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December 2, 2008

**MEMBERS OF THE REGENTS' COMMITTEE ON GROUNDS AND BUILDINGS**

Enclosed for your information is the Major Capital Projects Implementation Report for fiscal year 2007-08. This report describes the aggregate status of major capital projects underway at the end of the 2007-08 fiscal year and summarizes management initiatives and market conditions affecting project implementation.

If you have any questions about the report, please get in touch with Executive Vice President Lapp. She can be reached by telephone at (510) 987-9029.

Sincerely,

**/s/ Mark G. Yudof**

Mark G. Yudof  
President

Enclosure

cc: All Regents  
Chancellors

bcc: Members, President's Cabinet  
Principal Officers of The Regents  
Interim Chief of Staff Sandbrook

Office of the President  
November 2008  
*Mailing between Meetings*

**TO MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:**

**INFORMATION ITEM**

**ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION**

**FISCAL YEAR 2007-08**

**EXECUTIVE SUMMARY**

The *Annual Report on Major Capital Projects Implementation* provides a status update for the University's major capital projects for FY 2007-08. During this period, the **value** of the active project portfolio of 280 projects was \$8.1 billion, establishing an historic high and representing a 3.8 percent increase over the previous year's total of \$7.8 billion for 341 projects. One hundred and nineteen projects were completed and 114 new projects added.

Active project budget augmentations, as a percentage of original budgets, increased from 12.0 percent the previous year to 14.9 percent for FY 2007-08. The percentage of projects with **schedule changes** increased from 25.8 percent to 33.2 percent. These budget increases and schedule extensions generally reflect the impact of the volatile construction market of the last three years on projects that were budgeted before, but bid after, the start of this period.

The impact of the 2008 global financial crisis on the FY 2008-09 construction market is difficult to assess at this point. The recent downturn in overall construction spending nationwide, accompanied by declines in commodity prices, could lead to an overall dampening of **construction escalation**. However, in California, escalation may not decline as rapidly as in other parts of the country due to the passage of large bond programs for schools, hospitals, and infrastructure projects.

In March 2008, the Regents approved the initiation of an 18-month pilot phase for a new streamlined **capital project approval process** that seeks to realize administrative efficiencies; provide increased clarity of roles, policies, and accountability; and facilitate the integration and alignment of strategic, capital, financial and physical design plans at each campus.

Additionally, there have been ongoing design and project management responses critical to **optimizing the construction dollar**. These include:

- Using **alternative project delivery methods** such as design/build, private-public partnerships and donor development where appropriate;
- Improving **the University's working relationship with the construction industry** by modifying contract language so as to enhance efficient and cost-effective construction of facilities;
- Implementing **strategies for addressing construction market volatility**, such as bid

- process modifications to attract more bidders and bid alternate packages; and
- Monitoring and building upon state legislation that allowed UC San Francisco to implement a pilot program to allow the **selection of contractors on a “best value” basis.**

**Additional efforts** included the sharing best practices through the UC Project Management Institute (PMI) by offering fifteen courses. It should be noted that, as of July 2008, PMI has been suspended pending the reorganization of the Office of the President.

With respect to **sustainability**, every major capital new construction project, and renovation projects with a total project cost of over \$5 million, that received budget approval in FY 2007-08 complied with the *UC Policy on Sustainable Practices*. Of these projects, 74% are targeting a Silver rating or higher through the U.S. Green Building Council or the UC equivalency process, with the remaining projects targeting a Certified rating.

**ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION**

**FISCAL YEAR 2007-08**

The *Annual Report on Major Capital Projects Implementation*, first presented in 1991, provides broad indicators of project delivery performance for major capital projects, defined as having a project cost of over \$400,000. This year’s report presents the aggregate status of major capital projects underway at the end of FY 2007-08 and summarizes management initiatives undertaken to combat negative market conditions. Future trends in the construction markets are also discussed.

The University’s ability to successfully implement its capital program is affected by numerous factors. Those within University control include project delivery methods, academic program changes, and budgeting and funding strategies. Factors beyond University control include the construction industry bid climate, local and global market conditions, code changes, State and non-State funding requirements, and unforeseen physical and environmental constraints.

