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November 6, 2012

MEMBERS OF THE REGENTS' COMMITTEE ON GROUNDS AND BUILDINGS

Enclosed for your information is the *Annual Report on Major Capital Projects Implementation, Fiscal Year 2011-12.* This report describes the aggregate status of major capital projects underway at the end of the 2011-12 fiscal year and summarizes management initiatives and market conditions affecting project implementation.

If you have any questions about the report, please don't hesitate to be in touch with Vice President Patrick Lenz, who can be reached at (510) 987-9101.

With best wishes, I am,

Sincerely yours,

Mark G. Yudof
President

Enclosure

cc: All Regents
Chancellors

University of California

ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION

Fiscal Year 2011-12

Budget and Capital Resources
University of California, Office of the President

October 2012

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ANNUAL REPORT ON MAJOR CAPITAL PROJECTS IMPLEMENTATION

Fiscal Year 2011-12

I. EXECUTIVE SUMMARY

The 2011-12 *Annual Report on Major Capital Projects Implementation* provides an update on the University's in-progress Capital Improvements Program. The report provides the status of major capital projects (projects over $750,000), including budget and schedule changes and projects completed in the last fiscal year, as well as overviews of campus capital programs and project achievements, past and forecast construction market conditions, and University initiatives for improving project planning and delivery.

University-wide, 208 major capital projects totaling $7.0 billion were active in Fiscal Year 2011-12, representing a 21 percent dollar-volume decrease from the $8.9 billion total for 223 active projects in FY 2010-11. For the first time in the history of this report, there was a net *decrease* in the cumulative changes to the total active project budgets. Cumulative project savings were greater than cumulative project augmentations, resulting in total active project budgets being *reduced* by 2.2 percent compared to their original budgeted amounts. By contrast, in the previous year aggregate budgets for active capital projects had increased by 3.4 percent, and in 2009-10, they had increased by 8.2 percent.

More projects were performing on time, with 28.8 percent of projects having schedule extensions compared to 30.5 percent last year.

Among the projects previously affected by the 2008 State Pooled Money Investment Account (PMIA) freeze, a few experienced significant delays and remain in the construction phase. With loans no longer available through the PMIA, these projects and all subsequent general obligation bond appropriations received cash for expenditure only through a slow process of intermittent bond sales. Current financial and economic challenges have compelled the State of California to delay sales of both general obligation bonds as well as lease revenue bonds, affecting projects with funds appropriated in 2007 through 2011.

The economic downturn that began in 2008 appears to have bottomed out. The major construction cost indices continued to rise in FY 2011-12, with costs in California increasing by more than 6 percent. The recession that began in 2008 has shrunk the available construction labor force in California by nearly 40 percent, and a number of subcontractors have gone out of business; both factors reduce bidding competitiveness. Some critical materials costs are expected to rise due to recovering global demand, as well as local pressure from large projects, especially in the San Francisco Bay Area.

The University will continue to employ an array of contracting strategies to deliver construction projects successfully. Such strategies include using Design/Build for the entire project, or early award of Design/Build contracts for selected critical trades, if the project funding schedule allows. UC San Francisco is pioneering Integrated Project Delivery (IPD) which incentivizes cooperation among owner, architect, and contractor, and is well-suited to address volatile market conditions. The University continues to explore new options for project delivery strategies that address the great diversity and complexity of project types in its capital program, with a goal of delivering projects that optimize value, quality, cost, schedule, and risk management.

II. INTRODUCTION

Background and Purpose

The University of California (UC) *Annual Report on Major Capital Projects Implementation* provides broad indicators of project delivery performance for active and newly-completed major capital projects (total project cost exceeding $750,000). This report documents major capital projects underway at the end of FY 2011-12 with a cumulative portfolio budget of $7.0 billion. The report also assesses construction market conditions, trends, and UC initiatives to improve processes while managing project cost and risk.

The measures or indicators used to assess the general condition of the UC capital program are: 1) project budget change, and 2) project schedule change. It should be recognized that the University's ability to implement its capital program is affected by a number of factors, only some of which are within the control of the University. Those within University control include project delivery methods, program changes, and budgeting and funding strategies. Factors beyond University control include the construction industry bid climate, local and global market conditions, regulatory changes, State and non-State funding requirements, and unforeseen physical and environmental conditions.

It should also be recognized that some project budget and schedule changes are driven by circumstances that are intentional, necessary, and beneficial to the University's mission—such as incorporating program improvements, multiple project phasing, and leveraging of new funding opportunities.

Because many variables affect project delivery, simple indicators do not fully represent the complexity of factors that influence University capital project implementation. Nevertheless these key indicators of budget and schedule change provide valuable insights into program trends and can highlight where anticipatory or remedial action may be required.

Status of State-Funded Projects

Since 2011, the State has adopted a policy that no new projects would be considered for funding. This would govern the requests from the University for State funding in 2012 and 2013.

The last new projects for which funds were appropriated by the State was in 2011, when the University received appropriations totaling $45,330,000 to expand the Paul Merage School of Business at Irvine and to construct a replacement for the storage of ocean-going equipment for the Scripps Institute of Oceanography at San Diego. These were approved to be funded from new lease revenue bond (LRB) sales.

Lease Revenue Bond (LRB) funded projects

Although in the past year the State has sold approximately $308 million in lease revenue bonds for four projects at the Berkeley, Los Angeles, Merced, and Irvine campuses, UC still has a backlog of approximately $168 million for four projects at Berkeley/LBNL, Riverside, San Diego, and Merced. Currently, these four projects, which were approved for construction funding from LRB sources between 2007 and 2011, have yet to receive proceeds from a sale; however, UC may provide interim financing, to reduce the impacts of schedule delays. In order to avoid the cost escalation and schedule impacts of further delays to the remaining projects, the University successfully pursued special legislation in 2012 to provide interim financing through UC's commercial paper program, which would be reimbursed by the State after receipt of bond sale proceeds.

