

# UNIVERSITY OF CALIFORNIA ANNUAL ACCOUNTABILITY REPORT

## PART III. Universitywide Indicators with Campus Comparisons

### Section 13. Capital Resources and Sustainability

#### **Goals**

The University is the steward of substantial capital resources and strives to be a good steward of all the resources entrusted to its care.

The state of California provides funds for facilities, such as classrooms and laboratories, which support the University's core mission of teaching, research and public service. These facilities represent about half of the University's capital resources. The other half of the University's capital stock includes facilities for self-supporting enterprises, such as hospitals, dormitories and parking structures, which are not eligible for state support.

Environmental sustainability was recently established by the Regents as an institutional priority for the University of California. As expressed by the Regents, "sustainability refers to the physical development and institutional operating practices that meet the needs of present users without compromising the ability of future generations to meet their own needs, particularly with regard to use and waste of natural resources." Guided by these principles, the University of California is transforming its business practices to reduce its environmental impact.

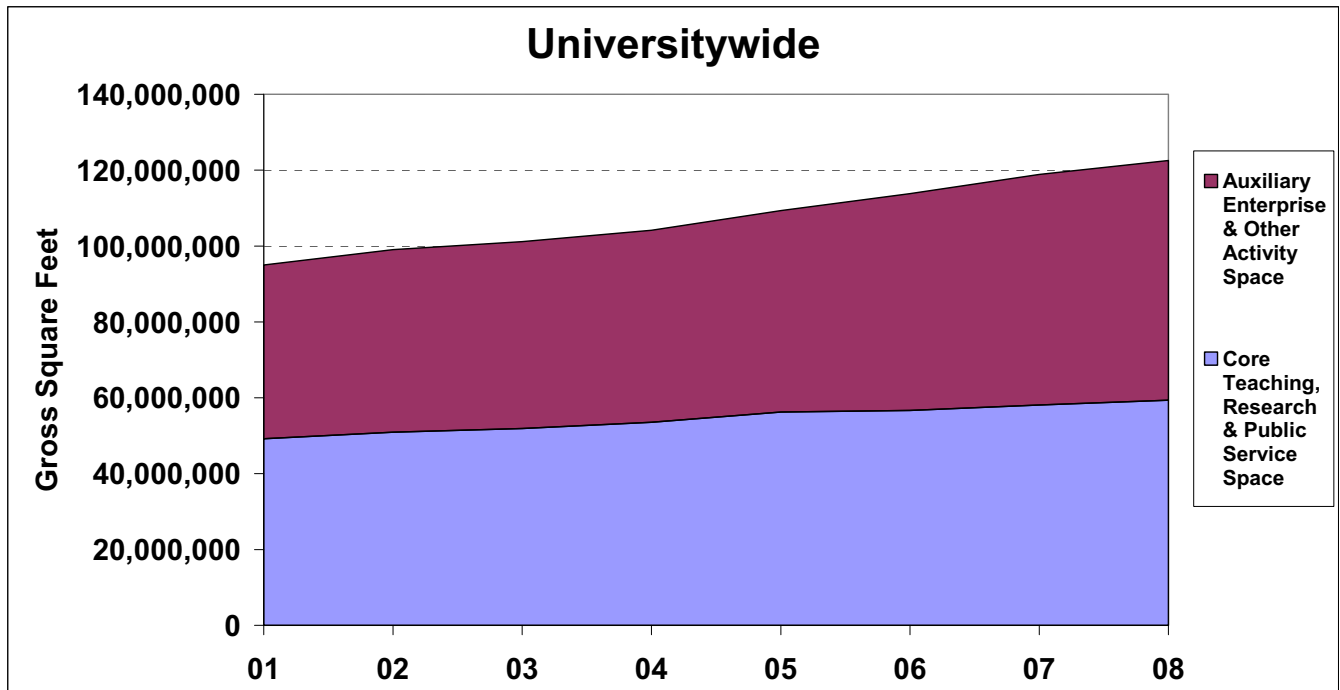
#### **Measures**

This section includes measures on the amount of space maintained by the University, capital renewal needs, greenhouse gas emissions, energy use, green buildings and waste diverted from landfills. Sustainability impacts every area of university operations, so it is difficult to represent UC's sustainability performance in a few indicators. Moving forward, better data collection systems will be launched that will allow for standardized information about campus sustainability performance and facilitate benchmarking between peer institutions.

Readers seeking a complete list of UC's sustainability-related goals and implementation procedures may refer to the *UC Policy on Sustainable Practices*, which is posted on the UC systemwide sustainability website ([www.universityofcalifornia.edu/sustainability/about.html](http://www.universityofcalifornia.edu/sustainability/about.html)).

For additional information on UC's sustainability-related accomplishments, see the *Annual Sustainability Report to The Regents*, available at the systemwide sustainability website ([www.universityofcalifornia.edu/sustainability/reports.html](http://www.universityofcalifornia.edu/sustainability/reports.html)).