It is important to recognize that some project budget and schedule changes are driven by circumstances that are intentional, necessary and beneficial to the University’s interests, such as building program improvements, multiple project phasing, and the incorporation of new funding opportunities. Because these variables affect project delivery, simple indicators do not fully represent the complexity of factors that could impact University capital project implementation. Nonetheless, in order to assess the general condition of the program and develop initiatives to improve project delivery, this annual report tracks two key indicators: 1) project budget changes and 2) project schedule changes.

**I. Status of the Capital Program**

The summary table below provides the status of major capital project activity at the end of fiscal year 2007-08 as compared to the previous year. All figures referring to either budget or schedule changes represent the cumulative changes from project budget approval until completion and do not include data prior to official budget approval.

**Summary of All Active Major Capital Projects at Fiscal Year End  
2006-07 and 2007-08**

	<b>2006-07</b>	<b>2007-08</b>
1. Total active projects	341	280
2. Total amount of original budgets	\$6,908,650,000	\$6,998,867,577
3. Cumulative approved budget changes (adjusted for inflation)	\$830,307,000	\$1,044,535,000
4. Total year-end budget (adjusted for inflation) *	\$7,738,958,000	\$8,043,402,577
5. Percent change from original budget	12.0%	14.9%
6. Total year-end budget (including inflation) *	\$7,802,231,000	\$8,125,619,577
7. Projects with budget changes	136	70
8. Projects with schedule changes (“over schedule” if more than 90 days)	88	93

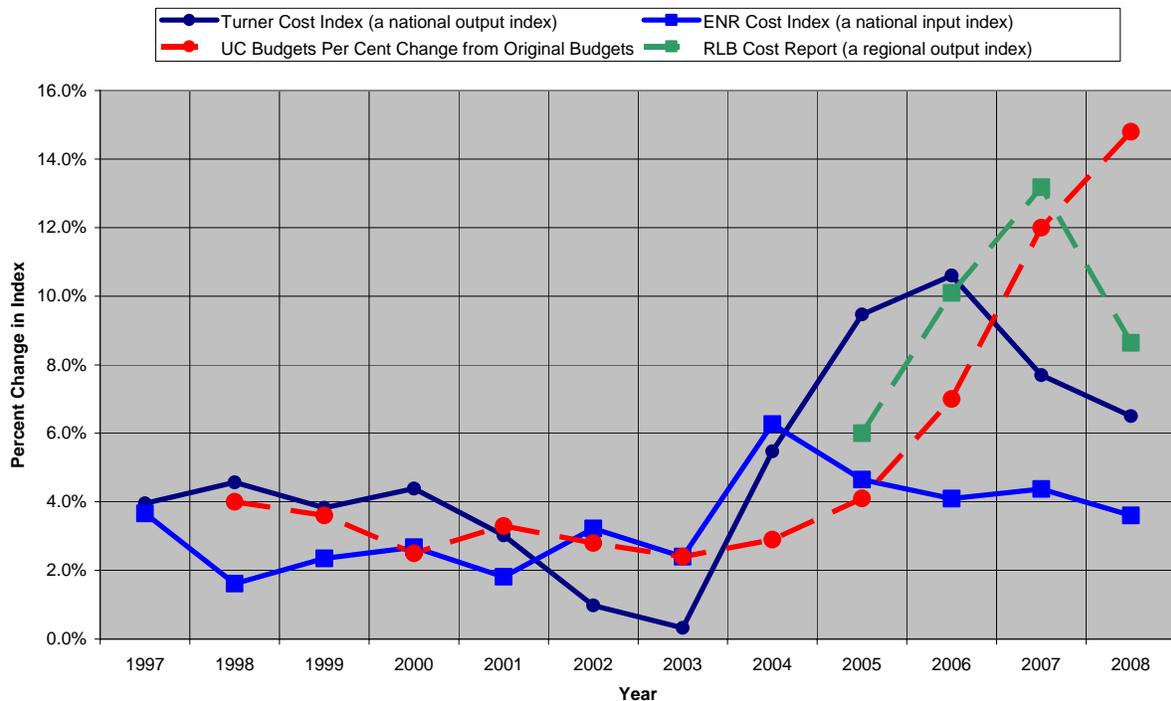
\* “Adjusted for inflation” excludes state inflation adjustments in the budget. “Including inflation” includes state inflation adjustment in the budget.

