1993 Report on Fee Impact

December 1993

Prepared by:

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Preface

This report examines the impact of the 1993 fee increase for community college students: the actual impact of fees that were imposed beginning spring 1993 and the probable impact of fees imposed beginning fall 1993. This information was requested by the Legislature in the same bill (SB 766, Statutes of 1992) that enacted the spring 1993 fee increases.

Effective spring 1993, the enrollment fee for credit students with baccalaureate degrees was raised from $6 per unit to $50 per unit—with certain exemptions—and, for all other credit students, from $6 per unit per unit to $10 per unit. And, the ten-unit limit on courses for which students would be charged was removed. In fall 1993, the fee for students with baccalaureate degrees was continued at $50 per unit, while the fee for other credit students was raised from $10 per unit to $13 per unit.

Our study shows that, despite improved student financial aid, the fee increase produced a substantial decrease in spring 1993 enrollment—down 7 percent from fall 1992—concentrated, as expected, among students with baccalaureate degrees. The second fee increase, together with limited operating budgets, has resulted in another enrollment decline—estimated at 2 percent—in the fall 1993.

These enrollment declines come at a time when the demand for community college education is at an all time high because of continued state population growth, increasing numbers of high school graduates, a delayed economic recovery, and policies recently implemented by the University of California and the California State University. Despite cost-cutting measures, the community colleges are encountering extreme difficulty in their efforts to continue to carry out their mission.

Analytical work on this report was conducted within the Chancellor's Office Policy Analysis and Development Division by staff of the Research and Analysis Unit, under the direction of Chuck McIntyre. The Research and Planning (RP) Group, an organization of local college research professionals under the direction of Barbara Beno, provided valuable assistance in our work by surveying community college students in spring 1993. This is just the first of a number of such joint studies we plan to conduct with the RP Group.

We invite your review of this study and hope it helps in what we expect will be continued discussion about the proper level of fees and financial aid for community college students in California. Please address questions and comments on the substance of this report to the Research and Analysis Unit by mail at 1107 Ninth Street, Sacramento, California 95814-3607, or phone (916) 322-4656, or Fax (916) 323-9478.

David Mertes
Chancellor

Sacramento, California
December 1993

Executive Summary

Background

Two reports on the impact of fees were presented to the Board in March and May, 1993. Those reports examined enrollment trends and possible consequences of alternative fee policies. This report examines the actual impact of fees that were imposed beginning spring 1993 and the probable impact of fees on enrollment in fall 1993.

Legislative action (SB 766, 1992) in conjunction with the 1992-93 State Budget raised the community college enrollment fee for credit students with baccalaureate degrees from $6 per unit to $50 per unit—with certain exemptions—and, for all other credit students, from $6 per unit to $10 per unit. It also removed the 10-unit limit on courses for which students would be charged. This legislation (SB 766), which was effective beginning spring 1993, also requires the Board to report to the Legislature by January 1, 1994, on the "... implementation and impact of this section."

Legislative action on the 1993-94 State Budget raised the enrollment fee for credit students without baccalaureate degrees from $10 per unit to $13 per unit, and continued the fee for credit students with baccalaureate degrees at $50 per unit.

These fee changes have taken place in an environment where the state's population continues to grow, college budgets have been reduced (in real, price-adjusted terms), economic recovery is sluggish, unemployment continues to be high, and fees have been dramatically increased—and curriculum reduced—at the University of California (UC) and California State University (CSU). Since all these factors affect community college enrollment, we attempt to distinguish them from the separate impact of fees in the analysis below.

This report deals with several questions:

1. How many students were impacted by the fee increases?

2. Which students were impacted and in what ways?

3. How are colleges impacted by the fee increases and how do these consequences affect the colleges' ability to carry out their mission?

To answer these questions, we analyze recent ten-year trends in enrollment and, for the past two years, term-to-term shifts in enrollment, separating students with baccalaureate degrees from those without baccalaureate degrees in order to assess the different impacts of the different fee policies.

Data for this report were derived largely from the Chancellor's Office Management Information System (MIS) and from a joint study conducted by the Research and Analysis Unit of the Chancellor's Office Policy Analysis and Development Division and the Research and Planning (RP) Group, an organization of community college research professionals. Details are presented in the report's appendices.

Analysis

Community colleges' spring 1993 enrollment declined from fall 1992 by 106,000 students (7%). Since other factors (added course sections and continued high unemployment) would have produced relatively stable enrollment, the increased student fees appear to have accounted for all of the loss.

Students with Baccalaureate Degrees. The large increase (79%) in total student costs (caused primarily by the $44 per unit fee increase) facing students with baccalaureate degrees in spring 1993 resulted in a 54,000 (41%) decline in their enrollment. This result was expected and is consistent with previously-observed behavior of community college students in similar academic and economic circumstances.

This fee increase affected those training for jobs (3 of every 5 such students) to nearly the same degree as it affected those enrolled for other than job-training reasons. And, the fee would have had even greater impact on those training for jobs were it not for the fee waiver policy: an estimated 31,000 students had their fees waived.

Of those BA/BS students who withdrew, a disproportionate number were minority, under 30 years-of-age, and continuing (as opposed to new) students.

Overall, the fee on students with baccalaureate degrees

- produced little revenue ($10 million, or 0.3 percent of general community college funding).
- prevented over 25,000 students from obtaining the job training they were seeking.

Students without Baccalaureate Degrees. The smaller fee increase ($4 per unit) on students without baccalaureate degrees also had the expected impact. Here, an 8 percent increase in total student cost (fees plus other costs of attendance) produced a 4 percent decline in student enrollment—approximately what was expected, based on prior experience with fee increases. Again, without the Board of Governors' financial aid grants (BOGG), the losses would have been higher.

Among students without baccalaureate degrees, there was a significant loss in full-time enrollment during spring 1993. This loss reversed a several-year trend of increases in full-time enrollment and can be attributed to the new policy that lifted the 10-unit ceiling for which students would be charged a fee. This new policy made it substantially more expensive to attend full-time, i.e., carry 12 or more units.

Also impacted disproportionately by the fee on non-BA/BS students were those from minority racial and ethnic backgrounds, those over 20 years-of-age, and continuing (as opposed to new) students.

Fall 1993. Fall 1993 enrollment has declined by another 31,000 students (2 percent) from spring 1993. It is too early to analyze the reasons for this decline, but preliminary evidence suggests that it is largely due to two factors: (1) further fee increases (an added $3 per unit for credit students without baccalaureate degrees) and (2) course section cutbacks (possibly as many as 4,000 sections have been cut from fall 1992 classes offered).

Implications

The adverse impact of fee increases on student enrollment and the California Community Colleges' commitment to access is clear. The impact on program quality is more difficult to assess.

Estimates of enrollment demand, which could have been met had budgets been adequate and had fees not increased since 1990, suggest that the community colleges are enrolling 140,000 fewer students than want to enroll. Large waiting lists for classes in English, mathematics, and certain basic sciences are evidence of this.

Enrollment demand for community colleges will continue to be high during the rest of this decade because of the state's expected slow economic recovery (continued high unemployment and retraining needs) and because of future increases in the number of high school graduates—and in the proportion of these students going to community colleges. Enrollments would have to grow at more than 3 percent yearly in order for community colleges to:

- accommodate California's population growth
- increase the participation of underrepresented groups
- enroll increasing numbers of high school graduates
- train many who lost their jobs during the recession

Estimates of future revenue expected from Proposition 98 do not appear adequate to support these access objectives. Attempts to increase revenue by charging fees, given existing financial aid policies, work against these objectives. Alternatives consist of augmenting other revenue sources, making significant improvements in student financial aid, and/or delivering education more effectively.

Community college budget increases of 1.1 percent and 1.5 percent the past two years have not provided either for growth or cost-of-living adjustments. Even with enrollment losses, an estimated 46,000 students (3.4 percent of total enrollment) are enrolled—but not funded—this year.

The analysis suggests that, while the curriculum has been reduced (by 10 percent in three years), the quality of the remaining curriculum has been maintained by holding costs down (limiting salary increases) and by increasing the size of certain classes. It is not clear that these policies can be carried further; therefore, if funding continues to be inadequate, colleges must explore alternative revenue and delivery techniques. A number of alternative delivery techniques are explored in the recent report from the Commission on Innovation, *Choosing the Future: An Action Agenda for Community Colleges*, a group established by the Board of Governors.

1993 Report on Fee Impact

Background

This report is the third in a series prepared by the Chancellor's Office during 1993 to examine the impact of changing student fees on California Community Colleges. The first two reports examined enrollment trends and possible consequences of alternative fee policies. This report examines the actual impact of fees that were imposed beginning spring 1993 and the probable impact of fees on enrollment in fall 1993.

Legislative action (SB 766, Statutes of 1992) in conjunction with the 1992-93 budget raised the community college enrollment fee for students with baccalaureate degrees from $6 per unit to $50 per unit—with certain exemptions—and, for all other credit students, from $6 per unit to $10 per unit. It also removed the 10-unit limit on course work for which students would be charged. This legislation (SB 766) also requires the Board to report to the Legislature by January 1, 1994, on the ". . . implementation and impact of this section."

Legislative action on the 1993-94 budget raised the enrollment fee for credit students without baccalaureates from $10 per unit to $13 per unit, and continued the fee for credit students with baccalaureates at $50 per unit.

These fee changes have taken place in an environment where the state's population continues to grow, college budgets have been reduced (in real, price-adjusted, terms), economic recovery is sluggish, unemployment continues to be high, and fees have been increased dramatically—and curriculum reduced—at the University of California (UC) and the California State University (CSU). Since all these factors affect community college enrollment, we attempt to sort the separate impact of fees in the analysis below.

Several specific research questions are relevant:

1. How many students were impacted by the fee increases?

2. Which students were impacted and in what ways?

3. How are colleges impacted by the fee increases and how do these consequences affect the colleges' ability to carry out their mission?

To answer these questions, we analyze recent ten-year trends in enrollment and, for the past two years, term-to-term shifts in enrollment, separating students with baccalaureate degrees from those without baccalaureate degrees in order to assess the different impacts of the different fee policies.

These data are derived from the Chancellor's Office Management Information System (MIS), from a joint study conducted by the Research and Analysis Unit of the Chancellor's Office Policy Analysis and Development Division and the Research and Planning (RP) Group, and from a variety of other sources. The details of these data are presented in the eight appendices to this report:

Appendix A.	Fall 1993 Enrollment Estimates
Appendix B.	Enrollment Forecasting Model
Appendix C.	Financial Aid
Appendix D.	Recent Four-term Trends in Enrollment
Appendix E.	Ten-Year Enrollment Trends
Appendix F.	Student Enrollment Response to Fee Changes
Appendix G.	Reasons for Student Withdrawal
Appendix H.	Community College Five-Year Funding and Growth

Analysis

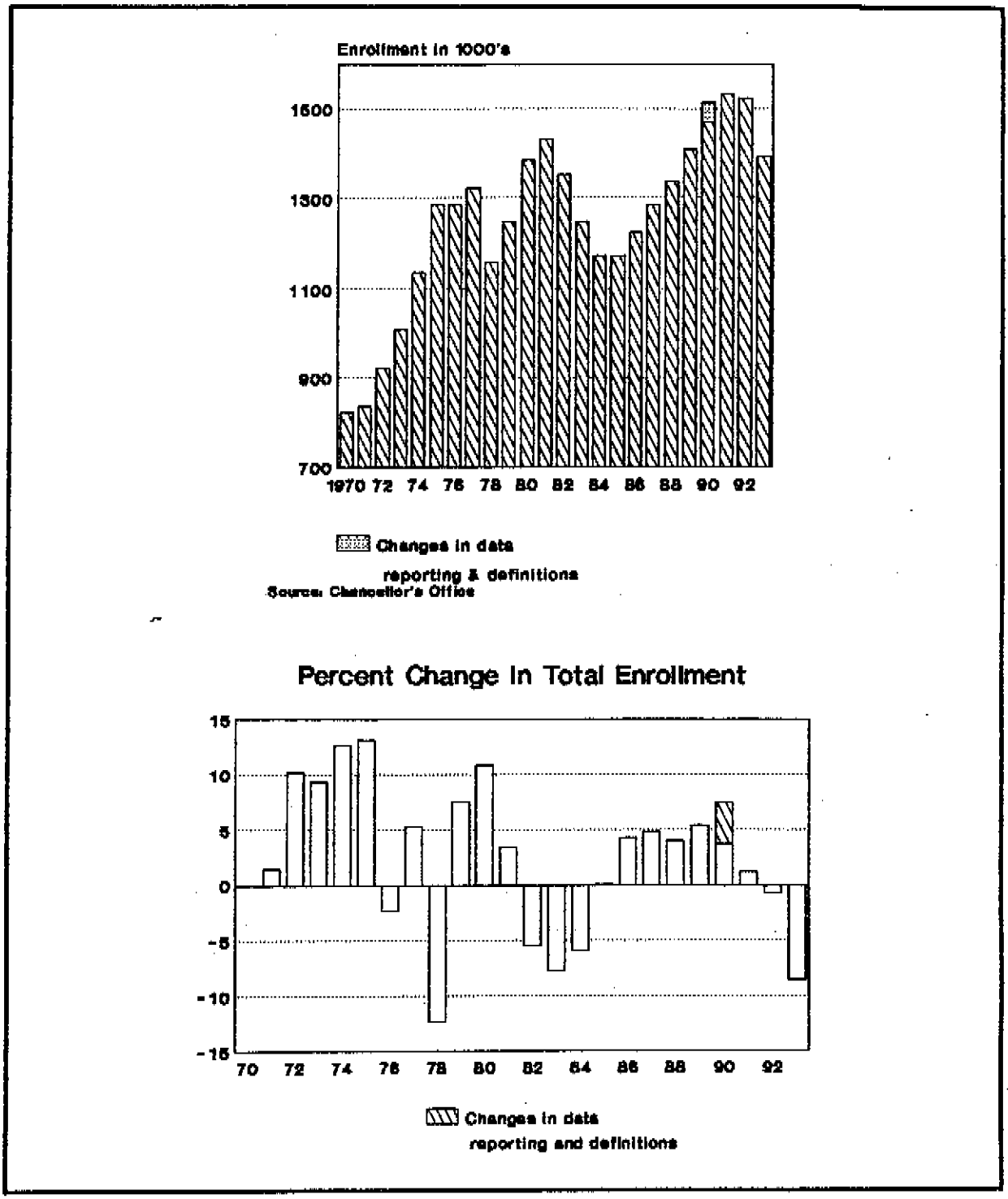
Experience shows that the California Community Colleges (CCC) student enrollment is affected not only by changes in cost of attending (which includes fees), but also by several other factors: the state's economy, population changes, community college budgets and the resulting curriculum and services offered, and the policies of other educational providers, such as UC and CSU. (See 1993 Study of Fee Impact, March 1993 Board Agenda, Item 7 and 1993 Study of Fee Impact: Phase 2, May 1993 Board Agenda, Item 6.)

