

Proposed Revisions to University of California Enrollment Projections

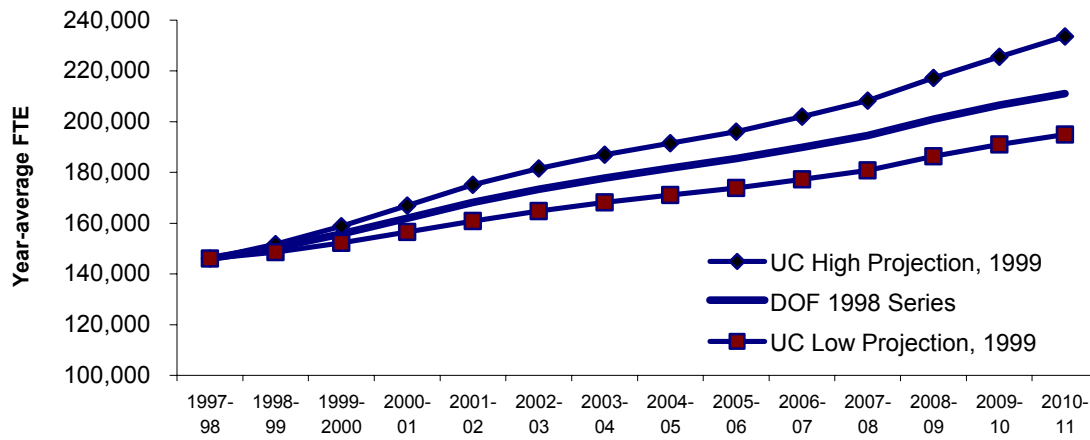
The University of California Office of the President annually reviews long-range general campus enrollment projections, updating them as necessary to reflect changes in demographics, enrollment trends and other underlying assumptions. The projections currently guiding UC planning (“the 1999 plan”) are based on demographic and enrollment data from 1998-99. This report reviews changes in data and assumptions and concludes that current projections to 2010 may underestimate demand by 5,600 to 12,000 FTE. It also extends projections to 2015, with enrollment projected to be 228,900 to 232,000 FTE students, including summer enrollments at all campuses. The report serves as background for campuses to reassess their own long-range plans for accommodating enrollment.

I. Context

The University is in a period of enrollment growth that is as significant as the rapid and large growth in the 1960s. While it has come as no surprise that California’s population of high school graduates is growing significantly, each year brings new information that helps us adjust our plans to accommodate those students who enroll at UC. The University maintains its commitment to enrolling all eligible high school graduates who choose to attend, according to the California Master Plan for Higher Education, so it is important to review the planning assumptions periodically in order to prepare well for future enrollments.

UC’s current plans for growth to 2010-11 are based on data and projections available in 1998-99. At that time, UC and the Department of Finance created several plausible projections of undergraduate enrollment, as shown in Figure 1. The University concluded that DOF’s 1998 projections were consistent with UC’s own assumptions about the most probable student behavior. Using DOF’s undergraduate projections, plus corresponding planned growth in graduate enrollments, UC produced in 1999 a projection to grow to 210,000 FTE students by 2010.

Figure 1
1999 General Campus Planning Projections through 2010-11
Total Undergraduate and Graduate Year-Average FTE



It was clear that 210,000 students, even with the opening of UC Merced, would outstrip capacity at many campuses, as established in Long Range Development Plans (LRDPs) developed in the late 1980s. The anticipated growth of 63,000 FTE students (43 percent) between 1998-99 and 2010-11 prompted several significant planning responses:

- A decision that all campuses would have to grow, in order not to burden excessively a small group of campuses;
- Agreements with the State to expand instruction significantly in the summer months, supported by State funds, with the objective of reducing the need for new classrooms and class labs;
- Investigation on the part of some campuses into the possibility of revising their assessment of LRDP enrollment capacity in order to accommodate more students;
- Additional campus efforts, such as improving time to degree and enrolling more students off campus, including expansion of the Education Abroad Program, in order to make room for additional students and to minimize the impacts of growth on local communities.

Since the time these enrollment plans were developed, a number of events have happened to shape the actual enrollments.