Table 1 (see Attachment 1) displays the campus-level detail for the above categories. Figures 1, 2 and 3 (see Attachments 2 and 3) display trends for the year-end budget totals and for the number of active projects for each fiscal year; the percent change in inflation-adjusted project budgets (net changes divided by total amount of original budgets); and the percentage of projects with schedule changes.

During FY 2007-08, 119 projects with budgets totaling approximately \$914 million were completed. Completed projects are those for which Notices of Completion were filed or a Notice of Substantial Completion was received with no major financial or contract issues outstanding. With the addition of 114 new projects and augmentations to previously approved projects, the total value of active projects increased by a net of \$323 million, from \$7.802 billion the previous year to \$8.125 billion (Figure 1). Laboratory buildings and hospitals comprise more than 50 percent of the net increase, while housing and classrooms comprise 25 percent. For the last two years, this budget distribution has remained relatively constant for the State- and non-State-funded capital program, reflecting the impact of enrollment growth, seismic and life safety improvements, health sciences expansion, research, and the statutory deadlines of SB 1953 for medical facility construction.

The net project budget augmentations for active projects, as a percentage of original budgets, increased from 12.0 percent to 14.9 percent (Figure 2) between FY 2006-07 and 2007-08. These increases over the previous three years can be viewed against the backdrop of the year-to-year percentage increase in national and state construction costs. The Rider Levett Bucknall (RLB) *Quarterly Construction Cost Report* that measures material and labor costs, as well as contractor overhead and profit, indicates that average construction costs in California increased from a 6.0 percent annual increase in fiscal year 2004-05 to a 13.2 percent annual increase in FY 2006-07 (see chart below).

**Input and Output Cost Indexes Compared to UC Change to Active Project Budgets**



In fiscal year 2007-08, the RLB annual increase moderated to 8.6 percent. This moderation in contractors' prices while the budget augmentations rose is due primarily to the fact that initial budgets for many of the currently active projects were set prior to or at the start of the past three-year period of market instability. Subsequent augmentations addressed the market realities of rising construction costs, materials and labor shortages, reduced competition among contractors and subcontractors, and speculation in the commodities markets.

## II. Major Capital Projects Completed During Fiscal Year

While the preceding statistics consider all active projects as of the last day of the fiscal year, it is important to examine projects completed during the fiscal year in order to discern the percentage of change to original budgets, as well as the average and weighted average number of days over the original schedule. When calculating the weighted average, the number of days delayed is weighted in proportion to the project budget. Consequently, the larger the project, the more it will influence the average. Completed project statistics are presented in the following table:

### Summary of Major Capital Projects Completed During Fiscal Years 2006-07 and 2007-08

	2006-07	2007-08
1. Total number of projects completed	111	119
2. Total amount of original budgets of projects completed	\$1,888,407,000	\$826,917,740
3. Cumulative approved budget changes (adjusted for inflation)	\$69,212,000	\$76,344,984
4. Total year-end budgets (adjusted for inflation)	\$1,957,619,000	\$903,262,724
5. Percent net change from original budget	3.7%	9.2%
6. Total year-end budget (including inflation)	\$2,070,669,000	\$914,259,724
7. Total number of completed projects within original schedule	84	45
8. Total number of completed projects over original schedule	27	74
9. Average number of days over original schedule *	145	363
10. Weighted average number of days over original schedule	265	394

\* "over schedule" if more than 90 days

The percent change in original budgets for projects completed in FY 2007-08 is almost six percentage points greater than for projects completed in FY 2006-07. The number of completed projects over original schedule also increased from 27 projects the previous year to 74. This trend of increasing budgets and extended schedules is expected to continue as projects that were budgeted prior to the market instability reach completion. As noted earlier, project changes can represent a benefit for the project, such as program revisions that require redesign, new funding opportunities, shifts in funding strategies, and coordination with other projects.

## III. Construction Market Conditions in FY 2007-08 and Forecast for FY 2008-09

In FY 2007-08, a level of predictability returned to the California construction market even though speculation in the commodities markets kept building materials and energy cost escalation high.<sup>1</sup> The RLB Quarterly Construction Cost Report, a regional output index that measures material and labor costs as well as contractors' overhead and profit, reported that the

<sup>1</sup> Davis Langdon 2008 Second Quarter Market Overview.

cost increase for the four quarters in FY 2007-08 was 8.6 percent in Los Angeles and 8.7 percent in San Francisco.