**Indicator 13.1**  
**Space and Facilities, Fall 2001 to 2008**

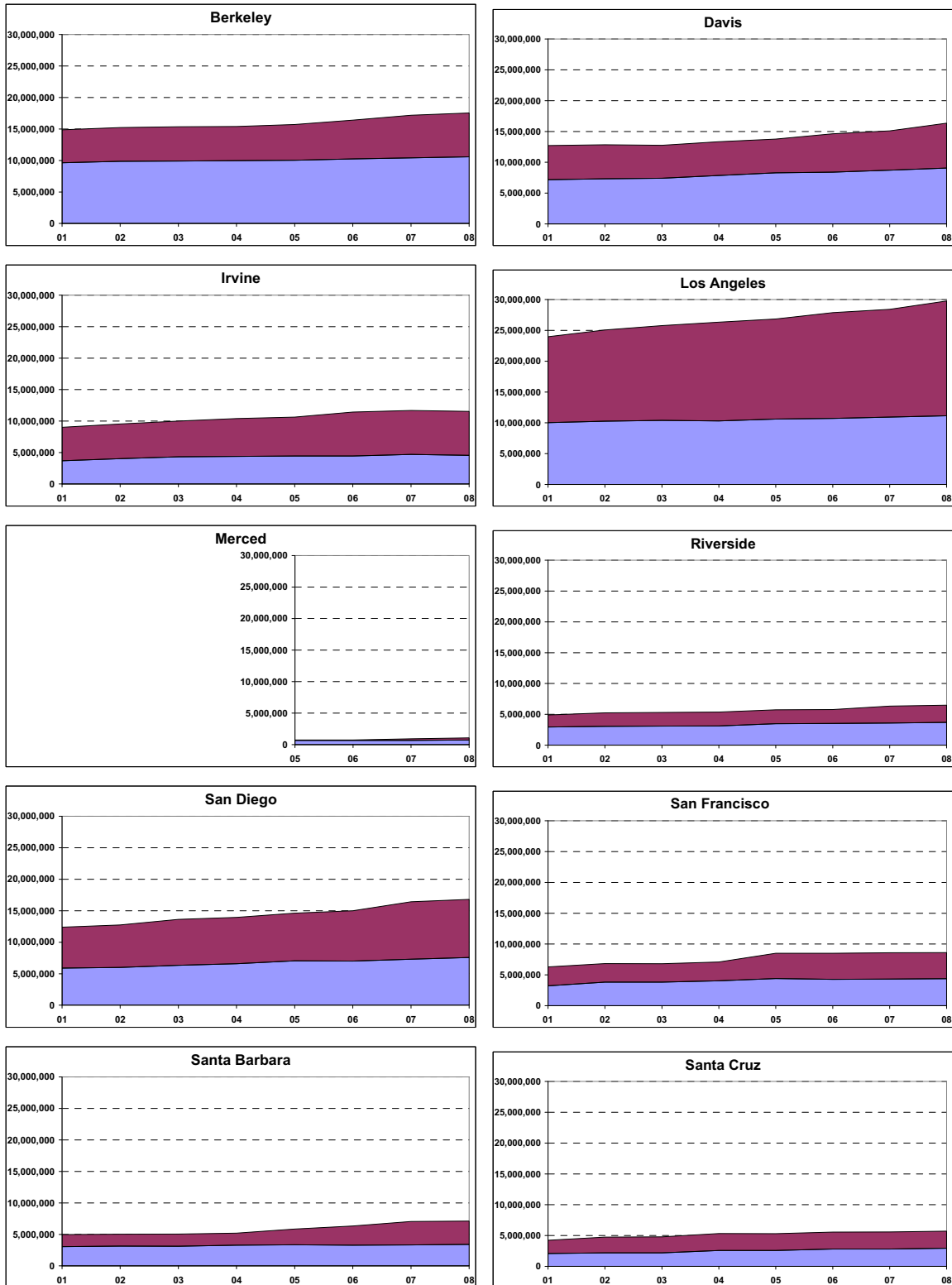


Source: UC Budget and Capital Resources. Complete space inventories are performed in the fall of each year.

- The state of California generally provides funding for the operation and maintenance of facilities that support the University’s core mission of teaching, research and public service. These facilities include buildings that house programs and departments classified as academic, professional, administrative, academic support, dedicated research and public service.
- Currently, about half of the University’s facilities are eligible for state operation and maintenance support. However, as a result of its continuing fiscal difficulties, the state has not provided this support for much of the new state-eligible space that has come on line in recent years.
- The remainder of the University’s facilities are either self-supporting auxiliaries (such as hospitals, student dormitories and parking garages), are supported by student fees (such as recreational facilities and student health services) or are supported on some other basis (such as alumni services and natural reserves).

Note: Data above include space leased by the University, which is about 3 percent of the total.

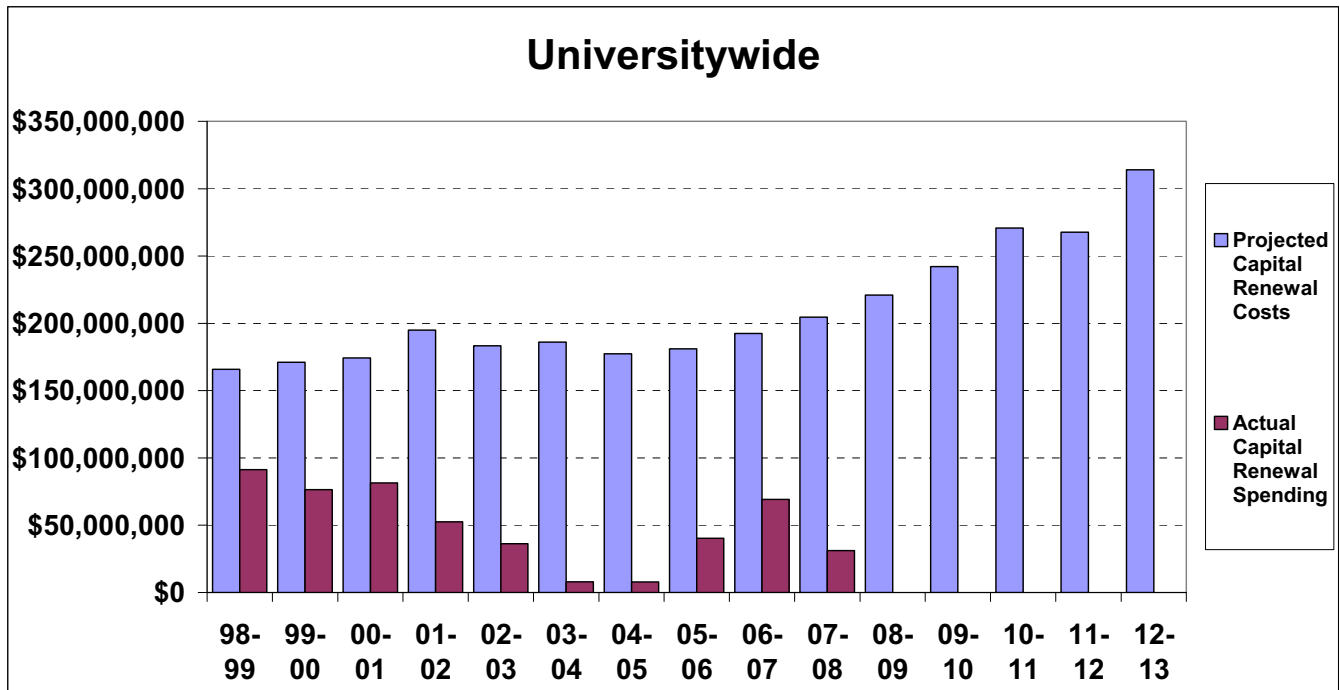
### 13.1 (continued) Space and Facilities, Fall 2001 to 2008



