thinking about college. Middle school students gain insight into the kinds of preparation they will need to take the right kind of program in high school. High school students get help preparing for the SAT/ACT exams, selecting the campus that is right for them, and choosing a challenging course schedule that will help enable them to attend the campus of their choice.

EAOP provides information on UC admission requirements, the "a-f" subject requirements, financial aid, housing, filing deadlines, and a myriad of other college-related concerns for students, their families, teachers, counselors and school administrators. All informational programs focus on helping students prepare for the University—academic preparation, how to become competitively eligible, and the components of the admissions process, such as writing the personal statement and applying for financial aid. Campus tours, field trips, guest speakers, mentoring programs and services that generate enthusiasm about college among students and their families are important components of the EAOP experience.

Of the new funds targeted for outreach in 1998-99, EAOP received \$8.3 million. Virtually all of these funds were allocated to campus programs to provide additional services to students, such as new standardized test preparation programs, and innovative Saturday and summer programs. The new funds are also being used to serve additional students and provide programs to students in areas of the State not previously involved in EAOP.

### ***Mathematics, Engineering, Science Achievement Program (MESA)***

MESA operates four programs designed to strengthen the mathematics and science skills of educationally disadvantaged students. The goal of MESA is to increase the number of these students who ultimately make their careers in mathematics- and science-based fields, such as engineering, computer science, and the physical sciences.

MESA operates two pre-college programs. The MESA Schools Program (MSP) assists elementary through high school students with academic preparation, financial aid and academic counseling, parent involvement, collaborative study skills development, field trips to various campuses, and career counseling. MESA's Success Through Collaboration (MESA STC), a partnership with American Indian

education programs, the California Department of Education, tribal governments and communities, industry, and others, offers a program similar to the MSP with an added emphasis on culturally relevant activities. MESA pre-college teachers receive special training in science and mathematics that is used to benefit all students, not just MESA participants.

As part of the MESA Undergraduate Program, the MESA Engineering Program (MEP) provides freshman orientation, academic and career counseling, group study methods, academic excellence workshops, and tutoring to engineering and computer science students at four-year colleges and universities. The MESA California Community College Program (MESA CCCP) provides academic assistance similar to the MEP with the goal that the students will successfully transfer to four-year institutions and attain mathematics-based degrees. With new resources from the State, MESA CCCP will expand from 10 centers in 1998-99 to over 30 centers by the end of the 1999-2000 academic year.

Because of MESA's success in producing highly qualified professionals urgently needed by California industry, over 100 corporations are actively involved in supporting the program. The California MESA model has been replicated in seven states.

MESA receives funds through budget appropriations to the University, CSU, and the community colleges. MESA also receives support from the independent colleges, federal agencies, industry, private foundations and local school districts. Funding for MESA has been included in the University's budget since the program began in 1970 with the exception of two years (1983-84 and 1984-85), when funding was temporarily shifted to the State Department of Education. In 1998-99, MESA's budget was \$15.8 million, including \$9 million in the University's budget, \$2.8 million in private and federal funds, and \$4 million in other segments' budgets.

In 1998-99, MESA served 14,500 pre-college students (growth of 790 students, or 6%) as well as 7,500 community college and university students. In 1999-2000, it is anticipated that MESA will serve between 27,000 and 30,000 students.

### ***Puente***

The Puente Project, which was established in 1981 to address the problem of low college persistence and transfer rates of Mexican American and Latino students to four-year colleges and universities, is now open to all students. Puente is jointly sponsored by the University and the California Community Colleges and conducts programs in 43 community colleges and 33 high schools. State funds in the University's budget for Puente total \$2.5 million. In addition, the program receives \$944,000 from the community colleges. It is anticipated that Puente will impact over 63,000 students in 1999-2000 through its core and extended training programs.

The Puente program combines innovative teaching and counseling methods with community involvement to provide students with an accelerated writing class, sustained academic counseling, and role models and mentors from the professional community who inspire students to achieve academic and career goals.

Since its inception, Puente has trained over 400 teachers and counselors in Puente's effective methods for teaching writing skills and counseling educationally underserved students. Over 2,100 mentors donate their time annually for an in-kind contribution valued at over \$1 million. Puente has been very successful in increasing the number of students transferring from community colleges to four-year institutions. For example, community colleges with Puente programs transfer 44 percent more Latino students to the University of California than colleges without Puente.

The success of the Puente Project has been recognized nationally, most recently by the prestigious Innovations in American Government Award, jointly sponsored by Harvard University and the Ford Foundation. The Puente Project was selected because of its "exceptional program creativity, quality, and accomplishment."

In 1993, Puente began a four-year high school pilot program funded entirely by private foundations and local school districts. High school Puente has now expanded to 33 schools in 16 school districts, reaching over 26,000 students per year throughout California. Modeled on the community college program, High School Puente is comprised of a ninth and tenth grade college preparatory English class, taught by the same teacher; academic counseling in grades 9-12; mentoring; and extensive parent involvement. New funds totaling \$1,650,000 were provided in the University's budget in 1998-99 to support the expansion of High School Puente.

A comprehensive, independent evaluation of High School Puente funded by The Carnegie Corporation was released in December 1998. The study used a comparison group methodology, matching ninth grade Puente students with non-Puente students for gender, ethnicity, grade point average, reading scores, and economic backgrounds. The study showed that Puente students attended four-year colleges at almost twice the rate of non-Puente students (43% vs. 24%) and applied to UC in much larger numbers compared to a control group of non-participants (24% vs. 8%).

High School Puente has also introduced a "peer mentoring program," in which Puente students who have completed the academic portion of the program mentor incoming Puente freshmen. The peer mentors also enroll in a community college class, for college credit, which covers elements of counseling, mentoring, and academic preparation. In addition to better preparing students for academic success, this class creates a valuable link between the K-12 and community college segments. As well, it becomes part of a sustained academic guidance program that serves students from ninth grade through the community college and into the University.

### ***Test-Preparation Programs***

In March 1999, UC and the College Board joined forces in a pilot program in which some 6,500 middle school and high school students took a practice Preliminary Scholastic Assessment Test (PSAT). Conducted at each UC campus (or in the campus region), EAOP administered the exam to educationally disadvantaged students who participate in such academic development programs as EAOP, MESA,

and the Puente Project. The test, which is normally administered to high school juniors, was given to students in eighth grade to provide an early assessment of the student's academic strengths and weaknesses. The results are being used to develop individual academic plans and to help schools improve their college-preparatory programs. The PSAT pilot project will continue in spring 2000 to augment the SAT/ACT preparation programs already in place.

### ***UC Links***

UC Links is a Statewide network of after-school programs that provide computer-based educational resources and opportunities to K-12 youth who do not have access to these resources in their homes, schools, or neighborhoods. At 29 sites throughout the State, UC undergraduate students work closely with K-12 students as they engage in computer activities that develop mathematics, science, and basic literacy skills. UC undergraduate participants are enrolled in child development courses as well as research projects related to culture, language, and learning. The operation of program sites is coordinated by UC, CSU, and other university faculty, staff, and students, in collaboration with local K-12 teachers, parents and other community members.

### ***Division of Agriculture and Natural Resources K-12 Outreach Programs***

The University's Division of Agriculture and Natural Resources (DANR) plays an important role in K-12 outreach through its Urban 4-H After School Program. For example, the Los Angeles Urban 4-H After School Program is supporting a pilot program in which the UCLA Graduate School of Education, in cooperation with the Seeds Elementary School, is conducting a 10-week pilot program to develop and reinforce basic literacy skills for 26 Broadway Elementary 4-H students.

Under the auspices of DANR, the UC Davis Animal Ambassadors pilot project is enabling Davis veterinary medicine staff and college students to provide 20 hours of program development, training and coaching to site coordinators and teen volunteers. The purpose is to introduce second through sixth graders at four sites to the world of wild and domesticated animals, while developing critical thinking skills and promoting science literacy.

The Oakland Urban 4-H After School Program is conducting a reading and tutoring program for 4-H youth in low-income areas of Oakland. Six site staff and three UC Berkeley students are trained to work individually and in small groups with children whose reading ability is below grade level.

## **K-12 Professional Development Programs for Teachers and Staff**

### ***California Subject Matter Projects***

The University has statutory responsibility to establish, administer and maintain, with the approval of a nine-member Concurrence Committee, a network of programs designed to enhance the professional development of teachers, principally from the K-12 segment. Collectively these programs are referred to as the California Subject Matter Projects (CSMPs). The network currently consists of six projects supported by the State, each addressing broad subject areas taught in K-

12 schools. These six subject areas are writing, reading and literature, mathematics, science, history-social science, and world history and international studies. The University is funding three additional projects in the areas of foreign language, the arts, and physical education-health.

The CSMPs are a central component of the University's K-12 school-university partnership program. Typically, K-12 teachers are invited to participate in the projects' intensive training institutes with faculty and academic staff from the University and other institutions of higher education. Follow-up activities are provided for participants during the academic year. Participants share what they learn with colleagues in their districts by leading workshops and through other interactions during the academic year. In this way, the projects provide an avenue for participants to: (1) enhance their content knowledge of the specific discipline through intensive, long-term interaction with postsecondary faculty and other public school teachers, and exposure to key texts and relevant research; (2) acquire, critique, and share exemplary instructional practices; and (3) serve as leaders in schools, districts, professional organizations, and statewide educational committees and activities promoting educational quality.

Work plans submitted this year by the 98 sites comprising the CSMP network reflect an expanded set of priorities outlined by AB 1734 (Mazzoni), the 1998 statute reauthorizing State support of the CSMPs. In order to better support implementation of the statewide academic content and performance standards being developed for K-12 schools by the State Board of Education – with a particular emphasis on helping to improve low-performing schools – CSMP sites are now committed to:

- Allocating at least 75 percent of program slots to teachers from schools achieving scores on the State tests that rank the school in the bottom 40<sup>th</sup> percentile of all California schools;
- Developing formal partnerships with low-performing schools that achieve scores on the state tests that rank the school in the bottom 40<sup>th</sup> percentile of all California schools;
- Maintaining a range of evaluation data; and,
- Finding ways to further improve the long-standing CSMP commitment to strengthening teachers' content knowledge and leadership potential.

In keeping with legislative intent, the Concurrence Committee will contract with an independent evaluator to conduct a comprehensive three-year evaluation of the impact of the programs with respect to student achievement and teacher performance, leadership, and professionalism.

In addition to ongoing project and site-based work, several special initiatives are in progress or are being developed by CSMPs during 1999-2000 including the Reading Professional Development Institutes for K-3 Teachers, English Language Learner Institutes and Pre-Intern Teacher Academies.

The *Reading Professional Development Institutes for K-3 Teachers* received \$500,000 in new State funds in 1998-99 and an additional \$5.5 million in 1999-2000. An additional \$6 million was also included in the K-12 budget for stipends for K-12 teachers who participate in the program. During summer 1999, 6,000 teachers from 622 schools in 51 counties participated in 60 institutes.

In 1999-2000, the University received \$5 million for the development of *English Language Learner Institutes* as part of the English Language Acquisition Program (AB 1116, Ducheny) to provide training for English language learner teachers who do not hold cross-cultural or bilingual cross-cultural certificates. An additional \$5 million will be allocated by the Superintendent of Public Instruction to school districts and county offices of education to provide stipends for participants in these institutes.

In 1999-2000, the University received \$750,000 for *Pre-Intern Teacher Academies*, a program first proposed by Assemblywoman Denise Ducheny. The Academies are designed to prepare K-8 teachers who are presently teaching on emergency credentials to meet subject matter requirements in order to pass the Multiple Subject Assessment for Teachers examination and to fulfill other necessary requirements for entry into teacher preparation programs leading to certification. The program is also designed to provide support in the core academic subject areas for English language learner teachers.

### **Central Valley Outreach Efforts**

California has a substantial interest in assuring that students in the Central Valley fully participate in higher education. Outreach programs for K-12 and community college students in the San Joaquin Valley are designed to help prepare students for the University of California and, more specifically for the Merced campus when it opens in 2005. Students from the Central Valley have eligibility and participation rates at about half the statewide average at the University of California. From 1995-96 to 1998-99 the number of Central Valley students who enrolled at UC increased from 1,004 to 1,335 students, an increase of 33 percent. Over the past three years the budget for outreach efforts in the Central Valley has increased by \$1.5 million.

While Central Valley outreach efforts will continue to include the successful student academic outreach programs, including MESA, Puente and EAOP, a variety of new activities have been established, including an increase in the number of field trips to various UC campuses by Central Valley students and educators and an increase in programs to help Central Valley community college students transfer to UC.

A comprehensive long-term student development and partnership plan will be fully implemented in 1999-2000 which will promote even greater increases in the level of UC enrollment of Valley students. The plan entails an extensive information campaign to highlight the value of UC academic degrees and demonstrate how families can look ahead and prepare for UC enrollment.

The long-term plan also includes initiatives to develop school-university programs in Fresno County such as professional development activities for K-12 teachers, particularly in science and mathematics; enhanced use of technology by students and teachers; and establishment of a network of learning centers in the Valley that are connected to UC Merced. School-university partnership efforts to improve K-12 education in the Valley include programs to enhance "a-f" courses and improve articulation between middle and high schools, develop standards of student achievement, and conduct standardized test preparation workshops. A long distance counseling program using video conferencing is being developed which will allow counselors to reach greater numbers of students in remote areas.

Berkeley's Lawrence Hall of Science Great Explorations in Math and Science (GEMS) Program provides professional development workshops for middle school science and mathematics teachers in Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, and Tulare Counties. The Laser Science and Optics in the Classroom Program, co-sponsored by UC Merced and the Lawrence Livermore National Laboratory, focuses on exposing K-12 teachers in Merced and Fresno Counties to curricular ideas in laser science and optics. Central Valley high school students from Fresno, Mariposa, Merced and Kern Counties will be able to take on-line advanced placement courses in chemistry, physics, algebra, and psychology beginning fall 1999 through the UC College Preparatory Initiative. The UC Links/5th Dimension Program provides after-school enrichment activities at Fresno elementary schools focused on the use of computer and other technology. With a new State Department of Education grant of \$7.5 million, the program will be offered to 28 additional school sites in Fresno.

Through the National Parks Science Program, an initiative of the Sierra Nevada Research Institute, high school students in Fresno and Merced Counties will participate in academic study in environmental sciences complemented by fieldwork at Yosemite and Sequoia/Kings Canyon National Parks. The Young Scholars Program provides a range of academic counseling and enrichment activities, especially in mathematics and science, for promising K-12 students in the Valley. The Health Professions Preparatory Academy, sponsored by the Merced and San Francisco campuses, aims to increase the number of underrepresented K-12 students in Fresno County who are prepared for health and science careers and includes academic counseling and preparation and summer internships.

### **Informational Outreach and Recruitment**

The Outreach Task Force recommended an aggressive program of informational outreach to provide better and more timely information to students, families, teachers, and counselors to improve planning and preparation for college. The University has expanded considerably its visits to K-12 schools and counseling to reach more students and their families. Through these efforts, the University will more carefully and thoroughly explain the requirements for eligibility and avenues for admission to all UC campuses, including those that are the most competitive. The University will increase its efforts to reach families at the critical, early stages of

their children's education to help them become more involved in the process for planning for college and to provide better information to them about the kind of academic and financial preparation needed for admission to UC.

Activities will include the development of comprehensive college counseling programs for potential students, public affairs programs, community and media relations activities such as community visits by University leaders, editorial visits and press conferences, telephone campaigns, direct-mail campaigns to targeted students, campus visits, visits of current UC students to their home schools, events with high-level campus administrators, and campus efforts to increase visibility. Recently, the President sent personal letters to over 13,000 high-achieving students throughout California inviting them, on the basis of academic work completed and standardized test scores attained, to consider the University of California for enrollment. A new component of the University's information and recruitment programs is Cascades, a program that encourages students to apply to multiple UC campuses, thus increasing their chances of being admitted to the UC system.

Graduate and professional schools will increase visits to national conferences, expand personal contact, and use direct mail, campus tours and receptions to attract highly qualified students. The law schools will establish community outreach legal clinics, participate in career-based outreach programs for undergraduates and employ direct mail techniques to reach students. Medical schools will work with K-12 students to promote science skills and expose children to the notion of medical careers. Faculty and students will visit colleges and universities to meet with potential applicants, stage campus conferences, and expand summer academic programs.

An increase in these efforts will help to convey the University's strong commitment to enrolling students from all backgrounds represented in California's diverse population. The goal is to increase the number of outreach contacts with elementary, middle school, high school, and community college students and families by 200 percent over the number of contacts now made with these groups.

Gateways provides an informational site on the internet for middle and high school students and their families who are interested in higher education. The data consists of information about participating University programs, pre-collegiate outreach programs, and students who participate in those programs. Gateways also provides a database for researchers and those interested in program evaluation.

### **Evaluation of Outreach Programs**

In 1998-99, the State provided \$1.2 million to evaluate the University's outreach programs. This comprehensive evaluation will be conducted continuously over the years to determine the effectiveness of the University's outreach programs. The Outreach Task Force indicated the need for improved evaluation of outreach programs and directed the University to give far more systematic attention to this vital function and to evaluate and assess outreach programs in order to

continuously improve the effectiveness of intervention strategies. The major objectives of the evaluation are to assess progress toward outreach goals, improve the quality of existing outreach efforts, and test the viability of new efforts. The University will evaluate the full range of its outreach programs and efforts, including K-12 school-university partnerships, K-12 student academic development, and informational outreach programs. The evaluation will consist of a series of outcome-focused assessments targeted at different points along student paths to college and beyond – including early interventions in schools, admission to the University, and performance in the University.

### **Other K-12 Public Service Programs**

Throughout its history, the University has been actively engaged in advancing excellence at all levels of education. Over the years, efforts to support and strengthen pre-collegiate education have multiplied across the University. A summary of such efforts prepared a few years ago included over 800 such programs throughout the University. While many of the University's K-12 public service programs have an outreach or diversity emphasis – including student academic development programs; pre-service and in-service programs for students, teachers, and administrators; and educational research – they are over and above the efforts identified as fulfilling the specific goals of the Outreach Task Force Report. Two exemplary programs include the Lawrence Hall of Science on the Berkeley campus, which is a public science and technology center and a major resource in pre-college mathematics and science education, and the Center for Cooperative Research and Extension Services for Schools at Davis, which uses the Cooperative Extension model to do educational research. Included below is a description of three K-12 public service programs.

#### ***UC ArtsBridge***

UC ArtsBridge is an arts education program whose mission is to work in partnership with California public schools to provide high quality arts education. UC ArtsBridge provides scholarships to qualified UC graduate and undergraduate students to teach the arts and conduct arts-related workshops in art, dance, drama, music and the digital arts.

Beginning in fall 1999, there will be over 800 ArtsBridge scholars at 8 UC campuses working in California's public schools. Seventy-five percent of program funds used for scholarships are provided to UC students teaching at low-performing schools.

UC ArtsBridge is a strategic response to the need to have more qualified teachers in the arts and the recognition of the importance of the arts to California and its educational system.

Projects are initiated by K-12 teachers in response to local needs, and are curriculum-based, employing the visual and performing arts to increase students' retention of, and interest in required subject areas.

UC ArtsBridge also works to improve the quality of K-12 curricula. Educational specialists work with the ArtsBridge scholars and faculty mentors to develop project materials that are linked to State academic standards. The results are lesson plans that remain with the schoolteacher, employing exemplary models of teaching, and integrating arts across the curriculum. This is particularly important because the University is implementing the G-requirement in fall 2003, requiring one year of visual or performing arts for admission to the University of California. The ArtsBridge program will work to ensure that California's school children can meet these expanded entrance requirements.

***California State Summer School for Mathematics and Science***

In 1999-2000, the University received \$1,000,000 to establish the California State Summer School for Mathematics and Science, a multidisciplinary academic development program to enable high school pupils with demonstrated academic excellence in mathematics and science to receive intensive educational enrichment in these subjects. The program will provide a summer residential experience on the Irvine and Santa Cruz campuses for up to 500 students who wish to study advanced mathematics or science or to pursue careers that require a high degree of skill and knowledge in mathematics or science. The program will be a statewide initiative, administered and conducted at the Irvine and Santa Cruz campuses in cooperation with other UC campuses, the California State University, California Community Colleges, and school districts. The student experience will include advanced academic coursework, including on-line courses, internship opportunities, field visits and research opportunities at some of the following sites: the Monterey Bay Aquarium, the Lick Observatory, the NASA-Ames Research Center, the UCI Beckman Laser Institute, and the Arnold and Mabel Beckman Center of the National Academies of Sciences and Engineering. Faculty members for the summer school may be selected from K-12, community colleges, the CSU, and UC.

It is the intent of the Legislature that at least 50 percent, but not more than 75 percent of the actual costs of the California State Summer School be funded by State funds. The balance of the operating costs will be financed with fees and private support. Full and partial need-based scholarships will be provided to students who are unable to pay all or part of the fee for the Summer School. As plans are further developed, the University may seek additional State funds for this program.

***Community Teaching Internship for Mathematics and Science (CTIMS)***

In 1998-99, the State provided \$1.5 million for the Community Teaching Internship for Mathematics and Science (CTIMS) on a statewide basis. CTIMS is modeled after the Community Teaching Fellowship (CTF) Program; a successful UCLA initiative designed to encourage undergraduate mathematics majors to pursue K-12 teaching careers. CTIMS provides financial and academic support and placement of mathematics, science, and engineering undergraduates in K-12 classrooms. Under the supervision of mentor teachers, participants gain first-hand experience with teaching at the elementary and secondary levels.

Since its inception, the CTF program at UCLA has placed over 100 mathematics majors in disadvantaged schools in the Los Angeles area. With the 1999-2000

funding, the CTIMS program will increase the number of participants, including science and engineering students.

### **Cooperative Extension (\$2 Million)**

The University is requesting \$2 million, above the level of funding anticipated in the compact to support the basic budget, to ensure the capacity of Cooperative Extension to respond in a timely and effective manner to the high priority needs of California's agricultural, natural, environmental and human resources sectors. The increased funding will enable Extension to provide California farmers and growers with the latest in science-based information, problem solving advice, and access to new technologies and products that help them stay competitive in a global market, to the benefit of all Californians. The proposed increase in funding will enable the University to increase the number of CE specialists, the direct links between campus-based researchers and county-based advisors, and enhance the University's ability to address new and emerging economic, environmental and societal challenges facing the State through extending science-based knowledge on contemporary issues and information from campuses to every county in California.

During the difficult fiscal years of the early 1990s, the University's cooperative extension programs received an additional five percent budget cut. Although the State has since provided an augmentation for agricultural research (\$2.75 million in 1998-99) and for cooperative extension (\$2 million in 1999-2000), there is a tremendous unmet need.

The land grant mission of the University of California is linked historically and in contemporary times to California agriculture. Today, agriculture is one of California's leading industries generating annual revenues approaching \$80 billion. California agriculture is a major employer, supporting nearly one million jobs across the state, and contributing significantly to U.S. export revenues and the balance of trade.

Much of the success of California agriculture can be traced to the University and the Division of Agriculture and Natural Resources. Over the years, UC researchers and farm advisors have developed and delivered new technologies and the latest advances in production and post-harvest practices to eager growers, ranchers and processors.

This success has been made possible by the long-term investment of public and private funds, especially from the State, in building the University's research and information dissemination capabilities. The return on investment has been equally impressive with UC agricultural research and extension activities yielding an internal rate of return estimated at nearly 20 percent annually since 1949.

For nearly a century, since 1914, the University's Cooperative Extension programs have provided applied research and educational programs to Californians. These programs range from technical assistance to farmers to nutritional education for low-income families and 4-H programs for youth. The Cooperative Extension

programs are designed to develop applications of research knowledge and bring about their uses by people located in communities beyond the University, and to bring problems and issues back for exploration and research.

County-based, Cooperative Extension advisors address high priority agricultural, human and natural resources issues every day. For example, advisors are working with local growers and shippers to increase their competitive edge in world markets, with ranchers and water agencies to examine the relationship of cattle to water quality and drinking water supplies, with farm managers and fieldworkers to improve profitability and worker safety, and with low-income families and newly arrived immigrants to extend nutrition information and promote healthy diets and good eating habits.

Cooperative Extension operates on the basis of cooperative agreements between the University and the United States Department of Agriculture, and local county governments in California. Off-campus Extension Advisors are based in county offices throughout the State to provide noncredit educational opportunities for adults and youth. The Advisors are supported by campus-based faculty and Extension Specialists.

Over time, the list of priority issue areas and examples of challenges facing California's agricultural, natural, environmental and natural resources user communities in each that Cooperative Extension will continue to address are:

- **Pest Management** - finding alternatives to methyl bromide, introducing new integrated pest management practices, expanding use of biological control agents, and promoting greater adoption of sustainable agricultural practices across all farm sizes.
- **Water Resources and Water Quality** - helping growers, ranchers and natural resources managers adapt to changing water allocation rules under CALFED, meet waste discharge regulations impacting animal feed operations (A-FO), and manage Total Maximum Daily Load (TMDL) and other non-point pollution requirements of the Clean Water Act.
- **Land Use and Environmental Issues** - providing science-based input to decision makers on the impacts of farmland conversion; working with growers and home owners to address issues of the rural-urban interface; facilitating informed decision making to balance species protection needs and agricultural, recreational and other uses in high value biodiversity areas; and developing best management practices to reduce/prevent the release of fugitive dust and dormant spray materials to the environment during fanning operations.
- **Biotechnology and Other New Technologies** - getting research, technical and production information on genetically-modified plants and animal agricultural products into the hands of farmers and ranchers; educating the public on the use of on-farm, precision agriculture systems and technologies for increased production efficiency and environmental management; and expanding

the use of distance education technologies for dissemination of educational information.

- **Food Safety and Nutrition** - maintaining a safe and healthy food supply for all Californians; addressing consumer safety issues such as prevention of *e. coli* contamination in meats and fresh produce; developing new food storage and food handling practices; providing educational information to growers and farm workers on field sanitation, handling of pesticides, and other provisions of the Food Quality Protection Act (FQPA); and disseminating nutrition and consumer-related information to low income families and recently arrived immigrants.
- **Youth and Community Development** - maintaining traditional 4-H/Youth programs; offering new science, leadership and educational club and group opportunities for youth across California; providing after-school tutoring and outreach programs to prepare inner city youth for college; and developing educational programs like the *Gateway to a Better Life* tutorial used by local agencies to help welfare recipients prepare for entry to the work force.

Cooperative Extension programs, with their "hands-on" approach to problem solving and presence in local communities, provides a valuable service to the people of California and to the continued growth and expansion of our economy.

***Charles R. Drew University of Medicine and Science***

Since 1973, the State has appropriated funds to the University to support a program of clinical health sciences education, research and public service operated

by the Los Angeles campus in conjunction with the Charles R. Drew University of Medicine and Science.

The Charles R. Drew University of Medicine and Science is a private, nonprofit corporation with its own Board of Trustees. Drew University conducts educational and research programs in south central Los Angeles in collaboration with Martin Luther King, Jr. County Hospital, also known as King-Drew Medical Center. State general funds are provided to Drew under two separate contracts, each administered by the University. One contract relates to the state support for medical instruction, including the Postgraduate Medical Education Program and the joint Drew/UCLA Undergraduate Medical Education Program. The second contract covers a separate public service program operated by Drew to provide funding for a prescribed list of health science educational, research and clinical public service programs in the Watts-Willowbrook community.

Between 1982-83 and 1990-91, State funding for the Drew programs did not include regular adjustments for inflation, which resulted in a funding deficiency for Drew. In the annual Regents' Budgets for 1990-91, 1991-92 and 1992-93, the University requested a \$500,000 compensatory adjustment in Drew's budget to begin to address the underfunding. None of these requests was funded by the State. Although the Drew programs were sheltered from the budget cuts assigned to UC programs between 1990-91 and 1994-95 (in fact, the University augmented the Drew budget by \$340,000 from UC discretionary funds beginning in 1990-91), the negative effects of the earlier underfunding remained.

In 1996-97, Drew began to receive income from the Selected Fee for Professional School Students, which goes to support the instructional program at Drew. The fee is discussed in the Student Fee section of this document. Also, in recognition of the serious funding deficiency, the 1997 and 1998 State Budgets included augmentations for Drew. The 1997 budget augmentation was \$500,000 and required the University to provide equivalent matching funds, for a total augmentation of \$1 million. The 1998 augmentation provided an additional \$1 million for Drew programs. With subsequent price increase adjustments, the current total State funding for Drew is \$9.7 million dollars. Drew will receive the same fixed cost increases as other State-funded University programs for 2000-01.