While student enrollment has doubled over the past two decades in the California Community Colleges, there have been five instances of significant enrollment losses (Figure 1):

- 1978, due to budget cutbacks from Proposition 13
- 1982, due to budget cutbacks
- 1983, due to budget cutbacks, uncertainty about fees, and economic recovery
- 1984, due to fee increases
- 1993, due to fee increases

Study of these experiences, together with current data, enables us to examine the impact of fees on enrollments, holding constant the impact of other factors.

Figure 1
Total Enrollment



Source: Chancellor's Office, Research and Analysis Unit, October 25, 1993.

Impact on Numbers of Students

Spring 1993. Community college enrollment in spring 1993 declined by 7%, a loss of 106,000 students from the fall 1992 enrollment of 1,521,300 (Appendix A). By contrast, had there been no change in student fees, several other factors—other than fees—likely would have produced a slight increase in enrollment between fall 1992 and spring 1993:

Type	Loss	% from Fall 1992
Credit students with baccalaureate	54,000	(-41%)
Credit students without baccalaureate	50,000	(- 4%)
Noncredit students	2,000	(- 1%)

The spring 1993 enrollment loss was made up of:

Factors	% Change	Expected Enrollment Result
Course Sections	+2.6%	+1.1 %
Unemployment	+2.7%	+ .43%
Population	+ .9%	+ .22%
Normal Fall to Spring Loss		-1.0 %
Overall		+0.75%

(See Appendix B for the source of these estimates.)

These losses are what would be expected from the fee changes and resulting student behavior observed in previous policy analyses. To show this, one must separate students with baccalaureate degrees from those without baccalaureate degrees since the fee increases were substantially different ($44 per unit for the former, $4 per unit for the latter).

Students with Baccalaureate Degrees. The $44 per unit fee increase (offset by fee waivers) represented a 79% increase in their total cost (fees plus other costs of attendence; see Appendix B). The 41% loss in these students, therefore, suggests a price-response or "enrollment price-elasticity" of (-41/79), or -.5. The value of this response is consistent with results from other studies and with previously-observed behavior of community college students in similar academic and economic circumstances (Appendix B).

The loss of students with baccalaureate degrees would have been greater had it not been for the use of fee waivers (part of SB 766, Statutes of 1992). Three criteria were used to identify financial need for these fee waivers: (1) receipt of other aid (public

assistance), (2) disability, and (3) certain kinds of under- or unemployment. Of 131,000 students with BA/BS degrees in fall 1992:

54,000 withdrew
31,000 enrolled with their fees waived
46,000 enrolled, paying the new fees

in spring 1993 (see estimates in Appendix C). Roughly, one of every four students obtained a waiver.

Students without Baccalaureate Degrees. The loss of these students (-4.2%) is primarily attributable to the fee increase since, as noted above, had there been no fee increase, enrollment would have been stable or slightly increasing from fall 1992 to spring 1993. Using calculations similar to that above, we find that the "response" by students to the $4/unit fee increase is nearly the same as that observed when the student enrollment fee was first implemented in fall 1984.

Students without the BA/BS degree also were helped by financial aid. The Board of Governors Grant (BOGG) appropriation was increased from $16.4 million in 1991-92 to $27.3 million in 1992-93. It is estimated that the latter appropriation was supplemented by $8 million in fee waivers with the overall result that over 50,000 students were added to the BOGG program. This brought the proportion of community college students on financial aid to nearly 25 percent. However, this proportion is still far below the level, six of every ten community college students, that is reported to be currently eligible for state or federal financial aid (1993 Study of Fee Impact, March 1993 Board Agenda, Item 7).

Fall 1993. During the fall 1993, enrollment is estimated at 1,384,000, down 9% from fall 1992 and 2% or 31,000 from spring 1993 (Appendix A). Preliminary analysis suggests this is due to both curriculum cuts as well as the $3 per unit fee increase for students without baccalaureates. As many as 4,000 course sections may have been cut from the 1993-94 curriculum statewide.

Impact on Types of Students

Normally, there are certain shifts in the pattern of student enrollment between fall and spring; i.e., fewer new and more continuing students, etc. The following observations use fall 1991 to spring 1992 shifts as a benchmark, and examine those changes from fall 1992 to spring 1993 that can be attributed to the fee changes.

Spring 1993 losses among specific types of students that appear attributable largely to fee increases (Appendix D), were:

	Disproportionate Losses
Without BA/BS	Minority Full-time Over 20 years of age Continuing
With BA/BS	Minority Under 30 years of age Continuing

Aside from these distinctions, the spring 1993 fee increases appear to have impacted most students in about the same way.

Students without Baccalaureate Degrees. The spring 1993 loss in students without baccalaureate degrees took place primarily among full-timers (Appendix D). This represented a significant reversal of recent increases in the academic loads taken by students; the proportion of full-time students had increased from 22% in 1987 to 26% in 1992 (Appendix E). This reversal can be attributed to the spring 1993 policy change which lifted the ten-unit limit for which students could be charged, thereby making it substantially more expensive to attend full-time; i.e., carry 12 or more units.

Minority students appear to have been impacted by the fee to a greater degree than were white students, a finding consistent with the lower incomes (less ability to pay) of minority students generally found in other studies. (See Appendix F and 1993 Study of Fee Impact: Phase 2, May 1993 Board Agenda, Item 6.) Students over 20 years of age also appear to have been impacted to a greater degree by the fee increase than were younger, recent high school graduates. This impact is consistent with the notion that—other things being equal—self-supporting (generally older) students are impacted by fees more than are dependent (generally younger) students (Appendix F). This impact is also consistent with the fact that much-higher fee increases at UC and CSU likely resulted in more recent high school graduates enrolling in community colleges. During the five years prior to the spring 1993, fee increase, the largest growing California Community College student age groups were those in the 20-24 year-old and 30-39 year-old categories. The spring 1993 non-BA/BS fee increase appears to have impacted those in both groups, but not those less than 20 years of age.

The $4 per unit fee increase for non-BA/BS students also impacted those who were continuing (as opposed to new) the most; but, had less-than-expected impact on those returning (after having attended a community college previously).

The spring 1993 loss in females slightly exceeded that of males. Since this would not have been suggested by other studies and since the spring 1992 pattern was similar, it appears that fee increases had no differential impact on the two genders.

Results from a study of students still enrolled in the spring 1993 (reviewed in Appendix F) shows that when asked about fee increases, females and males say they would be forced to withdraw at similar rates. White and Asian students (say they) would withdraw less often because of high fee increases than would students from other racial and ethnic categories.

Among a sample of students without BA/BS degrees, enrolled in fall 1992, fees were a major reason one-third did not return in the spring 1993 (Appendix G). Another one-third of these students had completed their work or had transferred. This same study suggests that students training for a first job or pursuing other (than transfer or job) interests were impacted to a greater extent by the fee than other studies have indicated.

Students with Baccalaureate Degrees. For students with BA/BS degrees, the substantial fee increase from $6 per unit to $50 per unit appears to have produced greater losses among minorities than among Whites—a result that is consistent with findings and inferences from other studies (Appendix F).

The increase in fees for those with BA/BS degrees had less-observed impact on "transfers" from other institutions like UC and CSU that were still more expensive, and more impact on "returning" and "continuing" California Community College students who were accustomed to the lower $6 per unit fee at the California Community Colleges.

Three-fourths of a sample of students—with BA/BS degrees and enrolled in fall 1992—cited fees as at least part of the reason they didn't return in the spring 1993 (Appendix G). Among other reasons: three of ten had completed their work, one in six had work schedule conflicts, and 8% had transferred.

Nearly five of every ten students with baccalaureate degrees who withdrew had been enrolled for job training. Since six of every ten of the original group of BA/BS students were enrolled for occupational training, it appears that the fee, together with the fee waivers, impacted these to nearly the same degree as it did those with other (than job training) objectives.

Impact of Fee Increases on the Colleges and Their Mission

Access. Increased fees and inadequate budgets—leading to reductions in course sections offered—are preventing community colleges from enrolling the number of California adults who want to attend. Estimates of enrollment demand (that would

have developed had budgets been adequate and had fees not increased since 1990) suggest that the colleges are enrolling 140,000 fewer students than the current level of demand would indicate (Appendix H).

Enrollment demand for California Community Colleges during the rest of this decade will continue to be high because of the state's expected slow economic recovery (continued high unemployment) and because of future increases in the number of high school graduates—and in the proportion of those going to community colleges. Enrollments at the California Community Colleges would have to grow at more than 3% each year in order to accommodate all of their expected demand by the year 1999. By achieving this objective, the colleges would:

- accommodate California's adult population growth
- increase the participation of underrepresented groups
- enroll increasing numbers of high school graduates
- train many who lost their jobs during the recession

Estimates of future revenue expected from Proposition 98 do not appear adequate to support such a goal. Assuming that California will begin an economic recovery by the third quarter of 1994 and that the recovery will be less robust than were recoveries from the past three recessions, community colleges would face a revenue shortfall that would increase from nearly $300 million in 1994-95 to over $400 million by 1998-99 (Appendix H).

Program Quality. The impact of fees on the quality and character of college programs is difficult to assess. This is because of the problem of separating the impact of fees and curriculum changes and because there are few agreed-upon measures of program quality. For instance, anticipating the loss of students with baccalaureate degrees and knowing what courses they take, colleges canceled some spring 1993 classes in business, computer science and certain of the liberal arts and humanities, especially in music, drama, and foreign languages. And, even though other class sections were added for a net increase in spring 1993, most colleges report that large class-waiting lists continued in Mathematics, English and certain basic sciences during both spring 1993 and fall 1993.

Curriculum reductions during 1990-91 and 1991-92—mostly non-transfer, occupational education classes offered in business and fine and applied arts were deleted—appear to have been reversed in spring 1993 by college officials in an effort to accommodate demand, even in the face of fee increases. At the same time, the growth in developmental, basic skills courses continued.

The number of California Community College course sections statewide is down by about 10% since 1990-91 and, while faculty loads haven't changed, average class sizes have increased.

Trends in student enrollment and class sections:

	Change from 1990-91
FTES or WSCH	-4%
Class sections	-10%
Average class size	+6%

show the increase in overall section size.

Recent faculty salary schedule increases:

	Median increase
1989-90	6.1%
1990-91	5.7%
1991-92	1.9%
1992-93	0.0%

have been much below those of prior years.

The impact of these changes on the quality of instruction is unclear. Colleges have attempted to hold down costs by these class size increases and by limiting salary increases.

APPENDIX A

Fall 1993 Enrollment Estimates

This appendix presents the results of a telephone survey in which 28 colleges and five large districts were sampled about their Fall 1993 enrollment. This sample is over half of statewide enrollment during the fourth week.

The highlights of this survey:

- Headcount enrollment is estimated at 1,384,400, down 9% from a year ago because
  - fees for those with the BA/BS degree have increased by $44/unit.
  - other fees have increased from $6/unit to $13/unit.
  - course sections have been cut by an estimated 4,000.
- This fall's numbers are down 2% from last spring. Most of the impact (7% loss) of new fees occurred last spring.
- The average academic load of currenty-enrolled students has increased over that reported last year because
  - the many lost BA-holders took just one or two courses.
  - there is a slight increase in high school graduates and community colleges are enrolling a larger proportion of these graduates. These students would have started their work directly at UC and CSU in other years; they are younger and carry larger than average academic loads.
- Despite the enrollment drop, most colleges have class waiting lists—typically in mathematics, English, and certain basic sciences—because of
  - continued increases in demand for basic skills and ESL
  - increased demand for transfer education by young adults

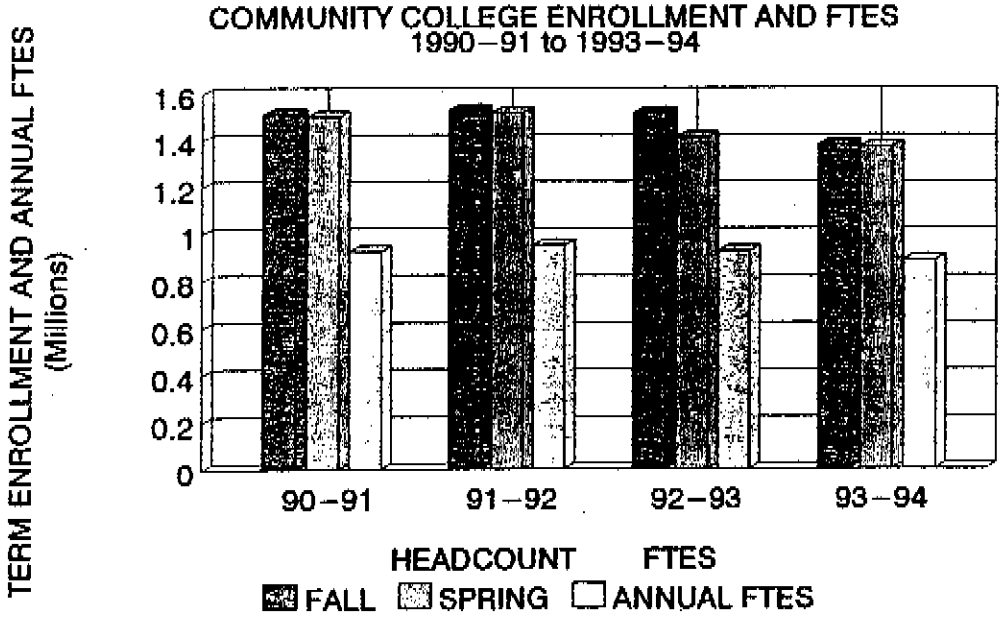
Table A-1

Community College Enrollment and FTES

1990-91 to 1993-94

YEAR	ENROLLMENT	%CHG FROM PRIOR YEAR	FTES	%CHG FROM PRIOR YEAR
1990–91				
Fall	1,513,010	3.9%		
Annual			925,139	5.6%
Spring	1,502,921			
1991–92				
Fall	1,531,944	1.3%		
Annual			952,654	3.0%
Spring	1,520,504	1.2%		
1992–93				
Fall	1,521,277	–0.7%		
Annual			927,365	–2.7%
Spring (Est.)	1,415,100	–6.9%		
1993–94 (Estimate)				
Fall	1,384,400	–9.0%		
Annual			887,905	–4.3%
Spring	1,373,000	–3.0%		

SOURCE: Chancellor's Office, Research and Analysis; October 20, 1993.