The ENR California Construction Cost Index, a regional input index measuring the cost of materials and labor that comprise a contractor's bid, shows an increase of 3.3 percent over this same period. The difference between the input and output indices reflects the continuing impact of market premiums charged by contractors to minimize risk. Although the 5.3 percentage point difference is smaller than last year's 7.8 percentage points, it is evidence that California contractors continued to charge higher than normal premiums in FY 2007-08 to protect themselves from material and fuel cost fluctuations, even as the overall construction market was tightening.

The impact of the 2008 global financial crisis on the FY 2008-09 construction market is difficult to assess at this point. The construction industry is currently experiencing a downturn in overall construction spending, with projects in the public and private sectors being put on hold whether in the planning, design or even construction phases.<sup>2</sup> Prices of critical materials, such as steel, copper, lumber and many other building commodities are showing price declines, with oil falling almost 50 percent in recent months.

This reduction in overall construction spending accompanied by declines in commodity prices could lead to overall dampening of construction escalation. Bids on UC projects received between September and November 2008 have come in well below cost estimates, indicating that in this period of uncertainty contractors are lowering their overhead and profits in expectation of significant decreases in construction spending.

In addition, reduced availability and increased cost of financing will impact contractors who rely on financing for working capital during construction, as well as bonding and insurance companies who rely on financing to provide services for construction. "The impact on the financing, insurance and bonding markets is yet to be seen, but it is likely, if only in the short term, that there will be sharply reduced capacity in the construction market as bidders compete for limited finance and insurance. As a result escalation is likely to vary based on the size and/or complexity of the project."<sup>3</sup>

Construction market escalation in California may not decline as rapidly as in other parts of the country. One reason is the passage of several referenda in the State aimed at rebuilding California's infrastructure. In November 2008, the passage of the State Proposition 3 Children's Hospital Bond allocated \$980 million for construction and renovation of children's hospitals; San Francisco's Proposition A provided \$887.4 million for the rebuilding of San Francisco General Hospital. State Proposition 1A-1E, passed in November 2006, allocated \$37.3 billion in capital spending for transportation, schools, housing and flood protection. Hospitals across the State are either seismically upgrading or replacing their buildings in accordance with deadlines set by SB 1953. In addition, the Los Angeles Unified School District continues to implement its \$19.2 billion capital program.

A final factor impacting cost escalation is the decline in skilled construction tradespeople as baby-boomers retire and are not replaced by a younger construction workforce.

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<sup>2</sup> RLB 2008 Fourth Quarter - Quarterly Construction Cost Report

<sup>3</sup> Davis Langdon 2008 Third Quarter Market Overview.

#### IV. University Initiatives Related to Cost Management and Project Delivery

In 2007, the University of California initiated efforts to identify specific opportunities for administrative efficiencies within the Office of the President (OP) and across the system. The intent of this initiative was to provide increased clarity of roles, policies and accountability and to facilitate the integration and alignment of strategic, capital, financial, and physical design plans at each campus. One outcome of those efforts was the recommendation to form a Working Group to engage in an in-depth study of the capital project review process and, if warranted, recommend modifications. In March 2008, the Regents accepted the report of the Working Group and approved the initiation of an 18-month pilot phase for a new streamlined capital project approval process.

In addition to the organizational and administrative restructuring initiatives, there have been ongoing design and project management responses critical to optimizing the construction dollar. Over the past four years, the University has implemented strategies to address construction market volatility, improve the University's working relationship with the construction industry, improve contract delivery methods, and optimize building design. These ongoing design and project management responses include:

- Using **alternative project delivery methods** such as design/build, public-private partnerships, and donor development where appropriate. During this fiscal year the number of design/build projects currently in development increased to seventeen projects. Ten projects are being developed as public-private partnerships and three projects are donor development projects. In support of these delivery methods, new types of contracts have been developed and refined over the past two years.
- Improving **the working relationship with the construction industry** by modifying contract language that was impeding efficient and cost-effective construction of University facilities. These modifications created a more flexible process that will encourage a wider participation of qualified contractors and consultants on University projects. Several important enhancements were added to those already incorporated during the first phase of review completed in September 2006. These additional modifications include changes to:
  - increase flexibility in scheduling provisions, making University projects more responsive to construction market requirements;
  - simplify the contract language for clauses governing project completion and liquidated damages to make contracts clearer and to balance risk;
  - address indirect cost impacts through pricing guidelines for “changes in the work” that make certain costs easier for contractors to identify and recover;
  - clarify design responsibilities to relieve unnecessary burdens upon the contractor while ensuring appropriate protections for the University; and
  - improve the equitable treatment of parties in contract indemnity provisions.
- Implementing **strategies for addressing construction market volatility** such as bid process modifications to attract more bidders and inclusion of bid alternate packages.