### ***California College of Podiatric Medicine***

The 1974 State Budget Act provided \$541,000 to support a program of basic and clinical health sciences education and primary health care delivery in the field of podiatry, to be developed and conducted cooperatively by the University of California at San Francisco and the California College of Podiatric Medicine. State funding has been provided to assure that the instruction provided by the only college of podiatric medicine in California will maintain a high level of quality and to assure support for essential programs in the areas of basic medical science, general medical and surgical science, clinical medicine and surgery, and educational support. The State has continued to support this program each year at its 1974-75 level of \$541,000, with adjustments for inflation bringing the 1994-95 appropriation to \$926,000. However, budget cuts allocated during the 1990s, due to reductions in State support for the University, eroded the actual amount of funding available.

The 1999-2000 appropriation for this program is \$899,000. As with Drew, Podiatry will receive the same fixed cost increases as other State-funded University programs for 2000-01.

## ACADEMIC SUPPORT—LIBRARIES

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 226,093,000</b>
General Funds	181,730,000
Restricted Funds	44,363,000
<b>2000-01 INCREASE</b>	
General Funds	5,000,000
Restricted Funds	2,739,000

The University of California libraries are a vital academic resource, providing books, documentary materials, and other information resources required by UC students and faculty for effective study and research. In addition, the libraries provide services to students and faculty of other California colleges, universities, and public schools, to business and industry, and to the general public, both directly and through cooperative programs with other California libraries.

Over the last decade the combined effects of growth in enrollments and academic programs, inflation, and reduced budgets, have seriously eroded the libraries' ability to support the University's academic programs. At the same time there has been a steady increase in the growth of knowledge and rapid advances in technology, particularly digital, that promise enormous improvements in the capability of academic libraries to acquire, store, manage, and deliver the information needed for teaching and research. For the foreseeable future electronic information resources will complement the growing traditional collections of the University. In the coming years, the library program will also be affected by unprecedented levels of enrollment growth.

The University's strategy to address the historic shortfall and lay the foundation for future development includes proposals to:

- Fully exploit the capabilities of available technology, in particular digital library services.
- Integrate the digital and print service environments.
- Develop alternative models of scholarly communication.
- Expand digital library services to the people of California.

The University's library budget is divided into the following four categories:

- Acquisitions-processing, which represents 57 percent of the budget, includes expenditures for library materials and binding and all staffing activities related to acquiring library materials and preparing them for use, such as ordering, receiving, and cataloging.
- Reference-circulation, which represents 38 percent of the library budget, includes providing users with information and materials, managing circulation of materials, shelving and reshelving books, maintaining periodical and document collections, providing reference services, and instructing students and faculty in the use of the library and its printed and electronic information resources.
- The systemwide Library Automation unit, which provides universitywide bibliographic access to the resources of the University's libraries through the MELVYL on-line union catalog, represents three percent of the total library budget.
- The California Digital Library (CDL), which was established in 1997-98, represents two percent of the total budget.

### **2000-01 Budget Request**

Among the principles of a new partnership being negotiated with the Governor, the State would provide the University with a one percent increase to the prior year's State general fund base to address permanent budget shortfalls in a variety of critical core areas, including campus library materials. Consistent with this principle, the University's 2000-01 budget plan includes an increase of \$5 million for library materials and more effective sharing of these materials among the campuses. In addition to the funding levels anticipated under a new partnership to support the basic budget, the University is requesting \$2.5 million to continue development of the CDL, recognizing that this will be subject to the State's fiscal condition.

These proposals build on the budgetary momentum of the last two years. During this period the State provided \$4.5 million to support the development and expansion of the CDL and \$13.7 million for library materials and expanded sharing of library collections (including \$10 million in one-time funds provided in 1998-99 and \$3.7 million in permanent funds provided in 1999-2000 to begin addressing a permanent budget shortfall that had been estimated at \$33 million).

The 2000-01 budget request continues a multi-year strategy to address the library budget shortfall and prevent further erosion in the quality of current print collections and services. This multi-year strategy, which grew out of a major UC planning effort initiated in 1996, recognizes the need to balance print and digital resources; develop innovative services to provide access to information resources

regardless of format; and establish new partnerships between faculty, libraries, professional societies and publishers to develop viable alternative models of scholarly and scientific communication that can succeed in a new fiscal and technological environment.

### ***Sustaining Print Collections (\$4,000,000)***

Of the \$5 million increase in funding for campus library material, \$4 million will be used to expand campus collections and reduce the permanent budget shortfall over time. For the foreseeable future traditional print collections will continue to be essential for teaching and learning and to the scholarly and research activities of students and faculty. Improved resource sharing and the creation of a shared digital collection are essential complementary strategies that will leverage limited University resources in support of print collections.

Although the quantity of information available in digital formats is growing rapidly, it represents only a small portion of the total published literature and other content required to support teaching and research. For example, according to the industry standard reference, Ulrich's Directory of Periodicals, fewer than 9,000 of the 156,000 periodical titles in publication in 1998 were available in digital form, less than six percent of the total. The strategy of sharing library materials across campuses to help maximize limited financial resources can work only if the print collections remain viable. Funds must be invested in print collections that support core campus programs as well as collections of specialized resources that both maintain the richness of the campuses' libraries and ensure a cost-effective resource-sharing program.

The University's plan for print collections only partially offsets the effects of inflation and the information explosion and prevents further erosion in purchasing power of the materials budget. The University has joined its colleagues in other academic institutions to support several important initiatives intended to convince the publishing community that the current pricing patterns are unacceptable and cannot be sustained. Given the continuously spiraling rate of increases for print materials, it is critical that these efforts are continued and expanded.

### ***Resource Sharing (\$1,000,000)***

Of the \$5 million increase, \$1 million will be used to expand and improve resource sharing, which is an effective strategy to leverage limited resources and build diverse print collections systemwide. As part of this strategy the University will continue to (1) develop systems and data to support resource sharing, including centralized cataloging of digital materials added to the shared Universitywide collection, (2) formulate a plan that recognizes the cost to campuses that lend more than they borrow, (3) plan, coordinate, and monitor resource sharing activities, and (4) provide for rapid delivery of materials from campus to campus.

Interlibrary borrowing among UC's libraries (which accounts for about 75 percent of all items borrowed) has almost doubled in less than a decade, while borrowing from libraries outside UC increased by 64 percent (Display 1). The growth in inter-library borrowing among UC's libraries is attributed in large part to the high level of

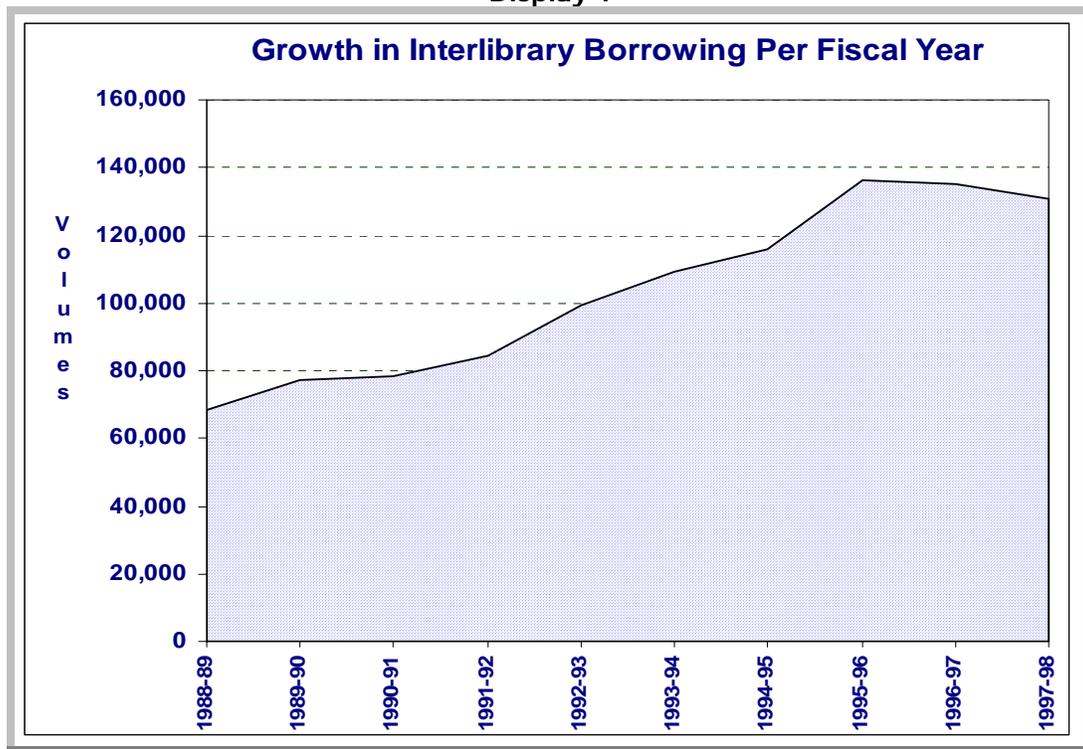
coordination that exists in the UC library system and the effectiveness of existing automated tools, such as the MELVYL online union catalog, which helps users to locate the materials they need in the collections of other UC campuses.

The CDL plays a critical role in developing systems and services that provide technological support for sharing of campus print resources, and considerable progress has already been made in this direction. Introduced in January 1999, the first phase of a new service called Request permits authorized University users of the CDL to directly borrow material held at another campus without going through time-consuming and costly interlibrary loan procedures. In January 2000 the second phase of this service will be implemented. It will enable UC users to request articles from periodicals held anywhere in the UC system.

### ***The California Digital Library (\$2,500,000)***

The University's groundbreaking effort to create the CDL complements the proposed increase in funding for print resources by creating a shared universitywide collection of high-quality digital content. By bringing together technology and the acquisition of knowledge, the CDL paves the way for a future when the distinguished library collections developed to support the teaching, learning, research and scholarship of the University's faculty and students will be available without regard to the conventional limits of time and space.

Display 1



Among the benefits of the CDL are access to information available only in digital form; the availability of innovative computer-based tools that enable library users to more easily locate, access, and use a wide variety of digital information resources; and greatly improved access to library materials in that digital materials

are available to all authorized users on a round-the-clock basis without regard to distance. These capabilities are particularly significant as a means to provide high-quality service to students and faculty in the face of unprecedented levels of enrollment growth over the next ten to fifteen years. Although there are noticeable marginal costs involved in serving additional users with digital collections (including network and computing infrastructure and operating costs, as well as licensing and support costs for the digital materials), these costs are likely to be considerably less than would be incurred to provide the same level of support using conventional library facilities, collections and services.

As a collaborative effort of all UC campuses, the CDL is able to utilize institutional strength to negotiate with external vendors, alleviate pressures on print collections, achieve economies of scale, and relieve the campuses of the need to provide additional support for the development of digital collections. Available evidence suggests that collaborative services offered by the CDL have allowed the campuses collectively to avoid significant additional costs while increasing the scope and depth of content available to all faculty and students.

To help prepare students and faculty to make effective use of the emerging digital information environment, the CDL is developing an education program focused on change in scholarly communication and the development of strategies for enhanced information use. In addition, the CDL provides the foundation by which the University may experiment with, promote and implement new methods of scholarly communication. Finally, the CDL will provide increased access to the library resources of the University for all Californians. According to available data, approximately four million searches per year of the publicly-accessible components of the CDL, which includes the MELVYL online union library catalog and the California Periodicals database, are from non-UC sources. This external use comprises over 20 percent of these CDL searches. To further expand the usefulness of the CDL to the people of California, the University will, in 1999-00, initiate a major project to acquire, organize and make widely accessible the numerous digital publications and data sources of federal and state government agencies.

Since its founding the CDL has made the digital versions of over 3,500 journals available to UC faculty, students and staff from all UC campuses, including about 1,500 journals added during 1998-99. Many of these titles were previously purchased in print form by only a few campuses. As part of the University's library plan, the CDL is adding materials to its collection in all subjects and a wide variety of digital formats, including published information in digital form, secondary sources such as abstracting and indexing databases and archival finding aids, and digital versions of reference works and unique and valuable primary source material. In 1998-99, the CDL expanded its holdings in the social sciences and humanities to comprise almost ten percent of the total collection, including authoritative texts of English and American poetry, fiction and drama published between 600 and 1900. Ongoing expansion of the CDL will be shaped by the direction and rate of the development of digital technologies and related business models and will position the University to respond to new and unexpected opportunities that may arise owing to rapid change in this field.

## **Background**

In 1977, the University adopted a comprehensive library plan to improve library service and reduce the rapid rise in library costs. To achieve these goals, the plan recommended increased cooperation among the libraries of the University and creation of a library system that would serve all University users, regardless of campus or location. Between 1977 and the late 1980s, the State provided most of the operating and capital resources called for in the library plan. The State's support helped the University create a nine-campus library system with capabilities for coordination, collaboration and sharing of resources that are unequalled by the research libraries of any similar university system. Those capabilities were essential in helping the UC libraries cope with the forces that have acted in concert to erode the quality of campus library collections over the last decade. However, the programs and strategies of 1977 are no longer sufficient to deal with the library and scholarly communications problems of today.

Over the last decade the ability of the existing library budget to sustain traditional library collections and services has been eroded by three principal factors:

- Growth in both enrollments and the number of approved academic programs requiring library support;
- Persistent high inflation in the costs of published scholarly and educational materials; and
- The State's fiscal difficulties, which resulted in reduced overall funding for the University in the early 1990s.

### ***Enrollment and Program Growth***

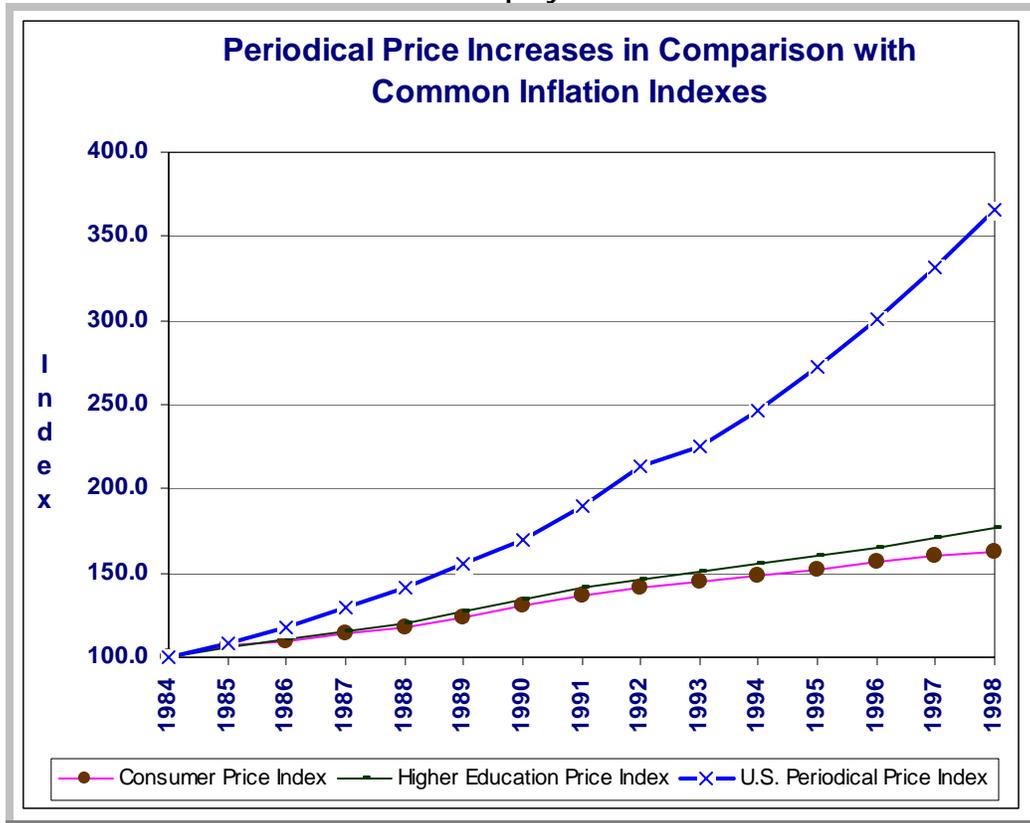
A key factor affecting the quality of library service is the growth in enrollment and in the number of graduate programs offered by the University since the current budgeted library acquisition rate of 614,000 volumes was established in the late 1970s. The budgeted acquisition rate has not been adjusted despite a 36 percent increase in enrollment since 1977-78 and the addition of numerous new graduate and professional degree programs. Even if inflationary costs had been fully funded during this period, the libraries would still find themselves unable to fully support the approved academic program of the University.

### ***Inflation in Library Materials Costs***

Over the last decade there have been extraordinary increases in the costs of many library materials, especially periodicals in the sciences, technology, engineering, and the health sciences, while the State has been unable to provide full funding to meet the impact of inflation on the library materials budget. According to published industry statistics, U.S. periodical prices rose at an average annual compound rate of 10.8 percent per year between 1986 and 1998, greatly exceeding general

inflation as measured by both the Consumer Price Index and the Higher Education Price Index (Display 2). Over the past ten years, the University's estimate of annual price increases for all forms of library materials has averaged about 8.3 percent per year, three to four times the rate of inflation in the general economy. Consequently, the libraries have lost nearly 50 percent of their purchasing power since 1998. The severity of this problem is manifested by the cancellation of serial subscriptions (scholarly journals and other periodical items) estimated at over 52,000 titles, or 15 percent, since 1988.

Display 2



Funding has been provided by the State for non-salary price increases, but these resources only partially address the problem. The University estimates that, after accounting for additional permanent State funding provided for library collections in 1999-00, erosion of buying power through unfunded price inflation has reduced the collections budget to the equivalent of only 356,000 budgeted volumes. The \$10 million in one-time funds provided in 1998-99 provided welcome temporary relief, but did not restore the purchasing power of the permanent budget.

***The Fiscal Difficulties of the State***

During the early 1990s, the purchasing power of the University's library budgets eroded further as a result of cuts to campus budgets totaling \$433 million. While campuses took steps to protect their libraries from the full force of these cuts, library budgets nonetheless shared in the overall budget reductions during this period. To cope with budget reductions while protecting the funds available to

purchase materials, the libraries resorted to measures such as closing branch libraries; deferring equipment purchases and maintenance; and reducing operating hours, the number of reference librarians, and the public services available. For example, between 1988-89 and 1998-99, budgeted FTE staffing for the libraries decreased 12 percent, from 2,459 to 2,167 FTE. More dramatically, the ratio of budgeted student FTE per library FTE increased during this period by almost 20 percent, from about 60 students per library staff FTE to almost 72 students per FTE.

The cumulative impact of these factors on the ability of the libraries to support the University's programs will continue to grow. In the coming years, additional adverse effects may result from accelerated enrollment growth, ongoing inflation, and the growth in new knowledge and information technology.

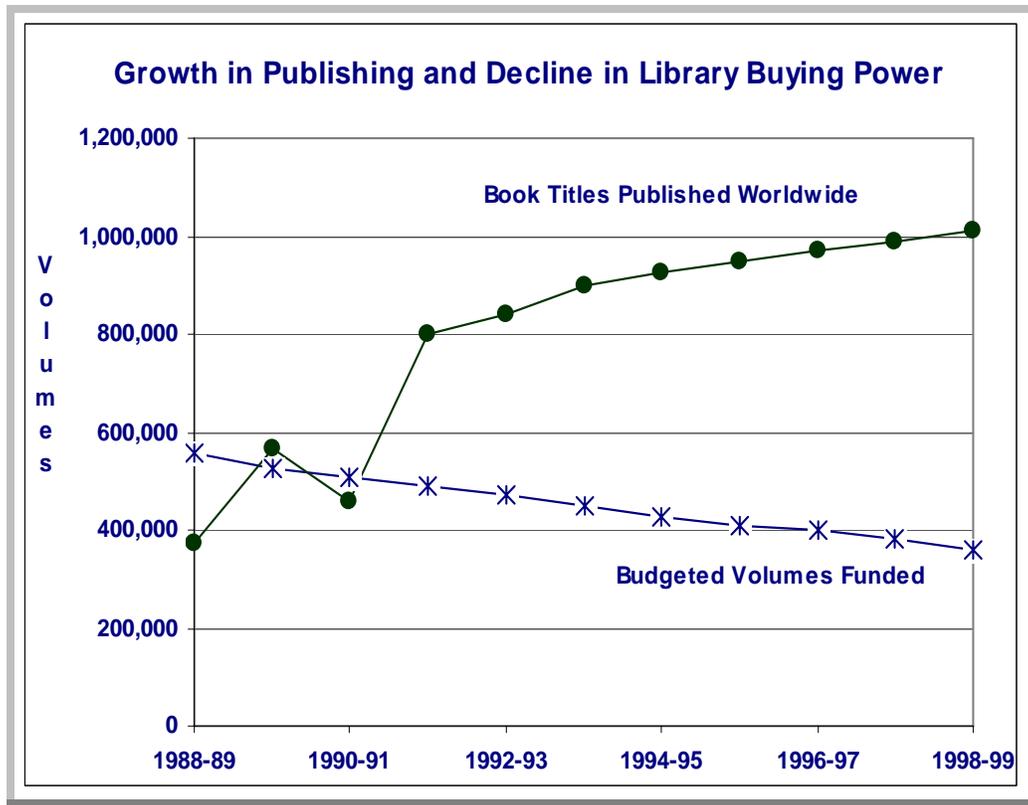
- Based on the most recent DOF projections, enrollment at UC is expected to grow by about 5,000 students annually through 2010-11.
- The rate of inflation in the cost of library materials continues to outpace cost increases in the general economy.
- As shown in Display 3, the amount of new knowledge published each year has continued to grow at a constant pace, with the result that the University's libraries are able to acquire an ever-smaller share of the universe of documented knowledge.
- Rapid growth and change in information technology and its increasing importance in publishing, scholarly communication and library service have created new opportunities, but at the same time have added new problems, complexities, and unfunded costs.

## **Current Challenges**

### ***Continued Growth of Knowledge***

The amount of new knowledge that is published annually continues to increase at a steady pace. To illustrate, between 1989 and 1998, world book production nearly doubled, from about 565,000 new titles to over 1,000,000 new titles per year. Thus, even if the University's budget had kept pace with inflation the UC libraries would have acquired an ever-decreasing share of the world's published knowledge. The erosion of buying power described previously exacerbates this deficiency. As a result of all these forces, the UC libraries are increasingly less able to support faculty and student needs from existing campus collections.

### **Display 3**



### ***Digital Technologies***

Over the last ten years, advances in the development and use of new technologies to create, publish, store, search for, and deliver published information have accelerated significantly. In some disciplinary areas, chiefly in engineering and the health and physical sciences, electronic information resources have already achieved significance as a method for publishing and communication, and are indispensable for support of teaching and research. Among the potential benefits of the new digital forms of scholarly and educational materials are these:

- Digital documents can be stored and delivered to authorized library users throughout the University, on demand and at low marginal cost, thereby enhancing resource-sharing capabilities, decreasing duplication of resources and effort, and reducing processing and handling activities. Most importantly, the digital information resources of the University are equally accessible to all its students and faculty, regardless of their campus location. For these reasons, digital collections can provide high-quality library service for unprecedented numbers of new students who will be admitted to UC in the next ten to fifteen years, at manageable cost and with minimum impact on existing library facilities, collections and services.
- Digital publications offer new opportunities to leverage both the purchasing power of the UC system and the University's investment in its information and telecommunications technology infrastructure.

- Information technology makes possible new services that can greatly enhance library support for the University's teaching and research programs, and creates opportunities for new partnerships and avenues for revenue enhancement.

Digital publication also raises challenging new issues for library planning, budgeting and operation, for example:

- The digital publishing industry is still immature. While industry practices have advanced considerably over the last three years, significant issues of format, distribution, technical standards, pricing, and use restrictions based on copyright law and licensing practice still remain to be resolved before digital publications can be routinely incorporated into the UC libraries.
- Although pricing practices for digital publications remain a matter of speculation, the prices charged by commercial publishers for digital publications are unlikely to be significantly lower than for print; based on experience to date, digital prices are higher.
- Digital publications are beginning to replace print in the sciences, a trend that is likely to escalate as the technological means to store, retrieve and deliver electronic information become more robust. However, it remains unclear to what extent digital publications may ultimately replace most printed publications. It appears that the surge in digital publishing and use of the Internet to access and distribute information has had little effect on the continued growth in the amount of information published in paper form or the ongoing inflation in the cost of conventional publications.
- A key mission of the University of California libraries is to maintain an archival record of information needed for research, teaching and learning. The emergence of networked technology, digital publishing and scholarly communication in electronic form challenge our existing strategies for archival collection management. This new environment requires new and untested techniques for preserving and enhancing access to existing material now in other formats, and raises pressing issues related to archival methods and management for materials originally collected in digital format or in both digital and print forms.

Comprehensive digital collections and associated facilities and services will not be available immediately, nor will digital publications develop and mature at the same rate in all disciplines and subjects. As a result, the University must maintain and enhance existing collections and services in parallel with the development of digital library services. In addition, establishing the digital library will require major new investments for equipment, network facilities, software, and training. These investments will bring returns quickly in terms of educational quality but more slowly in terms of opportunities for reallocation of traditional library materials and staffing budgets.

## **Planning For The Future**

As with all research universities, the University of California faces significant challenges in providing faculty and students access to the scholarly information they need for research, teaching, and learning. Over the next decade, the formidable task for universities will be to develop a financially sustainable model for managing scholarly information, including its production as well as its access and use. In the long run, only fundamental changes in the methods of scholarly publishing and communication can successfully address the structural issues underlying the current problems.

The magnitude of the challenge to develop this model is such that it cannot be addressed in a single year. Effecting changes so fundamental and far-reaching will require a focused effort over an extended period. At the same time, it is imperative to address the existing deficiencies described above, but to do so in a way that acknowledges the need for change and builds a foundation for the future.

Over its 130-year history, the University, with the ongoing support of the State, has built a remarkable library resource, second in size only to the Library of Congress. The University is committed to sustaining the greatness that has characterized the UC Libraries for over a century, even as it confronts the economic and technological forces that will reshape the understanding of library excellence in the next century.

## ACADEMIC SUPPORT—OTHER

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 473,856,000</b>
General Funds	148,382,000
Restricted Funds	325,474,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	13,040,000

Included in the category Academic Support - Other are various support activities that are operated and administered in conjunction with schools and departments. These partially self-supporting activities provide basic clinical and other support essential to instructional programs, and contribute significantly to the quality and effectiveness of health sciences and general campus curricula. State support is an essential part of the income of these clinical activities.

Among the clinical facilities that support health sciences programs are two dental clinics (Los Angeles and San Francisco) with off-campus community dental clinics, occupational health centers in the north and in the south, the veterinary medicine clinical teaching facilities at Davis and in the San Joaquin Valley, an optometry clinic at Berkeley, and two neuropsychiatric institutes (Los Angeles and San Francisco). In addition, a number of demonstration schools, vivaria, and other activities provide academic support to health sciences and general campus programs. Most of these facilities provide experience for students as well as valuable community services. Their financial support is derived from a combination of State funds, patient income, and other revenue.

### Description of Programs

The on-campus and community dental clinics at Los Angeles and San Francisco serve primarily as teaching laboratories in which dental students and graduate professional students enrolled in the schools of dentistry pursue organized clinical curricula under the supervision of dental school faculty. The community dental clinics provide a spectrum of teaching cases that are generally not available in the on-campus clinics. The dental clinics give students actual clinical experience and a broader perspective in determining treatment plans, thereby enhancing the required

training in general and pediatric dentistry. While providing valuable clinical experience for students, the clinics also serve to meet the dental health needs of thousands of low-income patients, many of whom would not otherwise receive dental care.

The occupational health centers were created as a joint project of the California Department of Industrial Relations and the University of California to help serve the occupational health needs of California. The major functions of the centers are teaching (the training of occupational physicians and nurses, toxicologists, epidemiologists, and industrial hygienists); public service (providing a referral service for occupational illnesses, promoting health in the workplace, and providing clinical care); and research (stimulating research on the causes, diagnosis, and prevention of occupational illnesses). Each center serves as the focal point for occupational health-related activities on the campuses in its geographical area, thereby strengthening the University's programs of teaching and research in these fields.