Source: Chancellor's Office

Table A-2

Enrollment Survey

Fall 1993

COLLEGES	FALL 1992 ENROLLMENT	1st CENSUS FALL TO FALL % CHANGE	HS	UC/ CSU	LOAD	SECTION
Canyons	6670	0.0	0	+	+	0
Cerritos	22760	-10.0	+	0	-	-30
Compton	5696	-19.0	0		+	
Contra Costa	9425	-11.0	0	0	+	-67
Cuyamaca	5107	-10.2	0	+	+	
DeAnza	25002	-4.7	0	+	+	75
El Camino	25321	-3.0	-	-	-	
Grossmont	16780	-9.3	0	+	+	
Hartnell	11891	-12.0	+	0	+	-45
Imperial Valley	6399	0.0	0	0	+	-12
Long Beach	23646	-8.4	+		+	-30
Marin	10577	-8.0				
Mira Costa	13723	-9.6	0	+		
Mission	12139	-9.5	0	0	0	
Mount San Antonio	31149	-3.2	+	+		
Orange Coast	24984	-7.3	0	0	+	33
Pasadena	29236	-8.0				
Rancho Santiago	31335	-20.5	0	+	+	-200
Riverside	22662	-9.6	0	0	-	-200
Saddleback	24505	-9.1	+	0	+	
San Francisco	32236	-5.0	+	0		
San Joaquin	16969	-8.2	0	0	+	
San Mateo						
Santa Monica	25890	-6.9	0	+		
Santa Rosa	30362	-13.0	+	-	+	
Skyline						
Ventura	11997	-16.8	+	0	0	
West Valley	14755	-10.0	+	0	0	0
Subtotal	491216	-8.8 (weighted)				-476
Total up (+)			9	8	14	
Total no change (0)			14	12	3	
Total decrease (-)			1	2	3	
Large Districts:						
LA CCD	127837	-9.9				
Los Rios	53949	-4.5				
North Orange	35876	-6.1				
Peralta	29929	-9.2				
San Diego	44923	-8.7				
Subtotal	292514	-8.2 (weighted)				
Total	783730	-8.6 (weighted)				

Source: Chancellor's Office

Table A-3

Follow-up Telephone Survey of Fall 1993 Enrollment

1. a. Compared to the same period (adjusted for calendar, if any) last Fall term, what is the percentage change in credit enrollment, this Fall? _____
   b. If this is different than the earlier estimate, why caused the difference? contract classes, late registration did or did not add more students as expected.
   c. How does this fall's average student credit unitload compare to last fall's ? Ave unitload up: 14 Ave unitload down: 3

2. Listed below are factors influencing community college enrollment changes. Indicate for each factor how it is affecting your college's enrollment this fall - increase, decrease, or no effect/change on enrollment.

	Increase	No Effect/ Change	Decrease
a. Pool of new high school grads	9	14	1
b. Economic activity/recession	7	7	10
c. No. of persons unemployed	11	9	4
d. Pool of older adults	3	16	3
e. District total population	6	17	1
f. College recruitment and outreach activities	4	13	0
g. Enrollment management activities	3	13	
h. UC/CSU redirected students	8	12	2
i. Curriculum change (course/ section cuts, etc.)	0	4	20
j. Fee increases ($10 to $13)	0	1	23
l. Fee increases for BA	0	0	24

m. Other (Specify) The funding cap, more student freeway flyers - students shopping among colleges to get their classes, increased parking fees, misinformation about fees

3. Are students having more difficulty than last year in getting the classes they want? (7) Yes (7) No

   Is this attributable to changes in the no. of sections offered? (5) Yes (5) No

   Number of sections dropped 584 among 7 colleges

   Number of sections added 108 among 2 colleges

   What type of course sections were dropped/added? general education, transfer, personal interest, low enrollment

Source: Chancellor's Office

Table A-4

Trends in Headcount Enrollment

(In thousands)

	Year	Total Enrollment N	%Change		Credit Enrollment	%Change	Noncredit Enrollment	%Change
	1970	825			652		173	
	71	837	1.5		695	6.6	142	-17.9
	72	922	10.2		725	4.3	197	38.7
	73	1009	9.4		853	17.7	156	-20.8
	74	1136	12.6		959	12.4	177	13.5
	75	1285	13.1		1104	15.1	181	2.3
	76	1256	-2.3		1075	-2.6	181	0
	77	1322	5.3		1118	4.0	204	12.7
	78	1160	-12.3		1049	-6.2	111	-45.6
	79	1248	7.6		1101	5.0	147	32.4
	80	1384	10.9		1190	8.1	194	32.0
	81	1431	3.4		1254	5.4	177	-8.8
	82	1352	-5.5		1188	-5.3	164	-7.3
	83	1248	-7.7		1085	-8.7	163	-0.6
	84	1173	-6.0		1005	-7.4	168	3.1
	85	1174	0.1		1004	-0.1	170	1.2
	86	1225	4.3		1057	5.3	168	-1.2
	87	1284	4.8		1095	3.6	189	12.5
	88	1336	4.0		1131	3.3	205	8.5
	89	1408	5.4		1195	5.7	213	3.9
*	90	1513	7.5	*	1295	8.4	218	2.3
	91	1532	1.2		1331	2.8	201	-8.5
	92	1522	-0.7		1326	-3.8	196	-2.5
Est.	93	1385	-9.0		1207	-9.0	178	-9.0

* **Note**: Total headcount for 1990 increased over prior years' headcounts due to changes in the reporting of 1990 student enrollments, as well as the actual enrollment themselves. The portion of the 7.1% increase due to (a) changing reporting systems, (b) moving from a first census week to full term reporting time frame, and (c) changing the total headcount to just those students enrolled for at least one-half credit hour or 8 or more contact hour is estimated to be 3.4%. Therefore, the real change (that is, if the reporting methodology is consistent between 1989 to 1990) from Fall 1989 to Fall 1990 is estimated to be 3.7%.

APPENDIX B

Enrollment Forecasting Model

The Chancellor's Office Enrollment Forecasting Model can isolate the impact of price or fee changes on community college student enrollment, recognizing (holding constant) the impact of other factors that impact enrollment like economic conditions, population change, community colleges budgets, and the policies of other institutions.

The forecasting model is a statistical regression that examines the historical relationship(s) of these independent variables to the dependent variable community college enrollment, isolating the impact of fees. Then, once we forecast future values of other independent variables, we may then pose different fee increases and theoretically examine the impact of these different fees on community colleges enrollment. We use the term theoretically because (1) there are technical limitations to the regression model, and (2) apart from those technical limitations, the model's forecast assumes that past student behavior will continue. This assumption may not always hold, particularly if there are unprecedented changes in the independent variables.

Despite these limitations, this kind of forecasting model is one of the best tools available to help examine the impact of fees. Other tools such as student surveys can, of course, be used to supplement the forecasting model.

To proceed, we need to identify and specify those factors that exert the most impact on community college enrollment: community college price, economic conditions, population changes, budgets, and policies of other suppliers.

If the price of community college attendance includes those expenditures that a student makes purely in order to attend a community college, then it (price) includes:

- fees
- books and supplies
- transportation
- child care (if applicable)

Earnings foregone—the earnings from work students can't do because they attend—are sometimes included in the price of attendance. We do not include them, however, because they are hard to measure and, to some extent, community college students don't forego earnings; 70-80% of community college students work.

Under this definition of community college price, students are spending an estimated $1,340 per FTES this year.

In addition to changes in price, student enrollment is the consequence of

- *Economic conditions*: individuals who are unemployed often enroll at community colleges to retrain in order to become employable; increased unemployment produces increased demand for community college enrollment;
- *Population increase*: increasing numbers of high school graduates, immigrants, and other adults produce increased demand for community college enrollment;
- *Community college budgets*: funding controls the ability of community colleges to hire staff and, therefore, to provide classes and supporting services; for instance, budget decreases lead to class section reductions and to decreased community college capability to meet enrollment demand;
- *Policies of other suppliers*: as fees increase and curriculum is reduced in the University of California (UC) and the California State University (CSU), students attempt to obtain their lower division instruction at the community colleges and enrollment demand increases.

The forecasting model is:

$$CCCFTE = a + b1(RCCCPR) + b2(POPN) + b3(RREV) + b4(UNEM) + u$$

where, "a," "bi" are regression parameters and "u" is the error term

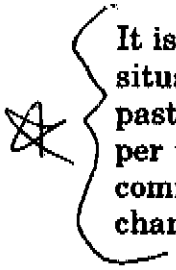
and

RCCCPR	=	the real (buying-power adjusted) price facing an FTE student attending a California community college
POPN	=	California adult population
RREV	=	real (price adjusted) revenues and ending-balances available to community colleges
UNEM	=	the number of unemployed Californians

The model provides an excellent fit of the recent 17 years of aggregate community college systemwide data (in general, the post-Proposition 13 era). Most of the year-to-year variation in community college FTES ($R^2 = .948$) is explained by the model (see Table B-1). While this high degree of explanation is not unusual in time series analyses of this kind, we know from the inconclusive Durban-Watson (DW) statistic (2.336) and the relatively low, negative first-order autocorrelation (-0.209), that no important independent (explanatory) variables have been omitted. Moreover, *t* values (regression coefficients divided by their standard error of estimate) for the

independent variables are significant at least at P>.0006, indicating they all are significantly related in the hypothesized direction to community college FTES enrollment.

Sorting the impact of the factors from price, we find that community college FTES enrollment is highly price-elastic, where elasticity (e) is -0.8. In other words, other things being equal, a 10% increase in price (because of increased fees, for instance) would result in an community college FTES enrollment decrease of 10%; provided that community college students behave in generally the same way they have for the past 17 years. And, the overall change in FTES estimated by the model would be more- or less-than that depending upon the net impact of the other factors.



It is possible, however, that a $10 or $20 increase in per unit fees would produce a situation in which community college students do not behave like they have in the past, contrary to our assumption above. Doubling or tripling the fee—a $10 or $20 per unit increase—may produce quite different behavior. For a variety of reasons, community college students could be proportionately more or less resistant to price changes of a much higher magnitude.

Also, unlike earlier periods, there may be some "latent demand," i.e., individuals who have been denied enrollment by means pf price or lack of classes or class space. If so, historic price-elasticity parameters may not hold. Others will replace those "priced-out."

These levels of price-elasticity are somewhat higher than those usually found in the literature about higher education. There appear to be two reasons for this. First, our definition of price includes relatively more factors—transportation, books and supplies, and child care, in addition to fees—than the usual definition—just tuition and fees—and, therefore, produces a higher computation of elasticity. Note the definition of elasticity:

$$e = (dFTE/FTE)/(dPR/PR)$$

Increase price, PR, other things unchanged, and *e* is automatically increased! Decrease price and e automatically decreases. For example, our price-elasticity of $e = -.8$ converts to a fee elasticity of e = -.3! (Note, however, that this would produce no change in the forecast of enrollment loss.)

Second, most studies of student price-elasticity in higher education involve four-year students. Community college students would be expected to have higher elasticities, i.e., be more responsive to price changes than four-year students because, in contrast to four-year students, community college students (1) are less-wealthy—data from the SEARS for California confirms this; (2) have, on the average, less time and money already invested in their education; (3) are far more often self-supporting, relying on their own income, rather than dependent—upon their parents' or others' income; and

(4) are, on average, less skilled and, therefore, consider an investment in post-secondary education to be more risky.

Findings from our model are consistent with those of the latest very comprehensive, effort to compare various studies of student response to price changes (Brinkman and Leslie, *Journal of Higher Education*, 3-4/87). In that study, the authors compare various studies using a measure, the student price response coefficient (SPRC), that is the percentage change in enrollment per every $100 in price change. (Their price is tuition/fees, room and board, in contrast to our "commuter" price of fees, books and supplies, transportation, and child care.)

Brinkman and Leslie's findings from 25 studies of price response in higher education, given their notion of price, suggest an overall elasticity of $e = -.6$. The authors go further to calculate an SPRC for community colleges using national data for 1967 to 1972 which converts to $e = -.9$, using their notion of price.

Chancellor's Office work earlier on the 1984 Fee Impact Study produced an elasticity of $e = -.7$ using community college commuter price and cross-section data from 70 community college districts for the 1983 to 1984 change in fees and other factors.

Table B-1 illustrates output from the model. The "parameter estimate" is the regression coefficient for the log value of the real price facing students (LRPRICE) when the effects on enrollment of college revenues (and course sections), unemployment, and population change are held constant. The value -0.8 represents the elasticity or percent loss in enrollment resulting from a 1 percent increase in price that can be observed for the 17 post-Proposition 13 (post-1977) years. Values for the other variables also are highly significant; that is, they explain variations in enrollment.

To illustrate the application of this model to the Spring 1993 fee increases, we note first that the 1992-93 average student cost was $1,246 per FTES or $623 for the half-year.

Students with Baccalaureate Degrees. For each FTES with the baccalaureate degree, the $44 per unit fee increase represented an increase of $660 (15 units x $44). Adjusting this for expected financial aid—about one-fourth of all BA/BS holders had fees waived so that the effective price increase was $495 ($660 fee less $165 average financial aid).

Thus, the overall increase for BA/BS holders was 79% ($495/$623 per FTES for the half-year, including fee waivers) in the total cost of enrollment. The 41% loss in these students, therefore, suggests a price-response or "enrollment price-elasticity" of (-41/79) = -.5. (Price-elasticity (e) is defined as the percent loss in enrollment resulting from a one percent increase in price.) A value of -.5 for e is consistent with results from other studies and with previously-observed behavior of community college students in similar academic and economic circumstances (Appendix B).