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**Indicator 13.2**

**Capital Renewal – Projected Needs and Actual Spending, 1998-99 to 2012-13**

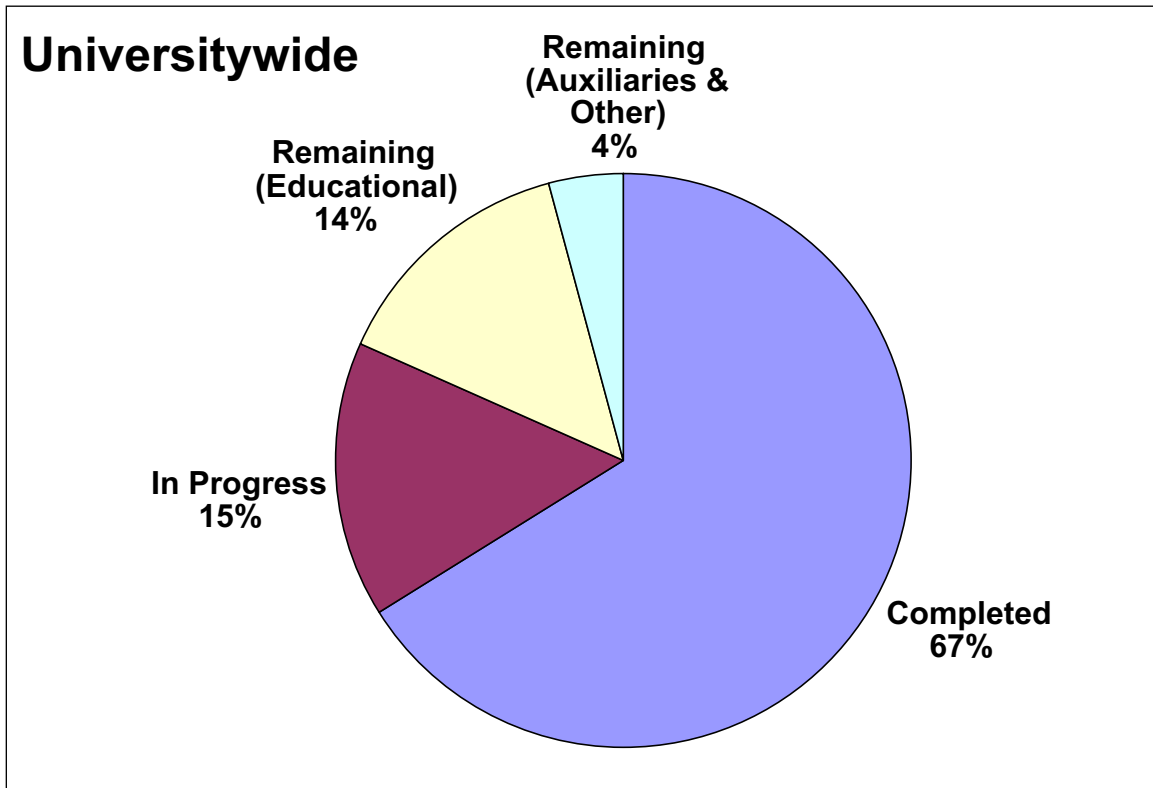


Source: UC Budget and Capital Resources and Facilities Infrastructure Renewal Model (FIRM).

- Capital renewal investment is required when a capital system (such as a building’s heating and air conditioning system, roof or plumbing system), or an infrastructure system (such as a campus utility distribution system) reaches the end of its projected useful life.
- The University’s capital renewal needs are expected to increase significantly over the next decade. At the same time, no ongoing systematic funding is available to address these needs. The state has provided no dedicated funding for capital renewal or deferred maintenance since 2001-02, though some campuses have allocated a portion of state capital construction funds for this need.
- In tracking capital renewal needs, campuses assess the condition of building systems as they reach the end of their projected useful life. Based on this assessment, the useful life of a system may either be extended or moved to the deferred maintenance backlog. Previous estimates put the backlog of high-priority deferred maintenance at \$800 million. Analysis is being done to refine this estimate, which may be significantly higher. Without adequate capital renewal funding, the University’s deferred maintenance backlog will continue to grow.

Note: UC’s Facilities Infrastructure Renewal Model (FIRM) is a budget model that assumes standard life cycles and costs for renewing infrastructure and building systems and projects those costs for a 50-year period, with ongoing updates on the condition of facilities provided by the campuses. Data are for state-maintained and funded spaces only. Dollar figures have been adjusted for inflation.

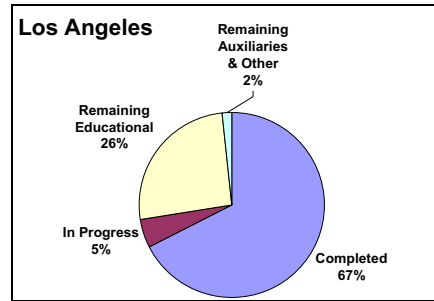
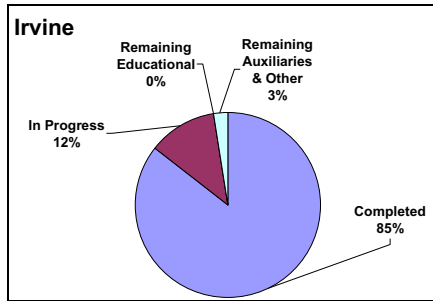
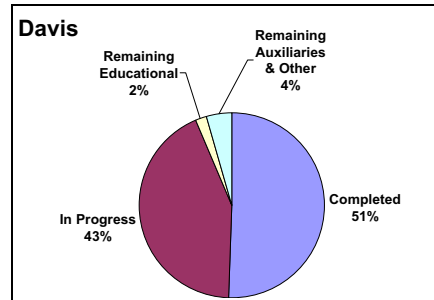
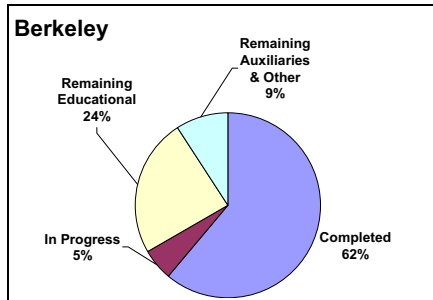
**Indicator 13.3**  
**Seismic Retrofitting Progress, 1979 – 2008**