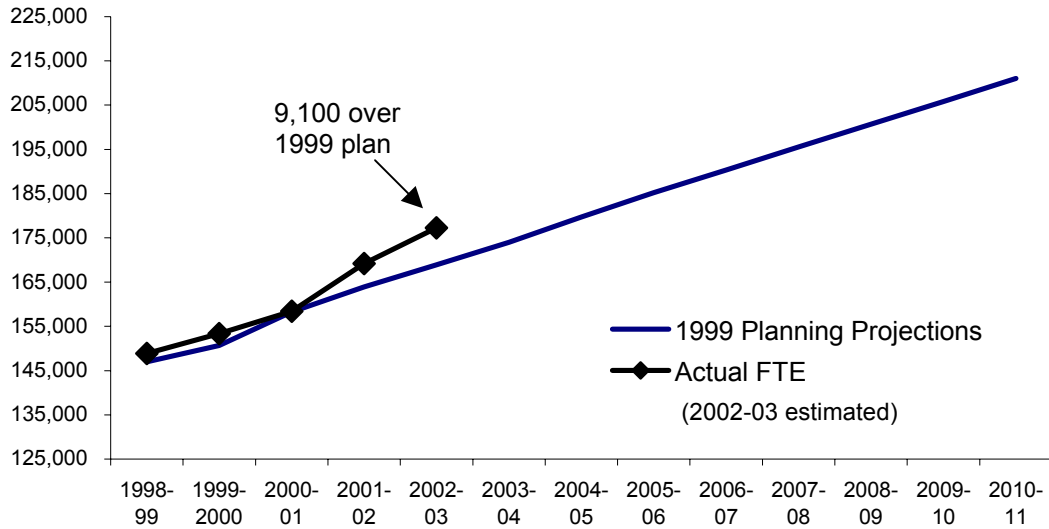
- At the Governor’s request, the University advanced the planned opening of UC Merced by a year to 2004-05, the consequences of which were to add 1,000 FTE enrollments by 2010, bringing the plan to 211,000 FTE.

- The State has funded summer enrollments at four campuses—Berkeley, Davis, Los Angeles, and Santa Barbara. The State provided funding for both the already existing level of 4,262 FTE enrollments in the summer plus additional summer growth.¹
- The Governor’s Partnership with UC (1999-2000 to 2002-03) included an agreement to increase the number of Community College transfers to 15,300 students by 2005-06, an increase of 800 students over the Memorandum of Understanding with the Community Colleges previously in effect.
- The University implemented new admissions criteria through Eligibility in the Local Context. Fall 2001 freshmen included for the first time students admitted specifically as a consequence of their standing in the top four percent of their high school class; it is important to note, however, that virtually all of these students also achieved eligibility by the statewide criteria.
- The University’s Commission on the Growth and Support of Graduate Education confirmed the importance of growth in graduate programs that keeps pace with increases in undergraduate enrollment and recommended a number of ways to increase funds available for the recruitment and retention of high quality graduate students.

Figure 2 shows that State-funded enrollments exceed the enrollments that the plan assumed for 2002-03 by about 8,300 FTE students.

¹ The 1999 plan assumed that the State would fund year-round instruction, so the projection for 211,000 FTE students includes summer enrollments. The 211,000 FTE, however, do not include the summer 1999 enrollments of approximately 6,500 students (4,262 of them at Berkeley, Davis, Los Angeles, and Santa Barbara). For purposes of comparison to the 1999 plan, this report does not include the 6,500 students until the final section.

Figure 2
UC General Campus State-Funded FTE Students Since 1998-99
As Compared to 1999 Projections
 Includes State-funded Summer Enrollments *But not* Summer Buyout FTE (6,500 FTE)
 Reflects plan for 211,000 FTE Students²



II. Review of the factors that contribute to changes in enrollment

Four factors contribute to enrollment projections, all of them volatile enough over a span of three to five years to warrant frequent review. These factors include

- Projections of California high school graduates, the primary source of UC freshmen;
- The rate at which eligible students enroll as freshmen: the participation rate;
- Transfer student enrollments; and
- Graduate student enrollments.

² The 1999 planning projection reflects the decision to open UC Merced one year earlier, adding 1,000 students to the original projection of 210,000. The projection does not reflect subsequent annual adjustments to budgeted enrollments.