Without the fee waivers, the cost increase for BA/BS holders would have been 105% ($660/$623) and, using the above-derived elasticity of -.52, would have produced a calculated 55% loss or 72,000 students. The difference between 72,000 and 54,000, the number that actually withdrew, is 18,000 students. This is a partial reflection of the number of students retained by fee waivers. The actual number is estimated at 31,000 in Appendix G, considerably higher than our calculation because financial aid is targeted toward those in need, not everyone as implied by our average formula.

Students Without Baccalaureate Degrees. Using the same method as above, we find that the increase in price for non-BA/BS students was +7.2% ($45/$623, for the half-year, including the BOGG price offset).

The enrollment loss of students without the baccalaureate, attributable to fees, is about 5% (-4.2% actual loss, along with a +.75% potential increase). Comparing this loss to the price increase of 7.2% suggests an overall price-elasticity of e = (-5/7.2) = -.7. As expected, this price-response or elasticity for students without the BA/BS degree is higher than the value calculated above for those with the degree, due largely to these students having lower incomes, being less-able to pay, possibly less inclined to continue their education, and, therefore, more price-responsive. And, the value e = -.7 is close to what would be expected, based on results (e = -.8 to -1.0) from other studies of fall community college enrollments.

The value for price-elasticity here, $e = -.7$, is equivalent to the value, noted above, that was calculated from observations of the fee increase in 1984. This value is close to what would be expected, based on results from other studies dealing with community college students and their reaction to fee changes.

↑ price 1%

↓ enroll -0.7%

Table B-1
Community College Enrollment and FTES

Obs	Dep Var FTES	Predict Value	Residual
1	833615	823464	10151.1
2	747182	759164	-11982.4
3	781070	798756	-17684.8
4	853550	835647	17902.7
5	880529	872513	8016.5
6	851936	837069	14866.6
7	778781	799132	-20351.2
8	755603	746986	8617.4
9	748071	765145	-17074.4
10	777032	770622	6409.7
11	796187	789515	6672.5
12	837092	821883	15209.3
13	876251	885830	-9599.1
14	925139	930157	-5018.3
15	952654	959059	-6405.2
16	927565	934730	-7164.5
17	904240	896606	7634.2
18	.	883899	.
19	.	896341	.
20	.	898654	.
21	.	904855	.
22	.	911074	.

Sum of Residuals 5.49244E-10
Sum of Squared Residuals 2532926789.4
Predicted Resid SS (Press) 5060301825.9

Model: MODEL2
Dependent Variable: LFTES

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Value	Prob>F
Model	4	0.09847	0.02462	74.445	0.0001
Error	12	0.00397	0.00033		
C Total	16	0.10244			

Root MSE	0.01818	R-square	0.9613
Dep Mean	13.63437	Adj R-sq	0.9484
C.V.	0.13337		

Parameter Estimates

Variable	DF	Parameter Estimate	Standard Error	T for H0: Parameter=0	Prob > |T|	Squared Partial Corr Type I	Squared Partial Corr Type II
INTERCEP	1	11.469532	0.80262539	14.290	0.0001	.	.
LXREV	1	0.561297	0.04572732	12.275	0.0001	0.92898294	0.92623215
LUNEMPL	1	0.159115	0.02460958	6.466	0.0001	0.88000582	0.77496595
LPOP	1	0.236729	0.05089538	4.651	0.0006	0.42030923	0.64324188
LRPRICE	1	-0.806187	0.12169987	-6.641	0.0001	0.78609827	0.78609827

Durbin-Watson D 2.336
(For Number of Obs.) 17
1st Order Autocorrelation -0.209

Source: Chancellor's Office

APPENDIX C

Financial Aid

Starting with the Spring 1993 term, the $10 unit fee ceiling was removed for all students while the fee level was increased from $6 per unit to $10 per unit for most students. Students holding a baccalaureate or higher degree (BA) had a fee increase from $6 per unit to $50 per unit. Some relief from these fee increases was provided by the Legislature for certain economically disadvantaged students. This relief included permissive fee waivers for BA students who were unemployed, underemployed or certain other economic disadvantages. For non-BA students the relief was in the form of increased Board of Governors Grants (BOGGs) under the Board Financial Assistance Program (BFAP).

Statewide data on the number of fee waivers granted BA students are not available nor is information directly available on the impact of added BOGGs on non-BA students faced with higher enrollment fees. This appendix examines information from the Management Information System (MIS), the Student Expenditures and Resources Survey (SEARS) for Spring 1992, and fiscal reports to determine the number of students having certain characteristics which would make them eligible for fee waivers or financial assistance. The attached tables summarize the available data. Some conclusions drawn from these data include:

1. A survey conducted by the Fiscal Services Unit in the Chancellor's Office estimated that $10.3 million in fee revenue was collected from BA holders in community colleges. An analysis of MIS data on BA enrollments and unit course load indicates that $18.0 million could have been collected had each student paid the $50 per unit fee and no waivers were granted. Fee revenues, therefore, were 57 percent to potential, suggesting that 43% of BA students received a waiver. (See Worksheet 1.)

2. Despite the substantial fee increase faced by BA students, those who stayed carried only slightly reduced workloads (4.20 median units in Spring 1992 to 4.13 median untis in Spring 1993). (See Worksheet 1.)

Worksheet 1

Comparison of Spring Term 1993 and Spring Term 1992
Enrollments of BA Students, Their Credit Unit Workload, and Potential Fee Revenue

Unit Load	Spring 1992		Spring 1993		Potential Fee Revenue
	No.	%	No.	%	(in $1000s)
0.1 - 2.9	39,969	31.6	25,812	33.3	1,936
3.0 - 5.9	58,098	45.9	34,416	44.4	7,744
6.0 - 8.9	15,747	12.4	8,760	11.3	3,285
9.0 - 11.9	6,226	4.9	4,108	5.3	2,157
12.0 - 14.9	3,669	3.0	2,635	3.4	1,779
15+	2,862	2.2	1,783	2.3	1,108
Total	**138,341**	**100.0**	**77,514**	**100.0**	**$18,009**

Actual fee revenue collected Spring 1993 was $10,250,000 or 57% of potential total.

Suggests that 43% of workload was subject to fee waiver.

Median workload Spring 1992 = 4.13
Median workload Spring 1993 = 4.20

3. It is estimated that about 5,000 of BA/BS holders received financial aid (amounting to $200 or more) during the Spring 1992 term. For Spring 1993, BA/BS holders were no longer eligible to receive BOGGs.

4. Over the two years, 1991-92 and 1992-93, the following BOGG activity is estimated for non-BA/BS holders:

	1991-92		1992-93	
	Grants *($ million)*	Recipients	Grants *($ million)*	Recipients
Appropriated base for fee increase	$16.4	170,000	$16.4	170,000
Base			9.4	
New			1.5	
Value of fee waivers	2.5	12,000	7.7	57,000
Total	**$18.9**	**182,000**	**$35.0**	**238,000**
Total Annual Transactions		**425,000**		**493,000**

Thus, an estimated 56,000 students were added to the BOGG program during 1992-93, the bulk of the increase coming in the Spring 1993 and nearly half from fee waivers, rather than state appropriation. Beginning January 1994, all BOGGS will be in the form of fee waivers.

5. BA students on public assistance receiving waivers potentially amount to 4,300 students. SEARS 92 shows that 3% of BA students received some form of public assistance. (See Table C-1.)

6. As many as 37,500 BA students may have been eligible for waivers because of their unemployed or underemployed status, based on SEARS 92. This is the number of BA students in Spring 92 who were unemployed or held employment for less than 10 hours per week. This is a high estimate since some portion of this group may not have actively been seeking employment. (See Table C-1.)

   The number of BA students who are economically disadvantaged (making incomes at or below $6,000 per year) is about 13,700, somewhat lower than the number of unemployed or underemployed. (See Table C-1.)

7. About 2,800 BA students could potentially receive waivers due to their disability status, most frequently related to mobility. (See Table C-1.)

8. Most BA students pursue vocational or job training goals in community colleges. SEARS 92 indicated 87,000 students seeking first career training, training for a different career, or upgrading skills on their present job. Of this group, 39,000 were seeking a new license or renewing an existing license. (See Table C-1).

9. The table below recaps these rough estimates.

Total BA students (estimate) 73,100

Potential eligible	No.	Percent
Public Assistance	4,300	13
Disability	2,800	8
Balance for unemployment and other factors	26,231	79
Total	**33,331**	**100**

Table C-1

Characteristics of Community College Students

Spring 1992 Term

Item	BA		Part-time		Full-time		All Students	
	No.	%	No.	%	No.	%	No.	%
Applied for Financial Aid	13,500	9	111,500	16	97,400	36	1,143,200	19
Grant Amount Received								
None	146,100	96	605,000	86	183,300	68	934,400	83
Under $200	2,300	2	23,800	3	9,200	3	35,300	3
200 or more	2,700	2	72,400	11	76,200	29	151,300	14
Received Public Assistance	4,328	3	59,700	9	35,800	14	99,800	9
Hours of Paid Employment								
None	26,300	16	165,100	22	89,500	32	280,800	23
1-10	11,200	7	65,700	9	25,800	8	102,700	9
10+	122,600	77	522,400	69	168,400	60	813,400	68
Own Income Under								
$6K	13,700	6	210,000	30	141,200	52	365,000	32
$6-$12K	17,200	11	98,200	14	62,300	23	177,700	16
$12-$18K	13,400	9	82,100	12	23,600	9	119,100	11
$18-$24K	10,500	7	80,400	11	10,700	4	101,600	9
$24+K	99,700	67	237,900	23	32,100	12	369,800	32
Disabled	2,800	2	30,600	5	8,800	3	42,200	4
Goal								
Transfer	10,000	7	309,100	47	177,800	69	496,900	47
Occupational	87,000	57	237,100	36	59,500	23	383,500	36
Basic Skills	4,800	3	29,900	5	6,700	3	41,500	4
Other	49,500	33	77,300	12	14,200	5	141,000	13

Source: SEARS Spring 1992.

Footnotes: Characteristic totals vary due to missing data and unknowns.

APPENDIX D

Recent Four-term Trends in Enrollment

This appendix reviews California Community College enrollment for the recent four terms:
Fall 1991
Spring 1992
Fall 1992
Spring 1993
to determine recent trends and identify the impact of Spring 1993 fee increases.

Enrollments are examined separately for those students with and those without baccalaureate degrees; and further categorized by:

Academic Load	Table D-1
Race/Ethnicity	Table D-2
Age	Table D-3
Gender	Table D-4
Academic Status	Table D-5
Academic Goal	Table D-6

In general, the tables show that

- for students with baccalaureate degrees:
  - Minority students appear to have been impacted somewhat more by Spring 1993 fee increases than were White students.
  - New students (accustomed to higher fees) were affected less than were those who were continuing their enrollment at CCC.
  - Those under 30 years of age were affected more by the fees than were older students.
  - One-third of those training for jobs withdrew, while one-half of those enrolled for personal interests withdrew. This difference is likely due to the fee waiver policy.
- for students without baccalaureate degrees:
  - A large drop in full-time enrollment during Spring 1993 reflects the lifting of the ten-unit limit on work for which students are charged.
  - Continuing students appear to have been affected more by the fee increases in Spring 1993 than were new students.
  - The Spring 1993 fee increase also had more of an impact on minority students and on those over 20 years of age than it did on younger, White students.

- Spring 1993 enrollment patterns by gender were similar to Spring 1992 patterns, and therefore, don't suggest any differential impact on these groups from the fee increases.

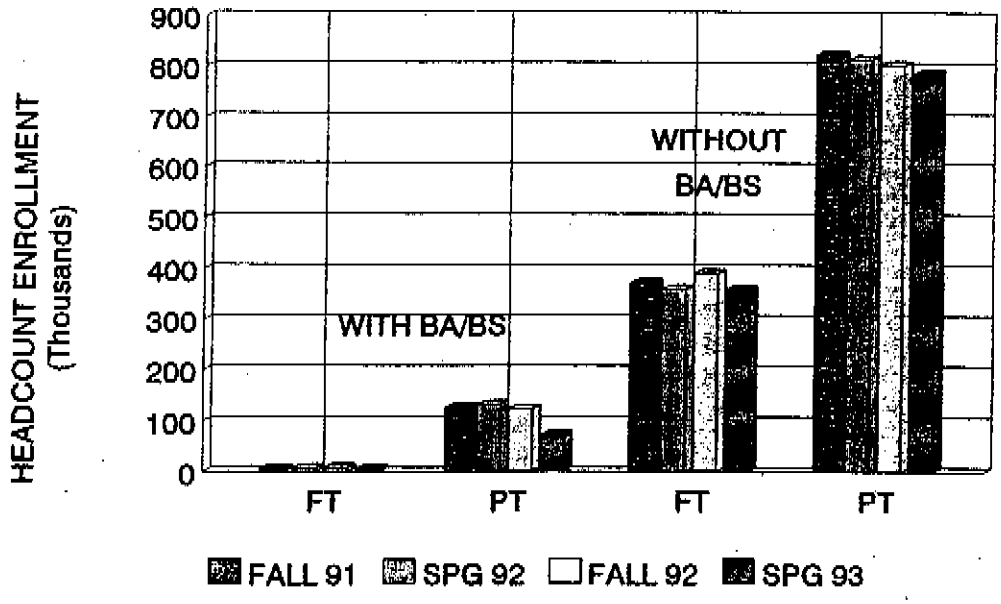
Table D-1

Term Credit Enrollment by Academic Load

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
FT	6711	7098	387	5.8%	7415	4457	−2958	−39.9%
PT	126770	131243	4473	3.5%	123957	73050	−50907	−41.1%
TOT	133481	138341	4860	3.6%	131372	77507	−53865	−41.0%
W/O BA/BS								
FT	372297	360076	−12221	−3.3%	390896	358199	−32697	−8.4%
PT	825391	814455	−10936	−1.3%	803951	786268	−17683	−2.2%
TOT	1197688	1174531	−23157	−1.9%	1194847	1144467	−50380	−4.2%
TOTAL								
FT	379008	367174	−11834	−3.1%	398311	362656	−35655	−9.0%
PT	952161	945698	−6463	−0.7%	927908	859318	−68590	−7.4%
TOT	1331169	1312872	−18297	−1.4%	1326219	1221974	−104245	−7.9%

SOURCE: Chancellor's Office, September 27, 1993; based on 87% sample of total enrollment.