- Monitoring and building upon state legislation that authorizes UC San Francisco to implement a pilot program allowing the **selection of contractors on a “best value” basis**. A total of seventeen contracts with a combined expected contract value in excess of \$900 million have been utilized to date. It is expected that these projects will demonstrate success in overall project quality, claims avoidance and schedule adherence.

## V. Ongoing Capital Project Issues

In addition to the initiatives and ongoing efforts to control capital costs through project management, design and construction delivery methods, the University also addressed the following capital project delivery issues during the year:

### *Strategic Goals and Policy Implementation*

- The University reviewed and approved 28 requests for Executive Design Professional (EDP) approvals for capital projects that have a total project value over \$5 million. The total construction value of these projects was \$2.289 billion. The total amount of fees for basic architectural services totaled \$137 million, representing an overall fee percentage of approximately six percent of the construction value.

Three of these projects had fees over the current fee guidelines, which vary depending on building type and construction value of the project. The total construction value of these three projects was \$165 million, with fees for basic architectural services totaling \$12.6 million. This represents an overall fee percentage of 7.6 percent of the construction value. The fee amounts over the guidelines averaged slightly over one-half of a percentage point for these projects. Under current policy, each of these fee requests was fully explained and supported by the campus.

- The University continued to address the need for student housing by approving the design of housing projects that added approximately 2,437 new beds.

### *Sharing Best Practices*

- During FY 2007-08, UC Project Management Institute (UC PMI) offered fifteen sessions encompassing training programs, the sharing of best practices (invited forums), sustainability training, and annual workshop offerings (Real Estate Officers, Planners and Contract Administrators). UC PMI also provided on-site training on specific contract methods (i.e., alternates to lump-sum contracting). As of July 2008, the UC Project Management Institute has been suspended pending OP reorganization.
- The University has continued its bi-monthly meetings among UC medical center project directors, OP staff, and the Office of Statewide Health Planning and Development.
- The University continued bi-monthly meetings among UC Fire Marshals, directors, OP staff, and the Office of Statewide Health Planning and Development. The University has suspended hosting these meetings pending OP reorganization.

### *Sustainability*

- Every major capital new construction project, and renovation projects with a project cost over \$5 million, that received budget approval during FY 2007-08, will comply with the University's *Policy on Sustainable Practices*. Of these projects 74% are targeting a Silver rating or higher through the US Green Building Council or the UC equivalency process with the remaining projects targeting a Certified rating.
- With respect to completed projects at UC Merced, the Kolligian Library and the Classroom and Office Building received LEED Gold ratings; the Garden Suites and Lakeview Dining projects received a LEED Silver rating from the USGBC. At the Irvine campus, the Surge Building achieved a LEED Gold rating and, at UC Santa Barbara, the Student Resources Building received a LEED Silver rating from the USGBC.
- The Sustainable Renovations Working Group developed implementation strategies for sustainable renovation projects, which went into effect in July 2007. Twenty-six major renovation projects will comply with the new Green Building Policy Guidelines for Renovations issued in March 2008, with nine of those projects targeting a USGBC LEED-CI Silver or UC equivalent rating. One project, the Reiber Hall Repair and Refurbishment at the Los Angeles campus, is seeking LEED-CI certification at the Gold level.