A. Projections of high school graduates

<p style="text-align: center;">Assumption in 1999 plan High school graduates as projected by DOF in 1998</p> <p style="text-align: center;">Changes in assumption High school graduates are projected to be 5-10 percent higher</p>

The Department of Finance Demographic Unit, the State's source of projected K-12 enrollments, annually provides projections of California's public high school graduates. The most recent years of projections have consistently shown substantial growth of high school graduates, peaking near the end of the decade. Experience has shown that severe economic downturns and subsequent recoveries can affect the high school population significantly, reflecting changes in migration into and out of California.

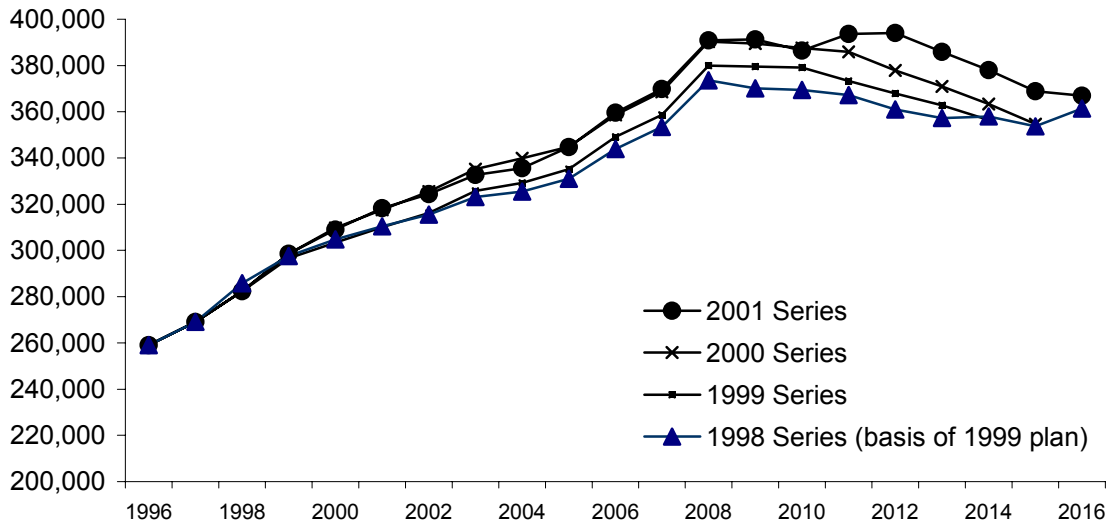
Figure 3 shows DOF's 1998 projections that were used to guide the 1999 enrollment plan, compared to DOF projections made in 1999, 2000, and 2001.³ Using 2008 as a comparison year, the number of high school graduates projected in the 2001 series is 17,400 higher than in the 1998 series.⁴ The impact of students graduating in 2008 on UC's enrollments will occur in the years 2008-2012.

Another point to note in Figure 3 is that each series projects an eventual decline or leveling off in high school graduates. The last several years of the projections are more speculative than earlier years; however, there were lower birthrates following those that are producing the large increases projected for the end of the decade, so unless there is a substantial increase in in-migration, it is reasonable to expect the number of high school graduates to level off.

³ The 2002 series will be available by the end of 2002.

⁴ The increase in 2011 that appears only in the 2001 series is the result of a number of elementary schools holding several thousand second-grade students back a year due to poor test scores.