The two veterinary medicine clinical teaching facilities, one at Davis and the other in the San Joaquin Valley, are specialized teaching hospitals and clinics that support the School of Veterinary Medicine. Students enrolled in veterinary medicine are trained at these facilities by faculty of the School of Veterinary Medicine in the clinical aspects of diagnosis, treatment, prevention, and control of diseases in animals.

The optometry clinic at Berkeley serves primarily as a clinical teaching laboratory for the School of Optometry, while providing a complete array of visual health care services. At the clinic, optometry faculty supervise students in the clinical aspects of the prevention, diagnosis, and remediation of visual problems. In addition, students receive clinical experience at various Bay Area community health centers, which exposes them to a broad range of cases and provides a much needed public service to the community.

The two neuropsychiatric institutes are among the State's principal resources for the education and training of psychiatric residents and other mental health professionals and for the provision of mental health services. The primary missions of the institutes are to treat patients with diseases of the nervous system and to strive for excellence in the development of approaches to problems associated with mental retardation, psychological disorders, and neurological disorders.

Demonstration schools serve as teaching laboratories for experimentation, research, and teacher training in the field of education. The schools educate hundreds of children and contribute to the advancement of education through research efforts and application of results. Vivaria are centralized facilities for the ordering, receiving, and care of all animals essential to instruction and research. Other activities under Academic Support – Other include support for the arts and specialized physical sciences and engineering projects.

## TEACHING HOSPITALS

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 1,732,463,000</b>
General Funds	39,067,000
Restricted Funds	1,693,396,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	14,605,000

### The Role of The University Teaching Hospitals

The University of California has five campuses with Schools of Medicine, four of which have academic medical centers owned and operated by the University to support their clinical teaching programs. These include the programs located on the Davis, Irvine, Los Angeles, and San Diego campuses. The UCSF campus has an affiliation agreement with UCSF Stanford Health Care (a non-profit organization created when the UC San Francisco Medical Center merged with the Stanford University Health Services on November 1, 1997) to support its clinical teaching program. The core clinical experiences for health science students in Medicine, Nursing, and Pharmacy occur in these five academic medical centers and affiliated teaching sites. As the result of the University's efforts to expand training opportunities in primary care and in response to changes in the financing and delivery of health care, the University is developing more outpatient clinical training sites and primary care networks.

In addition to supporting the clinical teaching programs, the academic medical centers provide a full range of health care services and are sites for the development and testing of new diagnostic and therapeutic techniques.

The University's academic medical centers comprise one of the largest health care systems in California and one of the two largest Medi-Cal providers in the State. In 1999-2000, the University medical centers will have a combined licensed capacity of 2,740 beds and are expected to generate more than 579,000 patient days and more than 2.7 million outpatient visits (these data exclude UCSF Medical Center).

Three of the University's medical centers – Davis, Irvine and San Diego – are former county hospitals. These three hospitals have historically provided care to a disproportionately high percentage of Medi-Cal patients and the uninsured. Since

most of these services are government-financed, these medical centers are extraordinarily vulnerable to changing public policies related to the funding and provision of health care for the poor. Over the past few years, these medical centers have relied heavily upon supplemental payments from Medi-Cal disproportionate share programs.

As teaching hospitals, the University medical centers require an adequate and diverse patient base and sufficient funding to support the clinical instruction and research programs. Academic medical centers, by their very nature, have the added costs of providing trainees with the necessary clinical experiences which increase the cost of patient care because trainees take longer to perform routine patient care tasks, order more diagnostic and therapeutic services, and require faculty supervision. While limited funding for clinical training is currently provided through federal and State sources, none is provided by private insurers. One of the University's highest priorities is to ensure that the medical centers have a dedicated and sustained source of funding to support graduate medical education.

While the University's medical centers are similar to other hospitals trying to survive in a price-sensitive managed care environment, they have the added responsibilities that distinguish them as academic institutions. The costs associated with providing cutting-edge treatment, biomedical research that has the potential to affect millions of lives, the education and training of health care professionals, and providing a disproportionate share of the indigent care in California all combine to make it difficult for the UC medical centers to compete on the basis of price with health care providers that do not have teaching hospitals.

The financial viability of the medical centers directly affects the quality of the instructional programs at the University's Schools of Medicine. Academic medical departments are subsidized both directly and indirectly through hospital revenues. Support from the academic medical centers helps the Schools of Medicine recruit and retain good faculty, as well as expand existing or create new academic programs.

Since managed care has become the primary system for delivering and financing health services, the University has experienced a shift in the delivery of services, with the major growth occurring in outpatient settings. Market forces have required that the UC medical centers accept negotiated rates from private and some public payers that do not recognize the costs of medical education in a clinical setting. Like all hospitals, the University's academic medical centers are being affected by the Balanced Budget Act (BBA) changes that are designed to slow the growth of future rate increases in Medicare and Medicaid. Additionally, academic medical centers are directly affected by the changes in federal Medicare medical education funding.

Over time, the University's medical centers have pursued various solutions – some short-term and some more permanent – to address fiscal difficulties and avert permanent damage. Special capital and operating subsidies were provided to the three former county hospitals in the mid-1980s to assist the hospitals in reaching a broader patient base. Special supplemental funding is being provided to all

California hospitals, including the three former county hospitals, that treat a disproportionate share of Medi-Cal and other low-income patients. The federal government has components within the Medicare program which recognize the costs of medical education, and in 1997 the University began using State Clinical Teaching Support (CTS) funds to leverage additional federal Medicaid dollars to help support medical education costs incurred in providing services to Medi-Cal patients. These payments, however, may not represent a stable funding source.

The future of the University's medical centers depends upon a dedicated and sustained source of funding for medical education and for providing care to the poor, as well as reimbursement strategies that recognize the medical centers' need to maintain an operating margin sufficient to cover debt, provide working capital, and purchase state-of-the-art equipment. There has been considerable legislative interest in and recognition of the financial difficulties facing the University's medical centers. Some of this interest has been generated by concerns over the University's continued ability to provide health care to the indigent population as the medical centers pursue various long-term strategies to ensure their fiscal viability while continuing to support the University's academic mission.

The following section reviews the major sources of funding for patient care and teaching, including the changes that have occurred over the last decade and the challenges that lie ahead.

### **Funding for Patient Care**

The University's medical centers are reimbursed for services provided to patients. The major sources of patient revenue are government sponsored health care programs (i.e., Medicare, Medi-Cal and the California Healthcare for Indigents Program), commercial insurance companies (i.e., managed care contracts, private insurance), and self-pay patients. Several of the government-sponsored health care programs provide supplemental payments in recognition of the role the University plays in providing a disproportionate share of the care to the State's indigent population.

#### ***Medicare***

The federal Medicare program (Title XVIII of the Social Security Act) is a third-party reimbursement program managed by the Social Security Administration that underwrites the medical costs of persons 65 years of age and older, and persons under 65 who are disabled or have end-stage renal disease. Inpatient acute care services provided to Medicare beneficiaries are paid at prospectively determined rates, which vary according to a patient's diagnosis. Inpatient nonacute services and certain outpatient services are paid based, in part, on a cost reimbursement methodology.

This population is an important segment of the patient mix seen at UC medical centers; and it will become increasingly important as a large portion of the nation's population lives longer.

In 1998-99, the number of Medicare days were 148,255, representing approximately 26 percent of total patient days, and generated \$494.5 million of net operating revenue. In 1998-99 Medicare funding accounted for approximately 25 percent of the total net operating revenue of the UC medical centers.

### ***Medi-Cal***

Medicaid, known as Medi-Cal in California, is a state-administered third-party reimbursement program designed to pay for the hospital costs of the medically indigent and those on certain public welfare programs, such as Aid to Families with Dependent Children (AFDC) and Supplemental Security Income for the aged, blind, and disabled. Inpatient services provided to Medi-Cal beneficiaries are reimbursed under a contract at a prospectively determined negotiated per-diem rate. Reimbursement for outpatient services is based on prospectively determined fee schedules.

In 1998-99, the number of Medi-Cal days were 132,900, representing 23 percent of total patient days, and generated \$307.8 million of net operating revenue. In 1998-99 Medi-Cal funding accounted for approximately 16 percent of the total net operating revenue of the UC medical centers.

### ***Supplemental Medi-Cal Payments***

**SB 1255 Funds.** In 1989 the State established the Disproportionate Share and Emergency Services Fund, also known as the SB 1255 program. Through the SB 1255 program, public agencies which own eligible disproportionate share hospitals (DSH), including the University, voluntarily transfer funds to the State. These funds are used to secure federal Medicaid matching funds. The pool of funds is then distributed by the State to hospitals (public and private) that treat a disproportionate share of Medi-Cal and low-income patients. The Davis, Irvine and San Diego Medical Centers qualify as disproportionate share providers. The distributions result from negotiations between the University and the California Medical Assistance Commission (CMAC).

From May 1990 to June 1999, the University received about \$138 million in new federal funds from this program. The continuation of this program, which has been a significant source of funding for the Davis, Irvine and San Diego Medical Centers, is uncertain in light of federal attempts to constrain Medicaid's growth. The elimination of the SB 1255 program would mean the loss of up to \$14.5 million a year, on average, for each of these medical centers. Generally, SB 1255 funds have been provided by CMAC in lieu of increases to the Medi-Cal contract rate.

**SB 855 Funds.** In 1991-92, the State created a second vehicle, known as the SB 855 program, to provide supplementary payments to hospitals providing a disproportionate share of their inpatient services to Medi-Cal or other low-income patients. In 1998-99 the University received approximately \$69.5 million in SB 855 funds, accounting for about 7.6 percent of the total net revenue for the Davis, Irvine and San Diego medical centers. From 1991-92 through 1998-99, the University received nearly \$400 million in SB855 funds

The SB 855 program requires governmental entities, such as counties, hospital

districts and the University, which own eligible disproportionate share hospitals, to transfer funds to the State Controller for deposit into the Medi-Cal Inpatient Payment Adjustment Fund. Unlike the SB 1255 program, these are mandatory transfers, the levels of which are determined by formula. These funds are used to secure matching federal Medicaid dollars. The pool of funds is then distributed by the State to all (public and private) disproportionate share hospitals. The distribution of SB 855 funds is derived by a formula based on previous year's data regarding the number of Medi-Cal days and the percentage of other low-income beneficiaries served.

Beginning in 1993-94, distributions from the SB 855 program were subject to federal provisions which set a ceiling on the distributions that could be made to individual hospitals and, cumulatively, to each State. This ceiling is referred to as a hospital's OBRA cap. All Medi-Cal funding, such as SB 1255 and the Medi-Cal Medical Education funds (described later in this section) are factors in determining a hospital's OBRA cap.

In 1999-2000, the net benefit to eligible disproportionate share hospitals is likely to be less than the amount received in 1998-99 because the total amount of federal funding to the State of California will be decreased due to a reduction in Medi-Cal days and Medicaid cuts in the Balanced Budget Act of 1997. The total number of Medi-Cal inpatient days across the State is declining as managed care plans exert tighter controls on admissions and length of stay, and because there are fewer Medi-Cal eligible patients statewide. The number of inpatient Medi-Cal days will decrease further if many legal and illegal immigrants are removed from the Medi-Cal rolls as a result of federal welfare and immigration reform. A continued decrease in Medi-Cal patients hinders the University's clinical teaching programs, and could potentially limit the University's ability to participate in the SB 855 and SB 1255 programs. One potential bright spot for 1999-2000 is the possibility of an increase in the ceiling for distributions that could be made (the OBRA cap) for all public disproportionate share hospitals.

### ***Tobacco Tax Funds***

In November 1988, voters approved Proposition 99, which imposed an additional tax on cigarettes and other tobacco products. Proposition 99 created six separate accounts from which funds are to be appropriated for specific purposes, including indigent care, the prevention and cessation of tobacco use, and the prevention and treatment of tobacco-related diseases. Funds from the Hospital Services and Unallocated Accounts are available for payment to public and private hospitals for the treatment of patients who cannot afford to pay and for whom payment will not be made through private coverage or by any program funded in whole or in part by the federal government.

In 1989, the State approved a plan (AB 75) specifying how the Proposition 99, tobacco tax funds, were to be distributed. Since 1989, there has been a decline in smoking and in the use of other tobacco products, which has reduced the total amount of Proposition 99 funds. In 1998-99, the University medical centers received a total of \$5.3 million as compared to \$14.6 million in 1989-90. The amount of Proposition funds in 1999-2000 is projected to decrease by five percent.

Notwithstanding the decline, these funds are an important source of revenue for the University's medical centers for indigent care.

### ***Background***

Rising health care costs in the 1980s, demographic changes, and changing economic conditions caused the State, the Congress, and the private sector to initiate fundamental changes in the financing of health care services.

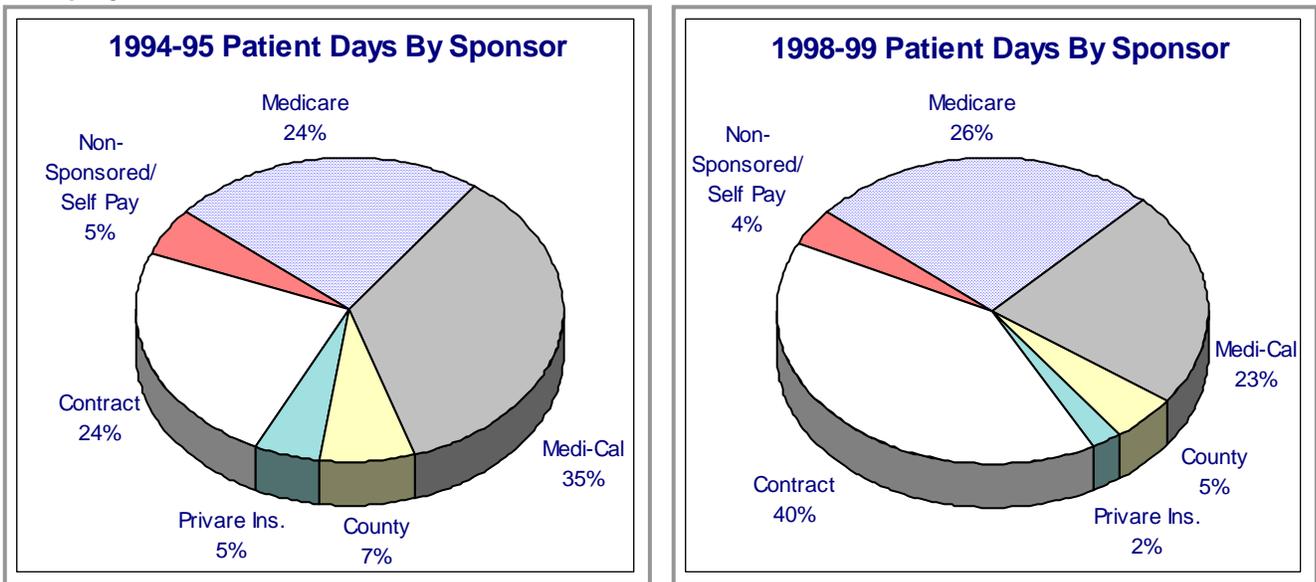
The traditional fee-for-service reimbursement system has been almost completely replaced by competitively established fixed-price payments, either capitated, per-diem, or global rates by diagnosis. As a result, hospital costs unique to academic settings (e.g., treating sicker patients, providing services to a disproportionate number of uninsured or under-insured patients, and providing a medical education in a clinical setting) are not fully reimbursed. In addition, the loss of fee-for-service or cost-based reimbursement in the private sector has eliminated the opportunity to cover some of these other costs through cross subsidization.

Over a five-year period, 1994-95 through 1998-99, the percentage of days accrued by patients covered by fee-for-service (private payers) decreased from five percent to two percent, while the number of days provided to patients covered by contractual or capitated arrangements increased from 26 percent to 40 percent.

Changes in health care financing that have negatively affected the medical centers began in 1982 with reforms of the State Medi-Cal program that instituted selective hospital contracting for inpatient services at flat per-diem pricing, stricter eligibility requirements, and the transfer of responsibility for the Medically Indigent Adults (MIAs) from the State to the counties (funding for the MIAs was provided at less than the 70 percent of projected State expenditures for the base year 1982-83). The transfer of the MIA patients directly affected the three former county hospitals – Davis, Irvine and San Diego – because the local tax dollars used to subsidize hospitals operated by local government are not available to University-operated medical centers.

In 1982, private health care insurers were provided, through legislation, with the same ability as the State to contract selectively with health care providers on behalf of their enrollees.

Display 1



At this same time, changes in federal Medicare payment policies for hospitals included a prospective payment system for inpatient care based on payments per case according to Diagnosis Related Groups (DRGs), rather than on actual hospital costs; limited payments for teaching costs; and phased out cost-based payment for capital improvements. These changes eliminated cross-subsidies which previously allowed the hospitals to cover losses sustained in Medi-Cal and county reimbursements with gains from private insurers.

In the early 1990s, the Department of Health Services (DHS) was given authority to hasten the transition of Medi-Cal from a fee-for-service to a managed care system for approximately 2.5 million Aid to Families with Dependent Children (AFDC) beneficiaries. Under these managed care programs, the provider agrees to treat Medi-Cal enrollees for a fixed rate-per-member-per-month; thereby, the health plan is at risk and is liable for any expenses incurred beyond the monthly capitation payments. Medi-Cal managed care programs are in various stages of implementation throughout the State. Upon full implementation, the University's medical centers will be at increased financial risk for managing the care of patients covered under these programs.

The Sacramento Geographic Managed Care program, which became operational in April 1994, had approximately 155,000 beneficiaries enrolled as of 1998. Cal OPTIMA in Orange County, which became operational in October 1995, is the largest of the "county organized health systems" with over 208,000 members enrolled as of 1998. The Healthy San Diego Geographic Managed Care program became operational in August 1998 and has about 127,000 enrolled beneficiaries. Los Angeles County has about 967,000 enrollees in its Medi-Cal managed care plan.

### ***Special Subsidies for the Three Former County Hospitals***

In the 1960s and early 1970s, the Legislature, which supported the University's education and research efforts but wanted the University to give a higher priority to

providing medical care for the poor, requested that the University assume operation of three former county hospitals in Sacramento, Irvine, and San Diego. These hospitals were designated to serve as the principal inpatient training sites for the three new medical schools established at the Davis, Irvine and San Diego campuses. The three hospitals, which have historically provided a disproportionately high percentage of indigent care, were plagued by financial problems from the very beginning. In 1985, the outcome of a management review of the operations of the three medical centers resulted in agreement with the State, in which the State provided \$86 million to fund cost-saving and revenue-enhancing capital outlay projects and equipment purchases and \$28.6 million to mitigate operating losses. The Irvine Medical Center received all of the \$28.6 million operating subsidy because it was the only UC medical center that incurred losses.

### ***Meeting the State and University Budget Shortfalls***

In the early 1990s, in recognition of the fact that the State provided more than \$80 million of assistance by funding needed capital improvements at the three former county hospitals during the 1980s, the University and the State turned to the medical centers to help alleviate some of the University's budgetary problems. At that time, the University was experiencing unprecedented cuts in its operating budget and the academic medical centers were experiencing modest gains.

In 1992-93, the medical centers funded a \$43 million shortfall in the University's operating budget. In 1993-94 and 1994-95, the State redirected \$237 million in SB 855 transfer funds from all transferring entities when they would otherwise have been used to capture federal Medicaid dollars. This reduced the total amount of SB 855 funds available for distribution. In addition, the University's share of SB 855 funds was reduced by \$15 million on a one-time basis by the Legislature.

The University's plan for accommodating cuts in its 1993-94 State-funded budget included a cut to health sciences clinical activities, which resulted in both permanent and one-time cuts in Clinical Teaching Support (CTS) for the medical centers.

In 1994-95, the University and the State reached agreement to shift \$18 million of State support from the medical centers on a one-time basis to help meet needs in critically underfunded areas in the general operating budget, i.e., libraries, instructional equipment, and deferred maintenance. The shift recognized actual and estimated operating gains at the medical centers during 1992-93 and 1993-94 which were above the five percent recommended by the Legislative Analyst, and supported by the Legislature.

In response to this action, the University undertook a study to look at the medical centers' needs for working capital, capital outlay and equipment, as well as a prudent reserve. The study concluded that future actions by the Legislature to limit the medical centers' ability to accumulate adequate reserves would make it even more difficult to compete in price-sensitive markets. Notwithstanding this, the 1995 State Budget Act redirected \$5.5 million, a portion of the medical centers' net gain

above five percent, from CTS funds to cover deferred maintenance on a one-time

basis. The medical centers only achieved a 2.8 percent operation margin in 1995-96, and the \$5.5 million of CTS funds were restored to the medical centers in 1996-97.

## **Funding For Teaching**

Traditionally, funds to pay for the costs of providing a medical education in a clinical setting has derived from patient care revenues. A number of significant changes in both the delivery of and reimbursement for patient care have occurred that now place these sources at risk. For example, as price becomes a major factor in the medical centers ability to compete, the centers have accepted negotiated rates that do not recognize the higher costs of providing a medical education in a clinical setting. This is occurring at the same time that patient care revenues are declining in proportion to a decline in the average length of stay. At the same time, the federal Medicare program has been reducing the support it is providing for graduate medical education. In addition, more care is being provided in ambulatory care centers (on an outpatient basis) for which the reimbursement rates do not recognize teaching costs. The following is a brief summary of the major sources of revenue that currently support teaching.

### ***Graduate Medical Education Funds***

Medicare provides teaching hospitals with Graduate Medical Education (GME) payments to help pay for the direct medical costs (DME) (i.e., salary and benefits for full-time-equivalent residents) of providing a medical education and for the direct programmatic costs allowable under Medicare.

Medicare Indirect Medical Education payments (IME) are provided to teaching hospitals for some of the indirect costs attributable to approved medical education programs, such as the extra demands placed on the medical center staff as a result of the teaching activity or additional tests and procedures that may be ordered by residents.

The combination of GME and IME payments in 1998-99 was \$40.9 million, about 8.3 percent of Medicare reimbursement to the medical centers.

### ***Clinical Teaching Support***

State general funds, called Clinical Teaching Support (CTS), are appropriated to the University in recognition of the need to maintain a sufficiently large and diverse patient population at the medical centers for teaching purposes. The funds are used chiefly to provide financial support for patients who are essential for the clinical teaching program, but who are unable to pay the full cost of their hospital care.

The 1999-2000 budget included \$39.1 million in CTS funds to support the University's academic medical centers (an additional \$11 million is included in the UCSF I&R budget and will be used to support the clinical teaching programs, provided by UCSF Stanford Health Care, at the San Francisco School of Medicine). While CTS funds represent less than 2.5 percent of total operating revenue for the

medical centers, they continue to be important to the quality of the clinical teaching programs and to the financial stability of the medical centers, especially in light of generally lower reimbursement for patient care.

### ***Medi-Cal Medical Education Funds***

In 1996-97, the Legislature adopted supplemental language asking the University to develop options for dealing with the costs of providing medical education in a clinical setting.

The University reviewed many alternatives, and successfully pursued an option to help fund graduate medical education costs through the Medi-Cal program by securing federal matching funds. In 1996-97, the University, working with the California Medical Assistance Commission (CMAC), the Department of Finance (DOF), and the Department of Health Services (DHS), developed a program, specifically for the University's medical centers, that allowed the University to use existing State general funds (Clinical Teaching Support) to leverage an additional \$50 million in federal Medicaid funds in recognition of the cost of medical education incurred in the treatment of Medi-Cal inpatients.

The State approved legislation (SB 391, Solis) to continue the program through 1998-99 and to expand it by creating two supplemental payment funds which are financed through intergovernmental transfers and then matched with federal Medicaid funds. The supplemental payment funds are the Medi-Cal Medical Education Supplemental Payment Fund, and the Medi-Cal Large Teaching Emphasis Hospital and Children's Hospital Medical Education Supplemental Payment Fund. Medi-Cal contracting hospitals that meet the definition of the university teaching hospitals (e.g., UC medical centers) or major (non-university) teaching hospitals are eligible to negotiate for funding from CMAC to cover the medical education costs associated with the care of Medi-Cal patients.

In 1996-97, the University's five medical centers received \$50 million in new federal dollars through this program to help pay for the costs of providing a medical education in a clinical setting. Over the past two years, 1997-98 and 1998-99, the University's four medical centers (excludes the UCSF Medical Center) received new federal funds of about \$35 million and \$38 million respectively. The reduced level of funding to UC medical centers is attributable to the expansion of the Medi-Cal Medical Education program to include payments to other major teaching hospitals, and the fact that the UCSF Medical Center is treated separately. With the passage of the 1999 State Budget, this program is currently scheduled to sunset on June 30, 2000. The University is working with the Legislature to reach agreement to extend the program for at least another two years.

At the same time, the University is continuing to work with the State on a broader, longer-term program to fund graduate medical education in outpatient as well as inpatient settings, and to include other health care professionals. In April 1999, the University hosted a "Medical Education Financing and Policy Forum" to discuss the current and future financing of graduate medical and related health professions education. This forum provided opportunities for dialogue among leaders and stakeholders of the State agencies, health sciences educational institutions,

professional associations, and others in discussing new options and alternative approaches for supporting the missions of California's teaching hospitals and clinics.

## **Other Funds**

### ***Capital Funds for Medi-Cal Disproportionate Share Hospitals (SB 1732)***

The SB 1732 program, the Construction and Renovation Reimbursement Program, provides supplemental Medi-Cal reimbursement to disproportionate share hospitals for debt service costs (i.e., principal and interest) of approved capital construction. In 1998-99, the Davis Medical Center received approval from the Department of Health Services for supplemental funding of \$7.4 million annually (assuming the campus continues to meet all requirements) for the next thirty years, and will fund a number of projects including Tower II, the Ambulatory Care Center, Inpatient Radiology Renovations, and the Central Plant. The Irvine and San Diego Medical Centers are investigating their eligibility for these funds to help pay for existing projects.

## **Current Issues**

### ***Medicare and Medicaid Budgets***

The Balanced Budget Act (BBA) of 1997 contained some of the most sweeping and significant changes to Medicare and Medicaid since the inception of these programs. These changes will reduce Medicare spending by \$115 billion over the next five years (1997-2002). Over the same time federal Medicaid spending will be reduced by \$10 billion.

Because the economy has been sound and inflation and interest rates are low and stable, modest changes in the Medicare and Medicaid Programs were proposed in the first two years (1998 and 1999) of the Balanced Budget Act. The more significant changes will occur between 1999 and 2002.

Two of the most significant Medicare cutbacks that will affect the University are reductions in the annual inflation adjustments to the Prospective Payment System (PPS) rates for hospitals and in payments for medical education.

The Balanced Budget Act would reduce the annual PPS adjustment by one percent for each year from 1997 to 2002, thus achieving about \$11 billion in savings over five years. The impact on the UC medical centers is estimated to be about \$45 million over the five year period. On average, the annual impact is estimated to range from about \$4 million in 1997 to about \$14 million in 2002.

The Balanced Budget Act proposes to reduce the IME factors from 7.7 in 1997 to 5.5 in 2002. This reduction is predicted to achieve \$4.2 billion in savings over five years. Another \$3.4 billion in savings over the same period will be achieved through changes in DME payments. The impact to the UC medical centers is estimated to be more than \$70 million over the course of the five years. On average, the impact is estimated to range from \$6 million in 1997 to over \$20 million in 2002.

The Balanced Budget Act is expected to cut Medicaid spending by \$10 billion, primarily from reductions in payments for disproportionate share hospitals. These reductions will greatly affect the UC medical centers because 15 percent of net operating revenue comes from Medi-Cal. About 38 percent of all UC medical center Medi-Cal reimbursement comes from disproportionate share payment, i.e., SB 855 and SB 1255 funds.

Losses in federal funding will have to be made-up from other sources, or programs may have to be reduced or eliminated, thus having an impact on the teaching and research missions of the medical centers.

### ***Impacts of Managed Care***

Academic medical centers are profoundly affected by the dynamic changes in the delivery of health care services. These changes are the direct or indirect result of an increase in the percentage of the general population enrolling in “managed care plans” for health care coverage. When reimbursement was based on a fee-for-service, the medical centers were able to generate the patient volume and dollars needed to support teaching and research programs. Patients were attracted to the cutting-edge quality of the specialized treatments for complicated health problems offered by the medical centers, and employer-paid insurance and government programs covered the higher costs.