### Attachments

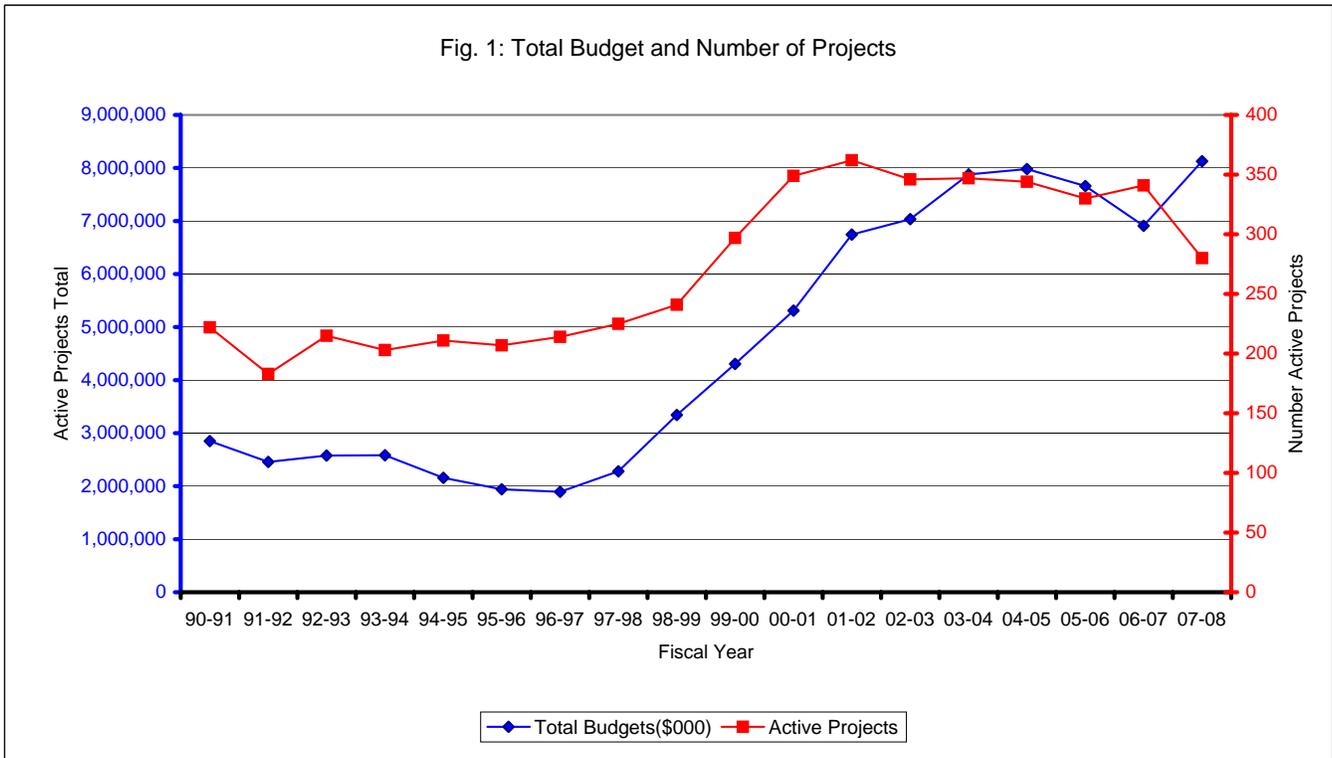
Table 1

Figures 1, 2, 3

<b>TABLE 1: ALL ACTIVE MAJOR CAPITAL PROJECTS AT FY END - 2007-08</b>									
<i>Cumulative Changes to Budget (dollars) and Schedule Subsequent to Project Approval</i>									
	1	2	3	4	5	6	7	8	9
	Active Projects	Original Budget	Budget at End of 07-08	Inflation Adjusted Budget 07-08	Total # with Budget Changes	Changes to Original Budget	% Change from Original Budget	# with Schedule Changes	% with Schedule Change
Berkeley	39	1,106,327,000	1,236,356,000	1,233,068,000	8	126,741,000	11.5%	15	38.5%
Davis	48	890,506,000	1,079,032,000	1,075,816,000	13	185,310,000	20.8%	a 16	33.3%
Irvine	18	831,258,799	923,543,799	916,510,799	4	85,252,000	10.3%	2	11.1%
Los Angeles	39	1,699,239,000	2,068,554,000	2,061,457,000	6	362,218,000	21.3%	b 13	33.3%
Merced	4	133,607,000	140,387,000	134,532,000	1	925,000	0.7%	2	50.0%
Riverside	20	399,617,000	440,792,000	427,647,000	7	28,030,000	7.0%	3	15.0%
San Diego	34	781,748,000	866,798,000	859,129,000	12	77,381,000	9.9%	6	17.6%
San Francisco	43	532,737,648	586,731,648	581,571,648	9	48,834,000	9.2%	18	41.9%
Santa Barbara	21	333,840,130	421,300,130	408,646,130	3	74,806,000	22.4%	c 13	61.9%
Santa Cruz	11	286,251,000	358,389,000	341,289,000	7	55,038,000	19.2%	d 4	36.4%
DANR	3	3,736,000	3,736,000	3,736,000	0	0	0.0%	1	33.3%
	280	6,998,867,577	8,125,619,577	8,043,402,577	70	1,044,535,000	14.9%	93	33.2%
			<i>Inflation Adjustments:</i>	<i>82,217,000</i>					
<b>BUDGET CHANGES</b>									
Reduced					6				
Increased					64				
<b>SCHEDULE</b>									
On Schedule								187	
Schedule Changed								93	
<b>State</b>	81	4,354,165,000	5,274,301,000	5,192,084,000					
<b>Non-State</b>	199	2,644,702,577	2,851,318,577	2,851,318,577					
<b>TOTALS</b>	280	6,998,867,577	8,125,619,577	8,043,402,577	70	1,044,535,000	14.9%	93	33.2%