Figure 3
DOF Projections of California Public High School Graduates



B. Participation rates

Assumptions related to 1999 enrollment plan

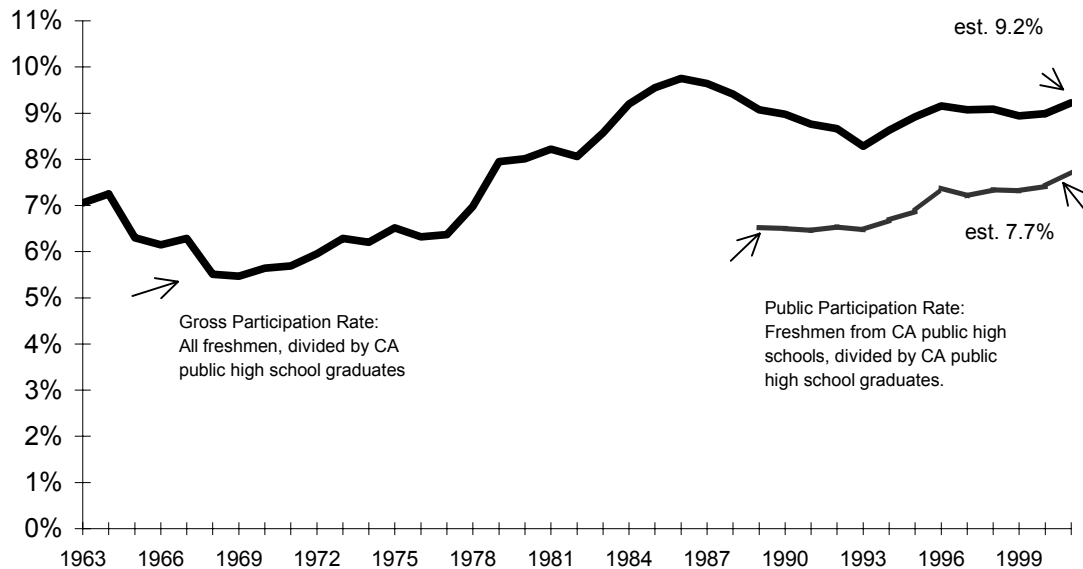
The freshman public participation rate would remain relatively constant at about 7.3 percent; out-of-state and private high school students would account for an additional 1.8 percent.

Changes in assumptions

Freshman participation has risen to 7.7 percent; out-of-state and private high school students account for about an additional 1.5 percent.

The number of California high school graduates is the base off which to project freshmen, by applying the historical freshman participation rate, i.e., the proportion of California public high school graduates that enroll at UC as freshmen. Participation rates have been increasing as Figure 4 shows. Continued affordability of UC, increasing competition for admission at private colleges, revised eligibility criteria, and expanded outreach and admissions efforts by UC have contributed to increases in the participation rate.

Figure 4
Ratios of New Freshmen to California Public High School Graduates

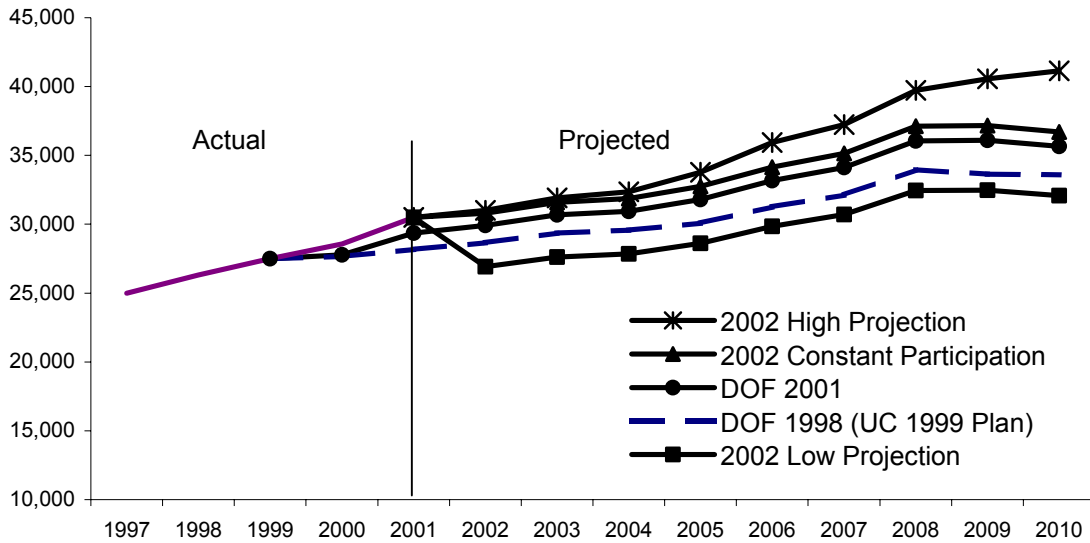


There are a number of ways to apply the participation rate to the number of high school graduates in order to project the number of future UC freshmen, such as holding the most recent year's rate constant, using an average of some recent years' rates, gradually returning from a high (or low) point to an average rate, and so forth. Figure 5 shows the updated results of the three methods that were used in developing the 1999 plan, revised to reflect DOF's 2001 projections of high school graduates and more recent participation rates. The three methods are:

- **High Projection:** Assumes the highest participation rate experienced by each racial/ethnic group in the last decade (even though in no previous year to date have all the groups achieved their highest rate simultaneously).
- **Constant Participation:** Assumes that the most recent participation rate—i.e., the 2001 fall freshman estimated participation rate—will continue throughout the projection period.
- **Low Projection:** Assumes the lowest participation rate experienced in the last decade, which was the 6.5 percent public participation rate (8.3 gross participation rate) experienced in 1993.