Managed care, in response to spiraling health care costs, seeks to reduce costs in two primary ways. First, managed care emphasizes prevention and primary care intervention in order to reduce the need for more costly hospitalization and specialist services later on. Primary care physicians serve as the first-line of treatment and act as “gatekeepers,” coordinating care and controlling referrals to more costly specialized services, including inpatient care. Some services that have traditionally been provided on an inpatient basis are now being provided in outpatient facilities as efforts are made to hold down costs. Improvements in procedures and technology will continue to allow for more services to be performed in an outpatient setting.

As a result of these trends, the University’s medical centers have experienced a shift from inpatient care to outpatient services, a shift which threatens their ability to generate sufficient revenue to cover costs. At the same time, this shift reduces the opportunities for inpatient teaching.

Consistent with the direction of health care delivery, the University’s clinics show increases in outpatient visits. While there is pressure from accrediting bodies and other policy makers to shift the locus of medical training from inpatient to outpatient care sites, and the University’s clinics are logical outpatient training sites, the cost of providing a medical education in the outpatient setting is expected to be similar or even higher than in inpatient settings. Complicating the fiscal picture in this context is the fact that medical education costs for outpatient services are not recognized by Medicare or Medi-Cal. The University is working with the State to identify the costs of providing a medical education in an outpatient setting, with the intent that this will lead to reimbursement by the State and federal governments.

The second way in which managed care seeks to control costs is by contracting with a network of preferred providers to deliver services at negotiated (discounted) rates. To compete successfully for these contracts, physicians are joining with hospitals and other providers to form integrated delivery systems that provide the full range of care from outpatient and lab services to inpatient and skilled nursing care. Integrated delivery systems offer a continuum of care and derive competitive advantages from economies of scale that can result in lower prices; data collection capabilities that can monitor outcomes over time, which can be an advantage in attracting patients; and convenience for insurers, who can negotiate with many doctors and multiple services as a group rather than on a one-on-one basis. Providers who remain outside these networks face a reduced market for their services, as more of the population uses managed health care on either a voluntary or mandatory basis.

As major purchasers of medical services on behalf of Medi-Cal and Medicare beneficiaries, the State and federal government are encouraging the development of contractual arrangements with selected providers for these populations. Unless the negotiated rates recognize the special needs of academic medical centers and provide the necessary funding, the University's medical centers will not be able to recover full costs for providing the services.

### ***Seismic Safety Issues***

SB 1953, the Alquist Hospital Seismic Safety Act was enacted in late 1994. This legislation requires general acute-care inpatient hospitals to meet standards designed to prevent collapse in a major earthquake by 2008, even though the hospital may not remain operational after the earthquake. By 2030, hospitals would be required to meet higher building standards that would increase the probability of remaining operational following a major earthquake. No provisions for funding were included in the legislation.

Compliance with SB 1953 will affect the state's hospital industry and the delivery of health care, as well as the teaching and research activities conducted at the UC medical centers.

Current preliminary estimates suggest potential costs for SB 1953 compliance will be significant. These estimates do not take into account such factors as loss of revenues due to closure of operating rooms, emergency rooms, or loss of bed capacity during retrofit and rebuild. In light of this impact, the University has initiated a process to assess the impact of SB 1953 on the University's mission, budget, debt management, and business planning processes.

To mitigate the potential impact of SB 1953, the University is exploring several options, both individually and in conjunction with the state's hospital industry. These options include, but are not limited to: obtaining potential state or federal funding to ameliorate SB 1953's financial impact; creating funding mechanisms, including lease revenue bonds or a bond measure, that would benefit public hospitals in general or the University specifically; discussing the feasibility and

possibility of extending SB 1953 deadlines or modifying compliance requirements to take into account historical retrofits performed on "safety net" hospitals.

### ***UCSF Stanford Health Care***

In 1997, The Regents approved the merger of the UCSF medical center with Stanford Health Services. As a result of the merger, the two medical centers focused on (1) improving their ability to compete in a managed care environment and to negotiate more favorable provider contracts; (2) sustaining an adequate patient base to support the clinical education mission of the schools of medicine; and (3) consolidating some programs to reduce costs and create efficiencies while maintaining quality. The November 1, 1997 merger created a separate non-profit corporation, UCSF Stanford Health Care, to support the clinical teaching programs of the UCSF School of Medicine and the Stanford School of Medicine.

In its first fiscal year (November 1, 1997 to August 31, 1998, ten months), UCSF Stanford Health Care (USHC) reported a net gain of \$29.5 million. In its second full fiscal year it is expected to lose more than \$70 million. The expected loss is attributable to an unexpected decline in hospital occupancy, cuts in reimbursements from Medicare and Medi-Cal, rising drug costs, upgrades to computer systems, increases in staffing, and greater than expected losses at Mount Zion.

Given their concern over the financial losses of UCSF Stanford Health and the prospect of closing Mount Zion, Bay Area legislators requested an audit of UCSF Stanford Health Care by the State Auditor General. The audit, which was released on August 31, 1999, stated that UCSF Stanford Health Care was unable to achieve the clinical and financial goals of the merger to the degree anticipated. Specifically, the audit noted the failure to combine the intellectual capital of each institution and that the merger costs exceeded savings.

Management of UCSF Stanford Health has been turned over to the Hunter Group, a national health care consulting practice that specializes in turning around financially troubled hospitals. The Hunter Group worked successfully with the UC San Diego medical center, which following a \$20 million loss has now realized three consecutive successful years.

The University of California and Stanford University are currently reassessing the structure of the merged health organization and have announced their intention to release a staff report on October 1, 1999.

## **Responding to the Challenges**

The medical centers are adapting to the managed care environment by expanding their outpatient and primary care services to complement their existing inpatient services and creating integrated delivery systems. This is enabling the centers to compete more successfully for commercial contracts, and in turn provide students with more exposure and training in the delivery of primary care services and ensure

a diverse patient population for clinical teaching and research purposes. An expanded primary care patient base is also expected to result in more referrals to the University's own inpatient and specialist services.

The University's academic medical centers are also responding by reducing costs through restructuring and improved efficiencies. The centers are developing stronger links with other providers, especially community hospitals and physicians in larger networks.

The following is a brief description of how each of the University's four academic medical centers has or is responding to the changes in the health care industry.

### ***UC Davis Medical Center***

UC Davis has followed multiple strategies over the past several years to keep pace with changing market conditions. For example, the UC Davis primary care network was established in 1993 and now employs 115 physicians who serve approximately 225,000 patients in 18 different communities. The UC Davis Telemedicine Program, receiving much acclaim as the future of medical communication, now links physicians and hospitals in rural communities with specialists at UC Davis Medical Center, improving access among rural residents to specialty care and thereby strengthening referral relationships. These strategies ensure that UC Davis Medical Center services are available to many new patients and communities.

To support these initiatives, UC Davis has completed major investments in new facilities and equipment over the past several years. The new Lawrence J. Ellison Ambulatory Care Center added 370,000 square feet of additional outpatient service and clinical space. A new central plant capable of generating power for the entire 140-acre campus became operational in May 1999. New research space and office support facilities were also added to support the healthcare and education missions.

UC Davis continues to make administrative and organizational changes to facilitate an integrated administrative and governance structure for the Health System. The newly formed UC Davis Medical Group is successfully competing within Sacramento and surrounding communities and is positioning itself as a multi-specialty group of choice in the private sector.

As a result of these successful efforts, inpatient and outpatient volumes continue to grow as UC Davis emerges as the preferred Health System provider in its service area.

### ***UC Irvine Medical Center***

The UC Irvine Medical Center, in association with the College of Medicine, developed a joint strategic plan to position the medical center as the regional specialty referral center in Orange County. A primary market strategy of this plan is to form associations with major medical groups in its region for their tertiary referrals. This strategy has been successful, as measured by a 12 percent increase in patient admissions and a nine percent increase in ambulatory visits over the prior year.

Another component of the strategic plan is continuous improvement in the medical center's infrastructure, including upgrading information systems, billing and collections functions, appointment scheduling, compliance and operational systems, all of which are well along in their implementation. The plan also reiterates the medical center's continuing focus on improving quality of care and the level of customer service delivered to patients, which has resulted in a decade-low level of professional liability cases and an all-time high ranking of patient satisfaction. Finally, the plan calls for the recruitment of additional clinical faculty to support the medical center's objective to be the regional specialty referral center.

The Irvine College of Medicine and the Medical Center continue to integrate management functions, including joint budgeting and an integrated process for allocating resources and decision-making.

The medical center's continued positive financial performance is dependent on several factors, including keeping its low cost structure and continuing to receive disproportionate share and medical education funding to support care of low-income patients. Through its involvement in the local Medi-Cal program, UCI remains the largest safety net provider in Orange County.

### ***UCLA Medical Center***

As part of the development of an integrated care system, UCLA acquired Santa Monica Hospital in 1995. The acquisition allowed the system to expand primary care to complement its tertiary and quaternary specialty services. The acquisition also made it possible for the UCLA Medical Center and the School of Medicine to create a strategic alliance in 1998 with Orthopaedic Hospital that will help in the development of a comprehensive program in the field of orthopedics.

During 1999, UCLA continued to expand its extensive network of primary care sites in the West Los Angeles area. With these additions, UCLA now has 22 sites providing a significant portion of the population with access to its well-developed integrated delivery network of hospitals and physicians. The result of the above efforts, as well as the development of contractual agreements with the significant payors and with physicians groups in Southern California, has led to continued growth in patient activity throughout the system.

As a result of structural damage sustained during the 1994 Northridge earthquake, UCLA is building replacement hospital facilities at both the Westwood and Santa Monica campuses. The majority of the funding will be provided by the Federal Emergency Management Agency (FEMA). The State has provided \$44 million in matching funds. The new medical center will have fewer inpatient beds and expanded (outpatient) clinical facilities.

### ***UC San Diego Medical Center***

The UC San Diego Medical Center (UCSDMC) has enjoyed three consecutive fiscal years, 1996-97 through 1998-99, of significant profitability of \$26.1 million, \$30.8 million, and \$33.4 million respectively. This financial performance is the result of focused attention following a \$20 million loss in 1995-96 that forced management to reduce costs and to modify the organizational structure to be more conducive to

dealing with the competitive San Diego managed care market. The San Diego Medical Center reduced its workforce by 18 percent, downsized its community physician network, and created UCSD Healthcare to bring a common vision, strategy, financial control, and operational management to all components of its health care delivery system.

UCSD also collaborated with other UC medical centers and the Office of the President to secure support for graduate medical education through the Medi-Cal program, providing an important new fund source that has contributed to the medical center's financial performance.

In 1998-99, UCSDMC recorded an increase in both inpatient and outpatient activity due to the development of new programs, expanded marketing efforts, and an emphasis on improving access to services. Despite the significant improvements already realized, the medical center is continuing to look at additional ways to improve.

As UC medical schools and medical centers look to the future, the University remains committed to meeting previously established primary care residency training expansion goals, while striving to maintain a long tradition of excellence in health sciences education and responsiveness to societal health needs. Meeting these challenges successfully will require increasing collaboration among educators, teaching hospitals, managed care organizations, and others to ensure that the quality of patient care and medical education continue to meet the high standards of American medicine and modern society.

With their tripartite mission of teaching, public service, and research, UC's academic medical centers constitute a major resource for California and the nation by providing excellent training for tomorrow's health professionals, educational opportunities for community health professionals who participate in the University's clinical teaching and continuing education programs, and health care services to thousands of patients each day.

## STUDENT FEES

### Overview

There are two mandatory Universitywide fees currently assessed all registered students: the Educational Fee and the University Registration Fee. Income from these two fees is used to support student financial aid, student services programs, and a share of the University's operating costs, including instruction-related costs.

In the early 1990s, Universitywide mandatory student fees increased dramatically as one of the many ways in which the University was able to weather the State's fiscal difficulties. As the State emerged from its economic difficulties, the Governor and the Legislature placed a renewed priority on higher education and provided additional revenue to the University to keep fee levels from increasing. As a result there have been no increases in mandatory Universitywide student fees since 1994-95. In 1998-99, consistent with Assembly Bill 1318 (Chapter 853, Statutes of 1997), mandatory Universitywide fees for California resident undergraduate students were reduced by five percent (\$190). For California resident graduate and professional school students, as well as for nonresident students, these fees were maintained at the 1997-98 levels.

In 1999-2000, the State provided the University with revenue equivalent to what would have been provided had mandatory systemwide fees been increased by 4.1 percent (the estimated growth in California per capita personal income), eliminating the need to increase these fees in 1999-2000. In addition, the State provided sufficient funds in 1999-2000 to: (1) reduce mandatory systemwide fees by an additional five percent for California resident undergraduate students (bringing 1999-2000 fees about 10% below 1994-95 levels); and (2) reduce mandatory systemwide fees by five percent for California resident graduate academic students. The fee reduction is not applicable to graduate students who are subject to the Fee for Selected Professional School Students.

The 2000-01 budget plan assumes funding equivalent to a 4.5 percent increase in mandatory systemwide student fees will be available to provide for salaries, benefits and cost adjustments to portions of the budget funded by student fee revenue. The budget also assumes that at least one-third of the increased revenue that would be generated would be used to support need-based financial aid. If the budget plan is to be fully funded, either the state will need to provide sufficient funds to the University to keep fees at current levels or student fees will have to be increased. No action on fees will be proposed until after it is known whether funding is provided in the Governor's January Budget. Display 6, found at the end of this chapter, displays fee levels for resident undergraduate and graduate students from 1978-79 through 1999-2000.

All students seeking specified degrees in medicine, dentistry, veterinary medicine, law, business/management, pharmacy, optometry, nursing, and theater/film/television (at the Los Angeles campus only) are required to pay a

professional school fee, as provided in the Fee Policy for Selected Professional School Students approved by The Regents in January 1994. In addition to reducing fees for resident undergraduate students, AB 1318 (Ducheny) put into place a two-year freeze on fees for students enrolled in graduate or professional school programs; thus, fees for these students were kept at 1997-98 levels. The two-year freeze in fees is no longer in effect and the Office of the President is working with the campuses to develop a new plan to phase in fee increases for these programs, and possibly additional professional school programs, to the average of the total fees charged at public comparison institutions for each selected degree program. A decision to move forward with the plan will depend on agreements reached with the State regarding student fees.

Finally, in addition to all mandatory Universitywide fees, campus-based fees, and any applicable professional school fees, nonresident students must pay nonresident tuition. For 1999-2000, the nonresident tuition is \$9,804. The University's 2000-01 budget plan includes a proposal to increase nonresident tuition by 4.5 percent (\$440) which is the estimated growth in the California per-capita personal income.

### ***Student Fees In the 1980s***

In 1981-82 and 1982-83, reductions to the University's State-funded budget resulted in significant increases in fee levels, and student fees were used to fund programs previously supported from other sources, primarily State funds. In 1984-85, the State reversed the pattern of annual fee increases by approving a \$70 per student reduction in student fees. In 1985, the State adopted a long-term student fee policy that provided for gradual and moderate fee increases and established guidelines for fee increase calculations, financial aid, notification to students of fee increases, and consultation with students.

In 1985-86 and again in 1986-87, mandatory Universitywide student fees were held at their 1984-85 levels. In each of these three years, the State provided an increase in general funds for student financial aid which, in turn, released an equivalent amount of student fee income to offset the 1984-85 fee reduction and to compensate for the impact of inflation on student services programs for those three years. In 1987-88, 1988-89, and 1989-90, student fees were increased by about ten percent, four percent, and three percent respectively.

### ***Student Fees 1990-91 through 1994-95***

Historically, the combination of adequate State support and low student fees maintained the affordability of the University; financial aid programs also helped to maintain access for needy students. The commitment to low fees was eroded by the State's severe fiscal difficulties in the early 1990s and the resulting dramatic decline in State support for the University. The shortfalls in State funding were accommodated in three ways: about half through budget cuts, roughly a quarter by not providing employees with cost-of-living salary adjustments, and another quarter through general student fee increases. Thus, there was considerable volatility in fee increases during the early 1990s.

Mandatory Universitywide fees increased significantly during this period – by 40 percent in 1991-92, 24 percent in 1992-93, and 22 percent in 1993-94. In

1994-95, the University was able to hold the fee increase to ten percent because the State authorized the use of \$25 million in debt financing for deferred maintenance which released general funds that substituted for fee income. Throughout this period, fees were accompanied by significant increases in financial aid that helped offset the impact of the fee increases on needy students. The commitment to financial aid, which is addressed in the Student Financial Aid section, has helped maintain the affordability of a UC education.

### ***Student Fees 1995-96 through 1999-2000***

The 1995 Governor's Budget proposed a four-year compact with higher education, which provided for annual budget increases averaging four percent and student fee increases up to ten percent annually.

During the first three years of the compact the State provided the University with additional revenue above the proposed compact levels to "buy out" the annual fee increases of about ten percent included in the compact. In 1998-99, the State provided sufficient funds to maintain fees at the 1997-98 levels (thereby avoiding a fee increase of 10%) and to reduce mandatory Universitywide student fees by five percent for resident undergraduate students, consistent with AB 1318. In 1999-2000, the State provided sufficient funds to avoid the need for a 4.1 percent fee increase and to reduce mandatory Universitywide student fees by an additional five percent for resident undergraduate and by five percent for graduate academic students.

Since 1994-95, then, there have been no increases in mandatory Universitywide student fees, and fees for resident undergraduate students have been reduced by nearly ten percent and fees for resident graduate academic students have been reduced by five percent.

For 1999-2000, University fee levels for undergraduate resident students are \$1,154 less than the average fees for the University's four public salary comparison institutions. The University's fees for nonresident undergraduate and graduate students also remain less than the average fees for the comparison institutions. Display 1 shows the average resident and nonresident fees charged at the University's four public comparison institutions.

For 1999-2000, the mandatory Universitywide fees paid by resident undergraduate students are about 25 percent of the actual cost of their education, with the State subsidizing most of the remainder. This proportion is significantly less than the 40 percent level recommended by the California Postsecondary Education Commission (CPEC), which has proposed that student charges be based on a percentage of the average cost of instruction.

As fees have increased over time, the percentage of additional fee income dedicated to financial aid has increased commensurately, from 16 percent ten years ago to 33 percent at present. Financial aid provided to UC students through the Cal Grant program also has increased. Funds from the Cal Grant program and financial aid provided from student fee revenue helped cover fee increases for UC students who

demonstrated financial need.

Display 1

<b>University of California and Public Salary Comparison Institutions Student Fees</b>				
<b>Public Salary Comparison Institutions 1999-00 Fees</b>	<u>Undergraduate</u>		<u>Graduate</u>	
	Resident	Nonresident	Resident	Nonresident
University of Illinois	\$4,770	\$11,862	\$5,362	\$12,514
University of Michigan	6,673	20,393	10,501	21,107
University of New York	4,655	9,555	6,035	9,351
University of Virginia	4,130	16,603	4,916	16,603
<b>1999-2000 Average Fees of Comparison Institutions</b>	5,057	14,603	6,704	14,894
<b>1999-2000 Average UC Fees</b>	\$3,903	\$14,077	\$4,578	\$14,572
<b><i>2000-01 Estimated Average Fees for Public Salary Comparison Institutions</i></b>	\$5,209	\$15,041	\$6,905	\$15,341
<b><i>2000-01 Estimated Average UC Fees with no increase</i></b>	\$3,903	\$14,517	\$4,578	\$15,012
<b><i>2000-01 Estimated Average UC Fees with 4.5 % Increase</i></b>	<b>\$4,057</b>	<b>\$14,687</b>	<b>\$4,740</b>	<b>\$15,183</b>

During the period when fees increased, the percentage of new freshmen from low-income families – those with less than \$30,000 parental income – did not decline. In fall of 1998, the University enrolled about the same proportion of new freshmen from low-income families as it did in fall 1991. The Student Financial Aid section of this budget provides a full discussion of financial aid, including State, federal, private, and University sources.

### **Policy on Adjustment of Student Fee Levels**

In 1985, the State adopted a long-term student fee policy, which provided for gradual and moderate fee increases and established guidelines for fee increase calculations, financial aid, notification to students of fee increases, and consultation with students. In addition, the policy provided for fee increases of up to ten percent when State revenues and expenditures were substantially imbalanced. Although The Regents adopted the policy in 1985, it was routinely suspended beginning with the 1991-92 budget. The policy was not reauthorized by the Legislature and is no longer in effect.

Discussions occurred at Regents' meetings in October and November 1993 regarding the need to establish a new student fee policy coupled with a formal financial aid policy. These discussions occurred within the context of the reduced State financial support for the University and an anticipated dramatic increase in

student demand over the next 15 years. During these discussions, the necessity to generate additional revenue in order to maintain the academic quality of the University, as well as student access, was acknowledged. It was also recognized that, for California resident students, funding the cost of a UC education is a shared responsibility among the State, the students, and their families. Further, because student fees cover only a portion of the cost to educate students, it was understood that all students receive a substantial State subsidy, including those from high-income families who have the resources to contribute more. Data from a 1997-98 survey of students' expenses and resources indicate that about a third (34.1%) of undergraduates had parents with incomes above \$72,000, while about 21 percent had incomes of \$96,000 and above.

In January 1994, based on extensive discussions with the State and within the University community, The Regents approved a Student Fee and Financial Aid Policy that applies to the Educational Fee and University Registration Fee. The Policy recognizes that the commitment to low fees has been eroded by dramatic declines in State support, and specifically authorizes the use of Educational Fee revenue for general support of the University, including costs related to instruction. A goal of the Policy is to maintain access to a quality educational experience at the University for low- and middle-income students without unnecessarily subsidizing high-income students.

Under the policy, the Educational Fee continues to be a mandatory charge assessed to all resident and nonresident students. The policy calls for the Educational Fee to be established annually, based on the following factors: (1) the resources necessary to maintain access under the Master Plan, to sustain academic quality, and to achieve the University's overall missions; (2) the amount of support available from various sources to assist needy students in funding the cost of their education; (3) overall State general fund support for the University; and (4) student charges at comparable public institutions. In addition to funding programs and services supported by the Educational Fee in past years (such as student financial aid and related programs, admissions, registration, administration, libraries, and operation and maintenance of plant), income generated by the Educational Fee is now used for general support of the University's operating budget.

The Policy also established a methodology for setting annual University Registration Fee levels that may vary among the campuses within a range established annually by The Regents.

Finally, to assist students and their parents in planning for future educational expenses, the Policy provides for recommendations annually to the Board concerning the proposed levels for the Educational Fee and the University Registration Fee for the next academic year, and the anticipated fee levels for the following three years.

## **Educational Fee**

The Educational Fee was established in 1970. Though the Educational Fee initially was designated to be used primarily for capital outlay purposes, in subsequent years, an increasing proportion of the Fee was allocated for student financial aid. In 1976, The Regents adopted a policy that Educational Fee income was to be used exclusively for support of student financial aid and related programs. The Regents modified that policy in 1981 following a reduction in State general fund support. As a result, the Educational Fee, which continued to fund student financial aid and related programs, also began to support social and cultural activities, counseling and career guidance, supplemental education (e.g., academic tutoring), and overhead (i.e., operation and maintenance of plant and general administration) associated with student services activities funded by student fee income.

In 1994, The Regents adopted a policy permitting the use of Educational Fee revenue for general support of the University's operating budget, including costs related to instruction. As discussed earlier, the policy also established a methodology for setting annual Educational Fee levels.

### **University Registration Fee**

The University Registration Fee is a charge made to each registered student for services, which are necessary to students but not part of the University's programs of instruction, research, or public service. Included in these services are activities such as counseling, academic advising, tutorial assistance, cultural and recreational programs, and capital improvements, which provide extracurricular benefits for students. Chancellors are authorized to determine specific allocations of Registration Fee income on their campuses, within appropriate University policies and guidelines. Each campus has a Registration Fee Committee, which includes a majority of voting student members, to advise the Chancellor on pertinent issues.

Between 1977 and 1988-89 the Registration Fee level differed by campus in order to allow each campus to meet specific program needs. This approach included the expectation that the Registration Fee could be increased differentially, up to a Universitywide ceiling, to meet future campus needs. However, the Registration Fee was frozen from 1984-85 through 1986-87. In 1987-88, the University began moving toward a uniform Registration Fee level among the campuses, a goal which was achieved in 1989-90.

The Student Fee and Financial Aid Policy approved by The Regents in January 1994 no longer required the Registration Fee to be uniform across campuses. Because there have been no increases in mandatory Universitywide fees and the reductions in mandatory student fees implemented in 1998-99 and 1999-2000 were not applied to the Registration Fee, the Registration Fee level has remained the same since 1994-95. Programs supported from the Registration Fee continue to receive inflationary adjustments equivalent to what is provided to general fund and Educational Fee-funded programs (e.g., cost-of-living and merit salary increases, price increases, undesignated budget reductions).

## Fee for Selected Professional School Students

Pursuant to the provisions of the 1990 State Budget Act, a Special Fee for Law School and Medical School Students of \$376 per year was implemented, effective 1990-91.

In January 1994, The Regents approved a Fee Policy for Selected Professional School Students. In approving the new fee policy, the University reaffirmed its commitment to maintain academic quality and enrollment in the designated professional school programs and recognized that earning a degree in these programs benefits the individual as well as the State. The policy provides that the fee for each selected professional program will be phased in to approximately the average of fees charged for that program by comparable high quality institutions across the nation. Until the fee is fully phased in, the level of the fee remains the same for each student for the duration of his or her enrollment in the professional degree program, with increases in the fee applicable to new students only. In addition, professional school students pay mandatory Universitywide fees and miscellaneous campus-based fees and, when appropriate, nonresident tuition. The Special Fee for Law and Medical School Students is now coordinated with the Fee for Selected Professional School Students for law and medical students. Display 2 shows the fee levels previously approved by The Regents. Although the 1998-99 Regents' Budget initially assumed continued implementation of the phase-in plans for the fees, The Regents were not asked to take action on the professional school fee increases originally planned for 1998-99.

**Display 2**

<b>Fees for Selected Professional School Students Annual Fee Levels by Year of First Enrollment*</b>				
	1994-95	1995-96	1996-97	1997-98
Medicine	\$2,376	\$3,376	\$4,376	\$5,376
Dentistry	2,000	3,000	4,000	5,000
Veterinary Medicine	2,000	3,000	4,000	4,000
Law	2,376	4,376	6,376	6,376
Business	2,000	4,000	6,000	6,000
Riverside	2,000	3,000	4,000	5,000
Optometry			2,000	3,000
Pharmacy			2,000	3,000
Nursing			1,500	1,800
Theater, Film, & TV			2,000	2,000
* In addition, professional school students pay mandatory Universitywide fees and miscellaneous campus-based fees.				

Subsequent to the preparation of the 1998-99 Regents' Budget, the Governor signed AB 1318, which provided a two-year freeze on fees for California residents enrolled in graduate academic or professional school programs. Thus, the planned professional school fee increases for 1998-99 that were previously reviewed by The Regents were not implemented and professional school fees remain at the 1997-98 levels. The Office of the President is working with the campuses to develop a new plan to phase in increases consistent with the following principles.

- Professional school fees may vary among professional degree programs, though fees for each type of degree program (e.g., MBA, MD, JD, etc) will continue to be uniform across campuses.
- Students enrolled prior to Fall 2000-01 will continue to pay the professional school fee charged when they first entered their program. For all students entering in Fall 2000-01 and beyond, professional school fees will be adjusted on an annual basis.
- Total fee levels (mandatory systemwide fees and professional school fees) will be considered as a whole in determining proposed fee increases.
- Total fee levels (mandatory systemwide fees and professional school fees) will be no more than the average of the total fees charged at the University's public comparison institutions.
- As in the past, at least one-third of all new fee income will be set aside for financial aid purposes.

The Regents will not be asked to take action on a specific proposal until there have been further discussions with the Governor.

**Display 3**

<b>2000-01 Professional School Fee Income</b>			
	<b>Gross Fee Income</b>	<b>Return-to- Aid</b>	<b>Net Fee Income</b>
1999-00 Budgeted Fee Income	\$44,454,200	\$13,987,600	\$30,466,600
Increased Fee Income in 2000-01: New students paying previously approved fees	\$995,000	\$331,667	\$663,333
<b>Total Fee Income</b>	<b>\$45,449,200</b>	<b>\$14,319,267</b>	<b>\$31,129,933</b>
<small>* Excludes the \$376 Special Fee for Law and Medical School students.</small>			

New revenue from the Fee for Selected Professional School Students will be generated in 2000-01 from new students paying previously approved fees. The new revenue will be approximately \$1 million. Of that total, about \$332,000 will be used for financial aid to maintain the affordability of professional school programs, and the remaining \$663,000 will be used by professional schools to maintain academic quality and enrollment levels, in accordance with the policy approved in January 1994. Fee income may be used to hire faculty and teaching assistants, for instructional and computing equipment, libraries, other instructional support, and student services. The amount of fee revenue resulting from new enrollments, including the amount to be set aside for financial aid, is shown in Display 3.