NOTES:

1. Only 1 of 20 BA/BS−holders attended full−time. With $50/unit fee, over 40% (54,000 of 131,000) withdrew in Spring 1993.
2. For those without BA/BS, the drop was just 4% (it is normally 1% from Fall to Spring), primarily among full−timers (−8%) because the 10 unit limit on fee charges was lifted along with the increase from $6 to $10/unit.

Table D-2

Term Credit Enrollment by Race and Ethnicity

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
ASIAN	15351	16308	957	6.2%	16135	9072	−7063	−43.8%
BLACK	5830	5749	−81	−1.4%	5551	3012	−2539	−45.7%
HISPANIC	8595	9006	411	4.8%	8626	4607	−4019	−46.6%
WHITE	90629	93479	2850	3.1%	87306	52840	−34466	−39.5%
OTHER	7766	7878	112	1.4%	7975	4467	−3508	−44.0%
UNKNOWN	5309	5921	612	11.5%	5808	3516	−2292	−39.5%
TOTAL	133480	138341	4861	3.6%	131401	77514	−53887	−41.0%
W/0 BA/BS								
ASIAN	115609	118227	2618	2.3%	127655	127771	116	0.1%
BLACK	96828	95212	−1616	−1.7%	99186	94025	−5161	−5.2%
HISPANIC	226276	222142	−4134	−1.8%	237881	228126	−9755	−4.1%
WHITE	642932	624639	−18293	−2.8%	611600	580145	−31455	−5.1%
OTHER	78189	76703	−1486	−1.9%	81128	78481	−2647	−3.3%
UNKNOWN	37854	37607	−247	−0.7%	37368	35890	−1478	−4.0%
TOTAL	1197688	1174530	−23158	−1.9%	1194818	1144438	−50380	−4.2%
TOTAL								
ASIAN	130960	134535	3575	2.7%	143790	136843	−6947	−4.8%
BLACK	102658	100961	−1697	−1.7%	104737	97037	−7700	−7.4%
HISPANIC	234871	231148	−3723	−1.6%	246507	232733	−13774	−5.6%
WHITE	733561	718118	−15443	−2.1%	698906	632985	−65921	−9.4%
OTHER	85955	84581	−1374	−1.6%	89103	82948	−6155	−6.9%
UNKNOWN	43163	43528	365	0.8%	43176	39406	−3770	−8.7%
TOTAL	1331168	1312871	−18297	−1.4%	1326219	1221952	−104267	−7.9%

SOURCE: Chancellor's Office, September 27, 1993; based on 87% sample of total enrollment.
Other* includes American Indian, Filipino, and Pacific Islanders.

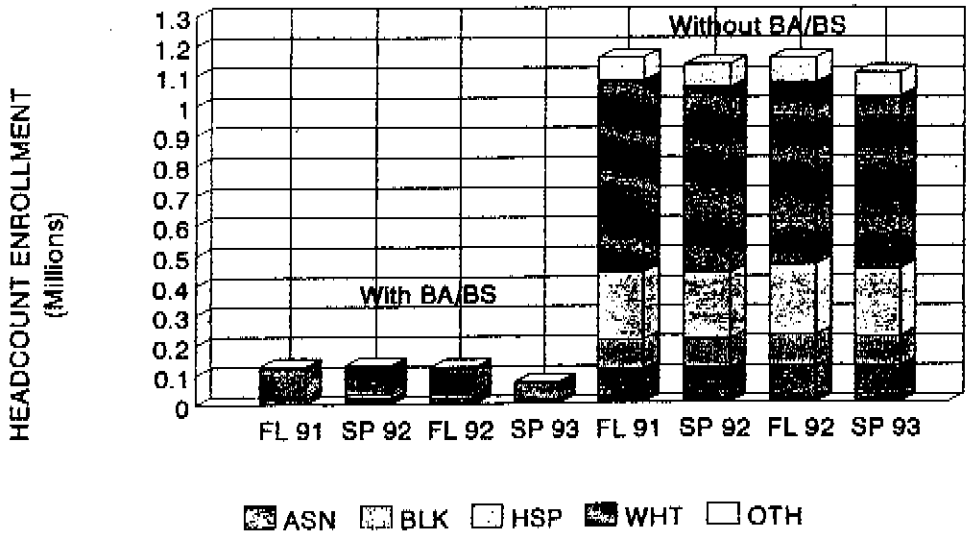


Table D-3

Term Credit Enrollment by Age

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
<20	229	221	−8	−3.5%	176	88	−88	−50.0%
20−24	8461	9096	635	7.5%	8398	4666	−3732	−44.4%
25−29	24728	25874	1146	4.6%	23690	13015	−10675	−45.1%
30−39	43436	44506	1070	2.5%	41629	25048	−16581	−39.8%
>39	56285	58307	2022	3.6%	57088	34645	−22443	−39.3%
UNKNOWN	357	325	−32	−9.0%	399	205	−194	−48.6%
TOTAL	133498	138331	4833	3.6%	131380	77667	−53713	−40.9%
W/0 BA/BS								
<20	247415	214782	−32633	−13.2%	249330	215580	−33750	−13.5%
20−24	361592	369900	8308	2.3%	369573	366564	−3009	−0.8%
25−29	179313	179517	204	0.1%	176463	173368	−3095	−1.8%
30−39	230538	231882	1344	0.6%	227692	223130	−4562	−2.0%
>39	176543	176421	−122	−0.1%	169586	163775	−5811	−3.4%
UNKNOWN	2269	2044	−225	−9.9%	2203	1890	−313	−14.2%
TOTAL	1197670	1174546	−23124	−1.9%	1194847	1144307	−50540	−4.2%
TOTAL								
<20	247644	215003	−32641	−13.2%	249506	215668	−33838	−13.6%
20−24	370053	378996	8943	2.4%	377971	371230	−6741	−1.8%
25−29	204041	205391	1350	0.7%	200153	186383	−13770	−6.9%
30−39	273976	276390	2414	0.9%	269321	248178	−21143	−7.9%
>39	232828	234728	1900	0.8%	226674	196420	−28254	−12.5%
UNKNOWN	2626	2369	−257	−9.8%	2602	2095	−507	−19.5%
TOTAL	1331168	1312877	−18291	−1.4%	1326227	1221974	−104253	−7.9%

SOURCE: Chancellor's Office, September 27, 1993; based on 87% sample of total enrollment.

Term Enrollment by Age

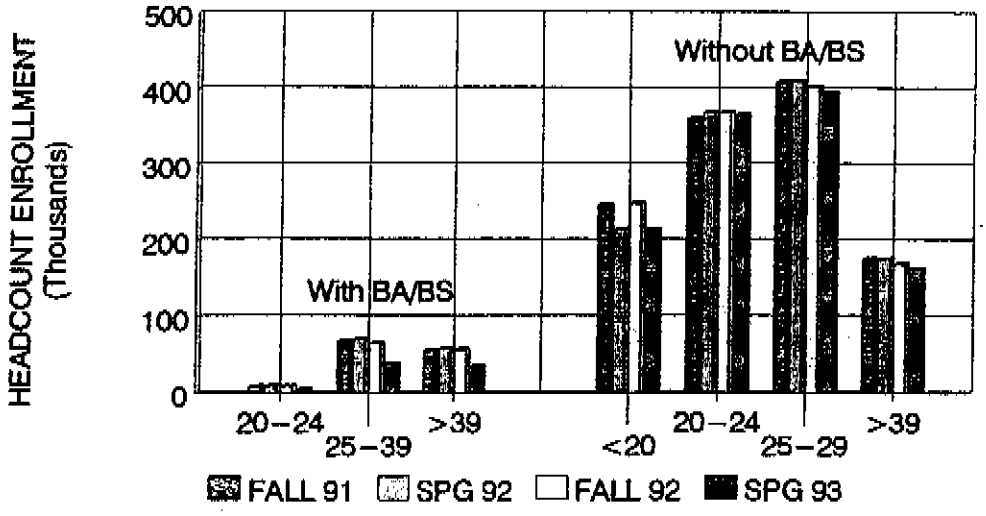


Table D-4

Term Credit Enrollment by Gender

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
FEMALE	72815	74034	1219	1.7%	72355	42314	−30041	−41.5%
MALE	60452	63969	3517	5.8%	58583	34933	−23650	−40.4%
UNKN	214	408	194	90.7%	441	261	−180	−40.8%
TOT	133481	138411	4930	3.7%	131379	77508	−53871	−41.0%
W/O BA/BS								
FEMALE	658228	638257	−19971	−3.0%	656727	619210	−37517	−5.7%
MALE	537795	534195	−3600	−0.7%	536079	523241	−12838	−2.4%
UNKN	1669	2080	411	24.6%	2043	2015	−28	−1.4%
TOT	1197692	1174532	−23160	−1.9%	1194849	1144466	−50383	−4.2%
TOTAL								
FEMALE	731043	712291	−18752	−2.6%	729082	661524	−67558	−9.3%
MALE	598247	598164	−83	−0.0%	594662	558174	−36488	−6.1%
UNKN	1883	2488	605	32.1%	2484	2276	−208	−8.4%
TOT	1331173	1312943	−18230	−1.4%	1326228	1221974	−104254	−7.9%

SOURCE: Chancellor's Office, September 27, 1993; based on 87% sample of total enrollment.

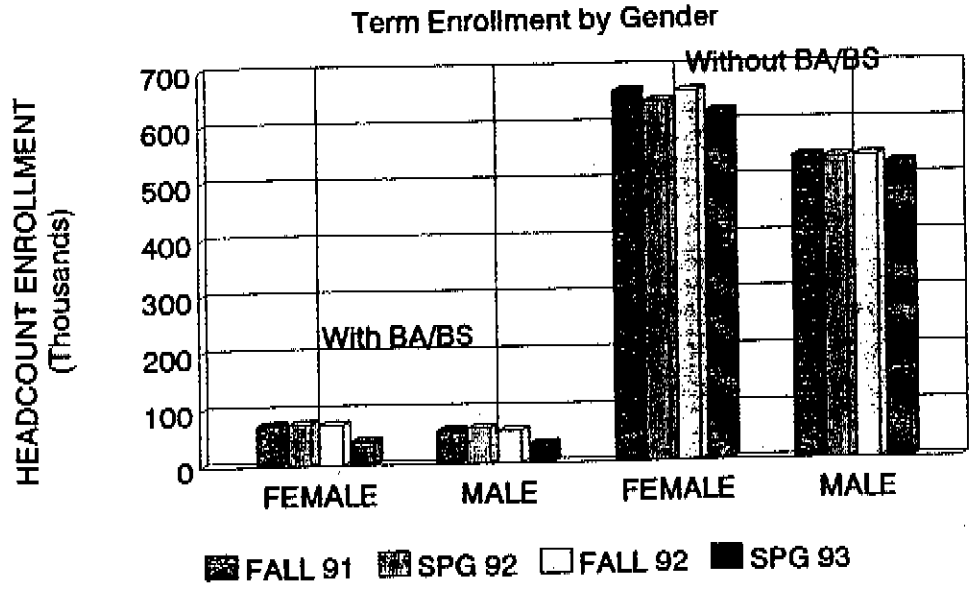


Table D-5

Term Credit Enrollment by Status

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
First Time Transfer	59340	52337	−7003	−11.8%	52827	23309	−29518	−55.9%
Returning	20487	21740	1253	6.1%	21449	12586	−8863	−41.3%
Continuing	52802	63475	10673	20.2%	56204	41162	−15042	−26.8%
N/A	0	0	0		0	0	0	
Unknown	852	790	−62	−7.3%	899	450	−449	−49.9%
TOTAL	133481	136342	4861	3.6%	131379	77507	−53872	−41.0%
W/O BA/BS								
First Time	225300	121224	−104076	−46.2%	223547	119247	−104300	−46.7%
Transfer	164899	138997	−25902	−15.7%	156385	127615	−28770	−18.4%
Returning	151611	131982	−19629	−12.9%	141013	141281	268	0.2%
Continuing	625092	746207	121115	19.4%	643249	716694	73445	11.4%
N/A	24103	30438	6335	26.3%	22457	29576	7119	31.7%
Unknown	6646	5682	−964	−14.5%	8192	10052	1860	22.7%
TOTAL	1197651	1174530	−23121	−1.9%	1194843	1144465	−50378	−4.2%
TOTAL								
First Time	225300	121224	−104076	−46.2%	223547	119247	−104300	−46.7%
Transfer	224239	191334	−32905	−14.7%	209212	150924	−58288	−27.9%
Returning	172098	153722	−18376	−10.7%	162462	153867	−8595	−5.3%
Continuing	677894	809682	131788	19.4%	699453	757856	58403	8.3%
N/A	24103	30438	6335	26.3%	22457	29576	7119	31.7%
Unknown	7498	6472	−1026	−13.7%	9091	10502	1411	15.5%
TOTAL	1331132	1312872	−18260	−1.4%	1326222	1221972	−104250	−7.9%

SOURCE: Chancellor's Office; October 1, 1993; based on 67% sample of credit enrollment.