For reference, the number of freshmen assumed in the 1999 plan is also displayed (DOF 1998) as well as DOF's most recent projection (DOF 2001).

Figure 5
Revised Projections of New Fall Freshmen Compared to DOF's 1998 Projection



There are other assumptions that can result in more extreme lines. These methods were chosen in order to demonstrate plausible “outer limits” based on actual experience.

Figure 6 shows the numeric difference in 2010 between the revised projections of freshmen and the number assumed in DOF’s 1998 Series projections (i.e., the basis of the 1999 UC plan).

Figure 6
Comparison of Revised Projections of Freshmen to the 1999 Plan Fall Headcount

	2002 Revised Projection for 2010	Above/(below) the 1999 Plan (33,587 freshmen)
UC High Projection	41,132	7,545
UC Constant Participation Projections	36,713	3,126
DOF Series 2001 Projection	35,651	2,064
UC Low Projection	32,079	(1,508)

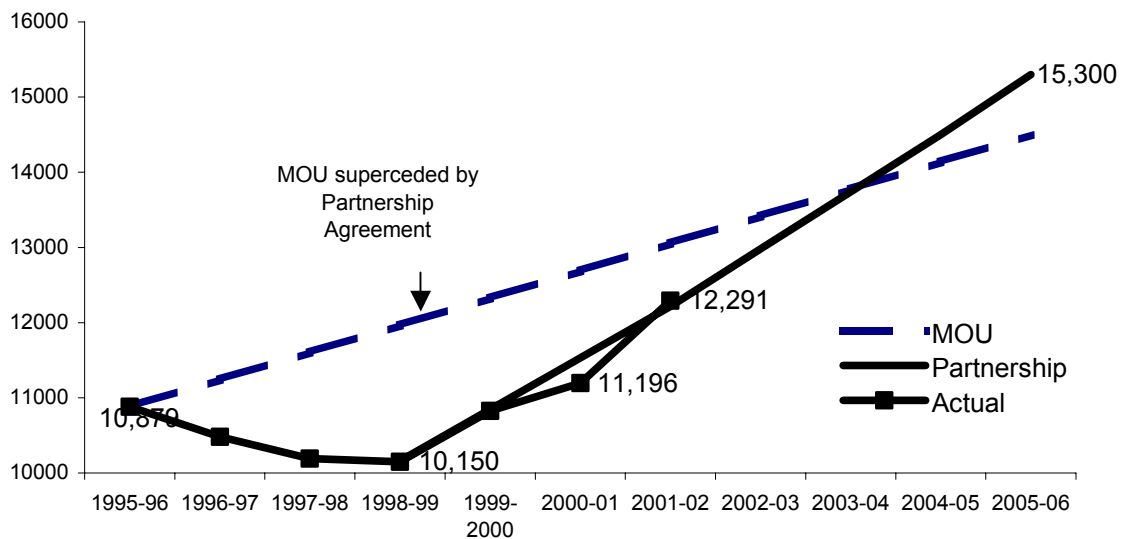
C. Transfer students

Assumption in 1999 plan
 The Memorandum of Understanding with the Community Colleges set a goal of 10,300 community college transfer students by 2005-06

Change in assumption
 The Partnership Agreement with the Governor set a goal of 15,300 community college transfers by 2005-06

UC projects the number of transfer students on the basis of policy agreements, as most recently reflected in the Governor’s Partnership with UC. To the extent that the California Community Colleges increase the number of "transfer ready" students, UC will increase the total number of CCC transfers to UC by 6% annually over seven years (from 10,150 in 1998-99 to 15,300 in 2005-06). Figure 7 shows UC’s progress in enrolling transfers since 1995-96 as compared first to the Memorandum of Understanding with the Community Colleges and then to the Partnership Agreement, which superseded it.

Figure 7
Actual Number of Year-Total CCC Transfers
Compared to the Memorandum of Understanding and the Partnership Agreement
1995-96 to 2005-06



UC is on track to meeting its commitment to enroll 15,300 community college transfers by 2005-06. After that point, transfers are projected to grow at the same rate as new freshmen.