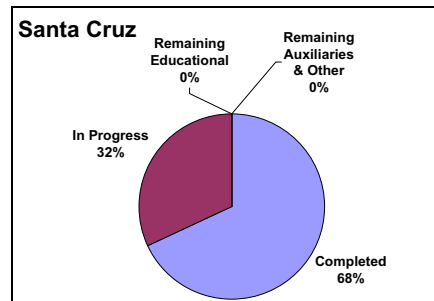
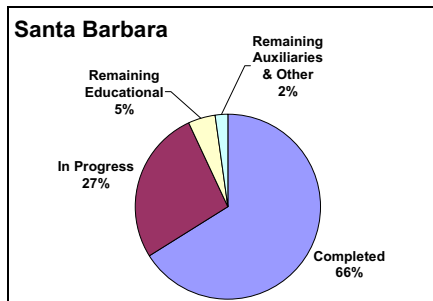
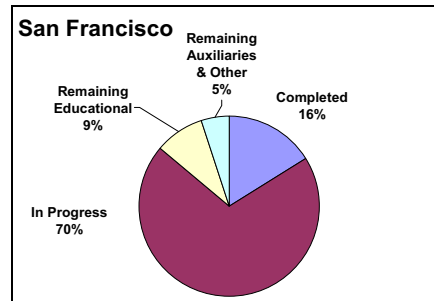
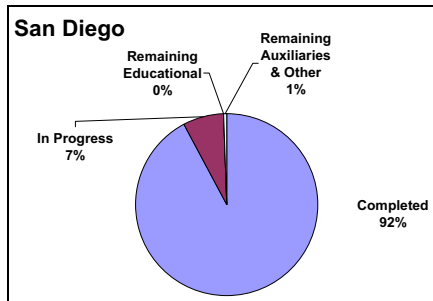
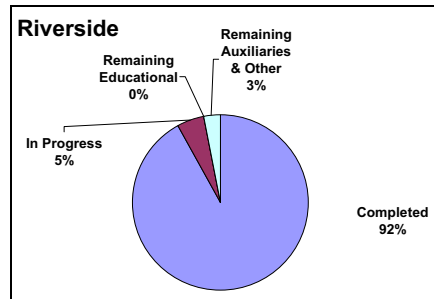
Source: UC Budget and Capital Resources.

- The University has undertaken a comprehensive program of seismic evaluation and correction since 1979.
- Corrective work has been completed in more than 230 structures comprising more than 16 million gross square feet (GSF). The cost of this work, in nominal dollars (not adjusted for inflation), has been about \$1 billion, excluding Federal Emergency Management Agency (FEMA) funding.
- Seismic correction for another 3.8 million GSF is currently in progress, at a cost of more than \$1.6 billion.

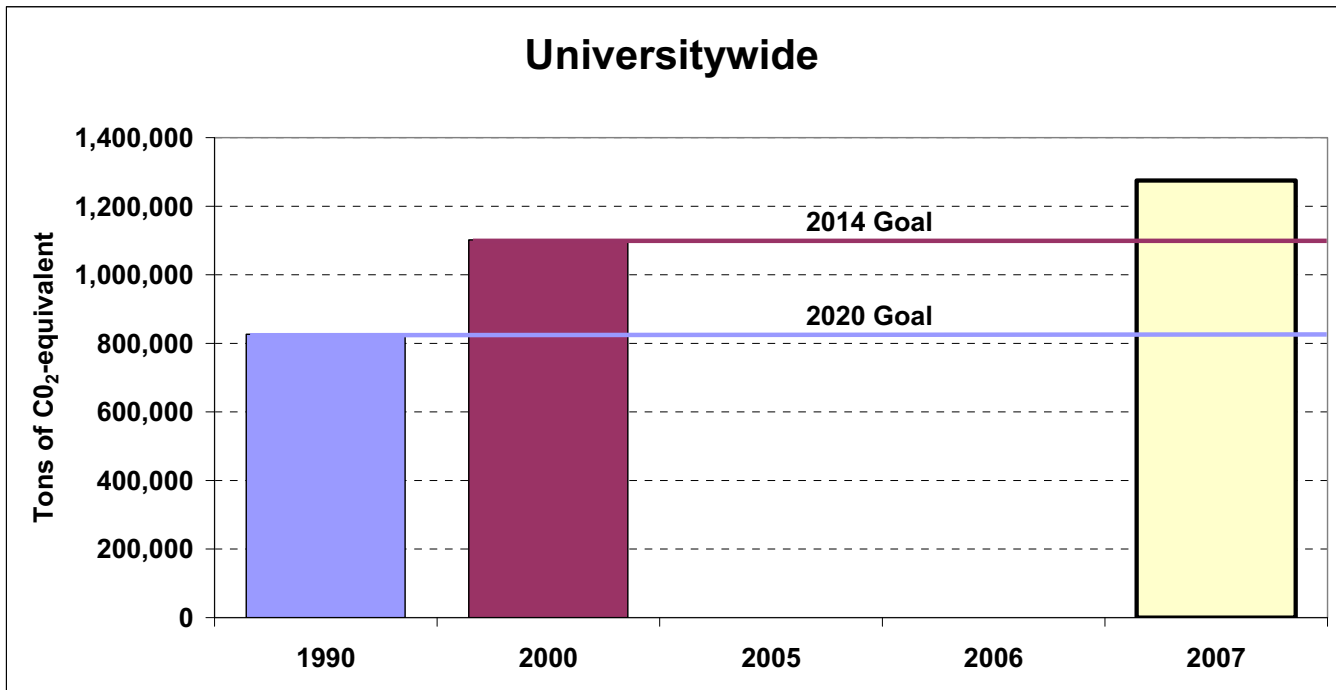
### 13.3 (continued) Seismic Retrofitting Progress, 1979 – 2008



(Merced opened in 2005-06 and has no retrofitting needs.)