Display 4 shows 1999-2000 professional school fees at the University of California in relation to the University's four public salary comparison institutions. In every case,

the fees for resident students enrolled in these selected professional schools are lower than the tuition and fees charged by comparable public institutions. Because most of the University's four public salary comparison institutions do not offer degree programs in Veterinary Medicine and Optometry, additional public institutions are used for fee comparison purposes. For information only, the table also shows the 1999-2000 tuition and fees at the University's four private salary comparison institutions. Because the private comparison institutions do not offer all of the professional degree programs that UC offers, the comparisons focus on medicine, law, and business administration.

Because of a concern about the ability of students with high debt to pursue public interest occupations, some professional schools are developing programs to assist students in meeting their loan repayment obligations after graduation. The University will continue to monitor the debt levels of students.

### **Nonresident Tuition**

Consistent with the Statewide policy on nonresident tuition, the University's 2000-01 budget plan includes an increase of \$440 (4.5%) in nonresident tuition. This increase, which is based on the estimated growth in the California per capita personal income, is expected to generate about \$6 million in new revenue.

With the proposed increase in nonresident tuition, the University's 2000-01 charges for nonresident graduate students will be \$15,012, assuming there is no increase in mandatory Universitywide fees. This figure is about \$330 less than the projected average charged at other public institutions. Display 1 shows the 2000-01 projected average nonresident tuition and fees for graduate students at the four public salary comparison institutions. Consistent with State policy, future increases in UC nonresident tuition are anticipated to keep the University's charges at the level of the average charged at comparison institutions.

University of California students who do not qualify as California residents under Section 110.2, Matters Relating to Residency, of the Standing Orders of The Regents, are required to pay nonresident tuition. The annual charge is the same for each nonresident student regardless of level. In addition to paying nonresident tuition, out-of-state students must also pay the Educational Fee, the Registration Fee, miscellaneous campus fees and, if applicable, the Fee for Students in Selected Professional Schools.

In May 1992, The Regents adopted stricter requirements for establishing residency for tuition purposes. This action allowed the University to be consistent with the federal definition of "financial independence" and to give full weight to this factor in assessing whether undergraduate and graduate students should be classified as residents for tuition purposes. Effective fall 1993, students seeking classification as residents are considered financially independent if they satisfy one of the following criteria: is at least 24 years old; is a veteran of the U.S. Armed Services; is married; is a ward of the court; both parents are deceased; has legal dependents other than a spouse; is a graduate student and not claimed on another's income tax

as a dependent for the immediately preceding tax year; or is a single undergraduate student who is financially self-sufficient and who was not claimed on another's income tax return as a dependent for the preceding two years.

***State Policy on Adjustment of Nonresident Tuition***

In 1988-89, the Legislature adopted Senate Concurrent Resolution 69 (Morgan) expressing its intent to adopt a long-term nonresident student fee policy. The resolution called on the California Postsecondary Education Commission (CPEC) to convene meetings of representatives from the University of California, the California State University, Hastings College of the Law, the California Community Colleges, the Department of Finance, the Legislative Analyst's Office, and students to develop recommendations for a long-term nonresident student fee policy. The Advisory Committee convened by CPEC issued a report in June 1989, which concluded with the following recommendation:

*As California's public postsecondary education segments annually adjust the level of nonresident tuition they charge out-of-state students, the nonresident tuition methodologies they develop and use should take into consideration, at a minimum, the following two factors: (1) the total nonresident charges imposed by each of their public comparison institutions and (2) the full average cost of instruction in their segment.*

*Under no circumstances should a segment's level of nonresident tuition plus required fees fall below the marginal cost of instruction for that segment.*

*In addition, each segment should endeavor to maintain that increases in the level of nonresident tuition are gradual, moderate, and predictable, by providing nonresident students with a minimum of a ten-month notice of tuition increases. Each governing board is directed to develop its own methodology for adjusting the level of nonresident tuition, but those methodologies should be consistent with this recommendation.*

Display 4 fees for selected prof. School students

The Advisory Committee's recommendations for adjusting the level of nonresident tuition subsequently were signed into law (Chapter 792, 1990). In addition, the legislation includes the proviso that "in the event that State revenues and expenditures are substantially imbalanced due to factors unforeseen by the Governor and the Legislature," nonresident tuition will not be subject to the bill's provisions.

***Nonresident Tuition Levels in the 1980s and 1990s***

The nonresident tuition level is an important element in the University's ability to recruit outstanding graduate students. As shown in Display 5, between 1987-88 and 1991-92, fees for nonresident students increased significantly, creating a significant differential between the University's total tuition and fees and those charged at other public institutions. In recognition of that differential, in the four years between 1992-93 and 1995-96 there were no increases in nonresident tuition. Even though the nonresident tuition fee did not increase during these five years, the number of students paying nonresident tuition declined in the early 1990s. Notwithstanding subsequent increases in nonresident tuition, the number of nonresident students paying the tuition fee began to rebound beginning in 1995-96. Consistent with the Statewide policy on adjustment of nonresident tuition, The Regents approved a \$695 increase in nonresident tuition for 1996-97, a \$590 increase in 1997-98, a \$400 increase in 1998-99, and a \$420 increase in 1999-2000. The total fees and tuition charged to nonresident graduate students in 1999-2000 is about \$322 below those charged at other public institutions.

**Display 5  
TOTAL TUITION AND FEE CHARGES  
FOR NONRESIDENT UNDERGRADUATE STUDENTS, 1978-2000**

Year	Mandatory Systemwide Fees	Campus Fees	Nonresident Tuition	Total Fees & Tuition	Total % Increase in Tuition and Fees
1978-79	\$ 671	\$ 49	\$ 1,905	\$ 2,625	--
1979-80	685	51	2,400	3,136	16.3%
1980-81	719	57	2,400	3,176	1.3%
1981-82	938	60	2,880	3,878	18.1%
1982-83	1,235	65	3,150	4,450	12.9%
1983-84	1,315	72	3,360	4,747	6.3%
1984-85	1,245	79	3,564	4,888	2.9%
1985-86	1,245	81	3,816	5,142	4.9%
1986-87	1,245	100	4,086	5,431	5.3%
1987-88	1,374	118	4,290	5,782	6.1%
1988-89	1,434	120	4,956	6,510	11.2%
1989-90	1,476	158	5,799	7,433	12.4%
1990-91	1,624	196	6,416	8,236	9.7%
1991-92	2,274	212	7,699	10,185	19.1%
1992-93	2,824	220	7,699	10,743	5.2%
1993-94	3,454	273	7,699	11,426	6.0%
1994-95	3,799	312	7,699	11,810	3.3%
1995-96	3,799	340	7,699	11,838	0.2%
1996-97	3,799	367	8,394	12,560	5.7%
1997-98	3,799	413	8,984	13,196	4.8%
1998-99	3,799	428	9,384	13,611	3.0%
1999-00	3,799	474	9,804	14,077	3.3%
2000-01 <sup>1</sup>	3,799	474	10,244	14,517	3.0%
2000-01 <sup>2</sup>	3,970	474	10,244	14,688	4.3%

1) Does not include mandatory systemwide fee increase.  
2) Includes 4.5% mandatory systemwide fee increase.

### **Miscellaneous Campus Fees**

Other campus mandatory fees, also called miscellaneous fees, cover a variety of student-related expenses that are not supported by the Educational Fee or University Registration Fee. These miscellaneous fees help fund such programs as student government, construction, renovation and repair of sports and recreational facilities, and student health insurance. The level of miscellaneous fees varies from campus to campus and, in some cases, between graduate and undergraduate students. Generally, students must vote to establish or increase campus miscellaneous fees.

### **Self Supporting Programs**

In addition to regular degree programs, the University also charges fees for courses and programs in University Extension, Summer Session, and Self Supporting Graduate and Professional Degree Programs. These programs are not supported by State funds and varying fees are charged to cover the costs of offering those courses and programs.

Display 6 – student fee levels – full page

## STUDENT SERVICES

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 263,668,000</b>
General Funds	--
Restricted Funds	263,668,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	11,865,000

Student services programs and activities contribute to students' intellectual, cultural, and social development outside of the formal instructional process. Student services programs and activities include counseling and career guidance, tutoring, student health services, social and cultural activities, admission and registrar operations, financial aid and loan collection administration, and services to students with disabilities. Student services are primarily supported from student fee income. Each of these categories is briefly described below.

### **Counseling and Career Guidance**

Students may visit a counselor concerning such issues as scholastic performance, choice of major, personal concerns, assessing interests and aptitudes or exploring long-range career opportunities. Group counseling is provided on many campuses.

In addition, campuses provide career planning and placement services which provide students and alumni with assistance in defining their career objectives, teach job search skills, and provide on-campus interviewing opportunities for summer or career employment.

### **Learning Skills Assistance**

Campuses provide academic support services that offer tutoring and learning skills assistance to students at learning centers. Learning skills staff provide individual and group tutorial services in writing, mathematics, study skills, and preparation for graduate and professional school exams.

## **Social and Cultural Activities**

Campuses offer a wide range of cultural and social activities to enhance the quality of life for students and the campus community. Such activities include music, dance and drama events; speakers; and sports activities.

## **Student Health Services**

Student Health Services provide students with primary care and other services to keep students healthy. Services include general outpatient medical care, specialty medical care, and health education. On-campus services are supported primarily through student fees and fees-for-service. Graduate students on all campuses and undergraduate students on the Berkeley and Santa Cruz campuses have approved campus ballot initiatives requiring all students to have health insurance as a condition of attending the University. This requirement is waived if students provide proof of comparable coverage.

## **Admissions and Registrar Operations**

Campus admissions and registrar operations include the processing of applications for admission, enrollment and registration of students, scheduling of courses, maintaining and updating student academic records, preparing diplomas, and reporting statistics. Through Pathways, the University's new Web-based application and advising system, prospective applicants can explore each campus, receive admissions and financial aid information, and initiate their application for admission by completing forms at the Web site. Students can also communicate on-line with University staff regarding admissions questions.

## **Financial Aid Administration**

Campus financial aid officers counsel students about their financing options, determine and monitor the eligibility of students for financial assistance, and develop financial aid packages for students which include scholarships, fellowships, grants, loans, and work-study jobs from federal, State, University, and private fund sources. The University is committed to providing adequate financial aid as one means of ensuring that a student's financial circumstances do not preclude participation. This is discussed in the Financial Aid section of this document.

## **Services to Students With Disabilities**

Currently, the University serves 4,600 students with disabilities. Services to these students are required by State and federal law and include mobility assistance, readers, interpreters, notetakers, tutors, provision of adaptive educational

equipment, and disability-related counseling, among other services. These services represent unavoidable costs that must be covered. Currently, this program is funded from student fees and other income available to the campuses. In November 1995, the California State Auditor reviewed the University's policies, guidelines, and practices for compliance with the Americans with Disabilities Act which was enacted in 1990 to provide people with disabilities civil rights protection and access to benefits, services and programs. The State Auditor focused specifically on the adequacy of computer access for UC students with disabilities and concluded that the University provided students with disabilities adequate access to computers on all UC campuses.

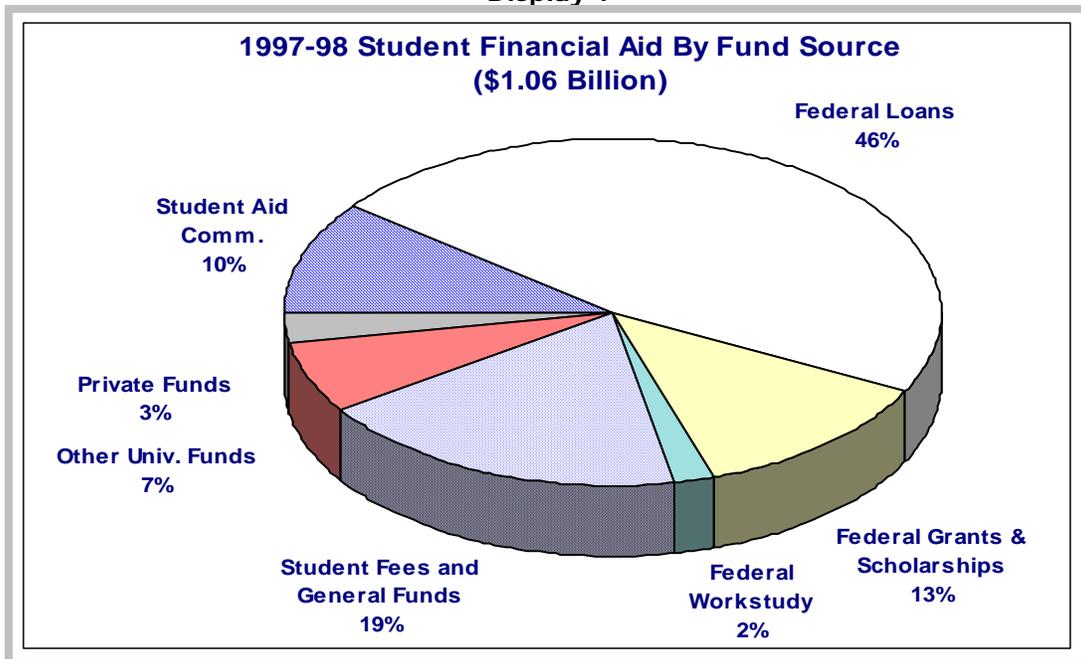
## STUDENT FINANCIAL AID

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 264,350,000</b>
General Funds	78,594,000
Restricted Funds	185,756,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	16,020,000

Financial aid plays an important role in making the University accessible to students by helping to ensure that cost is not a barrier to enrollment. The Regents reaffirmed their commitment to maintaining access under the California Master Plan for Higher Education when the University's financial aid policy was adopted in 1994.

The \$280,370,000 for 2000-01 shown in the chapter heading above includes State general funds, funds from University student fees, and endowment funds; excluded from this amount are federal funds, private bank loans, Cal Grants and other aid provided directly to students.

Display 1



UC students receive scholarships, fellowships, grants, loans, and work-study jobs to assist them in meeting the educational costs of attending the University such as fees, living expenses, books and supplies, and transportation. Financial assistance comes from four sources: the federal government; University funds, including student fees and State general funds, and endowments and other discretionary funds; the State through the Cal Grant programs; and private agencies. University students received more than \$1 billion in student aid in 1997-98. Display 1 shows the proportion each fund source contributed to the total amount of financial support provided to UC students in 1997-98.

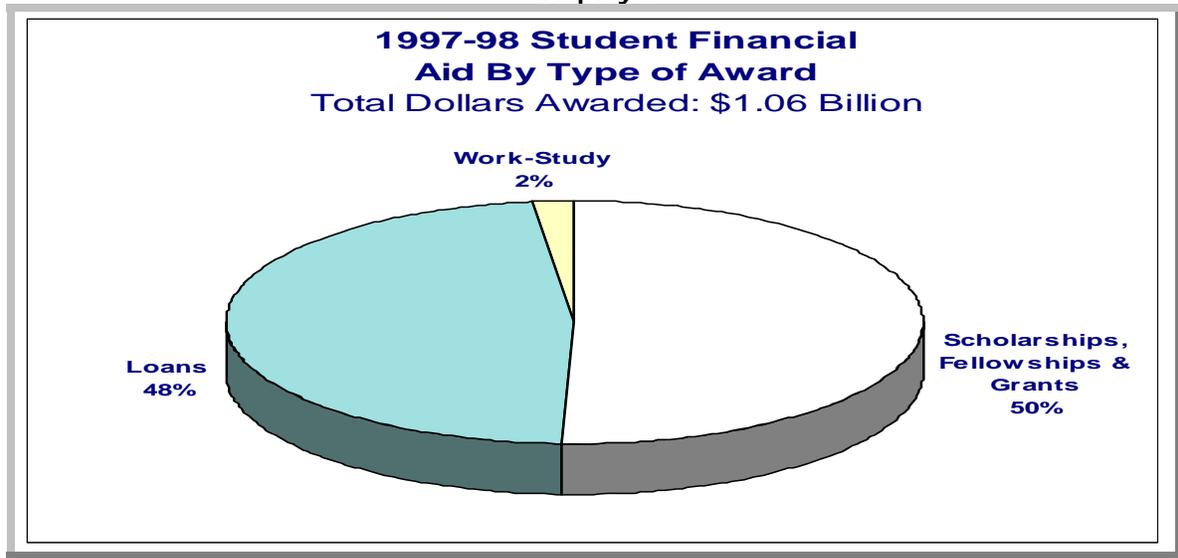
In 1997-98, about 65 percent of UC undergraduate students and 77 percent of UC's graduate students received financial aid. Just over half of the financial aid UC students received was in the form of gift aid. Display 2 shows total financial aid expenditures for 1997-98 by the type of financial award and the source of funds for each.

**Display 2**

<b>1997-98 Student Financial Aid by Type of Award and Fund Source (in Millions)</b>						
Program	Student Aid Commission	Federal	University Funds		Private Funds	Total
			State General Funds and Student Fees	Other University Funds		
<b>Scholarships, Grants, Fellowships</b>						
Pell Grants	\$ -	\$ 84.0	\$ -	\$ -	\$ -	\$ 84.0
Cal Grant A	77.9					77.9
Cal Grant B	31.6					31.6
Other	1.1	50.1	193.0	70.6	24.9	339.7
<b>Subtotal</b>	110.6	134.1	193.0	70.6	24.9	533.2
<b>Loans (All Students)</b>						
Perkins Loans		28.1				28.1
FFELP/FDSLP		465.1				465.1
Other	-	3.0	3.1	1.1	3.6	10.8
<b>Subtotal</b>	-	496.2	3.1	1.1	3.6	504.0
<b>Work-Study (All students)</b>						
Federal		18.9				18.9
State	0.2	-				0.2
University	-	-	0.3	0.1	-	0.4
<b>Subtotal</b>	0.2	18.9	0.3	0.1	-	19.5
<b>TOTAL</b>	<b>\$ 110.8</b>	<b>\$ 649.2</b>	<b>\$ 196.4</b>	<b>\$ 71.8</b>	<b>\$ 28.5</b>	<b>\$ 1,056.7</b>

Historically, the University has been committed to setting aside a portion of revenue from fee increases for financial aid for needy students. As fees increased over time and as the percentage of students with financial need increased, the percentage of revenue from fee increases dedicated to financial aid also increased, from 16 percent ten years ago to 33 percent at present. Current University policy requires that one-third of all new student fee revenue be set aside for financial aid. This is consistent with agreements in the four-year compact recently completed and it is expected to continue in future agreements with the State.

Display 3



In 1999-2000, the State provided sufficient revenue to the University to reduce mandatory Universitywide student fees by an additional five percent for California resident undergraduate students and by five percent for California resident graduate academic students. Included in the additional revenue were sufficient funds to maintain financial aid at previous levels, even though the decrease in fees could have justified a corresponding decrease in financial aid. The additional revenue generated by undergraduate students was used to reduce the amount financial aid recipients are required to earn or borrow as part of their contribution to their education. There were no increases in the Fee for Selected Professional School Students in 1999-2000; nevertheless, additional fee revenue will be generated because there are more students subject to the Fee for Selected Professional School Students. Overall, financial aid funded by student fee revenue and State funds increased by about \$7.5 million in 1999-2000. This increase was due primarily to revenue generated by enrollment growth.

In addition to setting aside at least one-third of new fee revenue for financial aid purposes, the University supplemented financial aid from fee income with other University funds. Looking at all University fund sources, funding for financial aid increased by nearly 130 percent between 1989-90 and 1997-98 (the most recent year for which final data are available).

The amount of financial aid provided in 1997-98 represents an increase of about \$47 million, or 4.7 percent, over the amount received in 1996-97. Student loans comprised over half (54%) of the \$47 million increase, principally at the undergraduate level. Growth in the University's gift aid programs, which is attributed largely to the additional funds provided by the State, accounted for another 12 percent of the increase. Display 3 shows the overall proportion of financial aid provided to UC students by the type of award.

## **Undergraduate Student Aid**

Mandatory Universitywide fees for undergraduate students have been reduced by nearly ten percent since 1997-98. Because of the additional revenue provided by the State for financial aid for the past two years, the average gift aid award for needy undergraduate students has increased slightly. As a result, the amount of funds students need to provide through work or borrowing is decreasing for 1999-2000. Over the two-year period, approximately \$15 million has been used to reduce the work or loan requirements for students.

The proportion of undergraduate students receiving some type of financial aid has remained steady over the past few years, at about 65 percent. Financial aid awards for undergraduate recipients averaged about \$8,405 in 1997-98. Fifty percent of undergraduate aid was awarded in the form of "gift" aid (scholarships and grants) rather than "self-help" aid (loans and work-study). About 77 percent of all undergraduate aid was awarded on the basis of financial need in 1997-98, reflecting that undergraduate financial support is principally intended to provide access to a University education to those students who otherwise would be unable to afford to attend. Non-need-based support comprised the remaining 23 percent of aid to undergraduates. The majority (76%) of non-need-based support is awarded in the form of loans, with scholarships comprising the remainder.

## **Graduate Student Aid**

### ***Graduate Academic Student Aid***

Compared to undergraduate students, a greater proportion of graduate students receive financial support (77%), and their average annual financial aid award (\$12,795), which excludes assistantships, is significantly higher. Because graduate students generally do not rely on parental support to meet educational costs and are more likely to have dependent family members, graduate students tend to have a greater need for financial support. Also, graduate students generally incur higher educational expenses and have higher student debt.

The largest proportion of aid awarded to graduate academic students is in the form of fellowships and grants (75% in 1997-98) rather than loans and work-study. In addition to fellowships, grants, loans and work-study, graduate students also receive significant financial support as teaching and research assistants. In 1997-98, approximately 19,000 graduate students received nearly \$242 million from such appointments. Assistantships form an important part of the total financial support structure for graduate academic students, accounting for over half of their total financial support. In 1997-98, the per-capita graduate academic award from assistantship (\$10,388) exceeded the combined amount received from fellowships, grants, loans, and work-study (\$8,033).

## **Professional School Student Aid**

In 1994, The Regents approved a Fee Policy for Selected Professional School Students, which was implemented beginning with the fall 1994 academic term. While some campuses have set aside more, the policy provides that an amount of funding equivalent to at least one-third of the total revenue from the Fee be used for financial aid to help maintain the affordability of professional school programs. The majority of the funds are used for grant and fellowship awards with some funds set aside for loan repayment assistance programs.

In contrast to graduate academic students, the largest proportion of aid awarded to graduate professional students is in the form of loans (72%) rather than fellowships or grants. The differences in support patterns for graduate academic and graduate professional students reflect the contrasting approaches to graduate student support. Fellowship, grant, and assistantship support are viewed as more successful and loans less successful for recruiting and retaining doctoral students whose academic programs are lengthy and whose future income prospects are relatively low. In contrast, student loans are viewed as more appropriate for students pursuing professional degrees whose programs are relatively shorter and whose incomes have the potential to be substantially higher.

The remainder of this chapter: (1) outlines the goals of the University's financial aid policy and how student need for University aid is determined using the Education Financing Model and (2) describes financial aid expenditures for 1997-98 by source of funds.

## **Financial Aid Policy**

As discussed in the Student Fees section of this budget, UC fees increased significantly during the 1990s, largely due to major shortfalls in State funding for the University's budget. In January 1994, The Regents adopted a new University policy for setting fees that specified at least one-third of new fee revenue will be used for financial aid purposes. Accompanying this policy was a new financial aid policy that calls for maintaining the affordability of the University and focuses on providing enough University financial aid to maintain accessibility for all students.

## **Education Financing Model**

In response to the new Regental policy, the University developed the Education Financing Model (Model) which is used to determine undergraduate student aid funding needs, allocate undergraduate aid funds to the campuses, and guide the award of aid funds to undergraduate students. The Model is based on the following set of principles:

- The total cost of attendance (fees, living and personal expenses, books and supplies, and transportation) is considered in assessing financial need;

- Meeting the costs of attending the University is a partnership among students, parents, federal and state governments, and the University;
- All students should be expected to make some contribution toward their cost of attendance through work and/or borrowing;
- Students should have flexibility in deciding how to meet their expected contribution; and
- Campuses should have flexibility in implementing the Model to serve their particular student bodies and are encouraged to supplement centrally distributed financial aid funds with their own resources.

The formula for determining the amount of grant aid needed is shown in Display 4.

**Display 4**

<b>Education Financing Model</b>	
<b>Student Expense Budget</b>	
<b>Less</b>	Reasonable Contribution from Parents
<b>Less</b>	Manageable Student Contribution from Working
<b>Less</b>	Manageable Student Contribution from Borrowing
<b>Less</b>	Federal and State Grant Aid
<b>Equals</b>	<b>University Grant Aid Needed</b>

***Student Expense Budget***

The total undergraduate educational expenses associated with attending the University are considered in assessing need. These expenses include direct educational expenses – fees, books and supplies – for a California resident, plus a modest allowance for living, transportation, and miscellaneous expenses. A uniform method is used by the campuses to determine standard undergraduate student expense budgets. The method recognizes regional variations in costs and in student spending patterns. Beginning in 1999-2000, the undergraduate student expense budgets will also include a component for students who purchase a computer.

***Contribution from Parents***

Parents are expected to help pay for the costs of attending the University if their children are considered financially dependent using the Federal definition of independence. The amount of the parental contribution is determined by a federally mandated formula for determining need, which takes into account parental income and assets (other than home equity), the size of the family, the number of family members in college, and non-discretionary expenses. If parents do not contribute the amount expected under the Federal need analysis standards, the student is expected to make up the difference through extra borrowing and/or work, or by reducing his or her expenses.

### ***Contribution from Work and Borrowing***

Students are expected to make a contribution to their educational expenses from earnings and borrowing. The expected contribution should be manageable so that students are able to make steady progress toward completion of the baccalaureate degree and to meet loan repayment obligations after graduation. The Model provides ranges for loan and work expectations, which are adjusted annually for inflation, and periodically for market changes in student wages and expected post-graduation earnings.

### ***Contribution from Federal and State Grant Aid***

The University's goal is to provide grant support to needy students to cover the gap between the student's expense budget and the expected contributions from parents, student borrowing, and student work. Available Federal and State need-based grants are applied toward a student's grant eligibility.

Campus-based scholarships and grants from gifts, endowments, campus discretionary funds, the Regents' Scholarship Program, and scholarships and grants from outside agencies are excluded from the framework of the Education Financing Model. These funds generally are used to reduce the loan and work expectations of students.

The University began phasing in the Education Financing Model in 1997-98 and expects to fully implement the Model in 2001-02.

## **Federal Aid**

In 1997-98, UC students received \$649.2 million in federal financial aid, which represented approximately 61 percent of all support awarded during that year. The vast majority (76%) of federal aid was in the form of loans.

Overall, UC students received about six percent more federally funded aid in 1997-98 than they received in the previous year. This was principally due to increases (totaling approximately \$24 million) in borrowing under federal loan programs. Borrowing through federal programs for University undergraduate and graduate students totaled \$496 million in 1997-98. The significance of the federal student loan programs for University students is demonstrated by the fact that these programs comprised more than three-quarters (76%) of all federally funded aid and nearly one-half (47%) percent of total financial support received by University students in 1997-98. The unsubsidized loan program continues to be the fastest growing source of federal support for students, growing by about 19 percent in 1997-98.

### ***Taxpayer Relief Act of 1997***

The Taxpayer Relief Act (TRA) of 1997 implemented a number of new provisions that will continue to affect UC students and their families in future years. The TRA included reporting requirements for institutions of higher education, which impose

significant new administrative tasks on the University. To comply with the reporting requirements, the University contracted with an outside vendor to collect, maintain, and report the required data to the IRS and students and their families. Each student was provided access to the information mailed and reported via a secured web site, as well as a toll-free number to call with questions regarding the Act, the tax credits, the information reported to the IRS and the financial amounts provided to assist them in claiming the credit. The University estimates that approximately 36 percent of regularly enrolled UC students and their families will be able to claim approximately \$50 million annually in federal education tax credits.