D. Graduate students

<p style="text-align: center;">Assumption in 1999 enrollment plan Graduate enrollment growth would keep pace with undergraduate growth, at a level of about 18 percent of total enrollment</p> <p style="text-align: center;">Change in assumption No change</p>
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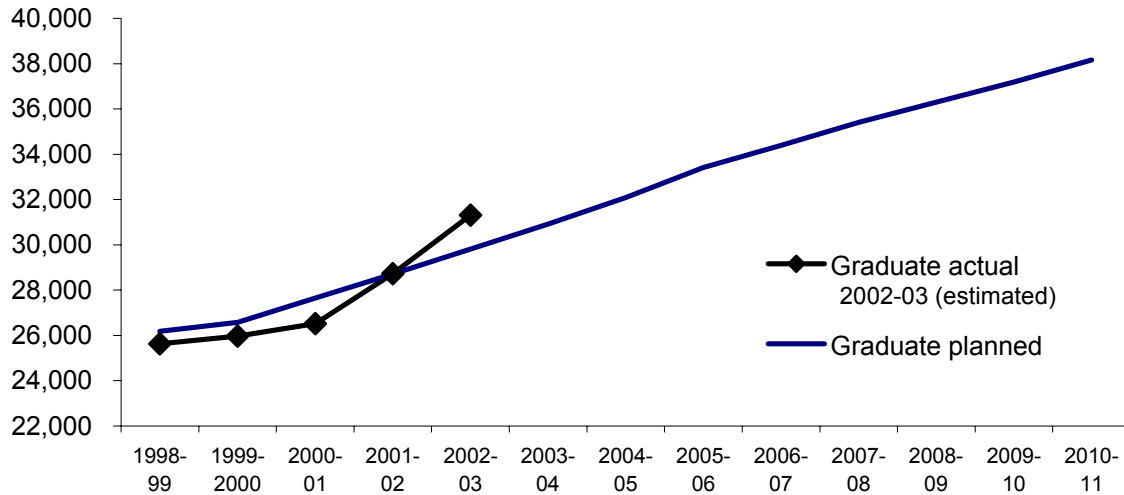
One of the significant aspects of the 1998-99 planning efforts was the emphasis placed on growth in graduate education. The primary challenges to growth at the graduate level have been insufficient political and financial support. The University has been successful in gaining State political support for the need to increase the numbers of graduate students by demonstrating the contributions graduate degree recipients make to the State's economy and social fabric. The work of the Commission on the Growth and Support of Graduate Education has produced a plan for increasing the financial and institutional support needed to recruit and retain the best graduate students.⁵

Figure 8 shows progress in enrolling graduate students since the 1999 plan was developed. Despite a slow start toward accomplishing the goal, growth in 2001 and 2002 has been significant and has returned to a level of 17 percent of total enrollment. If the work of the Commission leads to increased financial support for graduate students, it is expected that more students who are admitted will choose to attend UC rather than another institution. Consequently, UC's plans for 18 percent graduate enrollment appear to be realistic and achievable.⁶

⁵ The website <http://www.ucop.edu/services/gradeduc.html> contains documents prepared for Regental and public review on the importance of graduate education and the plan for increasing graduate student support. The website <http://www.ucop.edu/sas/sfs/reports/gradsurvey2001.pdf> includes a report on factors that lead admitted graduate students to attend UC or another institution: *Determining the Comparability of Graduate Student Support: Evidence from the 2001 Graduate Student Support Survey*

⁶ The calculation of the percentage of graduate students is based on total enrollment of 211,000 FTE. The percentage will be lower when the 6,500 FTE students reflecting summer 1999 enrollments—nearly all of whom are undergraduates—are included.

Figure 8
Actual State-funded Graduate Enrollments as Compared to 1999 Plan⁷
 State-funded summer enrollments included