**Indicator 13.4  
Greenhouse Gas Emission Levels and Reduction Targets**

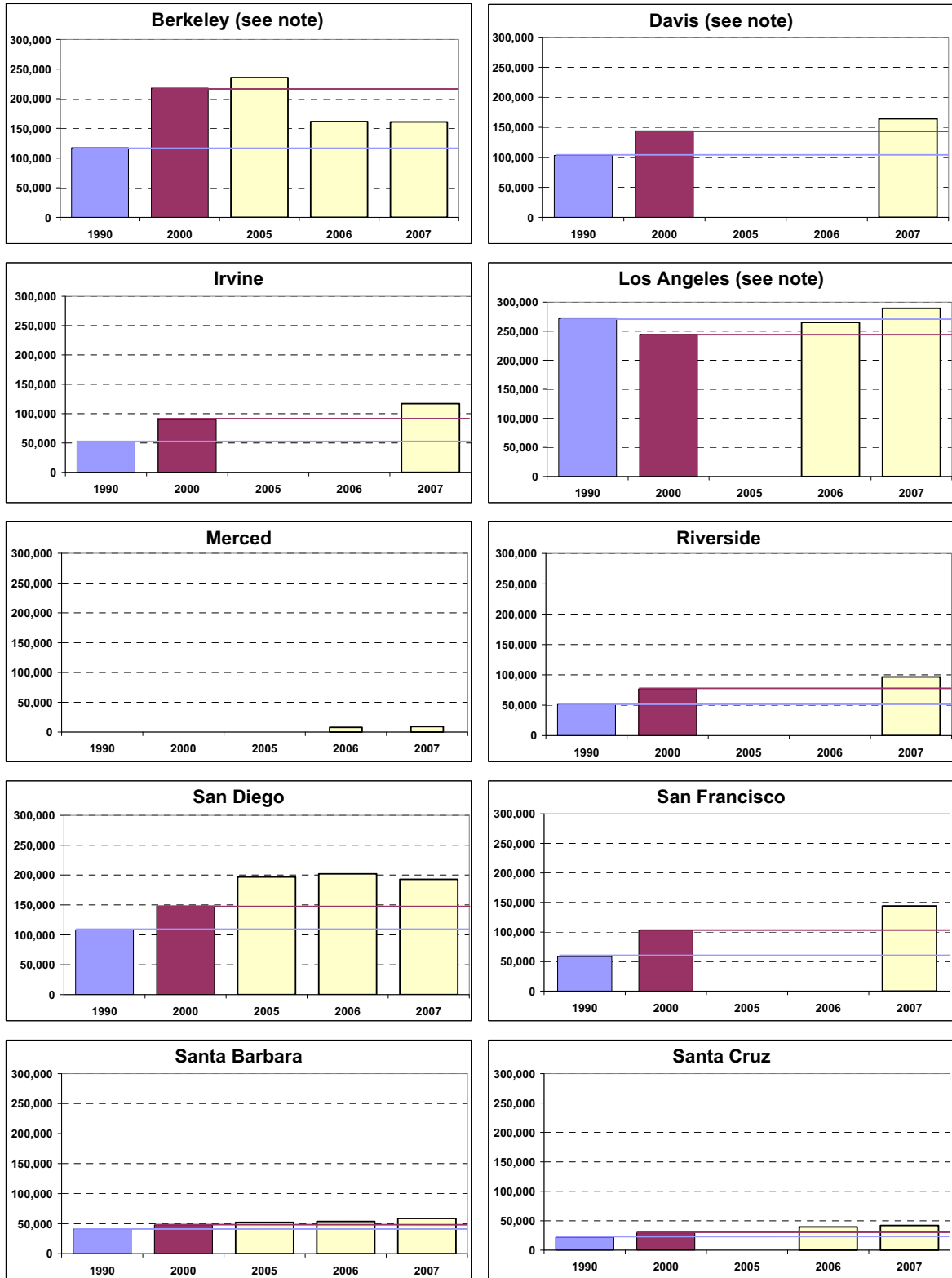


Source: UC Budget and Capital Resources.

- Through its *Policy on Sustainable Practices*, UC has pledged to reduce its greenhouse gas emissions to year 2000 levels by 2014, and to 1990 levels by 2020. These goals are consistent with the targets established by the Global Warming Solutions Act, which Governor Schwarzenegger signed into law in 2006.
- UC campuses are developing plans to achieve these targets and the University will track progress on an ongoing basis.
- Some UC campuses have committed to more aggressive reduction targets.
- Campuses report emissions publicly through the California Climate Action Registry ([www.climateregistry.org/CARROT/public/reports.aspx](http://www.climateregistry.org/CARROT/public/reports.aspx)) and the American College and University President’s Climate Commitment (<http://acupcc.aashe.org>).

Note: These charts show the tons of carbon dioxide-equivalent (CO<sub>2</sub>e) associated with purchased electricity and natural gas and onsite fuel combustion. This is an initial measurement; future inventories will also include greenhouse gas emissions generated from faculty/staff/student commuting and university-funded air travel. Year 1990 and 2000 baselines are estimates based on the best available data and calculation methods. Baselines are subject to refinement when better data become available or inventory protocols improve. Data are not available for 2005 and 2006 for all campuses; therefore a Universitywide statistic could not be computed for those years.

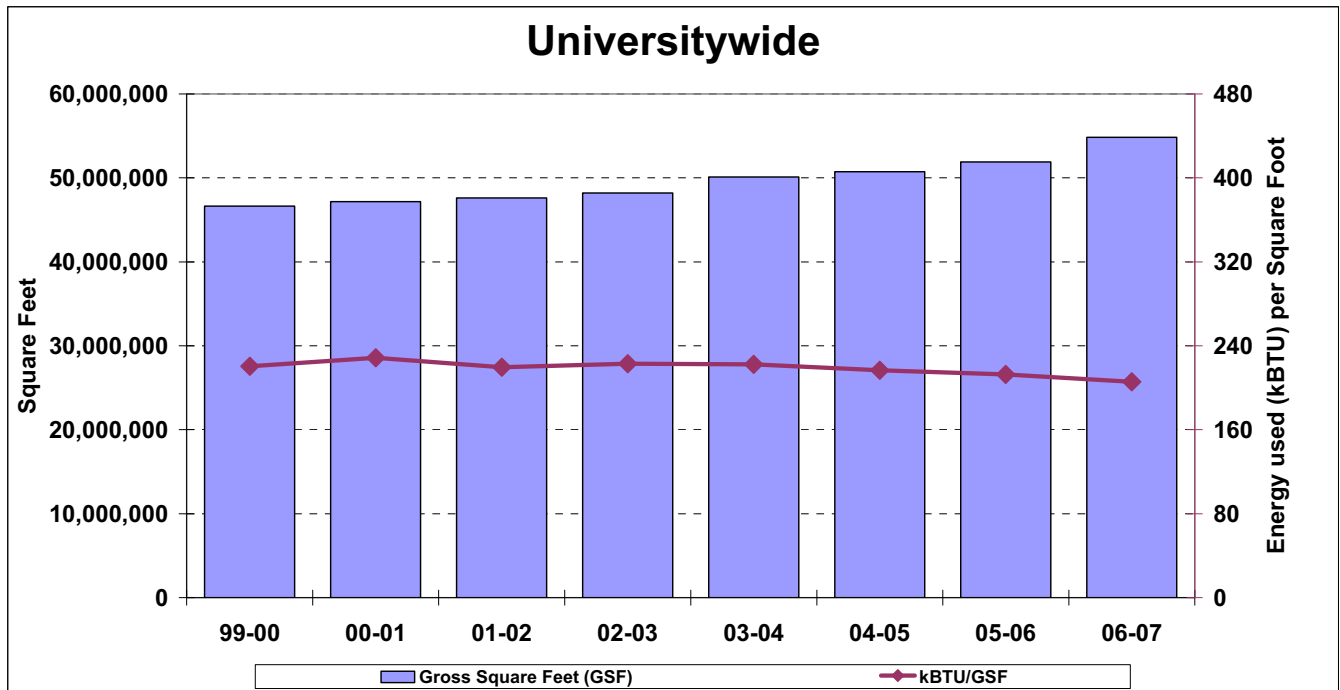
### 13.4 (continued) Greenhouse Gas Emission Levels and Reduction Targets



Note: Berkeley's goal is to reach the 1990 level by 2014. Los Angeles's emissions goal is to meet the 2000 level by 2011. Campus data include the medical centers (except Davis, which is campus only). Future data from Davis will include the medical center.