**Notes:**

- (1) Active Projects: Projects with budgets exceeding \$400,000 on which funds were expended in 2007-2008 and had not been completed (no Notice of Completion filed) by June 30, 2008.
- (2) Original Budget: The sum of the original budgets for the active projects officially approved.
- (3) Budget at End of 2007-2008: The sum of the project budgets at year end. This figure includes all increases and decreases made to the original budget since its approval.
- (4) Budget with inflation removed for state-funded projects. *Value of inflation adjustments shown in italics.*
- (5) Total # with Budget Changes: the number of active projects that have had budget changes (increases or decreases) over the life of the project to date.
- (6) Changes to Original Budget: The net dollar amount of augmentations and decreases; state-funded budgets are adjusted to the original cost index for the project so that inflationary changes are not reflected as augmentations.
- (7) % Change Original Budget: The budget changes represent the percent of change from the original budget, due to revised program scope or market conditions.
- (8) # with Schedule Changes: The number of projects that have had changes in their schedule since original approval ("schedule change" is defined as being "over schedule" by more than 90 days).
- (9) % with Schedule Changes: The percentage of the total campus projects with schedule changes.
- (a) Includes augmentations for UCDMC Surgery and Emergency Services Pavilion that was budgeted before the 2004 cost escalations, and bid during the volatile construction market.
- (b) Includes augmentations for Westwood Hospital and Santa Monica Orthopaedic Replacement Hospital due to design changes, unforeseen construction delays, and claim settlements. Also includes augmentations for added program for Life Science Replacement Bldg.
- (c) Includes augmentations for Education and Social Science Building that was budgeted before the 2004 cost escalations, and bid during the volatile construction market.
- (d) Includes augmentations for scope added to a large housing project and for two large state projects that were budgeted before the 2004 cost escalations, and bid during the volatile construction market.



**Projects:** All active projects with budgets exceeding \$400,000 for which funds were expended in 2007-08 and had not been completed (no Notice Of Completion filed) by June 30, 2008.

**Dollars:** This is the sum of all project budgets at end of 2007-08. The figure includes all increases and decreases, and is adjusted to remove inflation made to the original budget since its initial approval.