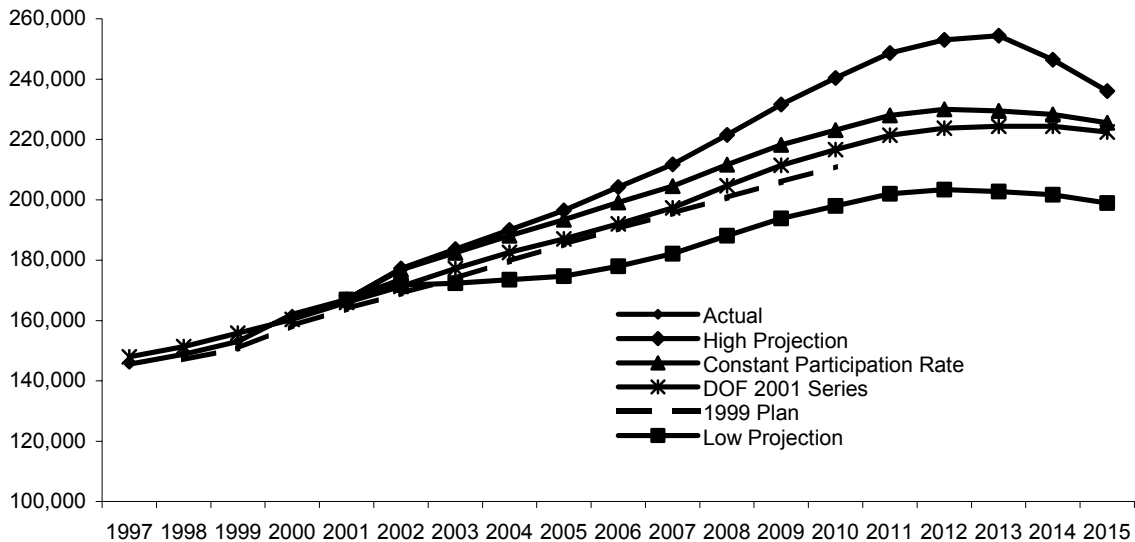
III. Summary

A. *Revisions to enrollment growth planned to 2010*

The considerable changes since 1998 in the projection of high school graduates, the increase in participation rates of new freshmen, and the success of meeting the plan for both transfer and graduate student enrollments result in higher projections for 2010. Applying the same assumptions used to project freshman enrollment (as shown in Figure 6) and adding transfer and graduate enrollments, Figure 9 presents revised enrollment projections compared to the 1999 plan.

⁷ The 1999 planning projection does not reflect annual adjustments to budgeted enrollments.

Figure 9
Revised UC Enrollment Projections Through 2010 as Compared to the 1999 Plan
 Year-Average FTE, Undergraduate and Graduate



The 1999 plan was based on DOF 1998 projections, which at that time coincided with UC’s “constant participation” projections. As Figure 9 shows, these two lines diverge when the revised assumptions are applied because UC’s freshman participation rates have exceeded those used in DOF’s projections. When DOF releases its new projection in late 2002, it will incorporate revised high school graduate projections and the recent increase in participation rates. The difference of each of these projections from the 1999 plan is shown in Figure 10.

Figure 10
Comparison of Revised Total Enrollment Projections to the 1999 Plan

	2002 Revised Projection for 2010	Above/(below) 211,000 FTE (1999 Plan for 2010)
UC High Projection	240,400	29,400
UC Constant Participation Projections	223,000	12,000
DOF Series 2001 Projection	216,600	5,600
UC Low Projection	197,900	(13,100)

B. Adding summer enrollments to projections

Enrollment projections have typically been either fall headcount projections, as done by DOF, or year-average projections, as done by UC. Year-average projections are a three-quarter (fall-winter-spring) or two-semester (fall-spring) average of either headcount or FTE. They have generally been more useful for planning than fall projections because they correspond to funding for enrollments. The 1999 plan was expressed in terms of year-average FTE.

With the conversion to State-funded summer instruction, funded enrollments now include summer enrollments.⁸ The first component of 6,500 FTE student summer enrollments being added to UC’s funded enrollments do not represent a corresponding increase in year-average headcount; they are the summer 1999 enrollments covered by the State buyout as campuses convert from self-supported to State-supported summer programs.

The effect of these additional funded enrollments changes the projections as follows:

Figure 11
Revised Projections to 2010-11, Including Summer Buyout

	Revised Projection for 2010-11 including 6,500 Summer FTE
UC High Projection	246,900
UC Constant Participation Projections	229,500
DOF Series 2001 Projection	223,100
UC 1999 Plan	217,500
UC Low Projection	204,400

Once a campus receives full State support for summer instruction, its enrollment funding is presumed to include both regular-year and summer enrollments. After developing the 1999 plan, with projected growth to 217,500 FTE in 2010 (i.e., including the summer buyout), the University committed to the Legislature to pursue concertedly a goal of enrolling 24,000 FTE students in the summer by 2010. This goal corresponds to the following expectation in the Partnership Agreement: “Space requests for classrooms and class laboratories will be justified using legislatively approved utilization standards and the assumption of a summer term enrollment of 40% of fall/winter/spring enrollment, consistent with the approved phasing plan for implementation of year-round operations.” Preliminary data show that approximately 11,800 FTE students enrolled in summer 2002, with enrollment and instruction at four of the eight general campuses being fully State-supported.