## Indicator 13.5

### Energy Use in State-Maintained Buildings, 1999-00 to 2006-07

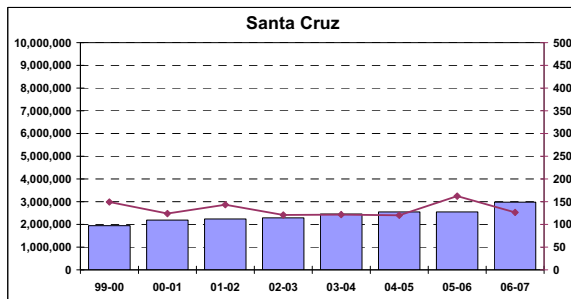
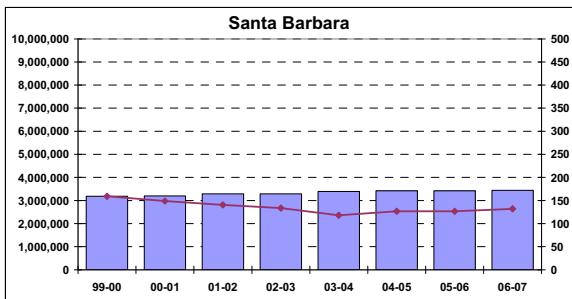
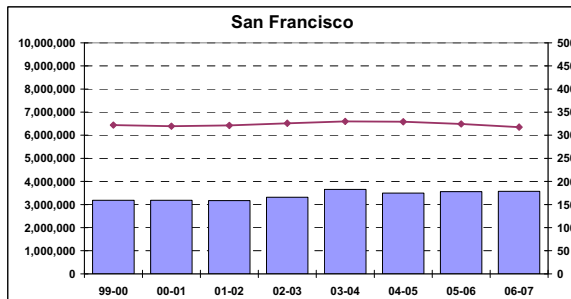
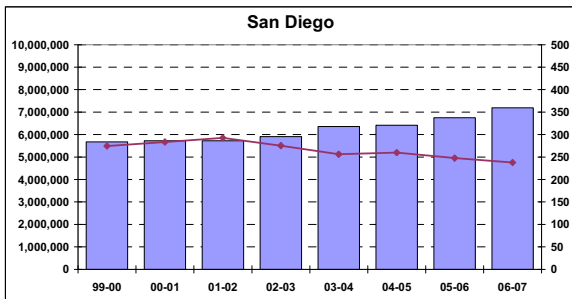
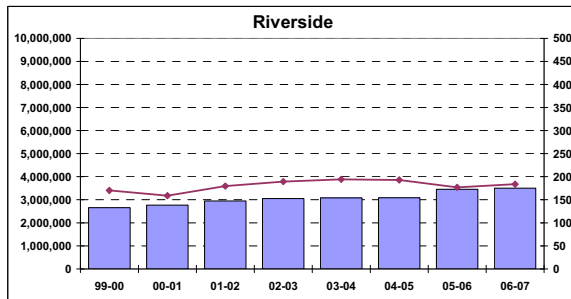
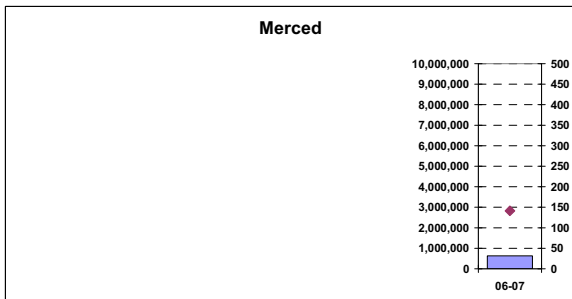
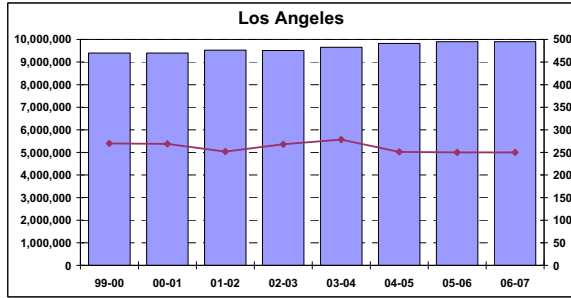
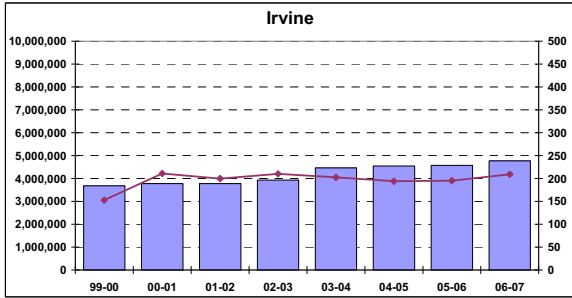
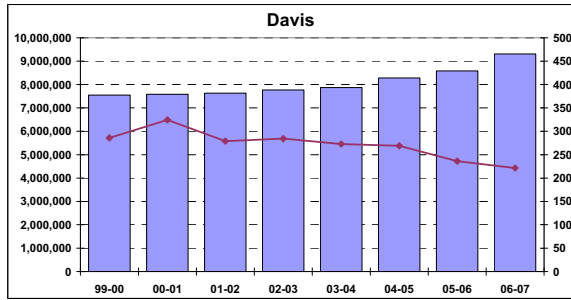
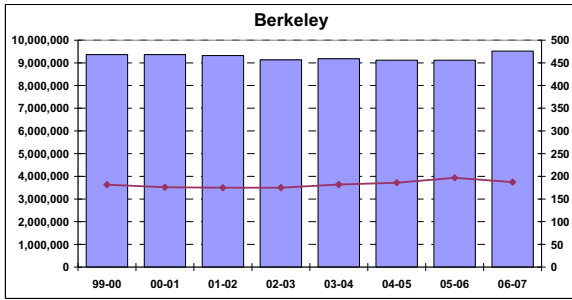


Source: Partnership for Performance (P4P), a consortium of all UC campuses.