**Hope and Lifetime Learning Tax Credits.** The Taxpayer Relief Act of 1997 established two new tax credit programs effective with the 1998 tax year, which provide tax credits to qualified taxpayers for tuition and fees paid for postsecondary education. The Hope Tax Credit provides tax credits for payments made for students who are in their first two years of postsecondary education. The "Lifetime Learning" Tax Credit provides smaller tax credits, but taxpayers are not limited to payments made during the first two years of postsecondary education. In general, middle- and lower-middle-income students and their families will benefit from the two tax credit programs.

**Penalty-free IRA Withdrawals.** Taxpayers may withdraw funds penalty-free from either a traditional Individual Retirement Account (IRA) or a Roth IRA for undergraduate, graduate, and postsecondary vocational education expenses. Currently, withdrawals from IRAs prior to retirement are subject to early withdrawal penalties. This provision will permit students and their families to withdraw funds for educational purposes without penalty. This provision is intended to assist middle-income students and their families.

**Education IRA.** Taxpayers will be allowed to contribute \$500 per year into a new Education IRA. Although contributions are not tax deductible, earnings on the IRA will be tax-free and no taxes will be due upon withdrawal if used for qualified higher education expenses. The Education IRA is phased out for families with incomes between \$150,000 and \$160,000. This provision is intended to assist middle-income students and their families.

**Student Loan Interest Deduction.** Taxpaying borrowers may take a tax deduction for interest paid during the first 60 months of repayment on student loans (available even if the taxpayer does not itemize other deductions). As long as the loan repayment occurs within the first 60 months of repayment, the deduction is available for all educational loans. Because eligibility for the deduction is phased out for taxpayers with higher incomes, middle-income and lower-middle-income borrowers with high debt levels will be the primary beneficiaries of the reinstatement of the tax deduction of student loan interest.

**U.S. Savings Bonds.** The interest on U.S. Savings bonds is, in certain circumstances, tax-free when bond proceeds are used to cover eligible education expenses. Individuals who purchase Series EE or Series I bonds when they are at least 24 years of age, may withdraw bond proceeds tax-free if they are used to

cover tuition or fees or contributions to a Qualified State Tuition Program such as Scholarshare or an education IRA. Eligibility for tax-free withdrawals is a function of income level when the bond is redeemed and is intended to assist middle-income students and their families.

## **Federal Funding Prospects**

As of this writing, Federal support for student aid programs remains uncertain for FY 2000. In general, however, anticipated changes in programs and funding levels are expected to only have a marginal overall impact on UC students. A summary of the proposed changes under consideration include:

### ***Increase in Pell Grant Awards***

The maximum levels in Pell Grant awards have been increased to \$3,125. This increase is projected to result in \$6.3 million of additional grant aid for the 42,219 University undergraduates who are Pell Grant recipients. For FY2000, there is bipartisan support for increasing the maximum award level by another \$150 to a new maximum of \$3,275.

### ***Increase in the Federal Work-Study Program***

An increase in federal work-study funding is also being considered, making it possible for federal dollars to pay a larger portion of a student's salary in certain jobs, particularly for work-study assignments involving teaching reading and math skills to elementary school students. In addition, more students may be able to receive work-study awards.

### ***Leveraging Education Assistance Programs (LEAP)***

The LEAP program represents about four percent of the State's Cal Grant funding. A dollar-for-dollar matching program of grant assistance, the program was implemented by the federal government in 1972 to encourage states to establish need-based student grant programs. In the past, as LEAP funds have been eliminated at the federal level, the State has replaced these funds in the Cal Grant program. There are proposals to eliminate completely federal support for LEAP.

### ***Perkins Loan Program Reduction***

A reduction in the federal capital contribution to the campus-level Perkins Loan revolving fund is also possible. If this occurs, over time, the new capital available for this low-interest program will become scarce and needy UC students will be forced to borrow from higher cost sources of credit.

## **State Aid**

California university and college students receive financial support from a number of State programs. These programs, administered on behalf of the State by the California Student Aid Commission, include the Cal Grant A, B, C, and T programs and the State Work-Study Program. These programs are designed to promote access to postsecondary education and to foster student choice among California institutions of higher education. In 1997-98, University of California students were awarded nearly \$111 million in financial aid from these programs.

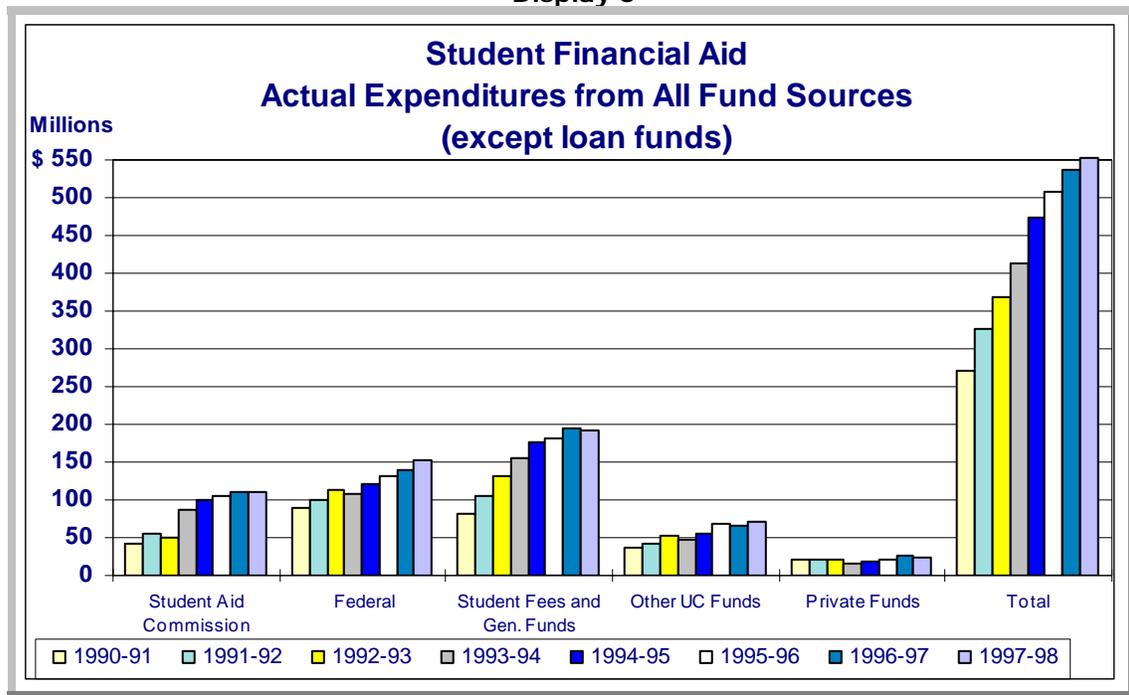
### ***Cal Grant Programs***

The Cal Grant Programs provide undergraduates with "portable" financial aid that

can be used at the eligible California institutions of the students' choice. Cal Grant awards for recipients attending UC and CSU currently cover only systemwide student fees. The University continues to support coverage of systemwide and campus-based student fees for Cal Grant recipients at UC and CSU as called for in the State's statutory Cal Grant policy.

Cal Grant funding for UC students has grown 29 percent from \$85 million in 1993-94 to about \$110 million in 1997-98. Because there have been no increases in mandatory Universitywide fees since 1994-95, increases in Cal Grant funding for UC students since that time have been modest. The 1999 State Budget provides a \$35 million (10%) increase in funding for the Cal Grant programs. This includes over \$24 million to support an additional 9,400 new Cal Grant awards for financially needy students. UC students will likely receive or 2,000 of these new awards worth over \$6 million.

Display 5



**Scholarshare Trust College Savings Program**

In addition to increasing support for the Cal Grant programs, the state also has taken steps to establish a program encouraging all families, especially those from middle-income backgrounds, to embark upon a system of long-term savings for their children's college expenses. These families have been turning to borrowing in order to meet these costs. In response to this trend, the state created the "Scholarshare Trust College Savings Program," a tax-deferred college savings fund that will be administered by the California Student Aid Commission. The program will begin in 1999.

The Scholarshare Trust manages individual accounts, which are pooled into large funds and invested in a number of different financial instruments by the State or its agent. Investments are capped so that the yield from the account does not exceed

the projected education expenses at an independent college or university. Earnings from the investments are not taxed at either the federal or state level until they are used for qualified higher education expenses. At that time, the earnings are taxed at the beneficiary's tax rate, which is typically lower than that of the investor.

## **University Funds**

### ***Student Fees and State General Funds***

University student aid programs funded from student fee revenue and State general funds increased again in 1997-98. However, because there were no increases in mandatory Universitywide fees in 1997-98, the increase is modest and primarily reflected the additional aid related to increases in total enrollment as well as the Fee for Selected Professional School Students. The total amount of aid from student fees and State general funds (\$196.4 million) only increased by about \$1 million. Thirty-six percent of enrolled undergraduates and 58 percent of enrolled graduate students received some form of financial assistance from the University aid programs. Educational Fee income is used to support both need-based and merit-based programs, while the State general fund income is statutorily restricted to the support of need-based financial aid.

### ***Other University Aid***

In addition to the Universitywide programs described above, University financial aid is also provided through various campus-based programs funded by endowment income, current gifts, repayments from University loans, and campus discretionary funds. In 1997-98, about \$72 million in University aid from these sources was awarded to students of which nearly all (\$71 million) was awarded in the form of fellowships, scholarships, and grants.

## **Private Agency Aid**

Finally, private agencies and companies also provide student financial support through scholarships and other forms of aid. Small scholarships from a student's local PTA or Rotary Club are reported here alongside traineeships and fellowships from private companies (e.g., Hewlett Packard and IBM) and associations and foundations (e.g., the National Merit Scholarship Foundation and the American Cancer Society). Nearly all funds in this category are awarded to students in the form of grant support. In 1997-98, more than \$28 million was awarded to UC students from private agency programs, which represented 2.7 percent of the financial support students received during that year.

## INSTITUTIONAL SUPPORT

1999-2000 BUDGET	
<b>Total Funds</b>	<b>\$ 415,447,000</b>
General Funds	274,184,000
Restricted Funds	141,263,000
2000-01 INCREASE	
General Funds	--
Restricted Funds	5,297,000

Institutional Support includes numerous campus and systemwide activities under five sub-programs. The sub-programs and examples of typical activities included in each are listed below.

- **Executive Management:** offices of the President, Vice Presidents, Chancellors, and Vice Chancellors; planning and budget offices.
- **Fiscal Operations:** accounting, audits, and contract and grant administration.
- **General Administrative Services:** computer centers, information systems, and personnel.
- **Logistical Services:** purchasing, mail distribution, and police.
- **Community Relations:** development and publications.

The University is concerned about the steady erosion of its Institutional Support budget. Funding for administration has failed to keep pace with enrollment growth, general inflation, and the costs of new State and federal mandates.

Historically, State budgeting formulas did not provide additional administrative support to accompany enrollment growth, although more students mean, for example, more recordkeeping related to students and employees, additional purchasing, increased police and security requirements, and more faculty whose payroll records must be maintained and whose laboratories must meet environmental health and safety regulations. As a result, campus administrative capacities are only minimally adequate.

This historical lack of funding was compounded by the fact that State funds to cover

general price increases fell far short of inflation during the mid to late eighties. During that time, new expenditures in Institutional Support were mandated as a result of a growing body of State and federal laws and regulations covering areas such as environmental health and safety, collective bargaining, accommodation of disabled employees, fair employment practices, and increased accountability requirements. Failure to comply with these mandates can often result in fines and penalties or more severe sanctions.

Institutional Support budgets, eroded during the 1980s, were further impacted by the University's severe fiscal problems in the early 1990s. Due to the State of California's fiscal problems, the University experienced severe budgetary shortfalls during the early 1990s. As a result, University budgets were cut by \$433 million, or about 20 percent of the 1989-90 State-funded budget. Further base budget reductions totaling \$40 million occurred between 1995-96 and 1998-99, due to required productivity improvements under a four-year compact between the State and higher education. The budget cuts sustained in the early 1990s were deep and affected every aspect of University activity. In order to protect the instructional program as much as possible, campuses made deeper cuts in other areas. Institutional Support was assigned heavy cuts on the campuses. On the systemwide level, core administrative activities in the Office of the President were reduced substantially, including a 20 percent cut over the two-year period 1993-94 and 1994-95. The Office of the President took additional cuts related to the \$40 million in productivity improvements achieved by 1998-99.

Looking at all fund sources, Institutional Support expenditures declined from 12 percent of total expenditures in 1971-72 to 11.5 percent in 1983-84. From 1983-84 to 1991-92, the percent fluctuated between 11 and 12 percent. By 1998-99, Institutional Support expenditures as a percentage of total expenditures had declined to less than ten percent.

Notwithstanding the substantial budget reductions in Institutional Support, investments in technology have enabled the University to make significant progress in increasing the efficiency of University operations while maintaining or improving services. Examples of cost saving procedures and activities include: systematically replacing high-volume and labor-intensive transactions such as payroll, personnel, purchasing, and reimbursements, with on-line systems; allowing administrative units and academic departments to reduce administrative costs by sharing resources; renegotiating rate structures with various energy providers; using electronic tools to increasingly disseminate information ranging from course materials to news releases and job postings; and contracting for the management and disposal of hazardous wastes, which will result in large cost reductions.

As noted above, the four-year compact with higher education required productivity improvements totaling \$40 million by 1998-99. The *1998-99 Budget Plan for Productivity Improvements* discussed ongoing efforts to streamline administrative processes and business practices as well as plans to achieve \$10 million of productivity improvements within all functions of the University in 1998-99. This was the fourth annual report describing planned efficiency improvements for the

coming year and discussing achievements of the previous year. Productivity improvements apply to both academic and nonacademic activities.

The University will continue working to achieve efficiencies wherever practical. At the same time, The Regents' fiduciary responsibilities must be met and the University must continue to maintain appropriate management capability and accountability both at the campuses and centrally. This includes proper management of programs, expenditures, and investments.

## OPERATION AND MAINTENANCE OF PLANT

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 389,305,000</b>
General Funds	332,689,000
Restricted Funds	56,616,000
<b>2000-01 INCREASE</b>	
General Funds	18,000,000
Restricted Funds	2,309,000

The University maintains more than 56 million gross square feet of space in 2,800 buildings, and 2,400 acres of improved grounds at the nine campuses and the agricultural field stations.

The University's teaching and research programs depend upon adequate facilities and are affected when systems in the buildings fail. A permanent budget shortfall for ongoing building maintenance and the lack of permanent funds for deferred maintenance for many years have combined to create a serious facilities problem. The limited availability of State capital outlay dollars for building and infrastructure renewal has also been a significant constraint, leaving the University with maintenance and renewal problems that cannot be adequately addressed with current resources.

Recognizing the magnitude of the problem and the fact that no single strategy can address these facilities needs, the University's 2000-01 budget plan includes the following:

- *Support for the operation and maintenance of new space.* A permanent increase of \$4 million is included to pay for the operation and maintenance of new State-supportable space that will come on-line in 2000-01.
- *Increased funding for ongoing building maintenance.* An additional \$8 million is included for ongoing building maintenance as part of a multi-year strategy to fully fund ongoing maintenance.
- *\$6 million to pay for the long-term financing of deferred maintenance projects.* The budget plan includes a proposal to use \$6 million of the proposed increase in UC general funds (nonresident tuition) to pay for long-term financing of deferred maintenance projects. This will be the third year of a five-year plan,

first approved and initiated in 1998-99, to use debt-financing for deferred maintenance projects. Using this mechanism, the University expects to be able to fund projects totaling approximately \$60 to \$65 million.

### **Workload (\$4,000,000 Increase)**

For 2000-01, \$4 million is requested to provide funds for more than 500,000 square feet of additional space that will be occupied by programs that are eligible for State support. Three campuses have large facilities that will be coming on-line in 2000-01 – the Walker Hall Replacement project at Davis, the Science and Technology Building at Irvine, and the Fine Arts Facility at Riverside.

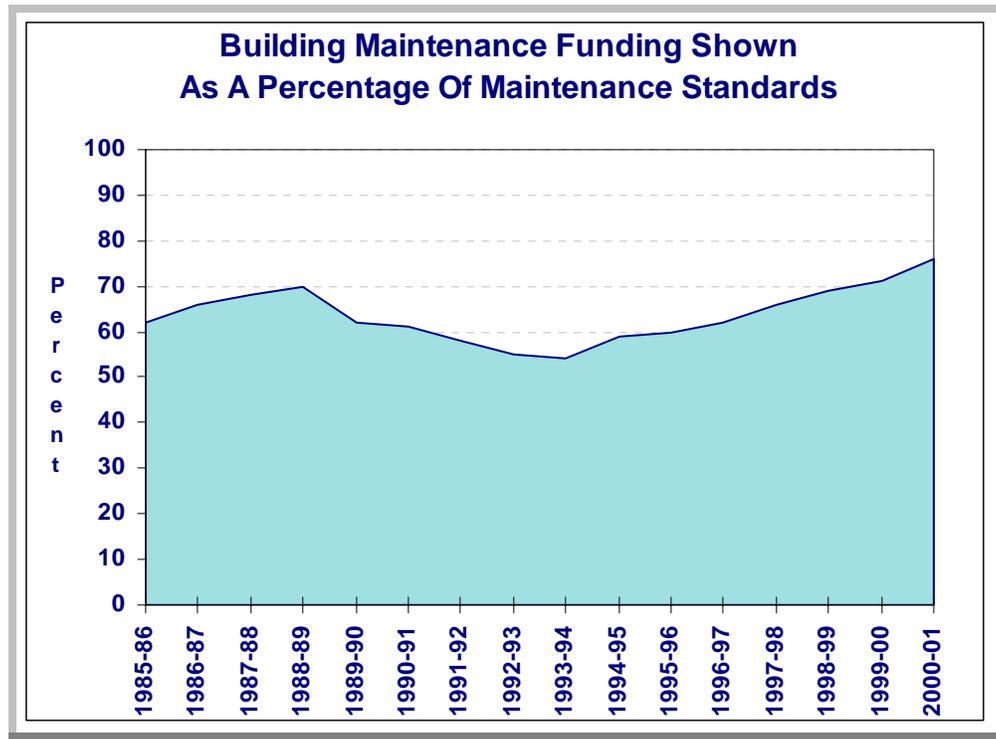
### **Ongoing Building Maintenance (\$8,000,000 Increase)**

Among the principles of a new partnership being negotiated with the Governor, the State would commit to providing the University with a one percent increase to the prior year's State general fund base with these funds being committed to addressing the permanent budget shortfalls in a variety of critical core areas, including ongoing building maintenance. Consistent with this principle, the University's budget plan includes an increase of \$8 million as part of multi-year strategy to address the annual budget shortfall in ongoing building maintenance. This is consistent with the concept endorsed by the Legislature to fully fund ongoing maintenance over a number of years.

During the 1980s, the University worked with the California State University (CSU), the Department of Finance (DOF), and the Legislative Analyst's Office (LAO) to develop workload standards for the maintenance of the physical plant. These standards show that the University's 2000-01 building maintenance budget, even with this permanent increase of \$8 million, will continue to remain underfunded by more than \$34 million annually. The University will continue to include annual increases for ongoing building maintenance until the permanent budget shortfall has been eliminated.

In an attempt to provide a solution to the long-standing and growing problem of inadequate funding for ongoing building maintenance, the Legislature proposed a plan to eliminate the annual shortfall in funding for ongoing building maintenance over a period of four years. The Legislature's plan proposed to augment the University's 1996-97 budget by \$7.5 million, which was to be matched by University funds for a total annual increase of \$15 million. In each of the following three years, the University was to use funds from within the budget compact for annual increases of \$7.5 million for building maintenance. And finally, the Legislature's plan called for the State to provide an additional \$7.5 million over and above the compact in each of these years. This plan was to have resulted in annual increases of \$15 million for ongoing building maintenance.

Display 1



However, the Governor vetoed the \$7.5 million in 1996-97 that was approved by the Legislature in order to provide an adequate reserve for the State. Notwithstanding this action, the University honored its commitment and included \$7.5 million for building maintenance in 1997-98, an additional \$6 million in 1998-99, and \$4 million in 1999-2000 from funds provided within the compact. The University's plan is to continue these annual increases, with a goal of eliminating the permanent budget shortfall over the next three years.

### **Deferred Maintenance and Facilities Renewal (\$6,000,000 increase)**

Addressing the deferred maintenance and facilities renewal problem is one of the University's highest priorities. The University's 2000-01 budget plan includes \$6 million in increased income from UC general funds (nonresident tuition) to pay for the long-term financing of approximately \$60 to \$65 million in critical, high-priority deferred maintenance projects. The exact level of funding will depend on the market conditions at the time the bonds are sold. This is the third year of a five-year plan, first approved by the Regents in 1998-99, to provide a source of funding for deferred maintenance.

To adequately maintain the University's physical plant, funding must be provided for four different, but related, purposes:

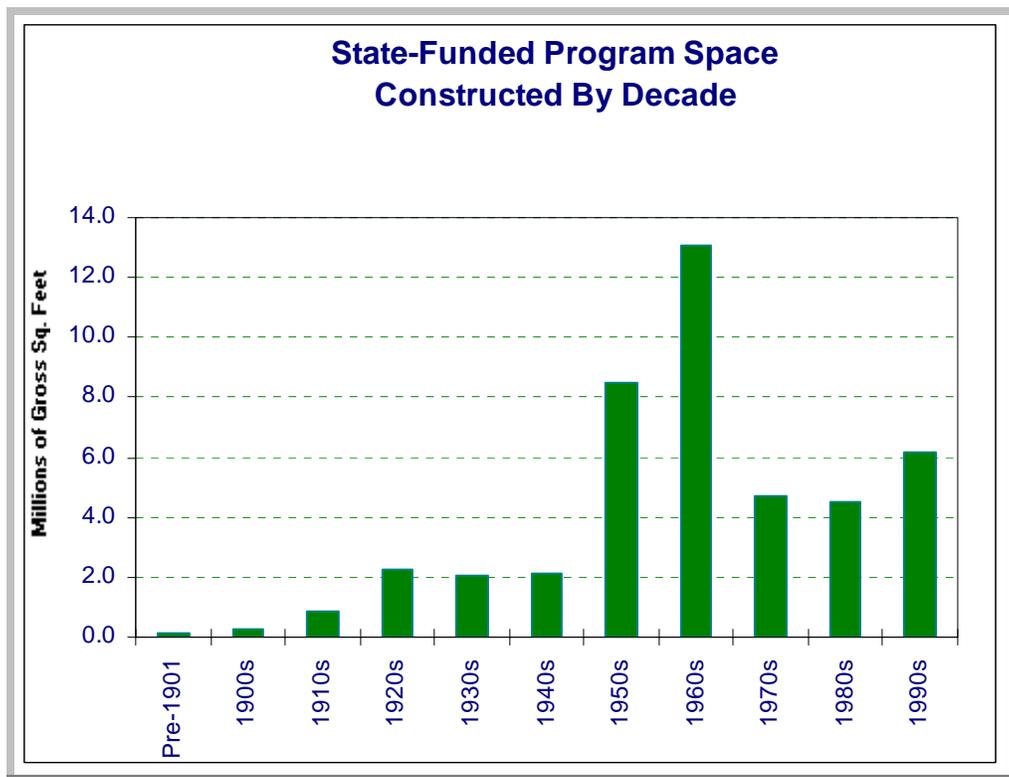
- *Ongoing building maintenance* – maintenance required for building systems on a regular basis in order to keep a building operational;

- *Facilities renewal* – annual need for replacement of building systems, as they approach the end of their useful life, i.e. wear out;
- *Deferred maintenance* – a category of need which exists because of unfunded ongoing maintenance and facility renewal, it represents how far “behind” we are at any point in time; and,
- *Capital outlay for renovation and adaptation of obsolete facilities* – funding for major renovation or building structures and systems.

Inadequate funding for any one of these purposes will result in the deterioration of the University’s physical assets. A number of factors that have contributed to the existing deferred maintenance backlog and facility renewal problems, including:

- Funds for ongoing maintenance have been inadequate to properly maintain systems;
- There has been no systematic funding for facilities renewal;
- There are only limited funds in the capital budget to address the replacement of building systems, and there is resistance to using capital funds to address deferred maintenance;

Display 2



- The age of University buildings is a major contributing factor. There was tremendous growth and expansion throughout the University during the 1950s and 1960s. Almost one-half of the space that now houses State-supportable programs was constructed during those two decades. Despite annual State capital outlay budgets of more than \$200 million a year in the late 1980s, almost two-thirds of all State supportable space was built before 1970. The systems in these facilities, many of which are now 35 to 45 years old, have exceeded or will soon exceed their useful lives.

Discussions on facilities renewal and deferred maintenance tend to focus on buildings, but attention must also be given to the infrastructure that constitutes the major support systems for the campuses. These are extensive, complex systems that are costly to maintain or replace. Examples of infrastructure are utility systems such as electricity and water distribution systems, roads, sidewalks, and bridges.

The need for facilities renewal funding is driven by the normal use of building systems which inevitably causes wear and tear on building systems to the point that their useful lives are exceeded and the systems must be replaced, regardless of how well they are maintained. Heating and ventilation systems, elevators, and roofs are a few examples of these systems. If proper maintenance is not available for building systems on a timely basis, their useful lives are shortened. For example, even though a building is designed to last 50 to 100 years, its roof will have to be replaced every 25 years, and built-in equipment such as fume hoods and cold rooms need to be replaced over a 20- to 30-year cycle.

Over time, unfunded facilities renewal turns into an unfunded deferred maintenance backlog. Systems still need to be replaced, but it becomes more costly, and continued deferral increases the need for emergency repairs. This leads to the deterioration of the capital assets, and ultimately affects the quality of facilities provided for teaching and research. When laboratory and research space is outdated or substandard, the ability to attract and retain outstanding faculty and students is compromised.

### ***Identifying the Extent of the Problem***

Funding for facilities renewal must be addressed in a systematic and predictable way if the University is to significantly reduce the backlog of deferred maintenance projects as well as stem the flow of new deferred maintenance projects.

The University needs a reliable, cost-effective method of determining its facilities renewal needs. Rather than applying a simple depreciation model, or relying on costly facilities audits, the University has chosen to develop a mathematical budget model that can be applied equitably across all facilities. The intent is to have an analytical tool to predict funding needs over time for facilities renewal, and to estimate the current backlog of deferred maintenance projects. Using this model, the University will be able to compile consistent and comparable data for all campuses at a lower cost than by the more traditional method of surveying facilities.

The basic theory of the model is that a building can be “de-constructed” into the elements that need to be renewed or replaced on a periodic basis – such as electrical equipment, plumbing systems, or roofs. The model estimates the year, in which renewal will be required for each element, based on the estimated life cycle of the component compared to the original construction date of the building. A profile of building components, and construction and renewal dates will be established for each of the buildings in the model. A different renewal cycle can be projected for each building component. The model can estimate annual renewal costs over whatever time period is chosen, for example: 10, 25, or 50 years into the future.

With this model, the University is attempting to determine the extent of need so that appropriate funding strategies can be developed to best address the challenge of preserving the University's physical assets.

### ***Funding History***

Prior to 1994-95, the University's budget included nearly \$20 million a year in permanent funding for deferred maintenance. While not sufficient to address the problem, it was a reliable and predictable amount of funding dedicated to deferred maintenance. In 1994-95, the State and the University reached agreement on a plan that redirected this permanent funding to help limit fee increases to no more than ten percent.

As a result of this agreement the State authorized the University to use \$25 million in long-term financing in 1994-95 to pay for high priority deferred maintenance projects. A second authorization for \$25 million was included in the 1995-96 budget. Consistent with the agreement with the State, repayment of the debt is included in the University's State-funded budget. The 1996 State Budget Act appropriated \$5 million in general obligation bonds for deferred maintenance, and the University allocated \$19 million in a combination of one-time University funds and excess UC general funds that were reappropriated for deferred maintenance. In 1997-98, the University reappropriated \$7.9 million in excess UC general funds for deferred maintenance.

In February 1998, the Regents approved a new approach to deferred maintenance that will provide significant levels of funding over the next several years. The Regents authorized the Treasurer to sell bonds that provided \$64.8 million for deferred maintenance projects in 1998-99. The bonds will be repaid by using a portion (\$6 million) of the 1998-99 increase in UC general funds (nonresident tuition). Only high priority projects with long-term benefits to the University are eligible to be funded through this mechanism.