General Obligation Bond funded projects

The last general obligation (GO) bond approved was in 2006, and the University has exhausted almost all remaining balances from available bond funds. The minor amounts remaining will fund the small appropriations approved in 2012.

III. UC CAPITAL PROCESS

Capital Project Delivery in the University Context

The UC Office of the President (UCOP) and the individual campuses have unique roles and responsibilities that coordinate to deliver a successful capital development program. At UCOP, Capital Resources Management (CRM) provides coordination and oversight for the campuses. CRM serves to evaluate and recommend courses of action to the campuses and to UCOP leadership, to ensure policy

compliance, and to provide accountability reporting to the Regents and other stakeholders.

The campuses, in turn, have experienced staffs of budget officers, planners, design managers, and construction managers. In its capital program planning, each campus develops a Capital Financial Plan - a strategic plan of specific projects prioritized to meet the campus mission, academic and support needs--that fit within the context of physical and funding opportunities and constraints.

The public contract environment in which the University operates can be challenging in its constraints. UC capital projects are subject to the California Public Contract Code (PCC) to promote a fair, transparent, and competitive bidding environment. Some of the areas governed by the PCC include bidding procedures and strict restrictions on sole-sourcing of products. The campuses and Capital Resources Management work together to constantly seek improvements in the delivery of quality facilities in the most cost-effective and timely manner, consistent with the research university environment and the constraints of public work. Different campuses may use a given project delivery method more often than others, depending on the particular circumstances of the local construction climate, which can be affected by skilled labor supply and cost, geographic proximity or remoteness to large metropolitan areas, local custom, expertise in the contracting community, etc. Project size, complexity, prominence (in terms of location, design, or use), perceived risk factors, and schedule play their parts in the selection of the appropriate delivery method for a given facility. For example, Design/Build may be considered for projects with tight schedules and well-defined programs and design parameters; CM-at-Risk takes advantage of early input and commitment by the contractor for complex projects; Multiple Prime Trades contracting allows the campus more hands-on control during construction to mitigate the costs and impacts of changes and delays and has proved, at the Merced campus, to improve bid competition in a market remote from large contractors and labor pools; and traditional design/bid/build is often found suitable for straightforward projects in competitive markets.

In a culmination of a successful effort by UCOP to sponsor legislation to expand campus options for better project delivery, in October 2011 legislation was enacted that extended the Best Value selection process beyond the successful pilot program at UCSF to all the other campuses for an additional five-year term. Best Value allows the University to award construction contracts based on quality as well as low price, to help ensure project success; this method is especially well-suited to complex projects and specialized facility types.

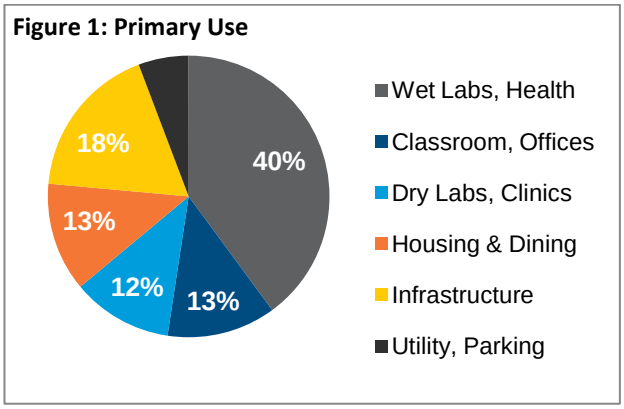
Campuses coordinate with CRM in the early stages of projects to discuss business case analysis, scope, schedule, budget, justification, and other issues specific to each project. CRM provides guidance to the campus on project schedule and approval milestones, budget and funding feasibility, alternatives analysis, environmental and physical planning requirements, delivery methods, contracting and other policy requirements, and on any special issues that might rise to the level of Regental concern. When projects are submitted to UCOP for Regental or senior administrative action, CRM provides staff analysis and recommendations, and coordinates issues related to the action with associated UCOP offices as needed, including the Office of the General Counsel, Office of the Secretary and Chief of Staff to The Regents, Capital Markets Finance, and senior administrators. The types of actions, which may occur separately and/or in different combinations, include budget, design, environmental, physical planning, finance, and real estate. Projects with any State funding additionally and separately require approval of Preliminary Plans by the California State Public Works Board (SPWB), approval of Construction Documents with permission to proceed to bid by California State Department of Finance (DOF), and permission for award of bids by DOF.

Once projects receive necessary approvals and project funding, responsibility for successful completion of a project rests with each campus. Regular project reporting for status of budget and schedule occurs annually for projects without State funding, and quarterly for State-funded projects. Capital Resources Management has established protocols to communicate with each campus monthly to provide early notification to the President and the Regents of significant project challenges and potential changes. In addition, this annual report provides information on the overall performance and status of the University's capital program.

IV. CAPITAL PROGRAM FY 2011-12

Overall, campuses continue to successfully deliver a large and active capital program, using a variety of strategies to respond to local market conditions, manage risk, and complete projects in furtherance of the University's mission and the campuses' academic and support needs.

Figure 1: Primary Use



Primary use represented is a percentage of dollar value.

Active Projects

All projects that were active (with approved budgets and in design or construction as of June 30, 2012) are included in this report. Thus, the data represent a snapshot of a cumulative process representing several years of ongoing efforts, and not confined to the events of FY 2011-12.