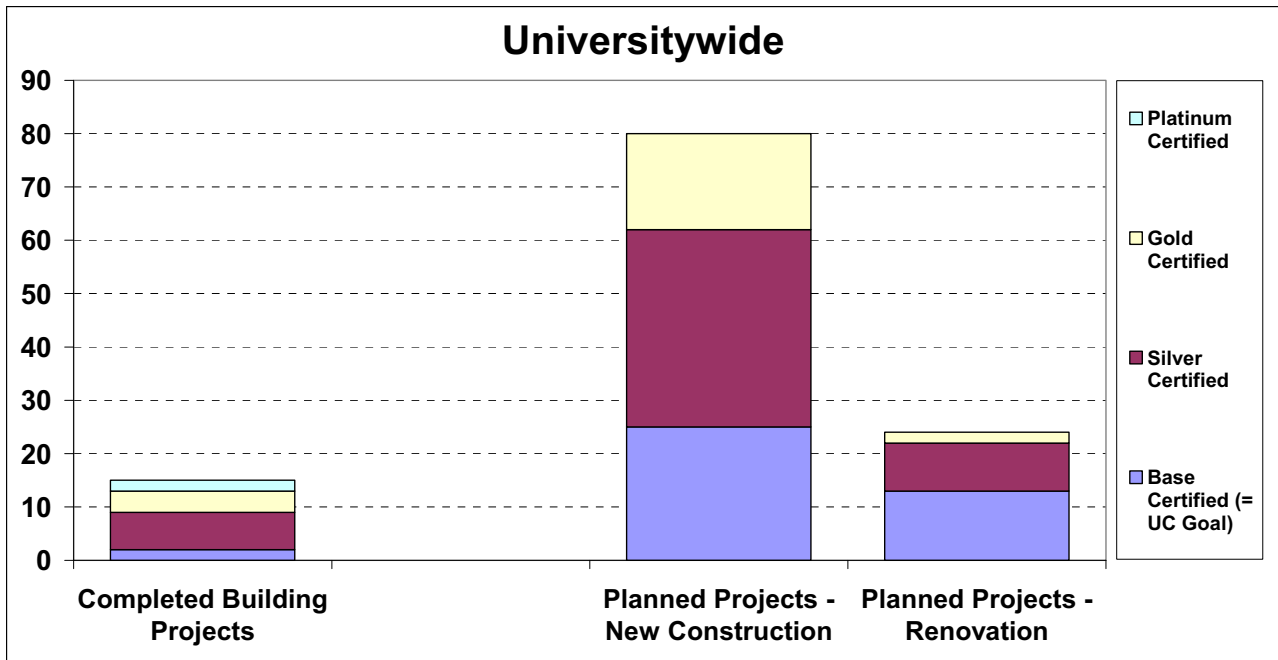
- A building's energy consumption per square foot (also known as energy intensity) varies greatly depending upon its functional use. For example, laboratories, data centers and hospitals are inherently more energy-intensive than classrooms and offices. UC buildings are typically designed for a variety of functional uses, including laboratories classrooms and offices.
- The proportion of energy-intensive space on UC campuses has increased over the last 10 years, masking the progress that campuses have made in reducing the energy intensity of existing facilities. Because the available data do not normalize for functional use, weather or growth, it should be used for gross comparisons only.
- Per the UC *Policy on Sustainable Practices*, the University has set a goal of reducing its growth-adjusted energy intensity to 1999 levels by 2014. However, it is difficult to precisely determine how close a campus is to meeting this goal with current tracking methods. Development of new tracking methods have been initiated and will be included in future reports.

Note: kBTU is a measure of electric and natural gas energy usage. Data are self-reported by each campus. In future years, UC will extract data from the Purchased Utilities Database, which is currently under development. Data are for state-maintained and funded spaces only (i.e., excludes auxiliary and fee-supported space, such as parking, residential and medical facilities).

### 13.5 (continued) Energy Use in State-Maintained Buildings, 1999-00 to 2006-07



**Indicator 13.6  
Green Buildings – Completed and Planned, Cumulative to 2008**

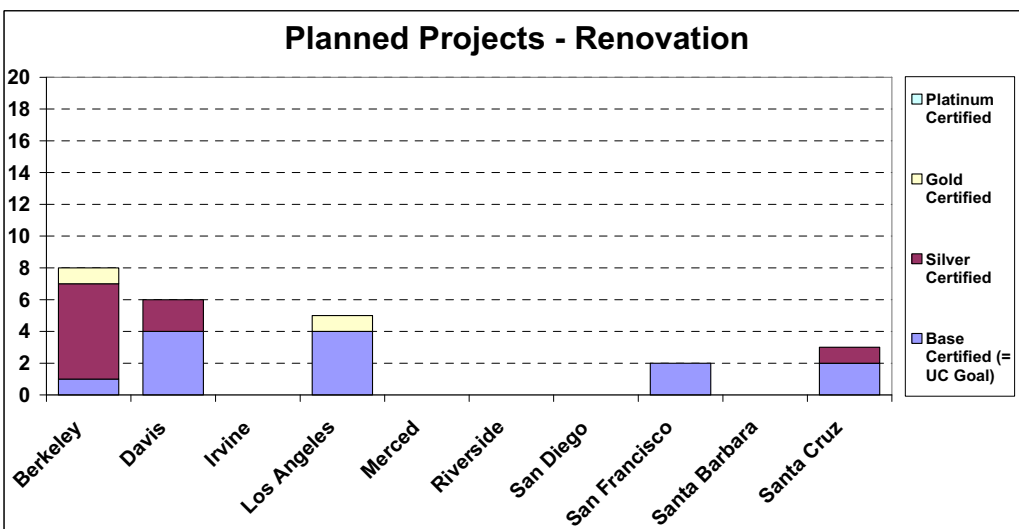
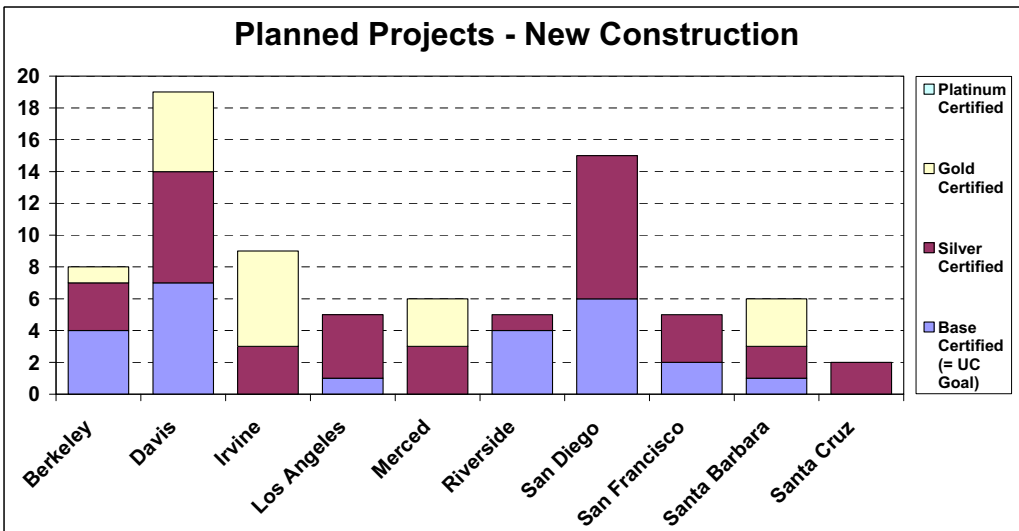
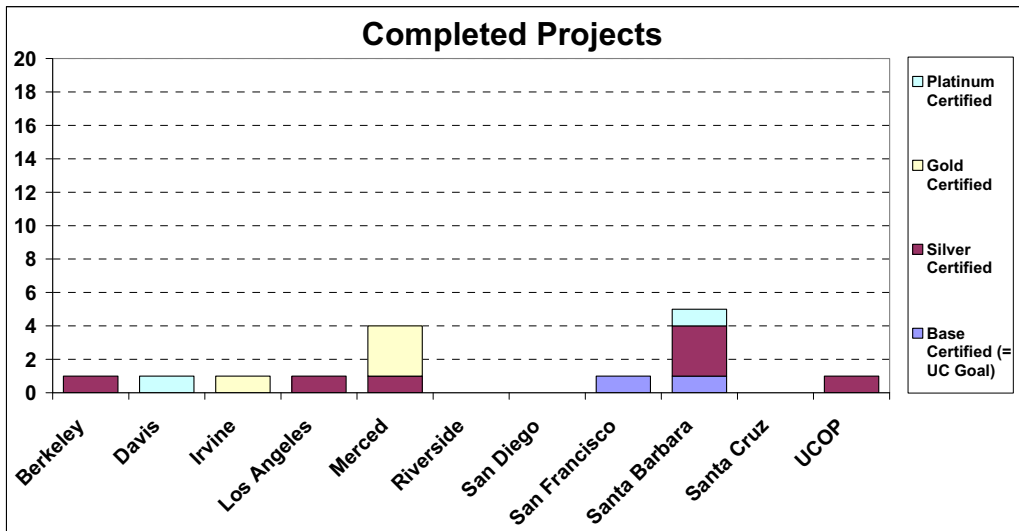