The University has established procedures to ensure that funds are committed quickly for the most urgent deferred maintenance. Campuses were able to commit over \$55 million, 85 percent of the available funds, by the end of the first fiscal year. Also, campuses were able to begin projects on a much larger scale than was possible before. The Santa Barbara campus, for example, committed over \$2

million for the complete renewal of the electrical system in the Biology II building – a project that could not have been undertaken when funds for deferred maintenance were very limited.

In addition to the nearly \$65 million in projects that were funded through debt-financing, the State provided \$20 million in one-time funds for high priority deferred maintenance projects in 1998-99.

In 1999-2000 the University was able to generate \$64 million, to be repaid by using a portion of the increase in UC general fund income, for high priority deferred maintenance projects.

In lieu of providing the University with additional one-time funding for deferred maintenance projects in 1999-2000, the State provided the University with a permanent general fund increase of \$7.1 million for deferred maintenance.

The University's 2000-01 budget plan continues the debt-financing program, which is expected to provide \$60 to \$64 million for a third consecutive year for the high priority deferred maintenance projects.

## **Other Operation and Maintenance of Plant Functions**

### ***Janitorial Services***

The 1999-2000 budget provides funding at about 65 percent of the recommended standard for janitorial services. Under these circumstances, reasonable levels of cleanliness for both health and quality of life are difficult to maintain.

### ***Utilities Maintenance and Operations***

The 1999-2000 budget provides funding at about 70 percent of the recommended standard.

### ***Grounds Maintenance***

The 1999-2000 budget provides funding at about 60 percent of the recommended standard for grounds maintenance, which is an essential component of both safety and quality of life at the campuses.

### ***Hazardous Materials and Toxic Site Remediation***

The costs of disposing hazardous materials are of increasing concern. Materials not formerly regulated by Federal and State agencies are now defined as hazardous, and contribute to an increase in volume. Increasingly stringent requirements have added to the costs of handling, treatment, and disposal. The remediation of contaminated sites is expensive and urgent, and is often mandated by state and federal regulatory agencies.

### ***Purchased Utilities***

The campuses have been implementing energy-related projects to reduce

consumption or to lower rates for many years. These projects have ranged from the installation of energy efficient lighting fixtures, motors and pumps, to large-scale projects involving co-generation, such as the Parnassus Central Utilities Plant replacement project at San Francisco.

In September 1996, the Governor signed AB 1890, a comprehensive bill to restructure the electrical industry over the next four years. Under the provisions of AB 1890, consumers in California are able to purchase electricity from either their current utility company or from another electricity supplier.

In 1998, the University and the California State University jointly entered into a four-year contract with Enron Energy Services, Inc. The Los Angeles and Riverside campuses are not participating because they are served by municipal utilities that are not currently required to compete in the "direct access" marketplace. Some campuses are participating only marginally because they have onsite cogeneration facilities, as in the case of San Francisco; or the campus has a contract with the federal government to receive electricity, as is the case of the Davis campus. Under the terms of the contract, Enron will provide additional services to participating campuses at no additional costs, including comprehensive energy audits and master plans designed to save energy, accounting and billing preparation, and metering services.

The full impact of deregulation will not be known until the restructuring of California's utilities is completed in 2002. It is too early to estimate the level of savings that will be realized from electricity deregulation. In the short run, savings that do accrue will be used to narrow the gap between what is currently budgeted for maintenance of the physical plant and the levels recommended by industry standards.

## AUXILIARY ENTERPRISES

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 506,924,000</b>
General Funds	--
Restricted Funds	506,924,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	20,260,000

The University's primary goal in administering auxiliary enterprises is to support its academic mission with the highest levels of service. Auxiliary enterprises are self supporting services that are primarily provided to students, faculty, and staff. Student and Faculty Housing, Parking, and Bookstores are the largest auxiliaries. No State funds are provided for auxiliary enterprises; therefore, they must generate sufficient revenues to cover all of their direct and indirect operating costs. The annual budget is based upon income projections, and all budget increases are funded by corresponding increases in revenue.

During 1999-2000, revenue from auxiliary enterprises will be approximately \$506 million, and will be expended as follows: 60 percent for residence and dining services; 15 percent for parking operations; five percent for intercollegiate athletics; 15 percent for bookstores; and five percent for other expenditures.

### **Student Housing**

The largest element in this budget program is student housing, comprised of approximately 37,599 residence hall and single student apartment bed-spaces and 5,916 student family apartments. Campus housing operations frequently include dining and recreation facilities. These facilities will provide capacity for about 43,515 students in 1999-2000. Due to high enrollments, the number of students accommodated will likely exceed stated capacities as a result of making triples out of rooms designed for two as well as modifying study areas into temporary quarters.

To enhance the quality of undergraduate education, the University strives to assure that affordable student housing is available. There are several issues that must be

considered as housing plans to accommodate the growth are developed. A few of these housing-related growth issues are:

- Rapid and sustained increases in enrollment will challenge the ability of campus housing programs to meet commitments of guaranteeing housing for a certain portion of the students.
- Communities will be impacted if increasing numbers of students look for off-campus housing. Students will be affected if the availability of off-campus housing declines or becomes unaffordable.
- Housing facilities are heavily used during the Summer for accommodating Summer Session students, campus outreach programs, conferences, and orientation programs. Summer is also a traditional time for scheduling work to correct deferred maintenance and facility renewal problems, since it minimizes the disruption that would otherwise take place during the academic year.

For the past decade, campuses have provided housing to most entering freshmen. In the fall of 1998, there was heightened demand for student housing at some campuses because of an increase in the size of freshman classes, an increase in the numbers of transfer students, and an increase in demand from returning students to continue living on campus because of higher off-campus rents and/or lack of available rental units.

Although increased demand for student housing was acute at Berkeley, Los Angeles, San Diego, San Francisco, and Santa Cruz, the other campuses were able to accommodate students with less difficulty. All campuses housed freshmen and transfer students who met enrollment and housing deadlines. However, none of the campuses was able to accommodate all the continuing students who sought housing. This situation is predicted to continue.

Enrollment trends and off-campus market conditions are subject to rapid change while campus student housing stock changes at a much slower pace, and there is a continuous reassessment of student housing supply relative to projected demand.

By the fall 2003 term, should construction proceed as planned, the University will add 9,165 new spaces (both bed spaces and spaces in apartment units) to its existing housing stock, and will have space to accommodate 52,680 students.

### **Faculty Housing Programs**

The California housing market is a continuing deterrent to faculty recruitment efforts, particularly of junior faculty. Various programs to alleviate this problem have been implemented since 1978. One of these programs provides rental housing to the faculty. The units are self-supporting without subsidy from student rental income, and are made available to newly appointed faculty on the basis of criteria established by each campus. There are currently 600 units available at seven campuses: Berkeley, Irvine, Los Angeles, San Diego, San Francisco, Santa

Barbara, and Santa Cruz.

Home loan programs have provided mortgage loans with favorable interest rates and/or down payment requirements to 2,979 faculty members and other designated employees. In addition, the Salary Differential Housing Allowance Program has provided 1,188 faculty members with housing assistance during their first years of employment with the University, and the Mortgage Credit Certificate Program has furnished a federal tax credit for 51 faculty who were first-time home buyers.

The University continues to explore other faculty housing alternatives. Six campuses, in coordination with the Office of the President, have developed for-sale housing on land owned by the University. The land is leased to the purchaser of a unit built by a private developer. Resale restrictions control prices and determine eligibility for new buyers. The Berkeley, Davis, Irvine, Los Angeles, Santa Barbara, and Santa Cruz campuses have completed or are in the process of completing projects which will provide over 1,000 units, including townhouses, condominiums, and single-family structures. No State funds are provided for faculty housing programs.

### **Parking**

Another major auxiliary is the parking program with approximately 97,000 spaces for students, faculty, staff, and visitors.

## PROVISIONS FOR ALLOCATION

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 71,784,000</b>
General Funds	51,580,000
Restricted Funds	20,204,000
<b>2000-01 INCREASE</b>	
General Funds	(29,855,000)
Restricted Funds	--

Provisions for allocation serve as a temporary repository for certain funds until final allocation decisions are made. For instance, funds allocated for fixed cost increases, such as salary adjustments (i.e., cost-of-living, parity, and merit increases), employee benefit increases, and price increases, are held in provision accounts pending final allocation. Fixed cost increases for 2000-01 are discussed in this document under "Program Maintenance: Fixed Costs and Economic Factors."

### **Rental Payments for Facilities Funded From Lease Revenue Bonds**

Funds to pay for rental payments for University facilities constructed from lease revenue bonds were initially appropriated to the University in 1987-88. Under the conditions of this funding mechanism, the University contracts with the State to design and construct facilities, provides the State Public Works Board (SPWB) with a land lease for the site on which buildings will be constructed, and enters into a lease purchase agreement for the facilities with the SPWB. Annual lease payments are appropriated from State funds and used to retire the debt. At the end of the lease term, ownership of the facilities automatically passes to the University. In 1999-2000, \$95.3 million was appropriated to the University for revenue bond lease payments.

### **Debt Service Payments for Deferred Maintenance Projects**

In 1994-95 and again in 1995-96, the State authorized \$25 million in long-term debt financing to pay for high priority deferred maintenance projects involving the renewal or replacement of capital assets. All projects funded by this mechanism are required to have a useful life of at least 15 years. It was determined that the

University should provide the financing and that funds to repay the principal and interest would be provided in future years in the annual State Budget.

The 1999 State Budget Act appropriated a total of \$5.1 million to pay for the principal and interest related to the 1994-95 and the 1995-96 deferred maintenance projects. Funds provided for these payments, while included in the University's main appropriation item for operating budget support, were in addition to the annual increase provided as part of the four-year compact. No increase in funding level is anticipated in 2000-01 because the State did not authorize additional long-term financing for deferred maintenance.

### **2000-01 Funding Request**

The University is working with the Department of Finance and the State Treasurer to determine the appropriate amount required in 2000-01 for debt service related to major capital projects funded by lease revenue bonds. Consistent with the provisions of the compact, the University will request that funding for these capital-related costs be provided separate from the University's main appropriation for operating budget support. An exact figure for this appropriation will be determined later. The amount of funding needed for the debt service, related insurance premiums and State administrative costs will be available in time to be included in the 2000-01 Governor's Budget.

### **Cost Of Compliance With Recently Enacted Legislation (Amount to be Determined Later)**

Each year the University identifies pending State legislation which, if enacted, would generate additional costs. During the legislative session, the University develops cost estimates for each bill and those estimates are submitted to the Department of Finance to be considered for funding in the subsequent year. Final estimates, however, cannot be determined until the Governor signs or vetoes legislation in late September.

The University intends to work with the Department of Finance to acquire funds in 2000-01 to cover the cost of implementing recently enacted legislation as well as additional legislative mandates that may be enacted during the current session.

## PROGRAM MAINTENANCE: FIXED COSTS AND ECONOMIC FACTORS

<b>2000-01 INCREASE</b>	
General Funds	113,100,000
Restricted Funds	17,900,000

This segment of the budget proposal includes funding for employee salary and related benefit adjustments, and for general and specific price increases required to maintain the University's purchasing power at present program levels.

### 2000-01 Budget Request

The University's request for a 2000-01 budget increase was calculated on a budget base of \$3.64 billion, which includes programs funded from State and University general funds and student fees (Educational Fee, Registration Fee, and the Fees for Selected Professional School Students). This funding base is consistent with those used for preparation of the University's past five budgets and the one used for review by the Department of Finance and the Legislature. Funds required for program maintenance in 2000-01 are summarized in Display 1.

Display 1

<b>Funds Required for Program Maintenance in 2000-01</b>	
Three months continuation cost of 1999-2000 salary increases	\$14,100,000
Merit salary increases for eligible employees	39,000,000
Funding equivalent to an average 2.0% cost-of-living salary Increase for employees on October 1, 2000.	35,200,000
Parity increase for faculty on October 1, 2000.	6,650,000
Market adjustment for Coop. Ext. specialists & information technology employees on October 1, 2000.	4,150,000
Employee health and dental benefits	10,600,000
Price increase of 25%	<u>21,300,000</u>
<b>TOTAL</b>	<b>\$131,000,000</b>

### **Continuation Costs of 1999-2000 Salary Increases (\$14,100,000 Increase)**

The 1999-2000 budget included funding equivalent to a two percent cost-of-living-adjustment (COLA) for eligible University employees, as well as market adjustments

averaging 0.9 percent for ladder rank faculty and five percent for Cooperative Extension specialists and certain information technology employees. The budget provides funds based on an assumption that all of these increases were effective October 1, 1999. Because 1999-2000 funding was sufficient to pay these salary increases for only nine months, from October through June, full-year funding must be provided in 2000-01. The continuation cost for three months, including related employee benefits, is \$14,100,000.

***Merit Salary Increases (\$39,000,000 Increase)***

Funding for merit salary increases, which are increases within existing salary ranges, is again among the University's highest budget priorities. These merit salary programs are critical to the preservation of the excellence of the University.

Academic merit salary increases provide an incentive to maintain and expand teaching and research skills, and enable the University to be competitive with other major research universities in offering long-term career opportunities. Academic merit increases are never automatic. They are awarded on the basis of each individual's academic attainment, experience, and performance in teaching, research and creative work, professional competence and activity, and University and public service. The additional funding required to finance 2000-01 merits is equal to 1.77 percent of the academic salary base.

Staff merit salary increases are awarded on the basis of individual performance; they are never automatic. Eligible employees are considered for a merit increase once a year. Some staff positions are only eligible for performance based merit salary increases, which are funded from a pool created by combining funds for COLAs with those provided for merit increases. In 2000-01, the University will require an amount equal to 1.54 percent of the staff salary base to fund merits.

With the addition of related employee benefits, a total of \$39,000,000 in State funds will be required to pay for merit increases in 2000-01.

***Cost-of-Living Salary Increase on 10/1/2000 (\$35,200,000 Increase)***

The University is requesting funding equivalent to an average two percent COLA for eligible University employees.

Historically, requests for faculty salary increases have been based on faculty salaries paid at eight institutions used for salary comparisons, and requests for staff salary increases have been based on receiving equivalent treatment with State employees. The University is committed to maintaining competitive faculty salaries, and plans to provide increases that will maintain parity with the faculty salaries at the comparison institutions. For other employees, the University's primary goal is to at least keep pace with inflation and over time, to match the rate of increases provided to State employees.

Funding for market adjustment salary increases for ladder rank faculty, Cooperative Extension specialists, and information technology employees is discussed later in this section.

Neither State nor University staff employees received a COLA in 1991-92 or in 1992-93. In 1993-94 and 1994-95, State employees received COLA's totaling 8.2 percent, while the University received funding for increases averaging three percent. In 1995-96 the University received funding for a COLA averaging 1.5 percent, followed by funding of annual COLAs averaging two percent from 1996-97 through 1999-2000. No funding was provided for COLAs for State employees from 1995-96 through 1997-98. While the 1998-99 COLAs for some State employees varied, salaries for the largest number increased by 5.5 percent. Recent agreements with represented State employees provide for four percent COLAs in both 1999-2000 and 2000-01. As a result, the rate of salary increases for University employees will clearly lag those of State employees in 2000-01.

The University is requesting funding for an average two percent COLA salary increase for its employees effective October 1, 2000. The cost of this increase, including related employee benefits, is \$35,200,000.

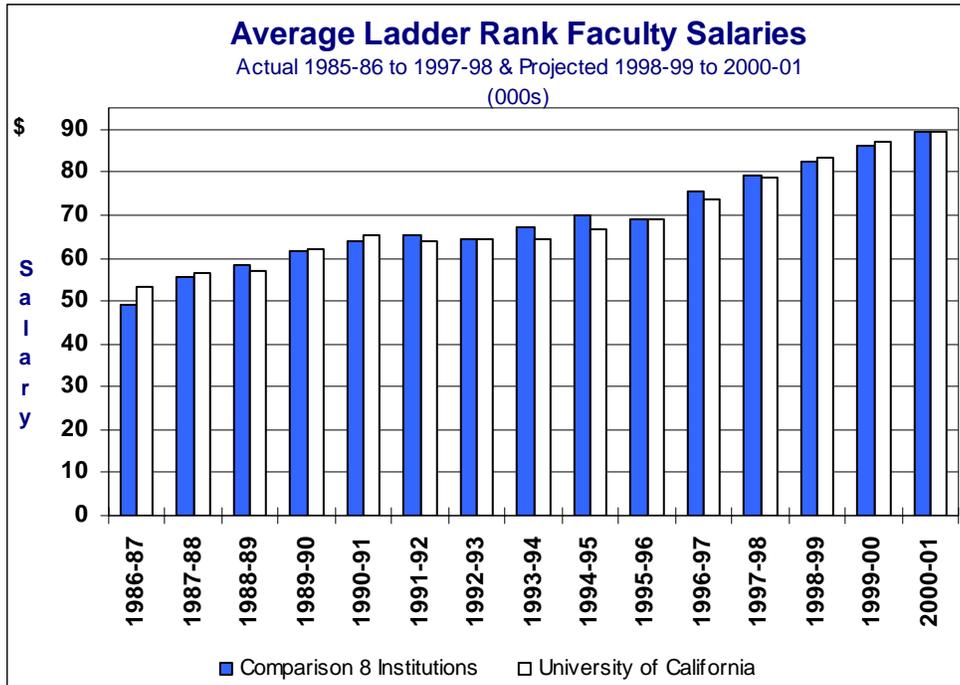
Actual salary and benefit actions for University employees may be subject to notice, meeting-and-conferring, and/or consulting requirements under the Higher Education Employer-Employee Relations Act (HEERA). Some staff positions are only eligible for performance based merit salary increases, which are funded from a pool created by combining funds for COLAs with those provided for merit increases.

#### ***Market Adjustments (\$10,800,000 Increase)***

**Parity Increase for Faculty.** With the COLA, merit, and faculty parity increases funded in 1999-2000, the University expects to maintain parity with the average faculty salary level of the eight comparison institutions. For 2000-01, the University estimates that in addition to merits, it will need a three percent increase in faculty salaries to maintain parity with its comparison institutions. Given the two percent COLA salary increase discussed above, an additional parity increase for ladder rank faculty only, averaging one percent, is required to maintain parity with the average faculty salary level at the eight comparison institutions in 2000-01. This request is based on preliminary salary data from the comparison institutions. Updated projections will be available in November. The cost of a one percent parity increase for ladder rank faculty, effective October 1, 2000, is \$6,650,000.

Any lag in faculty salaries sends a negative message about the University across the nation, making it more difficult to recruit and retain those individuals who meet the University's traditional high standards. Maintenance of a competitive position in the salary marketplace is absolutely essential if the University's renowned quality is to be maintained. Display 2 shows average ladder rank faculty salaries for the University and the comparison institutions from 1986-87 through 2000-01.

Display 2



**Market Adjustment for Cooperative Extension Specialists.** The duties of Cooperative Extension specialists parallel those of faculty to such an extent that they are generally recruited from the same pool of potential employees. Given this relationship, it is the University's intention to bring the salary increases of the specialists to the level of faculty over a period of several years. The first market adjustment salary increase for Cooperative Extension specialists, averaging five percent, was funded in 1999-2000. The University is requesting \$370,000 to fund a second market adjustment salary increase, averaging five percent, effective October 1, 2000.

**Market Adjustment for Information Technology Employees.** The University is requesting funding for a market adjustment salary increase, averaging five percent, for information technology employees in positions initially identified through salary surveys as lagging the market. This is the second request of a multi-year plan to provide competitive salaries for this group of University employees; the first market adjustment salary increase, averaging five percent, was funded in 1999-2000. With the ever-escalating use of technology across all industries and business settings, public and private, the University has found it increasingly difficult to maintain the qualified information technology workforce required by the advanced technology found throughout its teaching and research programs. The University's difficulty in recruiting information technology staff is linked to its salaries, which are lagging those of the market. The cost of this market adjustment salary increase, effective October 1, 2000, is \$3,780,000.

***Academic and Staff Employee and Annuitant Benefits  
(\$10,600,000 Increase)***

The University is requesting funding for increases in the cost of health and dental insurance for its employees. This request is based on estimated cost increases of about eight percent. Since the University utilizes a total compensation approach, in which funding for salary increases and benefit costs are pooled, any increases in health and dental insurance costs greater than those assumed above would need to be funded from dollars that would otherwise be allocated for COLAs. For several years, efficiency measures adopted by the University were successful in reducing the cost of health benefits, and the University will continue its effort to control costs. However, more recently employee benefit costs have been increasing again, and they are expected to continue to do so over the next several years. The cost of these increases in employee health and dental insurance costs is \$10,600,000.

For annuitant benefits, the University is requesting funding that is equivalent to the funding provided for the State's annuitants. The Department of Finance traditionally calculates these costs based on the most recent available data and, consistent with the principles of the compact, provides the funding separately. Thus, the actual costs related to annuitant benefits are not included in the Regents' Budget at this time.

***Provision for Price Increases (\$21,300,000 Increase)***

The University is requesting \$21.3 million, a 2.5 percent increase, to offset the impact of inflation on non-salary budgets and maintain the University's purchasing power. Although the University purchases many commodities – library materials, technical supplies, specialized equipment – whose expected cost increases exceed current inflation estimates, the request for funding is limited to a 2.5 percent increase to stay within budgetary guidelines.

The UCLA Anderson Forecast is projecting an increase in the Consumer Price Index (CPI) for California of more than 2.5 percent, while the Department of Finance's forecast of May 1999 is projecting a three percent increase in the CPI for all urban consumers. Because the CPI measures inflation on a particular "basket of goods" reflecting purchases by consumers, many of the goods and services acquired by the University are not included or not given adequate weight in the CPI calculation. A different index, the Higher Education Price Index (HEPI), is often cited as a more accurate indicator of inflation, since it is based on a "basket of goods" applicable to the University. From 1983 to 1996, the growth in the HEPI exceeded that of the CPI by an average of almost one percentage point a year.

Increases significantly greater than 2.5 percent are anticipated for several major commodities. Based on an annual report from campus libraries, as well as data from the Department of Finance, the University anticipates increases of about 9.9 percent for subscriptions and 4.9 percent for serial services. Industry sources, including *The Bowker Annual* for 1999, confirm that the average annual increases in the costs of library materials will exceed six percent in 2000-01. Subscriptions and serial services represent more than 60 percent of the library materials budget, and the purchase of library materials is one of the largest expenditures made each year.

The University will also experience higher cost increases for hazardous waste removal, medical and laboratory supplies, laboratory chemicals, agricultural chemicals such as fertilizers and pesticides, and paper and printing. The University purchases large quantities of all of these commodities.

### **Productivity Improvements**

The University remains committed to, and continues to work toward, achieving productivity improvements. Savings that result from these efforts will be reallocated to meet some of the University's high priority needs, such as library materials, deferred maintenance, and instructional technology.

## UNIVERSITY OPPORTUNITY FUND AND SPECIAL PROGRAMS

<b>1999-2000 BUDGET</b>	
<b>Total Funds</b>	<b>\$ 125,500,000</b>
General Funds	--
Restricted Funds	125,500,000
<b>2000-01 INCREASE</b>	
General Funds	--
Restricted Funds	4,211,000

The following section discusses three fund sources: the University Opportunity Fund, the Off-the-Top Overhead Fund, and the Department of Energy (DOE) Laboratory Management Fee. The Management Fee is the annual compensation provided to the University for management and oversight of the DOE Laboratories at Berkeley, Livermore and Los Alamos and is discussed at the end of this chapter.

All federal contract and grant activity generates costs, which are divided into two basic categories – direct and indirect. Direct costs are those that can be identified as directly benefiting a specific contract or grant and, therefore, are charged directly to that contract or grant. Indirect costs are those which cannot be specifically identified as solely benefiting one particular contract or grant, but instead are incurred for common or joint objectives of several contracts or grants. Because these costs are not charged against a specific contract or grant, indirect costs initially must be financed by University funds, with reimbursement later provided by the federal government. The University Opportunity Fund and the Off-the-Top Overhead Fund derive from this reimbursement.

The University has an agreement with the State regarding the disbursement of federal reimbursement of indirect costs. Pursuant to this agreement, the first approximately 20 percent of the reimbursement is allocated to the University of California for costs directly related to federal contract and grant activity. This is the source of the University's Off-the-Top Overhead Fund. The remaining 80 percent of the federal reimbursement is used in two ways. Fifty-five percent is budgeted as University general funds and is used, along with State general funds, for high priority purposes such as faculty salaries. The remaining 45 percent is the source of the University Opportunity Fund and is primarily returned to campuses on the basis of how it was generated. Approximately six percent of the indirect cost

reimbursement is used to support systemwide activities such as the Universitywide Energy Research Group and the Education Abroad Program, as well as systemwide administrative functions.

In 1990, the State approved legislation authorizing the use of indirect cost reimbursement for the acquisition, construction, renovation, equipping, and ongoing maintenance of certain research facilities, the related infrastructure, and financing of these projects. Under the provisions of the legislation, the University is authorized to use 100 percent of the reimbursement received as a result of new research conducted in, or as a result of, the new facility, to finance and maintain the facility. Any reimbursement received in excess of what is needed to finance and maintain the facility is allocated as previously described. Of the twelve projects approved by the Legislature to be financed in this manner, ten have been completed, one received gift funding and was removed from the program, and one new project, authorized with provisions in the 1999-2000 Budget Act, is in the planning stage. The latter project, the Mission Bay Research Building project at the San Francisco campus, will only proceed subsequent to approval of the project by The Regents and the submission to the Department of Finance of required documentation consistent with established procedure.

### **Off-The-Top Overhead Fund**

The Off-the-Top Overhead Fund is used to support administrative costs related to federal contract and grant activity in areas such as campus contract and grant offices, academic departments and Organized Research Units (ORUs). Although the discussion of the Off-the-Top Overhead Fund occurs here, expenditures from the Fund actually occur in various functions and are not included in this section.

### **University Opportunity Fund**

Allocations to campuses from the University Opportunity Fund are based on the amount of indirect cost reimbursement generated by the campus. This approach represents a reinvestment in research and an incentive to further develop the University's research capacity. Each campus has discretion as to the use of University Opportunity Funds. The following is a programmatic description of functional areas under which campuses expend these Funds.

#### ***Research***

Campuses often use their University Opportunity Fund allocations to enhance their faculty recruitment efforts by providing support for such research needs as laboratory alterations, equipment, research assistants, fieldwork, and debt service for new buildings. The adequacy of funding for these and other basic research needs has a substantial impact on the success of efforts to recruit and retain high-caliber faculty. The level of research support that can be offered is often a pivotal factor in the success of efforts to recruit the most promising junior faculty members. The University must be in a position to offer a level of research support

that is competitive with other institutions. In the physical and natural sciences, it is not unusual for the University to provide \$200,000 or more in research support in the recruitment of a faculty member.

Research support is also critical in retention of distinguished faculty members, who regularly receive attractive offers from other institutions. Department chairs report that it is difficult, and occasionally impossible, to replace key faculty members lost to other institutions with scholars of equal stature. Loss of a faculty member disrupts both the instructional and the research programs of the University. The future of the University is dependent upon the quality of its faculty. The use of the University Opportunity Fund for the recruitment and retention of distinguished faculty members helps to secure that future.

Since 1970, The Regents have used University Opportunity Funds to provide core support for high priority systemwide research programs not adequately funded from other sources. Such programs include the Keck Observatory, the Universitywide Energy Research Group, and the U.S.-Mexico Research Program. Some campuses use a portion of the University Opportunity Fund allocation as seed money for a continued and selective expansion of their research programs. They also use University Opportunity Funds in combination with State and other University funds to address the special needs encountered by individual faculty members in the conduct of research, such as funding for equipment and supplies, text preparation, research assistants, and fieldwork and travel.

### ***Instruction***

Allocations for instruction are designed to provide continuing incentives to explore new instructional approaches and programs. Innovative instructional activities are essential for maintaining dynamic, high quality academic programs. The Education Abroad Program is typical of those funded. This Program furthers students' academic progress and enhances their communication skills, cultural enrichment, and understanding of the contemporary world through intensive involvement in a different culture. University Opportunity Funds help to support guest students on University campuses who are here as a result of reciprocal arrangements with foreign institutions that are hosting University of California students. This is an essential part of the operation of the Education Abroad Program, but is not supported by State funds.

Some campuses use University Opportunity Funds to provide support for programs designed to give special recognition to excellence of undergraduate instruction or to support course evaluations to give faculty the feedback needed to improve teaching. In all, about \$10 million is allocated annually to support instructional activities.