The primary building types included in the FY 2011-12 active projects portfolio are shown in Figure 1. The systemwide distribution reflects the impact of enrollment growth, health sciences expansion, research development, capital renewal, provision of more on-campus housing, and the statutory deadlines of Senate Bill 1953[1] for medical facility construction.

The cumulative budget of the portfolio of 208 active projects was $7.0 billion, a 21 percent dollar-volume decrease from the previous year's total of $8.9 billion for 223 projects.

Table 1 below provides the aggregate status of major capital project activity at the end of fiscal year 2011-12, as compared to the previous fiscal year end. All values that refer to either budget or schedule changes represent the cumulative changes from project budget approval until that fiscal year-end, and do not include data prior to official budget approval.

Table 1: Active Major Capital Projects at Year End

	2010-11	2011-12
Number of active projects	223	208
Amount of original budgets	$8,577 M	$7,168 M
Cumulative approved budget changes	$288 M	(-$158M)*
Year-end budget (excludes inflation**)	$8,866 M	$7,010 M
Percent change from original budget	3.40%	-2.20%
Projects with budget changes	35	42
Projects with schedule changes (over 90 days)	68	60

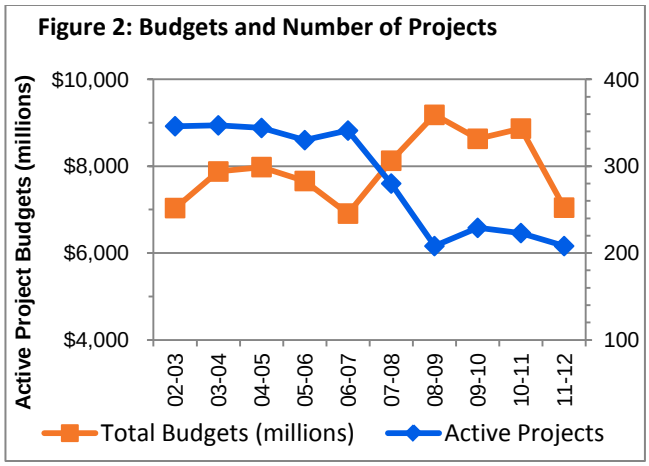
* Davis, LA, & SF had cumulative savings of $345M, offsetting augmentations at other campuses

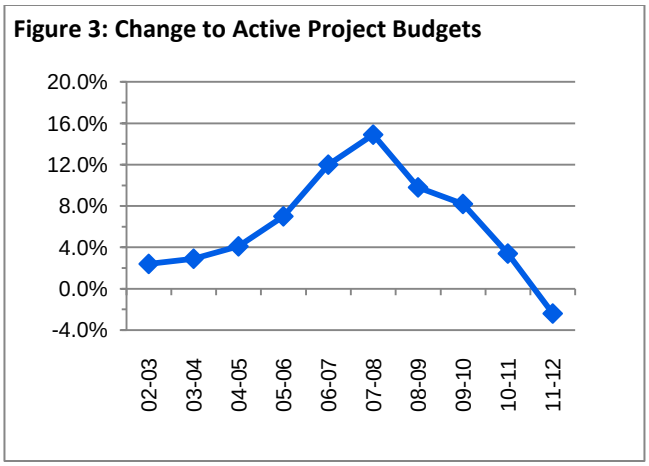
** "Inflation" refers to authorized inflation adjustments on State-funded projects

In FY 2011-12, 92 projects were completed and 77 new projects were added. With the completion of older projects, the addition of new projects, cumulative augmentations to previously approved projects, and reversions of funding or reductions in budgets due to bid savings, the total value of active projects decreased by $1.86 billion (excluding adjustments for inflation). Figure 2 displays trends for the year-end budget totals and for the number of active projects for each fiscal year from FY 2002-03 through FY 2011-12.

While the total number of active projects was reduced by about 7 percent between FY 2010-11 and FY 2011-12, the total dollar value of active projects decreased by 21 percent. This was due primarily to large reductions in budgets for two projects due to bid savings totaling $316 million, and the completion of three large projects totaling $1.26 billion.

[1] Senate Bill 1953 requires seismic evaluations and compliance plans that will attain specified performance categories for structural and non-structural elements at all acute care hospitals within a specified timeframe.



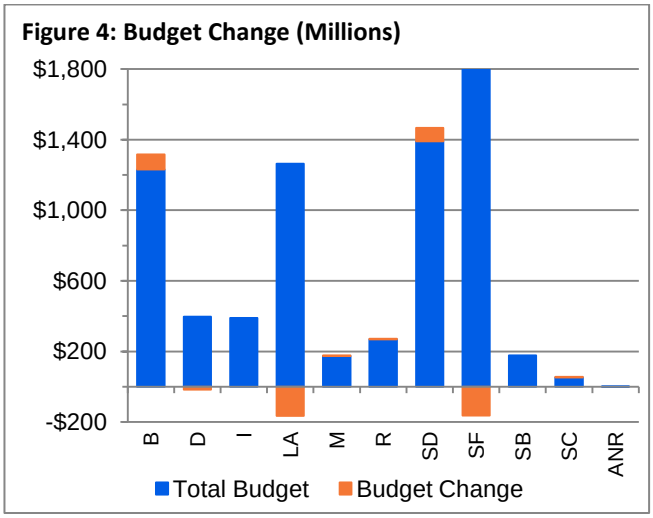


Budget Augmentations

Project budgets are augmented to cover additional scope, unforeseen conditions, or other unexpected events during design and construction. Project budget decreases may occur when construction bids come in under budget. The net of these increases and decreases are displayed in Figure 3 reflecting the trend in the percent change in inflation-adjusted project budgets (net changes divided by total amount of original budgets) over a ten-year period.