Source: UCOP Budget and Capital Resources.

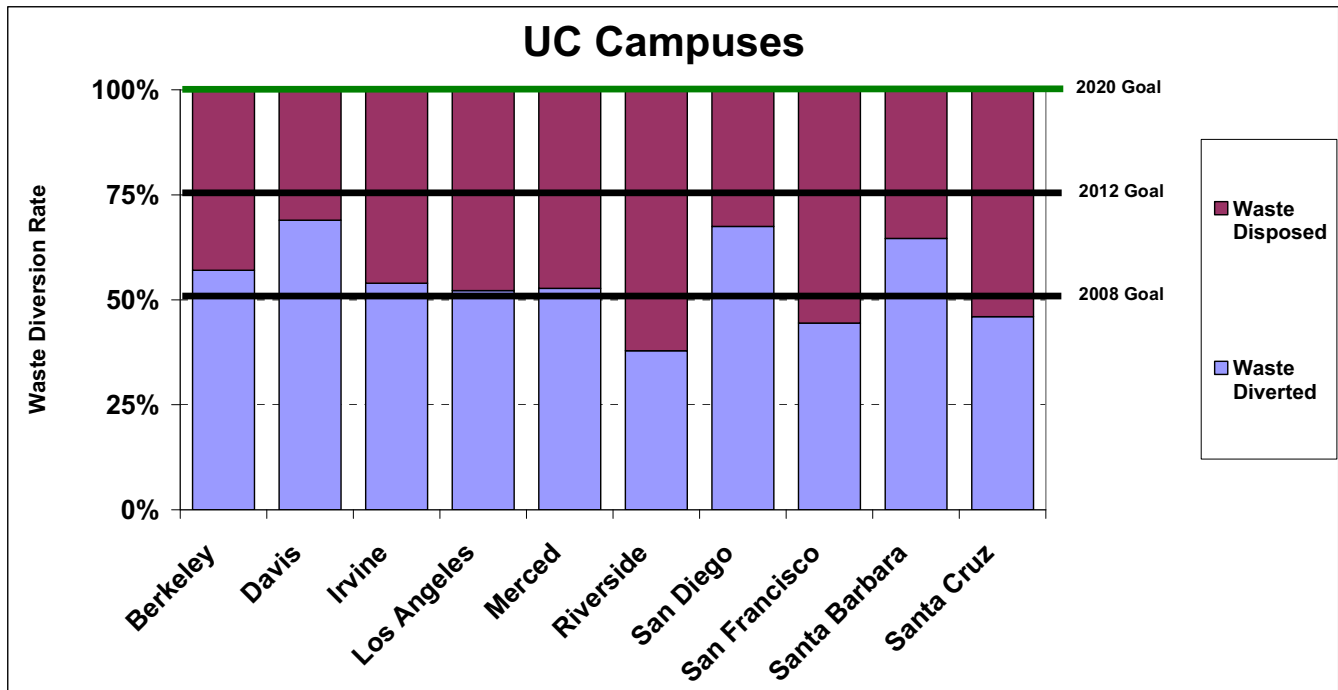
- Leadership in Energy and Environmental Design (LEED) standards were developed by the U.S. Green Building Council (USGBC). They are the internationally recognized benchmark for high-performance “green” buildings.
- UC projects are third-party certified by the USGBC or are reviewed through an equivalent internal UC certification process.
- Per the UC *Policy on Sustainable Practices*, the University has committed to constructing and renovating all buildings to a LEED-certified level, or equivalent. New UC construction and renovation projects set LEED (or equivalent) targets at the time of budget approval.

Note: LEED is a registered trademark. Completed LEED projects are listed in the USGBC database of LEED-certified projects; green building targets for projects in design or construction are campus reported.

13.6 (continued) Green Buildings – Completed and Planned, Cumulative to 2008



**Indicator 13.7**  
**Waste Diverted From Landfills, 2007-08**



Source: Campus-reported waste diversion rates.

- The waste diversion goals are set by the UC *Policy on Sustainable Practices*. While voluntarily adopted by UC, these goals are consistent with the California State Agency Integrated Waste Management Plan.
- UC strategies employed to divert waste from landfills include composting, recycling and reuse.

Note: The waste diverted from landfills at each campus excludes hazardous waste and medical waste.