Fig. 2: Percent Change to Active Project Budgets

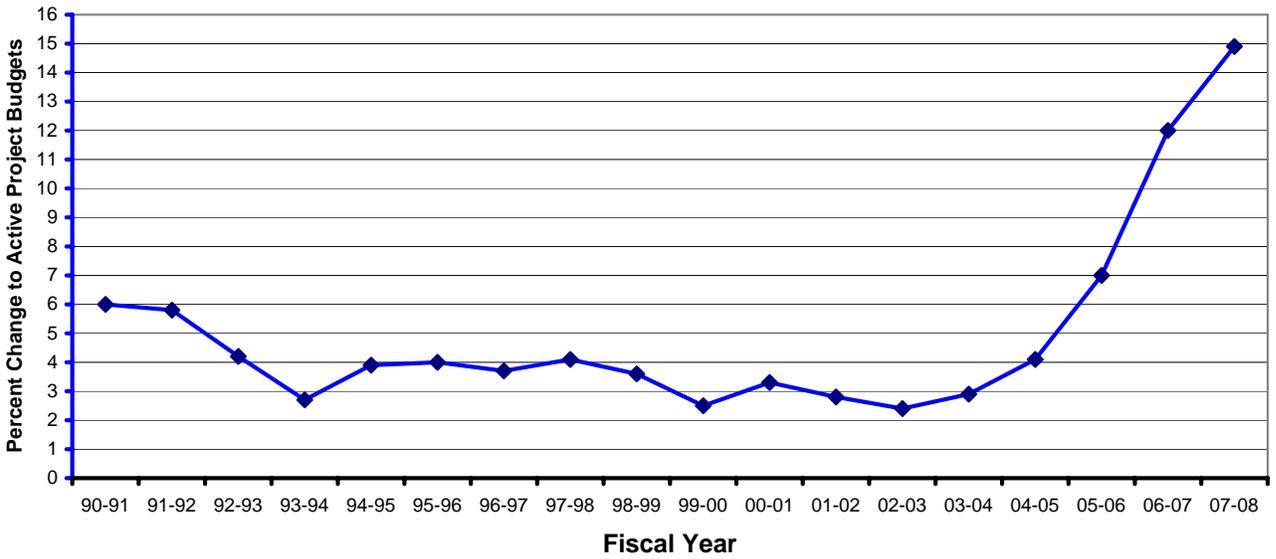
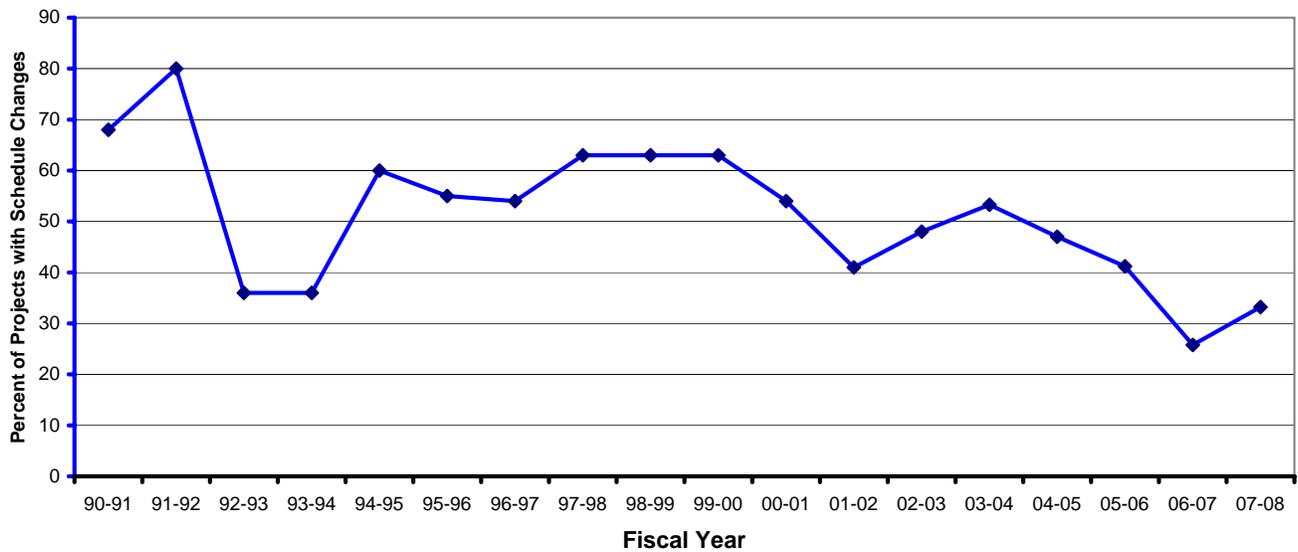


Fig. 3: Percent of Projects with Schedule Changes (%)



**Projects:** All active projects with budgets exceeding \$400,000 for which funds were expended in 2007-08 and had not been completed (no Notice Of Completion filed) by June 30, 2008.

**Dollars:** This is the sum of all project budgets at end of 2007-08. The figure includes all increases and decreases, and is adjusted to remove inflation made to the original budget since its initial approval.