For the first time in the history of this report, there was a net *decrease* in the cumulative changes to the total active project budgets. In other words, cumulative project savings were greater than cumulative project augmentations. The large bid savings noted above, combined with the completion of three large completed projects (which experienced significant budget augmentations that skewed previous years' figures upwards) are primarily responsible for total active project budgets being reduced by 2.2 percent compared to their original budgeted amounts as displayed in Figure 4. This compares with a total 3.4 percent augmentation in FY 2010-11.

For those projects that were augmented, unforeseen site conditions, market conditions, errors and omissions in construction documents, design and construction delays, and extended costs due to the State funding freeze were contributing factors. However, budget augmentations for some projects were due to scope increases determined to be beneficial to the project and made feasible through the availability of additional funding.

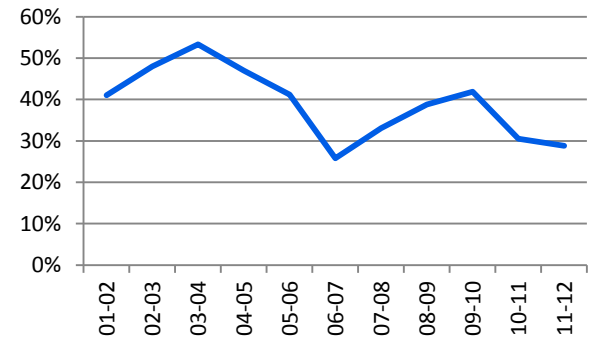


Schedule Changes

A project is considered "over schedule" if completion is delayed more than 90 days after the initially scheduled completion date. The suspension of State funding affected projects on every general campus and resulted in schedule delays with potential budget impacts. Many projects stopped during this time have not yet completed and thus continue to be included in the tabulation of schedule changes. Other types of delays include protracted agency reviews, especially for hospitals, changes in scope for the benefit of the project, and campus and contractor performance during construction.

Figure 5 displays trends for the percentage of projects with schedule changes from FY 2002-03 through FY 2011-12. The percentage of projects with schedule changes decreased from 30.5 percent in 2010-11 to 28.8 percent this past year.

Figure 5: Project Schedule Changes



Completed Projects

The statistics for all active projects as of the last day of the fiscal year (June 30) are reported in Table 1 above. However, it is also of interest to examine the projects completed during the fiscal year (i.e., projects that are not included in the analysis of active projects, above) in order to discern period-specific or cohort-specific project trends related to the percentage of change to original budgets, and the average number of days over the original schedule.

There were 92 projects with budgets totaling $2.2 billion completed in FY 2011-12. (Completed projects are those for which Notices of Completion were filed or a Notice of Substantial Completion was received with no major outstanding financial or contract issues.)

The percent change in original budgets for projects completed in FY 2011-12 increased from 18.3 percent the previous year to 27.2 percent. This increase reflects the completion of three large projects that experienced significant budget changes during their active phases.

Table 2: Completed Major Cap Projects at Year End

	2010-11	2011-12
Number of complete projects	100	92
Amount of original budgets	$1,488 B	$1,729 B
Cumulative approved budget changes	$273 M	$470 M
Year-end budgets (excludes Inflation)	$1,763 B	$2,179 B
Percent net change from original budget	18.3%	27.2%
Total year-end budget (includes inflation/reversion)*	$1,773 B	$2,211 B
Number of completed projects within original schedule	49	44
Number of completed projects over original schedule**	51	48
Average number of days over original schedule***	154	471

* *"Inflation/reversion" refers to State inflation or reversion adjustments to project budgets*

** *"over schedule" if over more than 90 days*

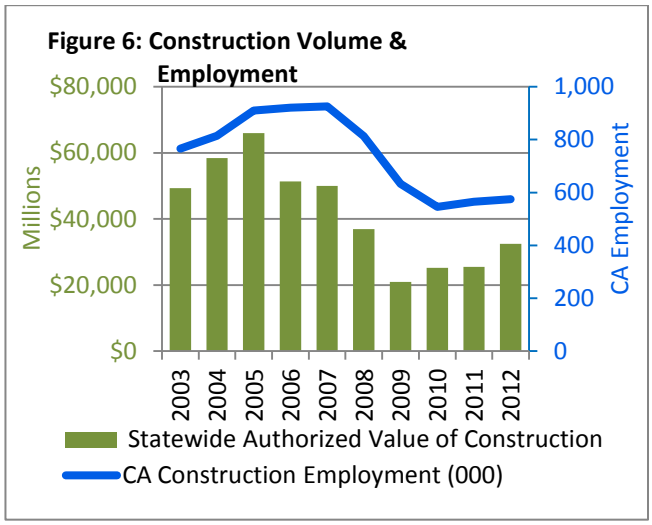
*** *Average number of days exceeding the original schedule for the entire portfolio*

Also, as noted earlier, project changes can represent a benefit for the project, such as new funding opportunities, shifts in funding strategies, program updates that require redesign, and coordination with other projects.

V. CONSTRUCTION MARKET CONDITIONS

The California construction market began a downward spiral in 2007-08. As of mid 2012 there is modest recovery in some areas, yet other areas are still depressed. Additionally, there are signs of long-term structural deficits in the industry. Challenges in the next few years will include construction materials escalation; competition in specific markets with mega-size construction projects (e.g. Apple headquarters and the Stanford replacement hospital); and a deficient construction labor force. UC campuses are located in eight geographic regions, with unique contracting environments, and significant differences even campus-to-campus in the same region. Some of these regions still see modest bid savings from contractor premiums remaining depressed as a result of the ongoing recession. The urban campuses have noted renewed construction escalation beginning early

in 2012, notably at Berkeley, San Francisco, and Los Angeles.