Credit Enrollment by Status

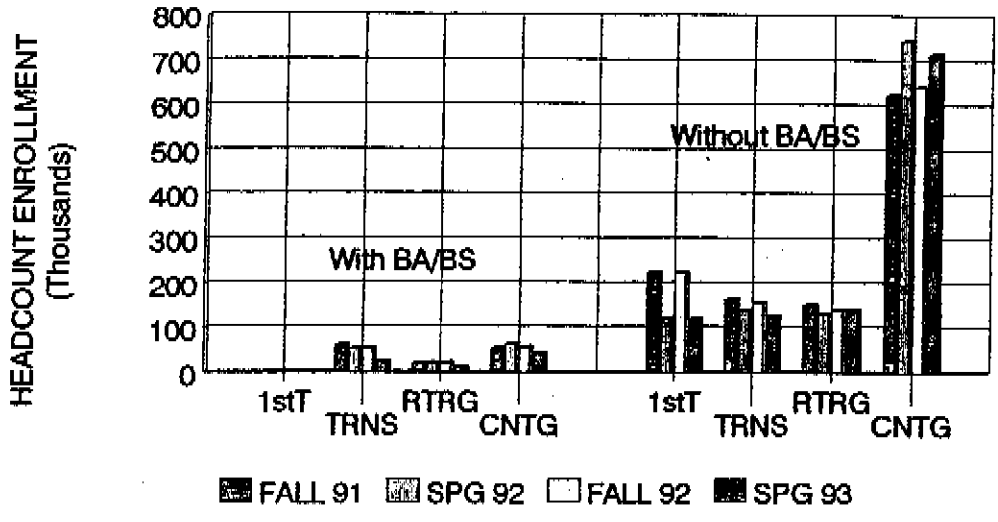


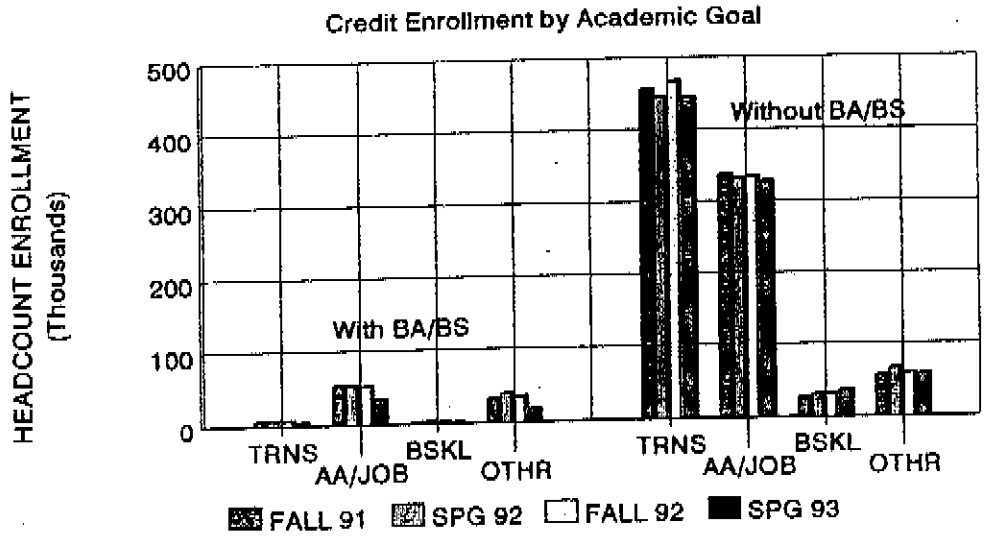
Table D-6

Credit Enrollment by Academic Goal

Fall 1991, Spring 1992, Fall 1992, Spring 1993

	FL 91	SP 92	CHG	%CHG	FL 92	SP 93	CHG	%CHG
W BA/BS								
Transfer	6939	7308	369	5.3%	7205	4813	−2392	−33.2%
AA/S	1961	1980	19	1.0%	1909	1375	−534	−28.0%
Career/Job	52813	51848	−965	−1.8%	50625	33444	−17181	−33.9%
Basic Skills	2297	2974	677	29.5%	2769	1606	−1163	−42.0%
Other	33719	39783	6064	18.0%	35516	17763	−17753	−50.0%
Unknown	27091	26056	−1035	−3.8%	24011	14273	−9738	−40.6%
TOTAL	124820	129949	5129	4.1%	122035	73274	−48761	−40.0%
W/o BA/BS								
Transfer	458701	446848	−11853	−2.6%	468591	446155	−22436	−4.8%
AA/S	71592	69671	−1921	−2.7%	67471	64763	−2708	−4.0%
Career/Job	267176	262937	−4239	−1.6%	267443	264121	−3322	−1.2%
Basic Skills	27874	31263	3389	12.2%	32300	37041	4741	14.7%
Other	57387	67195	9808	17.1%	60127	58506	−1621	−2.7%
Unknown	304938	302557	−2381	−0.8%	282904	253715	−29189	−10.3%
TOTAL	1187668	1180471	−7197	−0.6%	1178836	1124301	−54535	−4.6%
TOTAL								
Transfer	465640	454156	−11484	−2.5%	475796	450968	−24828	−5.2%
AA/S	73553	71651	−1902	−2.6%	69380	66138	−3242	−4.7%
Career/Job	319989	314785	−5204	−1.6%	318068	297565	−20503	−6.4%
Basic Skills	30171	34237	4066	13.5%	35069	38647	3578	10.2%
Other	91106	106978	15872	17.4%	95643	76269	−19374	−20.3%
Unknown	332029	328613	−3416	−1.0%	306915	267988	−38927	−12.7%
TOTAL	1312488	1310420	−2068	−0.2%	1300871	1197575	−103296	−7.9%

SOURCE: Chancellor's Office; October 15, 1993; represents 93% sample of BA/BS students and 89% of non−BA/BS students.



APPENDIX E

Ten-Year Enrollment Trends

This appendix reviews trends in California Community College enrollment for the Fall term of: 1983
1987
1990
1991
1992

in the following categories:

Academic Load	Table E-1
Age	Table E-2
Race/Ethnicity	Table E-3
Gender	Table E-4
Citizenship	Table E-5
Academic Status	Table E-6
Academic Goal	Table E-7

The tables show that:

1. Total enrollment increased by one-fifth during the past decade, most of this in the late 1980s.

2. Recent enrollments have grown most rapidly among
   - Full-timers
   - 20 to 24 year olds
   - Males
   - Hispanics
   - Noncitizens
   - Students taking basic skills

   and least rapidly among
   - Part-timers
   - Students over 50 years of age
   - Females
   - Whites
   - Citizens

3. The number of new students has decreased over the past five years, while the number of continuing students has grown by one-third, reflecting, in part, recent admissions priorities.

4. The early 1980s trend toward more transfer work, reversed during the late 1980s, may be taking place once more as more young, full-time students enroll.

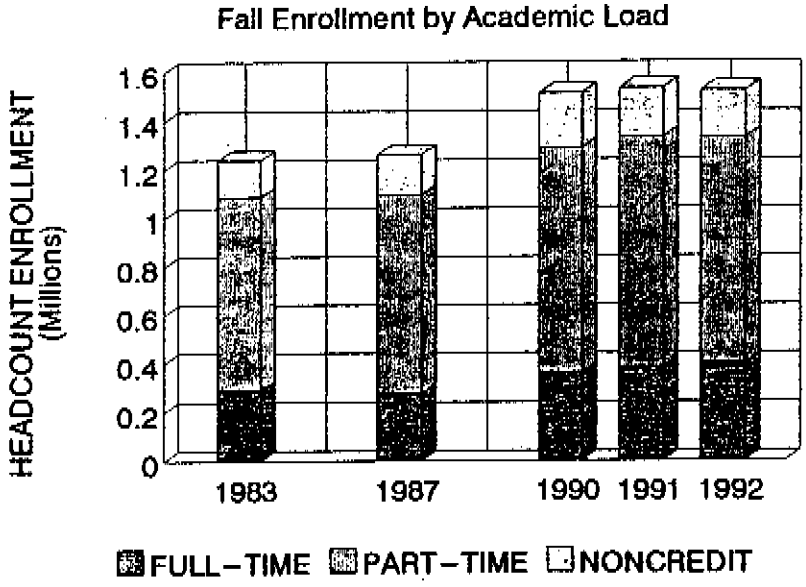
Table E-1

Fall Enrollment by Academic Load

CCC, 1983, 1987, 1990-1992

YEAR	CREDIT		NON-CREDIT	TOTAL
	FULL-TIME	PART-TIME		
1983	290,154	795,445	153,782	1,239,381
	23.4%	64.2%	12.4%	100%
1987	275,347	820,014	169,048	1,264,409
	21.8%	64.9%	13.4%	100%
1990	361,461	927,263	224,286	1,513,010
1991	385,000	946,168	200,776	1,531,944
1992	399,314	926,905	195,058	1,521,277
	26.2%	60.9%	12.8%	100%
% CHG				
1983-92	37.6%	16.5%	26.8%	22.7%
1987-92	45.0%	13.0%	15.4%	20.3%

SOURCE: Chancellor's Office, September 23, 1993.



NOTES:

1. Total Fall enrollment has grown by one-fifth during the past decade. Most of this growth occurred during the late 1980s.
2. Growth has been greatest among full-timers. Average academic loads have increased, particularly in the last 5 years. In 1992, full-timers increased by 4%, while part-time and noncredit students declined by 3%.
3. Noncredit enrollment grew rapidly during the late 1980s, but has declined in last two years.

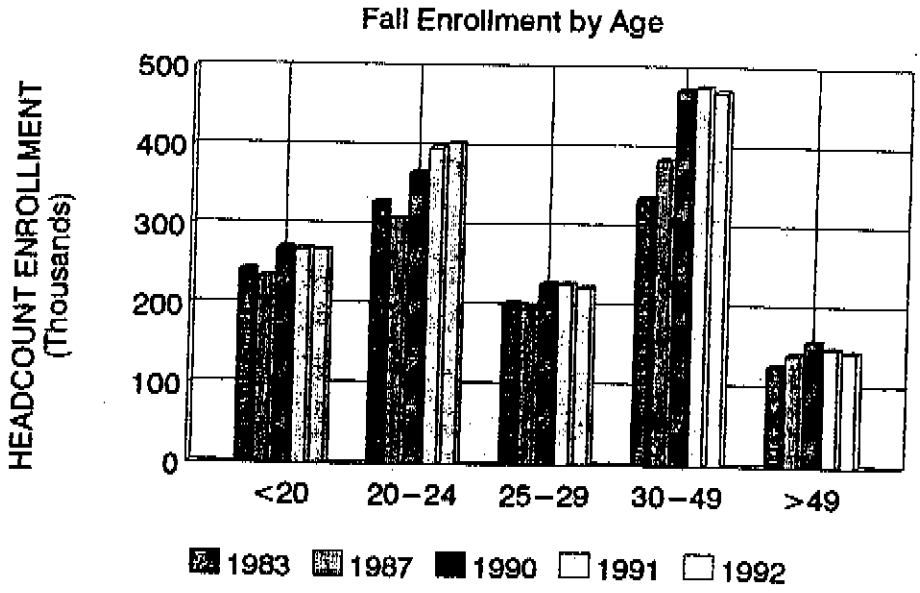
Table E-2

Fall Enrollment by Age

CCC, 1983, 1987, 1990-1992

YEAR	<20	20–24	25–29	30–49	>49	AVE. AGE	TOTAL
1983	242,919	329,675	203,258	337,112	126,417	26.2	1,239,381
	19.6%	26.6%	16.4%	27.2%	10.2%		100%
1987	233,916	308,516	195,983	384,380	141,614	27.3	1,264,409
	18.5%	24.4%	15.5%	30.4%	11.2%		100%
1990	270,220	366,902	227,412	473,129	157,812	27.6	1,513,000
1991	269,182	397,428	227,294	477,749	149,013	27.2	1,531,944
1992	268,051	404,168	222,387	471,494	144,731	27.0	1,521,277
	17.6%	26.6%	14.6%	31.0%	9.5%		99%
% CHG							
1983–92	10.3%	22.6%	9.4%	39.9%	14.5%		22.7%
1987–92	14.6%	31.0%	13.5%	22.7%	2.2%		20.3%

SOURCE: Chancellor's Office, September 23, 1993.



NOTES:

1. The CCC student population aged during the mid– to late–1980s, the average age increasing from 26.2 years in 1983 to 27.6 by 1990.
2. By 1990, this trend had reversed and students have become younger, the average age declining to 27.0. This is because of a dramatic increase (10%) in students aged 20–24 years during the past two years. At the same time, the number of students under 20 has been stable.
3. The largest absolute and relative decline during the past two years has been among students aged 50 years and over.

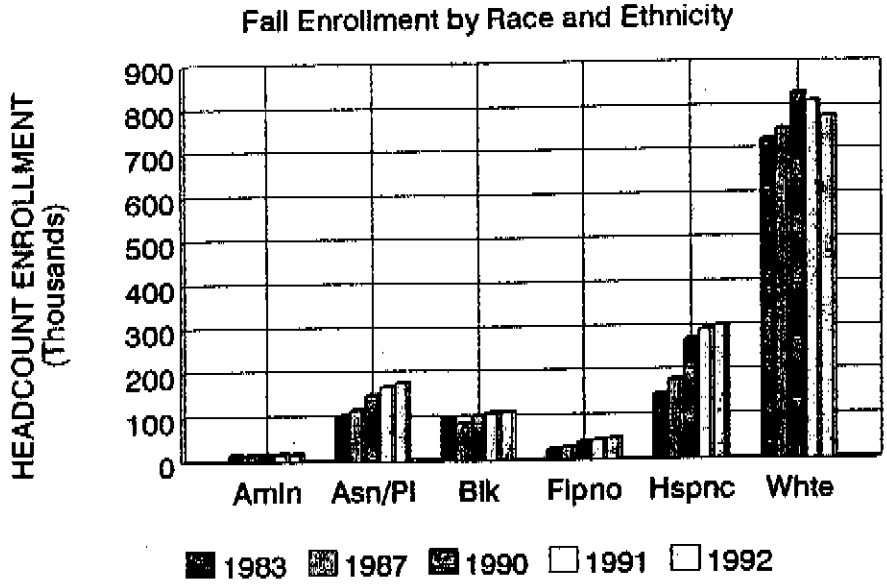
Table E-3

Fall Enrollment by Race/Ethnicity

CCC, 1983, 1987, 1990-1992

YEAR	Amer. Indn.	Asian & Pac.Is.	Black	Filipno	Hspanic	White	TOTAL
1983	17,237	103,422	99,974	24,132	148,238	726,250	1,239,381
	1.5%	9.0%	8.7%	2.1%	12.9%	63.2%	
1987	14,410	116,478	65,257	30,020	180,120	749,299	1,264,409
	1.2%	9.7%	7.1%	2.5%	15.0%	62.4%	
1990	17,508	149,306	103,746	40,289	269,686	829,486	1,513,010
1991	17,095	167,933	108,387	45,424	292,831	811,628	1,531,944
1992	16,856	178,193	109,907	48,394	301,942	778,858	1,521,277
	1.2%	12.2%	7.6%	3.3%	20.8%	53.5%	
% CHG							
1983–92	–2.2%	72.3%	9.9%	100.5%	103.7%	7.2%	22.7%
1987–92	17.0%	53.0%	28.9%	61.2%	67.6%	3.9%	20.3%

SOURCE: Chancellor's Office, September 23, 1993.



NOTES:

1. Hispanic and Filipino students attending community colleges have grown most–rapidly during the past decade; whites the least.
2. The decrease in numbers of African American students during the early 1980s has stabilized and may be reversed.