### ***Institutional Support***

Currently, a portion of the University Opportunity Fund is used to support administrative activities for which adequate State support has not been provided, for example, administrative computing and environmental health and safety. It is

the University's long-term goal to significantly reduce University Opportunity Fund expenditures in such areas and to focus the Fund on activities which foster excellence in academic programs. Activities discussed below are typical of those funded in the Institutional Support category.

Funds are provided under Institutional Support to maintain and improve the University's capabilities to attract external funding, primarily from private sources. Such programs have been funded since the mid-1960s from a combination of various funds. Support is provided to meet alumni and development data processing requirements and for management information systems. Allocations from the University Opportunity Fund also provide support for the University's public safety and staff and management development programs.

### ***Department of Energy Laboratory Management Fee***

Contracts for University management and oversight of the Department of Energy (DOE) National Laboratories at Berkeley (LBNL), Livermore (LLNL) and Los Alamos (LANL) provide for direct charging of actual costs for the Laboratory Administration office, currently not to exceed \$4.5 million, and annual contract compensation of approximately \$25 million, depending on performance.

Annual contract compensation is distributed in accordance with a Memorandum of Understanding between the University and the State Department of Finance. Of the \$25 million total, \$11 million is budgeted as UC general fund income and helps to fund the University's operating budget. The remaining funds are used to cover costs related to audit disallowances at the Laboratories and to support two University research program funds. The UC Directed Research and Development (UCDRD) Fund supports high priority research needs at the Laboratories, with emphasis given to collaborative research with the campuses; the Complementary and Beneficial Activities (CBA) Fund was established to foster collaborative research efforts between the Laboratories and the UC campuses.

UC has recognized the benefit to the University as a whole of encouraging collaborations and has supported these efforts with funds derived from the DOE contracts for managing the Laboratories. The CBA Fund supports a number of collaborative research activities including two Multicampus Research Units, the Institute on Global Conflict and Cooperation (IGCC) and the Institute of Geophysics and Planetary Physics (IGPP). In addition, the Campus-Laboratory Collaborations (CLC) Program was established in 1994 to enhance and facilitate greater technical collaboration and cooperation between the UC campuses and the Laboratories. Supported by the CBA Fund, the CLC Program provides seed money to encourage non-traditional long-term collaborative research programs. New awards granted in 1998 totaled approximately \$1.6 million for the first year of a three-year grant program. Seven projects were funded in areas as diverse as ultra-low level tracing in biological systems and the study of vortices in superconductors.

UCDRD funding is provided in support of research projects at each of the three Laboratories. Collaborative research with UC campuses is a high-priority use for these funds. LLNL's UCDRD funds are invested in a variety of areas. These include co-funding of CLC projects, supporting UC campus research with LLNL institutes

through "mini-grants" to UC faculty and students, developing instrumentation for the Keck Telescope, supporting LLNL costs for UC Presidential Post-docs, purchasing large instruments utilized in UC collaborations, start-up funding for new University-LLNL institutes, and funding for small UC-LLNL collaborations as targets of opportunity.

At Los Alamos UCDRD funds are also directed toward campus collaboration. The Collaborative University-Los Alamos Research Program funded 34 small competitively selected collaborations in 1998. The Visiting Scholar Program supports UC faculty visiting Los Alamos or Los Alamos staff visiting campuses for periods of six to twelve months. The UC Research Partnerships Initiatives supply seed funds for collaborations that are of strategic importance to Los Alamos and that have significant potential for attracting external funds. There were 30 UCRPI collaborations in 1998. Los Alamos has recently initiated UCDRD-funded programs with four New Mexico universities similar to those with UC; in 1998 seven projects and ten collaborative initiatives were funded.

LBNL has utilized UCDRD funds during the past year to develop instrumentation for collaborative work with UC researchers, including: enhancing of an infrared spectrometer to study relaxation in unstable solids; acquiring a short pulsed, mode-locked laser for single molecule detection to study structure-function relationships in protein molecules; and initiating a program to develop unique capabilities for the new Advanced Microscopic Department. UCDRD funds also provided support for the France-Berkeley fund, which aids joint UC Berkeley and French educational and research projects.

In addition to the above efforts, a number of other institutes and centers established at the Laboratories in recent years have resulted in increased collaboration with the UC faculty. These include, for example; the Los Alamos Neutron Scattering Center, the Center for Materials Science, the National High Magnetic Field Laboratory, the Institute for Nuclear and Particle Astrophysics and Cosmology, the High Performance Computing Center, the Center for Human Genome Studies, the Institute for Transactinium Sciences, the National Center for Electron Microscopy, and the Center for Advanced Materials. The Institute of Geophysics and Planetary Physics (IGPP), established at the Laboratories in the early 1980s, is the largest single conduit for research collaborations at both LANL and LLNL.

## **INCOME AND FUNDS AVAILABLE**

### **General Fund Income and Funds Available**

The programs described in the preceding pages will require general fund resources in 2000-01 of \$3.2 billion, including \$2.9 billion in State general funds, and \$335 million in University general funds. University general funds are comprised of nonresident tuition, a portion of the federal indirect cost reimbursement, overhead on State agency agreements, and income from the application for admission and some other smaller fees.

Nonresident tuition will produce \$134.5 million in University general fund income. This income estimate is based on the 2000-01 nonresident tuition level proposed in this budget and on the number of students expected. In addition, the application fee and a number of smaller fees will produce University fund income totaling \$15.5 million.

Overhead on State agency agreements totaling \$6 million will be used to help fund the University's budget.

### **Federal Indirect Cost Reimbursement**

All federal contract and grant activity incurs costs. These costs are divided into two basic categories – direct and indirect. Direct costs are those expenditures that can be identified as directly benefiting a specific contract or grant. These costs are charged directly to individual contracts and grants. Indirect costs are those expenses which cannot be specifically identified as solely benefiting one particular contract or grant, but instead are incurred for common or joint objectives of several contracts or grants. Because they are not directly chargeable to specific projects when incurred, the University must initially finance indirect costs. The University receives reimbursement for these costs from the federal government. The basis for this reimbursement is arrived at through a series of complex negotiations between the University and the federal government that results in indirect cost rates that are then applied against the contract and grant activity.

The University has an agreement with the State regarding the disbursement of federal reimbursement. Pursuant to this agreement, the first approximately 20 percent of the reimbursement accrue directly to the University for costs related to federal contract and grant activity. This is the source of the University's Off-the-Top Overhead Fund. It is estimated that \$62 million will be provided from this source in 2000-01.

The remaining 80 percent of the federal reimbursement is used in two ways. Fifty-five percent is budgeted as University general funds and is used, along with State general funds, to help fund the University's budget. It is estimated that \$137.5 million will be provided from this source in 2000-01.

The remaining 45 percent is the source of the University Opportunity Fund, estimated to be \$112.2 million in 2000-01, and is returned to the campuses primarily on the basis of how it was generated. In addition, in 1990 the State approved legislation allowing the special use of incremental indirect cost recovery generated by research activities in certain new research facilities. Under the legislation, 100 percent of the reimbursement can be used to

pay for construction and ongoing maintenance of the research facility. In such a case, the designated indirect cost recovery is taken off the top of the total indirect cost reimbursement before any other split is made.

Contracts for University management and oversight of the Department of Energy national laboratories at Berkeley, Livermore and Los Alamos provide for annual contract compensation totaling about \$25 million, depending on performance. In addition, actual costs averaging approximately \$3.5 million annually for the Laboratory Administration Office are direct charged, though the contract permits charges of up to \$4.5 million. Annual contract compensation is distributed in accordance with a Memorandum of Understanding (MOU) between the University and the State Department of Finance. Consistent with the MOU, \$11 million of the approximately \$28.5 million total available each year is provided for indirect costs. This \$11 million is budgeted as UC general fund income and helps to fund the University's operating budget. Of the remaining \$17.5 million, approximately \$14 million is used to cover costs related to audit disallowances at the laboratories, and for two research programs, the UC Directed Research and Development activities and the Complementary and Beneficial research programs. These programs support high priority research needs and foster collaborative research efforts between the laboratories and the campuses.

### **Restricted Fund Income and Funds Available**

#### ***Other State Funds***

In addition to State general fund support, the University's budget for current operations includes \$77.8 million in appropriations from State special funds, including, for example, \$17.5 million from the Breast Cancer Research Account and Fund, \$20.9 million from the California State Lottery Education Fund, and \$36.7 million from the Cigarette and Tobacco Products Surtax Fund to fund the Tobacco-Related Disease Research Program.

#### ***Student Fees***

University student fees are discussed in detail in the Student Fees section of this document. Based on the number of students expected to enroll, income from mandatory Universitywide fees (Educational Fee and University Registration Fee), assuming a 4.5 percent fee increase, is currently projected to be \$623.6 million in 2000-01.

Income from the Educational Fee is used to support student services, student financial aid, and a share of the University's operating costs, including instruction, libraries, operation and maintenance of plant, and institutional support. Income from the University Registration Fee is used to support counseling, academic advising, tutorial assistance, cultural and recreational programs, and capital improvements that provide extracurricular benefits for students.

UC student fees increased substantially during the early 1990s, largely due to major shortfalls in State funding for the University's budget. As discussed in the Financial Aid section of this document, financial aid grew substantially as well during this time. There have been no increases in the Educational Fee or the University Registration Fee since 1994-95; in fact, these fees have been reduced by ten percent for California resident undergraduate students and five percent for California resident graduate academic

students. As a result, income from these fees is estimated to be \$576.5 million in 1999-2000.

In 2000-01, income from the Fee for Selected Professional School Students will be approximately \$45.4 million based on the number of students expected to enroll and the fee levels previously approved by The Regents. An amount equivalent to at least one-third of the revenue will be used for financial aid. Remaining fee income will be used to support the professional school programs. Fee income can be used to hire faculty and teaching assistants as well as for instructional and computing equipment, libraries, other instructional support, and student services.

University Extension and Summer Sessions are fully funded by student fees. These programs are constrained by the estimated fee income for any budget year.

### ***Teaching Hospitals***

The University's academic medical centers generally receive three types of revenue: (1) patient service revenue, (2) other operating revenue, and (3) non-operating revenue.

Patient service revenues are charges for services rendered to patients at a medical center's established rates, including rates charged for inpatient care, outpatient care, and ancillary services. Major sources of patient service revenue are government-sponsored health care programs (i.e., Medicare, Medi-Cal and the California Healthcare for Indigents Program), commercial insurance companies, contracts (e.g., managed care contracts) and self-pay patients. The rate of growth in revenues has slowed significantly in recent years due to fiscal constraints in government programs and the expansion of managed care.

Other operating revenues are derived from the daily operations of the medical centers as a result of non-patient care activities. The major source is Clinical Teaching Support, provided by the State to help pay for the costs of the teaching programs at the medical centers. Additional sources of other operating revenue are cafeteria sales and parking fees.

Non-operating revenues result from activities other than normal operations of the medical centers, such as interest income and salvage value from disposal of a capital asset.

Medical Center revenues are used for the following expenses: salaries and benefits, supplies and services, depreciation and amortization, malpractice insurance, interest expense, and bad debts. Remaining revenues are used to meet a medical center's working capital needs, fund capital improvements, and provide an adequate reserve for unanticipated downturns. The Teaching Hospital section of this document discusses the history of the financial problems confronting the medical centers and how those problems have been and continue to be addressed.

In 2000-01, expenditures of hospital income for current operations are projected to increase by \$14.6 million or about 0.9 percent as the medical centers attempt to hold down costs in a price sensitive market. The modest increase is well below inflation for hospitals.

### ***Sales and Service***

Income from sales and services from educational and support activities is projected to total

\$764 million in 2000-01, including the health sciences faculty compensation plans and a number of other sources of income, such as neuropsychiatric hospitals, veterinary medical teaching hospital, dental clinics, fine arts productions, publication sales, and athletic facilities users.

### ***Endowment***

The Treasurer of the Regents invests endowment and similar funds. The vast majority of these funds participate in the General Endowment Pool (GEP) or in the High-Income Pool (HIP). The GEP portfolio is designed to promote capital growth in line with or in excess of the rate of inflation, along with steady increases of income. The HIP portfolio is designed to produce a relatively high and stable level of current income.

In 1998-99, The Regents changed the methodology for calculating the amount available for expenditure from funds invested in the GEP. From 1958 through 1997-98, the procedure had been to generate payments to the endowed activities based only on income generated. Income is defined as dividends, interest, rents, royalties and the like. Under the new methodology, each year, depending on the recommendations of the President and the Treasurer, the GEP will pay out up to 4.75 percent of the 60-month moving average of the market value of a unit invested in the GEP. Each year campuses are able to use up to a maximum of 15 basis points (0.15%) of the total pay out percent to support endowment administrative costs. In 1998-99, The Regents approved a payout rate of 4.35 percent for expenditures in 1999-2000, an increase of 9.1 percent of the amount available for expenditure in 1998-99. For 1999-2000, The Regents will be asked to approve a payout rate of at least 4.35 percent, which if market conditions remain essentially the same could yield an increase of approximately 15 percent. These funds will be available for expenditure in 2000-01.

The amounts shown in the Endowment category on the Income and Funds available schedule at the end of this section represent the expenditure of the payout distributed on endowments and similar funds. Endowments require that the principal be invested in perpetuity with the income or approved payout used in accordance with terms stipulated by donors or determined by The Regents.

In the ten-year period between 1988-89 and 1998-99, actual expenditures from endowments increased by nearly 150 percent. It is estimated that in 1999-2000 expenditures will be \$119.0 million and the University is projecting expenditures of \$136.9 million in 2000-01.

### ***Auxiliary Enterprises***

Auxiliary enterprises are non-instructional support services provided primarily to students in return for specified charges. Services include residence and dining services, parking, intercollegiate athletics, and bookstores. Faculty housing is also an auxiliary enterprise. No State funds are provided for auxiliary enterprises. Budget increases for each service are matched by corresponding increases in revenue. Revenue from auxiliary enterprises is projected to increase from \$500.5 million in 1999-2000 to an estimated \$520.5 million in 2000-01.

## **Extramural Funds**

Extramural Funds are provided for specified purposes by the federal government, usually

as contracts and grants; through State agency agreements, and through private gifts and grants from individuals, corporations, and foundations. The majority of these funds are used for research and student financial aid.

### ***Research***

For 2000-01, extramural research funding is projected to be \$1.65 billion, including \$1.09 billion of federal funds. In addition to the funding of research contracts and grants, federal funds entirely support the Department of Energy Laboratories, for which the University has management responsibility. In 2000-01, this support is projected to be approximately \$3.18 billion.

Federal funds are the University's single most important source of support for research, accounting for approximately 54 percent of all University research expenditures in 1998-99. While UC researchers receive support from virtually all federal agencies, the National Institutes of Health and the National Science Foundation are the two most important, accounting for approximately 70 percent of the University's federal research contract and grant awards in 1997-98.

In the decade between 1982-83 and 1992-93 federal support for research at the University grew dramatically. With a commitment to research established as a national priority by both the President and the Congress, annual federal research expenditures increased by an average of almost ten percent during this period. After 1992-93, however, the focus of the federal government was on deficit reduction. While research expenditures continued to increase, the rate of growth slowed down. Between 1992-93 and 1995-96 federal research expenditures at the University increased by an average of about four percent per year, and in 1996-97 they were essentially flat. Progress toward a balanced budget and continued administrative and congressional support for investments in research again resulted in continuing gains for federal research programs; the University's federal research expenditures increased by seven percent in 1997-98 and over eight percent in 1998-99. While projections may change pending the outcome of the current budget negotiations between the Congress and the President, at this point the University does not expect increases of this magnitude to continue. Federal funding for most research programs is projected to decrease after factoring in inflation. Some programs, such as medical research, are likely to fare better than others. The projected \$1.09 billion of federal funds for 2000-01 represents a three percent increase over estimated 1999-2000 expenditures.

### ***Student Financial Aid***

In 1997-98, UC students received \$649 million in federal financial aid, mostly in the form of loans. Overall, UC students received about six percent more federal funded aid in 1997-98 than they received in the previous year. This was principally due to increases of approximately \$24 million in borrowing under federal loan programs. The significance of the federal loan programs for UC students is demonstrated by the fact that these programs comprised more than three-quarters (76%) of all federally funded aid and nearly one-half (47%) of the total financial support received by UC students in 1997-98. Federal aid also assists undergraduate and graduate students through a variety of other programs. Needy students are eligible for federally funded grant programs such as Pell grants, and they may seek employment under the College Work-Study Program, where the federal government subsidizes up to 75 percent of the student employee's earnings. Graduate students receive fellowships from a number of federal agencies such as the National Science Foundation and

the National Institutes of Health.

The Student Financial Aid section of this document discusses these and other programs. It also discusses the potential impacts on federal financial aid that could result from the FY2000 amendments to the Higher Education Act (HEA) and pending appropriations to fund the programs associated with the HEA.

### **Private Gifts and Grants**

Private gifts, contracts, and grants are received from alumni and other friends of the University, campus-related organizations, corporations, foundations, and other nonprofit entities. For 2000-01, expenditures of private gifts, contracts, and grants to the University are estimated to be \$716 million, an increase of 10 percent over 1999-2000 expenditures. Expenditures have increased by nearly 150 percent in the ten-year period from 1988-89 to 1998-99. In 1998-99 the University received \$926.1 million in donations and pledges, the fifth consecutive year of record-breaking fund raising.

Typically the donor designates more than 95 percent of gifts for a specific purpose. Research and departmental support are the largest categories for which private gifts and grants are provided, followed by campus improvement projects (e.g., purchases of buildings, equipment and land, or construction or renovation of buildings or other facilities) and financial aid to students (e.g., scholarships, fellowships, awards, and prizes).

**INCOME AND FUNDS AVAILABLE**  
**(\$000s)**

<u>INCOME AND FUNDS AVAILABLE</u>	Estimated 1998-99	Proposed 1999-00	Proposed Change
<b>STATE APPROPRIATIONS</b>			
General Funds	\$ 2,518,890	\$ 2,662,890	\$ 144,000
Special Funds	59,335	59,335	--
<b>TOTAL, STATE APPROPRIATIONS</b>	<b>\$ 2,578,225</b>	<b>\$ 2,722,225</b>	<b>\$ 144,000</b>
<b>UNIVERSITY SOURCES</b>			
General Funds Income			
Student Fees			
Nonresident Tuition	\$ 109,012	\$ 122,412	\$ 13,400
Application for Admission and Other Fees	13,500	13,500	
Interest on General Fund Balances	17,500	17,500	
Contract & Grant Overhead	116,712	129,812	13,100
Allowance for O/H & Management	11,000	11,000	300
Overhead on State Agency Agreements	5,500	5,800	
Prior Year Balance - Instructional Equipment	15,000	--	(15,000)
Other	9,700	10,900	1,200
<b>Total General Funds Income</b>	<b>\$ 297,924</b>	<b>\$ 310,924</b>	<b>\$ 13,000</b>
Special Funds Income			
United States Appropriations	\$ 16,000	\$ 16,000	\$ --
Local Government	55,000	56,650	1,650
Student Fees	--	--	
Educational Fee	472,300	484,000	11,700
Registration Fee	113,300	116,100	2,800
Special Law/Medical Fee	1,820	1,820	
Special Professional Fee	42,000	44,500	2,500
University Extension	199,000	208,950	9,950
Summer Session	32,200	34,132	1,932
Other Fees	38,000	39,520	1,520
Sales & Services - Educational Activities	490,060	514,860	24,800
Sales & Services - Teaching Hospitals	1,624,783	1,663,687	38,904
Sales & Services - Support Activities	172,550	182,150	9,600
Endowments	105,000	119,000	14,000
Auxiliary Enterprises	481,415	500,671	19,256
Contract and Grant Administration	55,200	57,960	2,760
DOE Management Fee	17,500	17,500	--
University Opportunity Fund	102,462	107,585	5,123
Other	156,539	164,239	7,700
<b>Total Special Funds</b>	<b>\$ 4,175,129</b>	<b>\$ 4,329,324</b>	<b>\$ 154,195</b>
<b>TOTALS, UNIVERSITY SOURCES</b>	<b>\$ \$4,473,053</b>	<b>\$ \$4,640,248</b>	<b>\$ \$167,195</b>
<b>TOTAL INCOME AND FUNDS AVAILABLE</b>	<b>\$ \$7,051,278</b>	<b>\$ \$7,362,473</b>	<b>\$ \$311,195</b>

# APPENDIX

## BUDGET FOR CURRENT OPERATIONS EXPENDITURE BY PROGRAM AND FUND TYPE (000'S)

	1998-99 Budget				1999-00 Proposed				Proposed Increases			
	GENERAL FUNDS	RESTRICTED FUNDS	TOTAL FUNDS	GENERAL FUNDS	RESTRICTED FUNDS	TOTAL FUNDS	GENERAL FUNDS	RESTRICTED FUNDS	TOTAL FUNDS	GENERAL FUNDS	RESTRICTED FUNDS	TOTAL FUNDS
INSTRUCTION												
General Campus	\$ 1,161,845	\$ 260,462	\$ 1,422,307	\$ 1,190,445	\$ 271,611	\$ 1,462,056	\$ 28,600	\$ 11,149	\$ 39,749			
Health Sciences	288,259	352,292	640,551	288,259	370,092	658,351	--	17,800	17,800			
Summer Session	--	32,200	32,200	--	34,132	34,132	--	1,932	1,932			
University Extension	--	199,000	199,000	--	208,950	208,950	--	9,950	9,950			
RESEARCH	250,404	98,125	348,529	250,404	98,125	348,529	--	--	--			
PUBLIC SERVICE												
Campus Public Service	70,892	55,371	126,263	70,892	55,371	126,263	--	--	--			
Cooperative Extension	45,880	9,845	55,725	45,880	9,845	55,725	--	--	--			
ACADEMIC SUPPORT												
Libraries	174,192	42,807	216,999	174,192	42,807	216,999	--	--	--			
Organized Activities	128,975	273,182	402,157	128,975	289,432	418,407	--	16,250	16,250			
TEACHING HOSPITALS	38,754	1,663,537	1,702,291	38,754	1,702,441	1,741,195	--	38,904	38,904			
STUDENT SERVICES	--	241,039	241,039	--	244,744	244,744	--	3,705	3,705			
INSTITUTIONAL SUPPORT	240,523	130,236	370,759	240,523	130,236	370,759	--	--	--			
OPERATION AND MAINTENANCE OF PLANT	330,359	42,872	373,231	343,359	42,872	386,231	13,000	--	13,000			
STUDENT FINANCIAL AID	69,760	158,374	228,134	69,760	164,040	233,800	--	5,666	5,666			
AUXILIARY ENTERPRISES	--	491,595	491,595	--	510,851	510,851	--	19,256	19,256			
PROVISIONS FOR ALLOCATION	16,971	63,565	80,536	16,971	88,025	104,996	--	24,460	24,460			
SPECIAL REGENTS' PROGRAMS	--	119,962	119,962	--	125,085	125,085	--	5,123	5,123			
SUBTOTAL	\$ 2,816,814	\$ 4,234,464	\$ 7,051,278	\$ 2,858,414	\$ 4,388,659	\$ 7,247,073	\$ 41,600	\$ 154,195	\$ 195,795			
PROGRAM MAINTENANCE												
Fixed Costs, Economic Factors	--	--	--	115,400	--	115,400	115,400	--	115,400			
TOTAL UNIVERSITY	\$ 2,816,814	\$ 4,234,464	\$ 7,051,278	\$ 2,973,814	\$ 4,388,659	\$ 7,362,473	\$ 157,000	\$ 154,195	\$ 311,195			

## GENERAL CAMPUS AND HEALTH SCIENCES

Full-Time Equivalent Enrollments--Year Average

	1997-98	1998-99	1999-00 Proposed*	
	<u>Actual</u>	<u>Budgeted</u>	<u>Total</u>	<u>Change</u>
<b>BERKELEY</b>				
General Campus	28,039	27,800	28,000	200
Health Sciences	698	757	757	-
Total	28,737	28,557	28,757	200
<b>DAVIS</b>				
General Campus	20,098	20,300	20,800	500
Health Sciences	1,955	1,898	1,898	-
Total	22,053	22,132	22,632	500
<b>IRVINE</b>				
General Campus	15,455	15,700	16,350	650
Health Sciences	1,138	1,040	1,040	-
Total	16,593	16,740	17,390	650
<b>LOS ANGELES</b>				
General Campus	28,233	28,500	28,750	250
Health Sciences	3,653	3,719	3,719	-
Total	31,886	32,219	32,469	250
<b>RIVERSIDE</b>				
General Campus	9,142	9,550	10,200	650
Health Sciences	48	48	48	-
Total	9,190	9,598	10,248	650
<b>SAN DIEGO</b>				
General Campus	16,661	16,850	17,600	750
Health Sciences	1,212	1,052	1,052	-
Total	17,873	17,902	18,652	750
<b>SAN FRANCISCO</b>				
Health Sciences	3,573	3,552	3,552	-
<b>SANTA BARBARA</b>				
General Campus	17,746	17,880	18,150	270
<b>SANTA CRUZ</b>				
General Campus	10,160	10,420	10,850	430
<b>TOTALS</b>				
General Campus	145,534	147,000	150,700	3,700
Health Sciences	12,277	12,066	12,066	-
Total	157,811	159,066	162,766	3,700
Summer Teacher Credential Program			200	200
<b>TOTAL</b>	<b>157,811</b>	<b>159,066</b>	<b>162,966</b>	<b>3,900</b>

\*Plus up to 100 FTE students in graduate academic programs in the health sciences.

**GENERAL CAMPUS**  
**Actual Year-Average FTE Enrollments**

	1997-98 <u>Actual</u>	1998-99 <u>Budgeted</u>	1999-00 Proposed* <u>Total</u>	<u>Change</u>
<b>BERKELEY</b>				
Undergraduate	20,657	20,290	20,490	200
Postbaccalaureate	13	-	-	-
Subtotal	20,670	20,290	20,490	200
Graduate	7,369	7,510	7,510	-
Total	28,039	27,800	28,000	200
<b>DAVIS</b>				
Undergraduate	16,930	17,142	17,562	420
Postbaccalaureate	68	68	68	-
Subtotal	16,998	17,210	17,630	420
Graduate	3,100	3,090	3,170	80
Total	20,098	20,300	20,800	500
<b>IRVINE</b>				
Undergraduate	13,464	13,579	14,094	515
Postbaccalaureate	122	121	116	(5)
Subtotal	13,586	13,700	14,210	510
Graduate	1,869	2,000	2,140	140
Total	15,455	15,700	16,350	650
<b>LOS ANGELES</b>				
Undergraduate	21,322	21,570	21,760	190
Postbaccalaureate	-	-	-	-
Subtotal	21,322	21,570	21,760	190
Graduate	6,911	6,930	6,990	60
Total	28,233	28,500	28,750	250
<b>RIVERSIDE</b>				
Undergraduate	7,736	8,125	8,674	549
Postbaccalaureate	149	125	126	1
Subtotal	7,885	8,250	8,800	550
Graduate	1,257	1,300	1,400	100
Total	9,142	9,550	10,200	650
<b>SAN DIEGO</b>				
Undergraduate	14,478	14,576	15,173	597
Postbaccalaureate	71	74	77	3
Subtotal	14,549	14,650	15,250	600
Graduate	2,112	2,200	2,350	150
Total	16,661	16,850	17,600	750
<b>SANTA BARBARA</b>				
Undergraduate	15,621	15,690	15,868	178
Postbaccalaureate	12	10	12	2
Subtotal	15,633	15,700	15,880	180
Graduate	2,113	2,180	2,270	90
Total	17,746	17,880	18,150	270
<b>SANTA CRUZ</b>				
Undergraduate	9,209	9,445	9,860	415
Postbaccalaureate	-	-	-	-
Subtotal	9,209	9,445	9,860	415
Graduate	951	975	990	15
Total	10,160	10,420	10,850	430
<b>GENERAL CAMPUS</b>				
Undergraduate	119,417	120,417	123,481	3,064
Postbaccalaureate	435	398	399	1
Subtotal	119,852	120,815	123,880	3,065
Graduate	25,682	26,185	26,820	635
Total	145,534	147,000	150,700	3,700
Summer Teacher Credential Program		-	200	200
<b>TOTAL</b>		147,000	150,900	3,900

\* Plus up to 100 FTE students in graduate academic programs in the health sciences.