Construction employment peaked in 2005 with more than 900,000 construction jobs statewide. In July of 2010, only 545,000 construction jobs remained. This rose to 574,000 this last summer[2]. Overall, this is a 36 percent decline in construction jobs, and many industry observers believe this represents a permanent decline and significant loss of trades, craftsmanship, quality, and competition. The graph above shows California construction volume and employment over the last ten years. It should be noted that the dollar volume of construction bottomed out before the employment levels did, and the construction volume is recovering *in advance of* recovery of construction jobs.

The architectural industry has also noted long-term effects from this recession. "McGraw-Hill Construction (*Engineering News Record's* parent company) came to the…conclusion that some U.S. firms expect a shortage of qualified designers to meet their workloads by 2014."[3] Many older designer professionals are choosing to retire and others have moved into other lines of work. There may be a shortage of competent professionals moving forward. This will likely result in longer times to complete construction documents, and less expertise applied to those documents.

Additionally, there is significant downsizing occurring within the subcontractor ranks. At the UCLA Court of Sciences project, six major subcontractors went out of business during the course of construction. Their work ceased suddenly, new subs had to be approved and replaced, and the campus had to coordinate with the General Contractor to ensure complete work, and struggle with notable schedule delays. On a UC Riverside housing project, the architect closed their California office near the end of working drawings. It took over six months for the company to regroup, form a new entity retaining some of the design professionals with project specific knowledge, qualify to obtain professional liability insurance as a new company, and complete the documents. The same project also had bidding issues. Fewer active subcontractors in the region, as a result of the recession, were also limited in their financial capacity and their ability to obtain bid bonds. These subcontractors were limited in the number of projects they could bid, often choosing to bid on projects in more urban areas (e.g., San Diego or Orange County) resulting in limited bid coverage at UCR. For some trades, Riverside had no bids, or only one bid.

In addition to industry deficiencies in design and construction workforces, the construction cost indices have been climbing since 2009. As can be seen in the graph below, 3 of the 4 major indices increased in the last year, with the highest gains noted in the California Construction Cost Index (CCCI)[4][5][6]. The CCCI index showed a gain of 6.31 percent in the last year[7].

[2] California Department of Finance: www.dof.ca.gov/html/fs_data/indicatr/ei_home.htm, Retrieved 9/4/2012

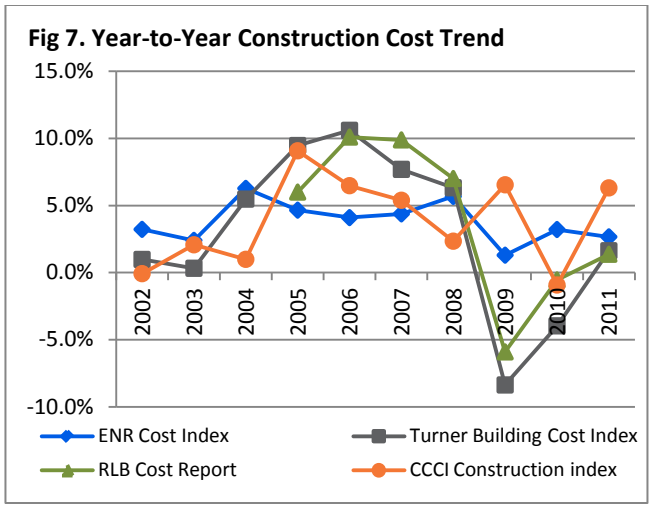
[3] Architectural Record: http://archrecord.construction.com/news/2012/09/120925-Survey-Predicts-Architecture-Shortage-by-2014.asp, Retrieved 9/25/2012

[4] Turner Construction Cost Index: http://www.turnerconstruction.com/cost-index, Retrieved 8/1/2012.

[5] RLB Rider Levett Bucknall Construction Cost Report: http://www.rlb.com/index.php/usa-and-canada/ Retrieved 8/15/2012.

[6] Engineering News Record (ENR) Construction Cost Report http://enr.construction.com/economics/current_costs/ Retrieved 9/25/2012

[7] California Department of General Services: http://www.documents.dgs.ca.gov/resd/pmb/ccci/cccitable.pdf Retrieved 9/25/2012

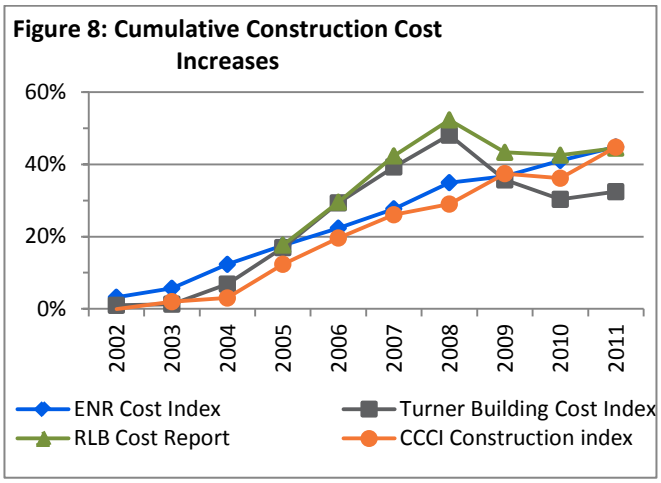


Construction material prices are somewhat volatile. Metal prices (steel, copper and brass) have decreased slightly from last year's levels, but gypsum and lumber have increased. Ken Simonson, Chief Economist for the Association of General Contractors (AGC), expects materials to increase 3-8 percent over the next year. Cost increases are likely: on specific materials that are in worldwide demand; are heavy, bulky or hard to transport; or are subject to transport bottlenecks. The prices of heavy materials in particular can be affected by fuel price swings which add to the delivered cost of goods. He also noted that volatility is still a risk[8]. Heavier materials such as steel and concrete may be subject to escalation. These same construction commodities can also have higher localized increases in active construction markets with very large projects. Many such projects are in various stages of planning, particularly in the San Francisco Bay Area with Google and Apple projects and the Stanford Replacement Hospital, as well as additional pressure from other players in the high-tech industry. Anecdotally, one of these projects has just secured two years' worth of local structural steel fabrication capacity.