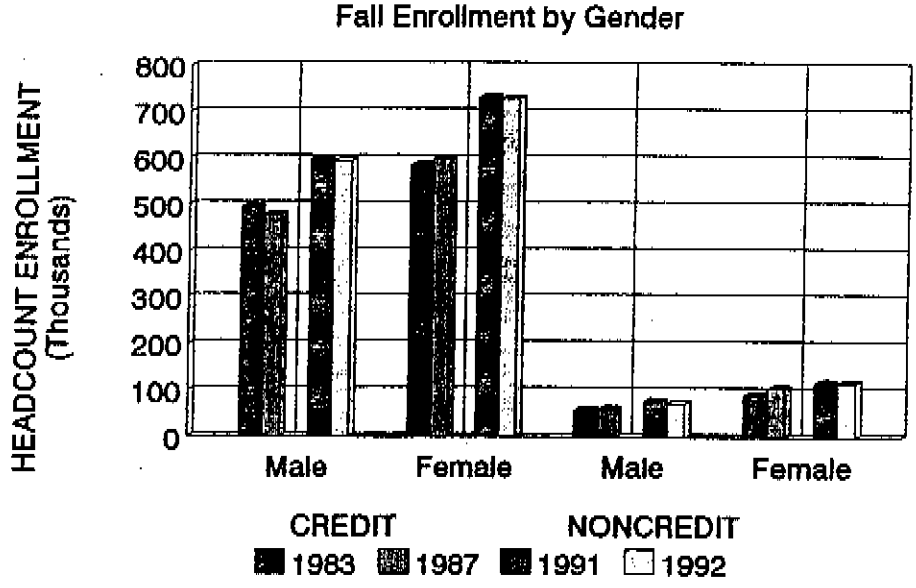
Table E-4

Fall Enrollment by Gender and Instruction

CCC, 1983, 1987, 1990-1992

YEAR	CREDIT Male	CREDIT Female	CREDIT Unkn.	CREDIT Total	NONCREDIT Male	NONCREDIT Female	NONCREDIT Unkn.	NONCREDIT Total
1983	494770	585480	6267	1086517	57859	90497	5425	153781
	45.8%	54.2%			39.0%	61.0%		
1987	478516	599595	17250	1095361	60139	105533	3376	169048
	44.4%	55.6%			36.3%	63.7%		
1990								
1991	598247	731043	1883	1331137	78064	118134	4573	200776
1992	594662	729082	2484	1326228	72771	117598	5300	195669
	44.9%	55.1%			38.2%	61.8%		
% CHG								
1983–92	20.2%	24.5%		22.1%	25.8%	29.9%		27.2%
1987–92	24.3%	21.6%		21.1%	21.0%	11.4%		15.7%

SOURCE: Chancellor's Office, October 2, 1993.



NOTES:

1. During past 10 years, Males have been consistently 45% of credit and just under 40% of noncredit enrollments.
2. The number of Male students grew less during the 1980s – but has grown more during the past five years – than the number of female students, consistent with recent trends to more full–time enrollment.
3. Growth in credit enrollment has exceeded that in noncredit over the past five years, consistent with trends toward more younger, male, and full–time students.

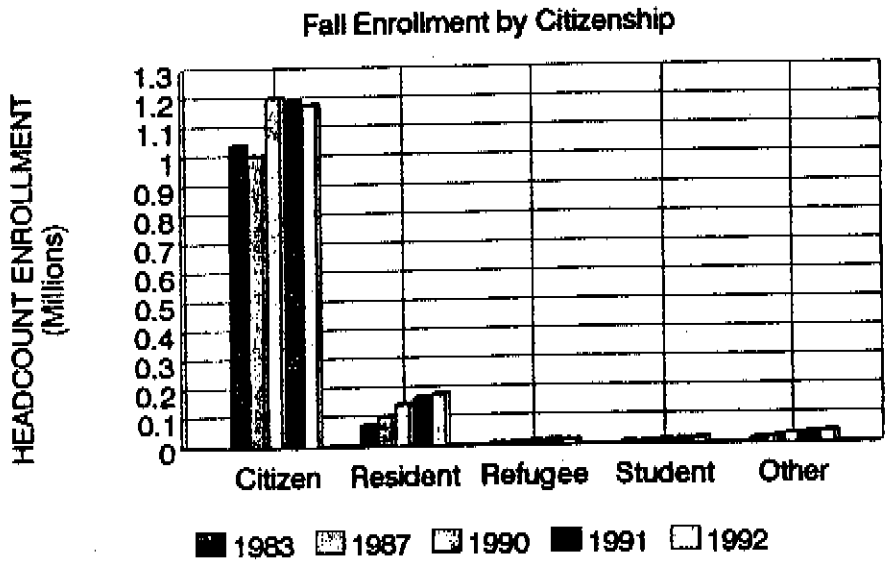
Table E-5

Fall Enrollment by Citizenship

CCC, 1983, 1987, 1990-1992

YEAR	U.S. Citizen	Immigrant Resident	Refugee Asylee	Student Visa	Other	Unknown	TOTAL
1983	1041642	75267	8027	7120	15469	91855	1239380
	90.8%	6.6%	0.7%	0.6%	1.3%		
1987	1005919	104393	7441	9352	20997	116307	1264409
	87.6%	9.1%	0.6%	0.8%	1.8%		
1990	1204810	148275	12558	14676	31622	100615	1513010
1991	1193844	169739	17617	17771	35847	96359	1531944
1992	1178990	183314	16278	19168	39249	83822	1521277
	82.0%	12.8%	1.1%	1.3%	2.7%		
% CHG							
1983–92	13.2%	143.6%	102.8%	169.2%	153.7%	–8.7%	22.7%
1987–92	17.2%	75.6%	118.8%	105.0%	86.9%	–27.9%	20.3%

SOURCE: Chancellor's Office, September 28, 1993.



NOTES:

1. The number of noncitizens enrolled has more than doubled in the last 10 years, increasing from 9% to 18% of total enrollment.
2. In the past 5 years, refugees/asylees were the fastest growing group.
3. Permanent residents account for three of every four noncitizens.

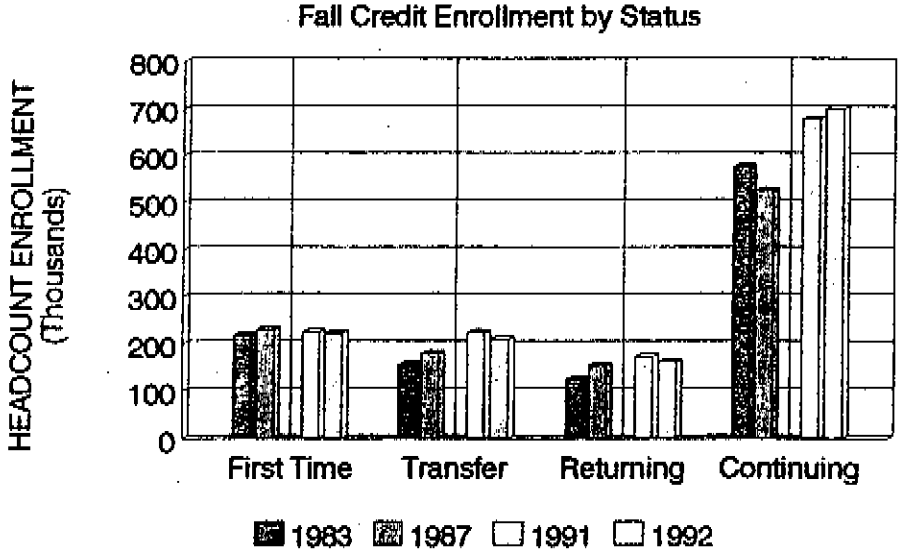
Table E-6

Fall Credit Enrollment by Status

CCC, 1983, 1987, 1990-1992

YEAR	First Time	Transfer	Returning	Continuing	Other	Unknown	TOTAL
1983	218197	155681	125223	576061	0	10437	1085599
	20.3%	14.5%	11.6%	53.6%	0.0%		
1987	230594	179338	154030	525005	0	6394	1095361
	21.2%	16.5%	14.1%	48.2%	0.0%		
1990							
1991	225300	224239	172098	677894	24103	7498	1331132
1992	223547	209212	162462	699453	22457	9091	1326222
	17.0%	15.9%	12.3%	53.1%	1.7%		
% CHG							
1983–92	2.5%	34.4%	29.7%	21.4%		-12.9%	22.2%
1987–92	-3.1%	16.7%	5.5%	33.2%		42.2%	21.1%

SOURCE: Chancellor's Office, October 1, 1993.



NOTES:

1. The early 1980s trend of increases in new (first-time, transfer, and returning) and decreases in continuing students has been reversed.
2. The 1992 increase in continuing students (up 3% from 1991) reflects registration priorities which tend to exclude new, first-time students (down 3% from 1991).

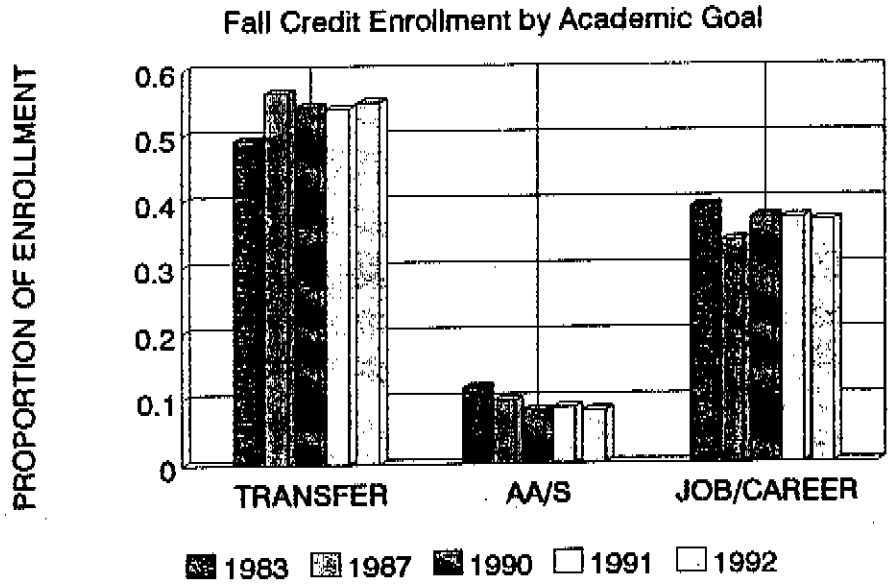
Table E-7

Fall Credit Enrollment by Goal

CCC, 1983, 1987, 1990-1992

YEAR	Transfer	General	Career/ Job	Basic Skills	Other	Unknown	TOTAL
1983	285307	67136	226285	NA	NA	506871	1085599
	49.3%	11.6%	39.1%				
1987	395973	67191	236644	NA	NA	395550	1095357
	56.6%	9.6%	33.8%				
1990	429267	64180	294024	20185	83624	317301	1208581
	48.2%	7.2%	33.0%	2.3%	9.4%		
	54.5%	8.2%	37.3%				
1991	465640	73553	319989	30171	91106	332029	1312488
	47.5%	7.5%	32.6%	3.1%	9.3%		
	54.2%	8.6%	37.2%				
1992	475796	69380	318068	35069	95643	306915	1300871
	47.9%	7.0%	32.0%	3.5%	9.6%		
	55.1%	8.0%	36.8%				
% CHG							
1983–92	66.8%	3.3%	40.6%			-39.4%	19.8%
1987–92	20.2%	3.3%	34.4%			-22.4%	18.8%
1990–92	10.8%	8.1%	8.2%	73.7%	14.4%	-3.3%	7.6%

SOURCE: Chancellor's Office, October 15, 1993.



APPENDIX F

Student Enrollment Response to Fee Changes

This appendix compares data on likely student enrollment response to changes in student fees, derived from two bodies of work:

- Results from a joint study by the Research and Planning (RP) Group, a professional organization of local community college researchers, and the Research and Analysis Unit of the Chancellor's Office. Over 7,000 students were surveyed in the classroom at a sample of California Community Colleges in the Spring 1993.
- Results from work by the Research and Analysis Unit, utilizing data from the Student Expenses and Resources Survey (SEARS) conducted during Spring 1992, along with data from the Forecasting Model (described in Appendix B).

Samples: Students in the RP/RA survey more often had transfer objectives and less often basic skills and other objectives than indicated by SEARS and the Chancellor's Office MIS (Tables F-1 and F-2). Consistent with this, RP/RA students were younger, more often dependent, and taking heavier loads during the day. These differences, however, shouldn't detract from our findings of this appendix which compare like kinds of students.

Summary of Findings

1. Students say (RP/RA Study) they would drop out at a higher rate due to given fee increases than is indicated by their past behavior (the basis for the COCCC estimate).

2. Students who are dependent on their parents for support are less responsive to given fee increases than are self-supporting students, and also if they (dependent students) report high incomes (Table F-3).

3. White students respond less to given fee increases than do minority students, though the response of Asian students tends to be more like that of White students. Males and females respond to fees in similar fashion (Table F-4).

4. Students who don't work, or who work at lot (>30 hours per week) respond the most to fee increases, even though the incomes of the latter group would suggest otherwise. Those on financial aid respond the least, while those who have applied, for, but not yet received aid, respond the most to fees (Table F-5).

5. Students enrolled for basic skills respond the most, while those enrolled to transfer respond the least to fee increases (Table F-6).

Table F-1

Student Objectives, SEARS & RP/RA Study, COMIS

	SEARS '92				RP/RA '93		MIS '93	
	TOTAL	NONCR	CR	%	CR	%	CR	%
Transfer	552672	55784	496888	47%	4312	58%	450968	49%
Associate					1134	15%	66138	7%
1st Job	124362	22844	101518	10%	356	5%		0%
Diff Job	181511	21045	160466	15%	603	8%		0%
Job Skills	132858	11209	121649	11%	402	5%		0%
Job			383633	36%	1361	18%	297565	32%
Basic Skills	80350	38898	41452	4%	106	1%	38647	4%
Other	159300	18349	140951	13%	477	6%	76269	8%
TOTAL	1231053	168129	1062924	100%	7436	100%	929587	100%

SOURCES: Chancellor's Office, October 1993; RP Group, July 1993.