C. Enrollment growth to 2015

It is possible in 2002 to make projections to 2015 with more confidence than was possible in 1999. As Figure 3 shows, there is a projected tapering off of high school graduates after 2008 or so, which will be reflected in a leveling off of UC enrollments. Figure 12 shows UC’s three projections, and DOF’s 2001 Series carried out to 2015, including summer enrollment. Figure 13 shows enrollments in 2010, peak enrollments occurring in the years 2012 to 2013, and enrollments in 2015.

⁸ Berkeley, Davis, Los Angeles, and Santa Barbara have fully State-funded summer instruction. Funding for summer instruction beginning summer 2003 at the remaining general campuses is proposed in the 2003-04 Regents Budget.

Figure 12
Projections to 2015-16, including all summer enrollments

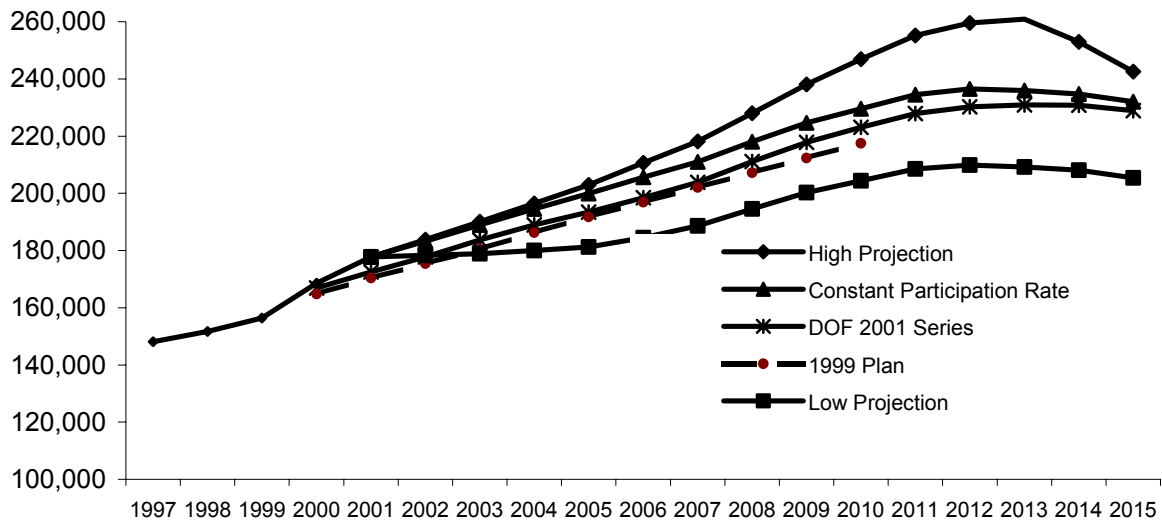


Figure 13
Enrollment Projections from 2010 to 2015, including all State-funded summer enrollments

	2010-11	Peak (2012-13 to 2013-14)	2015-16
UC High Projection	246,900	260,900	242,500
UC Constant Participation Projections	229,500	236,500	232,000
DOF Series 2001 Projection	223,000	230,900	228,900
UC 1999 Plan	217,500	--	--
UC Low Projection	204,400	209,800	205,400

IV. Issues raised by revised projections

This report presents alternative visions for UC’s enrollment growth, intending to prompt systemwide discussion and revised planning for the coming decade and beyond. The projections raise questions about the adequacy of campuses’ current plans to accommodate growing enrollments and provide the opportunity to extend the planning horizon. In reconsidering campus enrollments in the context of information provided in this report, campuses should consider how the various enrollment components (the number of freshmen, transfers, and graduate students) of their own plans might change. Campuses also have the opportunity to consider how they might modify current strategies to accommodate more students (e.g., summer enrollment and off-campus enrollment).