In the last few years, intense competition between the remaining contractors competing for fewer projects has resulted in bids that often included zero profit margins and smaller contingencies in their bids. These contractors often also had less financial stability. These factors tend to increase change order requests and claims as contractors struggle to complete projects. Such downward pressures on overall construction costs were clearly beneficial to owners who had liquidity, and funding, to bid and award projects during the recession. There are additional adverse effects stemming from the duration of this downturn. Many contractors have gone out of business, while some of those remaining are operating on very thin margins – "consequences which may include more construction related businesses closing and more projects 'going bad.'"[9]

Ongoing competition for projects has resulted in a continued increase in bid protests. In years 2005-08, bid protests averaged six per year. In FY 2010-11 there were thirteen bid protests. This year the University received 33 bid protests. These actions delay contract award and often create schedule delays.

Forecast: While the downturn has enabled some projects to bid under budget, it should be noted that this reflects slowed construction escalation, allowing projects to bid below budgets that had included escalation. Overall construction prices have increased up to 40 percent since 2002, as shown below. With construction activity beginning to rise in some areas of the state, and fewer but stronger contractors available to bid projects, indications are that the era of bid savings has likely ended.



The Architecture Billings Index (ABI) is a leading economic indicator that reflects the nine-to twelve-month lag between architecture billings and construction spending. The ABI reported a continued decline in the demand for design services through the end of FY 2011-12, yet notes the decline is softening. At the start of the new fiscal year, fewer firms noted

[8] http://www.agc.org/galleries/econ/Construction-Materials_Outlook.pdf 9/25/12

[9] RLB Rider Levett Bucknall, Quarterly Construction Cost Report, Third Quarter 2011

declining business than the month before, but only the southern U.S. is showing any notable recovery.[10]

The economic recovery for the construction industry is expected to be both slow and unpredictable. University projects may be able to take advantage of the current climate by bidding and awarding whole projects or at least strategic trade packages, in the near future. However, there are risks inherent in both the continued downturn and also in any recovery. Downturn risks include contractor default, increased change orders and claims, and poor quality construction resulting from low bids that winning bidders find they cannot deliver. Recovery risks include: difficulty in estimating projects, now in planning, that will be constructed a few years from now; price spikes for specific commodities; and competition from other major projects affecting both bidding and procurement of materials such as concrete and steel.

Construction inflationary factors for 2012 -2014 are difficult to predict as they depend upon the speed of the recovery nationally and globally. As the Davis Langdon *4th Quarter 2012 Construction Industry Market Report* notes "The key characteristics of the current market are sluggishness, uncertainty and anxiety. [11]

University projects that are currently in the preliminary planning stage when budgets are established, and that will be bid in late FY 2012-13, should include some strategies for managing escalation. There are a variety of means, but early award of contracts will provide the greatest measure of confidence. This can include delivery strategies such as design/build for the entire project or early award of specific trades as design/build packages, when project funding enables these options. Integrated Project Delivery (IPD) allows for partnering among contractor, subcontractors, design professionals, and the University. IPD can facilitate accurate assessment of cost fluctuations and provide a coordinated means to address volatile conditions should they arise.

[10] American Institute of Architects, August 24, 2012.
[11] Davis Langdon 2012 Construction Market Report: Fourth Quarter, www.davislangdon.com, Retrieved October 11, 2012

VI. UC CAPITAL PROGRAM INITIATIVES

In FY 2011-12, the University made continued progress in process improvement, cost control, and risk management. Specific gains were made in the following areas:

- Improved business case analyses
- Continuing use of the Delegated Process
- Legislative approval of Best Value selection for all campuses in a 5-year pilot program
- Best Value implementation by additional campuses
- Additional system-wide training
- Support for individual campuses utilizing new delivery methods

Continued lack of State funding for capital projects remains an obstacle to the capital program in support of the academic mission. While campuses have some revenue and fund resources available for non-state projects, the lack of State funding precludes critical projects from proceeding, such as seismic and life-safety upgrades, facilities renewal and infrastructure projects, and academic building to accommodate enrollment growth that has already occurred.

There are a number of ongoing efforts and initiatives related to the University's capital program. The progress over the last year is described below.

Capital Program Leadership Forum (Forum)
The Forum, chaired by Vice President for Budget and Capital Resources Lenz (VP), comprises an individual from each campus appointed by the Chancellor to speak on his or her behalf for the campus capital program. The Forum met twice during the last year to address ongoing issues affecting the Capital Program.

Discussions this year included establishing prioritization for State-funding requests, exploration of options in the absence of traditional State funding for capital projects, and options to simplify processes to assist with project cost and schedule. Several other initiatives established by the Forum were ongoing. For example, the Early Notification process was implemented via monthly high interest meetings between UCOP Capital Planning staff and each campus. In the last year, this program has resulted in numerous briefings to the VP, but only one item was referred for a Regental briefing.

The Delegated Process, for eligible projects under $60 million, has seen continued use, with 65 projects evaluated to date. These projects would previously have gone to the Regents' Committee on Grounds and Buildings for budget, financing, and design/CEQA approval. Campuses submit project documentation to specific UCOP units, who review for eligibility, completeness, adherence to policy, CEQA compliance, and financing feasibility. The campus is notified within 15 working days that the project is ready for the Chancellor's approval. This process is being streamlined in Fall 2012, allowing the Chancellor to delegate authority of the initial documentation submission to the designated Forum member.

UCOP Capital Planning, with UCOP Design Services, have been collaborating over the last year to combine two obsolete legacy capital project databases into a single new, more powerful database, while increasing ease of use and improved data analysis and reporting capability. This project, nearing completion, will enable campuses to enter all pertinent project data into a single database (from project conception through completion). This will enable various groups on each campus to have a more holistic view of any project. Additionally, the project minimizes data entry by eliminating duplication, and calculating fields whenever possible to eliminate data-entry errors.

The Capital Programs Institute (CPI) has continued the already robust training program, and has added additional programs as needed. Often, these are suggested by other UCOP units (i.e. Office of General Counsel or Risk Management Services), or requested by campuses. Notable sessions this year included:

- Contract Administrators workshop focusing on the differences between repair, maintenance, and construction contracting
- Accessibility training for UC Campuses (with 5 hours of continuing education units, for re-certification of more than 60 architects at UC campuses)
- Emergency Operations Center training (with CSU) and how capital program staff can assist in preparations

Best Value Selection Process

A 5-year pilot program allowing Best Value selection at all ten UC campuses and medical centers became effective this January. UC worked with representatives from the construction industry and UC governmental relations staff to develop mutually agreeable legislative language. Since enactment, a few campuses have begun developing projects to utilize this contractor bid and selection process. UCOP is working very closely in the development of appropriate documents, reviewing and approving all bid results before award, and compiling project/bid information and data for use in a legislative report by January 2016.

Alternative Delivery Methods

UCSF continues to lead in areas of alternative delivery. The campus has used Integrated Project Delivery (IPD), Lean Construction, Design-Assist, and CM-at-Risk. In a number of these methods they have devised incentive programs to encourage and reward collaboration, leading to project budget and/or schedule savings. A number of other UC campuses are beginning to explore these methods, and UCOP has been instrumental in advising them and arranging for 'shadowing' at UCSF, or scheduling specific experienced staff to visit/share their experience with the new entrants to these methods. Recently UCSF expertise has been shared with Santa Barbara and UCLA as they move into these areas.

UCOP also works with campuses to learn and disseminate best practices, and to update standard UC construction contracts to reflect these practices, while continuing to mitigate risk to UC interests.

UCOP Construction Services serves as a clearinghouse, when requested by campuses, to help structure the best contracting method for each campus' specific projects in their unique contracting environment. Construction Services' success in this effort is supported by staying current with all campuses on delivery methods, individual successes, and developing relationships with construction manager and contract administrators.

The Statewide Energy Partnership Program

The Statewide Energy Partnership Program (SEP) includes over 900 energy efficiency projects at the campuses and medical centers. Over three years this program is expected to reduce annual system-wide energy costs by $36 million and deliver reductions of

eleven percent of total electricity usage and eight percent of natural gas usage system-wide. It is also projected to yield a nine percent reduction in the University's purchased utilities "carbon footprint."

The SEP has completed, or will complete by December 2012, twenty-one major capital projects with a total contract value of $45.6 million. All of these energy efficiency projects are separate from any major capital outlay projects proposed for State funding by the University in FY 2010-11. Projects with short payback periods are given priority and include data center and lighting upgrades, climate control enhancements and monitoring-based commissioning.[12]

In March 2009, the Regents authorized $247 million for SEP program funding, of which approximately $61 million would be provided through utility grants over three years. In September 2010, the Regents augmented the program by an additional $15 million (with attendant project annual energy cost savings of $2 million). As of October 2012, campuses have completed or have submitted applications for 595 projects with a portfolio cost of $220 million. Approximately $36 million of this amount will be offset by utility incentive grants. The Regents will be asked to authorize a continuation of the SEP at their January 2013 meeting. The next program cycle will span CY 2013-14 with an expected project portfolio budget of $140 million of which the utilities will grant up to $28 million in incentives.

Public-Private Partnerships

To date sixty-nine significant and ten smaller Public-Private Partnerships (PPPs), using a variety of transaction structures, have been developed or are in planning at UC. Four key PPP transaction structures (and the uses to which they are most applicable) include:

- Ground Lease (auxiliary uses—i.e., revenue producing from third party tenants/buyers);
- Ground Lease-Leasebacks (programmatic use by UC);
- Donor Development (donor controls project delivery; typically programmatic use on or off UC land); and
- Developer Build-to-Suit for purchase by UC on completion (aka: turnkey projects—typically programmatic use off UC land).

PPP ventures are not considered within the standard capital project approval process because the University does not fund the design and construction; typically, PPP projects are handled and approved as real estate transactions. Thus, projects so structured are not tracked in the capital program and are not part of this Report.

Ground Lease projects for auxiliary purposes include fifteen student and faculty rental housing projects, seven faculty for-sale-housing projects (representing multiple phases and product types) and five motel and hotel projects. Donor development projects, where a donor assumes responsibility for funding and construction of 100 percent of a project, have now been employed at six UC campuses, at two agricultural field stations. and one natural reserve.

Given the University's success in executing PPP projects, this capital project delivery method is now evaluated alongside traditional delivery methods permitted under the Public Contract Code, particularly for auxiliary uses. The PPP method has the potential to design and construct projects quickly; however, the time to complete team selection and negotiate arrangements can offset some or all of these time savings. While the University's excellent financing makes it unlikely that a PPP project can produce significant savings compared to an effectively implemented UC delivery method, particularly for programmatic projects, the PPP approach may allow the University to augment its capital delivery system and shift project construction and operating risk, albeit by relinquishing overall project control.

University Controlled Insurance Program (UCIP)

The University Controlled Insurance Program (UCIP) provides general liability and workers' compensation for all projects with construction contract value of over $25 million. The program has been in place since

[12] Monitoring-based commissioning is a systematic, documented process where monitoring equipment is used for ongoing diagnostics to ensure that building systems are performing efficiently.

January 2010. Aside from savings that could range from 1 to 3 percent of construction costs, benefits also include higher limits and broader coverage that is uniform and consistent, enhanced and coordinated safety for all contractors, and potentially reduced litigation and cross complaint expenses.

The actual savings and impact of the entire program will be evaluated annually as projects complete. As of June 30, 2012, thirteen projects with a combined construction value of just under $1 billion have been enrolled in the program; most projects are active, with only two projects in the closeout process. We expect a few additional projects to complete in the coming fiscal year. We also anticipate the enrollment of additional projects into the program as their bidding and construction phases begin.

As of June 30, 2012, of nearly $1 billion in construction value enrolled into the program, the value of the work currently in place is approximately $296 million. The difference of around $700 million represents the work that has yet to be performed and completed. While the UCIP is in its third year, about 70 percent of the construction remains to be performed and completed; therefore, the program has not matured to a level where a definitive analysis can be performed. A preliminary analysis of those projects that are over 50 percent complete reflects a combined savings between 1.08 percent and 1.48 percent of the value of the work in place. There is also potential for savings to increase as contractors face a hardening insurance market. In particular, we are seeing workers' compensation insurance rates on the rise.

In addition to the projects enrolled in the UCIP, there is also the significant UCSF Mission Bay Hospital project, for which UCIP coverage was placed separately in a standalone program. Initial estimates expect this project to reach $800 million in construction value, with the project's current work in place totaling $240 million as of June 30, 2012. The project is off to a positive start, with a workers' compensation loss rate of $ 0.66 per worker hour; below $1 is considered acceptable performance.

ATTACHMENT 1: ALL ACTIVE MAJOR CAPITAL PROJECTS AT FY END - 2011-12

Cumulative Changes to Budget (dollars) and Schedule Subsequent to Project Approval

	1	2	3	4	5	6	7	8	9
	Active Projects	Original Budget	Budget at End of 11-12	Inflation Adjusted Budget 11-12	Total # with Budget Changes	Changes to Original Budget	% Change from Original Budget (10, 11)	# with Schedule Changes	% with Schedule Change
Berkeley	25	1,217,706,000	1,316,625,000	1,316,625,000	5	98,919,000	8.1%	7	28.0%
Davis	27	397,492,000	385,700,000	381,129,000	5	(16,363,000)	(4.1%)	8	29.6%
Irvine	24	390,183,000	390,291,000	390,291,000	1	108,000	0.0%	4	16.7%
Los Angeles	40	1,263,398,000	1,098,844,000	1,098,844,000	8	(164,554,000)	(13.0%)	12	30.0%
Merced	6	174,839,000	178,175,000	178,175,000	2	3,336,000	1.9%	2	33.3%
Riverside	9	269,065,000	283,345,000	271,663,000	2	2,598,000	1.0%	4	44.4%
San Diego	28	1,390,259,000	1,470,605,000	1,467,506,000	11	77,247,000	5.6%	7	25.0%
San Francisco	31	1,833,294,000	1,669,211,000	1,669,211,000	3	(164,083,000)	(9.0%)	9	29.0%
Santa Barbara	9	177,367,000	191,482,000	177,743,000	2	376,000	0.2%	6	66.7%
Santa Cruz	8	52,878,000	58,704,000	56,972,000	2	4,094,000	7.7%	1	12.5%
DANR	1	1,708,000	2,108,000	2,108,000	1	400,000	23.4%	-	0.0%
	208	7,168,189,000	7,045,090,000	7,010,267,000	42	(157,922,000)	(2.2%)	60	28.8%
			Inflation Adjustments:	*34,823,000*					
BUDGET CHANGES									
Reduced 5									
Increased 37									
SCHEDULE									
On Schedule 148									
Schedule Changed 60									
State	27	1,178,300,000	1,205,558,000	1,170,735,000					
Non-state	181	5,989,889,000	5,839,532,000	5,839,532,000					
TOTALS	208	7,168,189,000	7,045,090,000	7,010,267,000	42	(157,922,000)	(2.2%)	60	28.8%

Notes:

(1) Active Projects: Projects with budgets exceeding $750,000 on which funds were expended in 2011-12 and had not been completed (no Notice of Completion filed) by June 30, 2012.

(2) Original Budget: The sum of the officially approved original budgets for the active projects.

(3) Budget at End of 2011-12: The sum of the project budgets at year end. This figure includes all increases and decreases made to the original budget subsequent 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: This is a net dollar amount of augmentations and decreases. State-funded project budgets are adjusted to the original cost index for the project so that inflationary changes are not reflected as budget augmentations.

(7) % Change Original Budget: The budget changes represent the percent of change from the original budget.

(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.

(10) Many medical projects had schedule changes that were primarily associated with delays in OSHPD Agency Review.

(11) Many State-funded projects had CCCI increases & reversions of State funding.