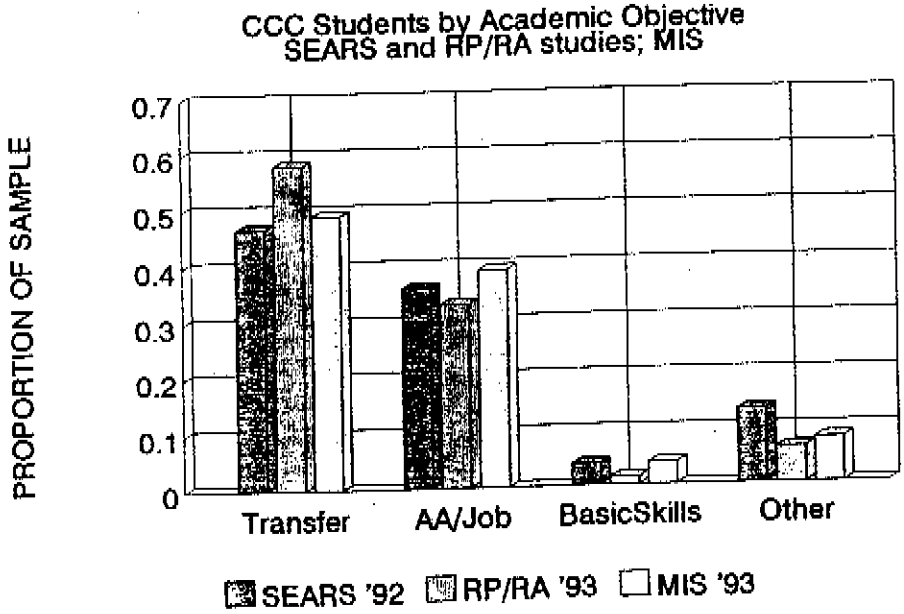


Table F-2

Comparing the SEARS and RP/RA Samples

	SEARS			RP
	BA	Other	TL	
Ethnicity				
Black	3.8	8.5	7.9	9.4
Asian	9.2	10.7	10.5	19.7
Filipino	2.3	1.9	1.9	3.2
Hispanic	5.1	20.8	18.9	18.9
Pacific Islander	0.2	0.3	0.3	0.5
White	77.3	54.9	57.9	48.4
Other	2.0	2.9	2.8	8.8
Age				
< 19	0.5	16.8	14.6	19.7
20-24	4.5	29.1	25.8	35.5
25-29	21.6	17.1	17.7	13.7
30-39	23.4	21.5	21.7	18.1
40-49	23.8	10.8	12.6	9.0
>50	26.2	4.7	7.6	4.1
Median			26.3	23.5
Gender				
Women	58.6	61.4	61.0	56.6
Men	41.4	38.6	39.0	43.4
Time of Day				
Day	24.2	45.4	42.3	45.5
Evening	63.9	32.3	36.9	22.4
Both	11.9	22.3	20.8	32.0
Unit Load				
0.3	47.4	32.1	34.0	10.1
3-6	27.4	15.4	16.9	15.4
6-9	10.6	11.5	11.4	16.4
9-11	2.2	7.8	7.1	11.0
12+	12.4	33.2	30.6	47.1
Median			6.1	11.8
Citizenship Status				
U.S. Citizen	91.4	83.6	84.7	81.4
Permanent Resident	6.9	13.4	12.5	14.4
Amnesty	0.3	0.6	0.6	0.3
Refugee	0.2	0.6	0.6	0.8
Temporary Visa	0.5	0.8	0.8	2.0
Other	0.8	0.9	0.9	0.6

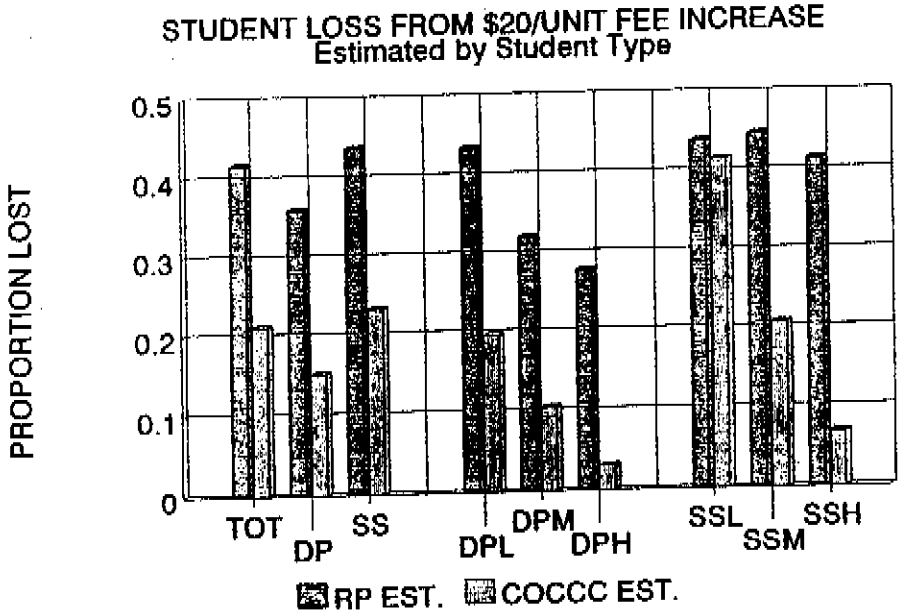
Source: Chancellor's Office, August 1993; RP Group, July 1993.

Table F-3

Student Losses from $20 Per Unit Fee Increases

	RP/RA CLASSROOM STUDY			COCCC ESTIMATES		
	@$5 ($10BA)	@$10 ($35BA)	@$20 ($60BA)	@$20 ($50BA)	@$5 (−$11BA)	
TOTAL	0.123	0.236	0.416	0.211	0.02	
Non−BA	0.109	0.214	0.396			
BA+	0.261	0.52	0.671			
Dependent	0.09	0.174	0.36	0.152		in RP:
High Income	0.053	0.136	0.278	0.03		hi>$48K
Mid Income	0.07	0.141	0.321	0.105		mid24−48
Low Income	0.127	0.217	0.435	0.196		low<24
Self−Support	0.133	0.263	0.437	0.233		in RP:
High Income	0.114	0.252	0.415	0.069		hi>$36K
Mid Income	0.132	0.267	0.446	0.207		mid12−36
Low Income	0.131	0.26	0.438	0.415		low<12

SOURCE: Chancellor's Office, July 1993; RP Group, July 1993.



NOTES: DP: Economically dependent Student
SS: Self−supporting student
DPL: Dependent, low−income student
DPM: Dependent, middle−income student
DPH: Dependent, high−income student
SSL: Self−supporting, low−income student
SSM: Self−supporting, middle−income student
SSH: Self−supporting, high−income student

Table F-4

Student Losses from $20 Per Unit Fee Increases

	RP/RA CLASSROOM STUDY			COCCC ESTIMATES	
	@$5 ($10BA)	@$10 ($35BA)	@$20 ($60BA)	@$20 ($50BA)	@$5 (−$11BA)
TOTAL	0.123	0.236	0.416	0.212	0.02
Male	0.114			0.208	
Female	0.105			0.214	
Self−Support	0.136	0.265	0.442	0.233	
Married	0.133	0.278	0.443		
Single	0.138	0.256	0.441		
Asian	0.134	0.245	0.407	0.25	
Black	0.198	0.286	0.473	0.243	
Hispanic	0.111	0.251	0.442	0.255	
White	0.108	0.218	0.395	0.186	
Other	0.163	0.269	0.427	0.224	

SOURCE: Chancellor's Office, 1993; RP Group, 1993.

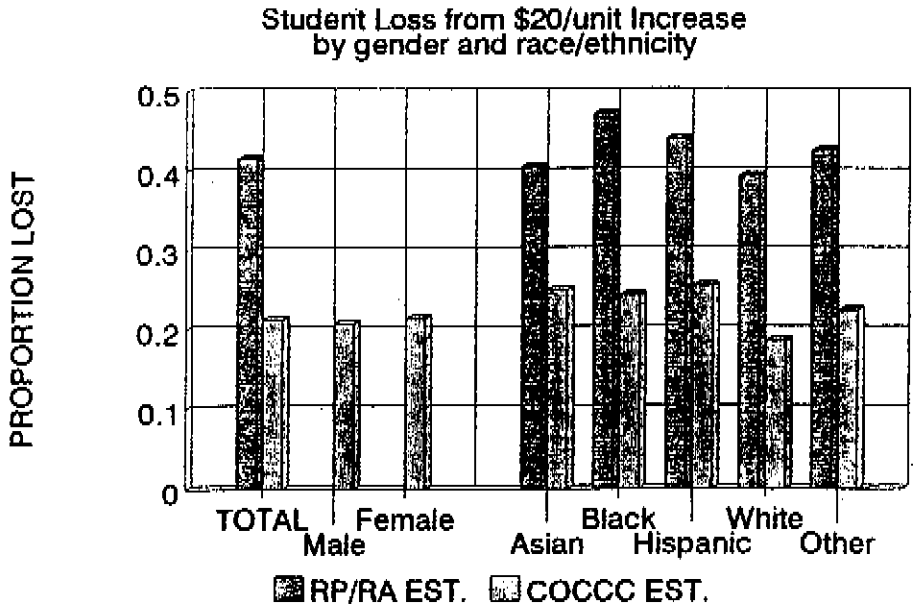
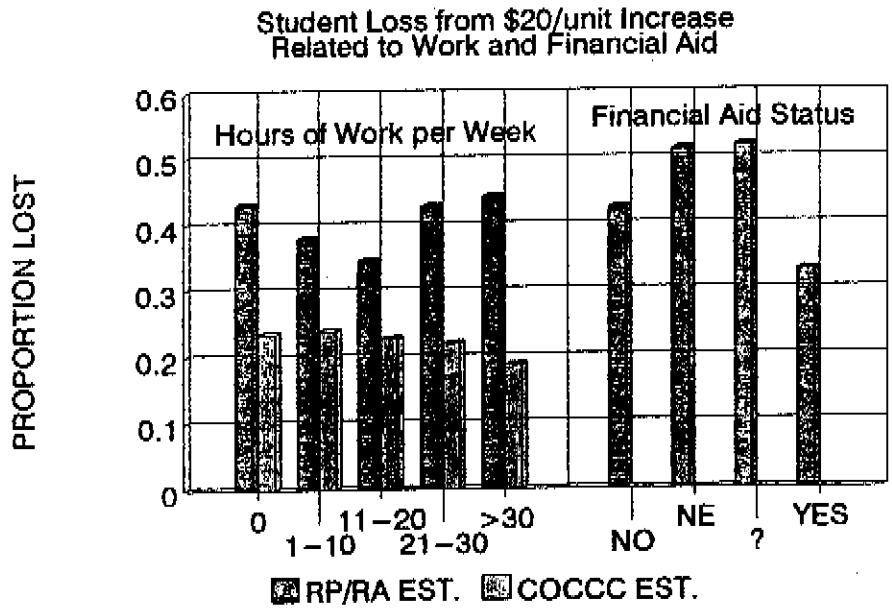


Table F-5

Student Losses from $20 Per Unit Fee Increases

	RP/RA CLASSROOM STUDY			COCCC ESTIMATES	
	@$5 ($10BA)	@$10 ($35BA)	@$20 ($60BA)	@$20 ($50BA)	@$5 (−$11BA)
TOTAL	0.123	0.236	0.416	0.212	0.02
Work Hrs: 0	0.143	0.249	0.431	0.234	
1−10	0.12	0.225	0.38	0.239	
11−20	0.1	0.19	0.346	0.227	
21−30	0.096	0.219	0.428	0.22	
>30	0.131	0.262	0.443	0.187	
Fin.Aid.: No	0.127	0.247	0.426		
Apply/NE	0.141	0.258	0.514		
Apply/?	0.143	0.295	0.52		
Apply/Rec.	0.095	0.177	0.33		

SOURCE: Chancellor's Office, July 1993; RP Group, July 1993.



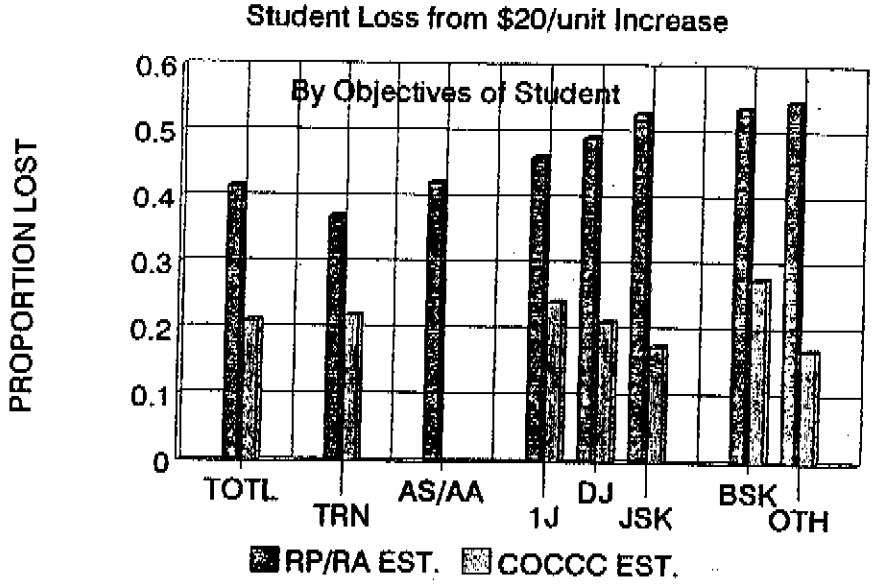
NOTES: Financial Aid Status:
NO: Not on financial aid.
NE: Haven't yet applied for financial aid, though intend to.
?: Have applied for financial aid, but not yet received.
YES: Currently on financial aid.

Table F-6

Student Losses from $20 Per Unit Fee Increases

	RP/RA CLASSROOM STUDY			COCCC ESTIMATES	
	@$5 ($10BA)	@$10 ($35BA)	@$20 ($60BA)	@$20 ($50BA)	@$5 (~$11BA)
TOTAL	0.123	0.236	0.416	0.212	0.02
Transfer	0.102	0.199	0.371	0.221	
Associate	0.103	0.149	0.424	na	
1st Job	0.16	0.267	0.462	0.241	
New Job	0.172	0.307	0.491	0.211	
Job Skills	0.169	0.368	0.53	0.175	
Basic Skills	0.171	0.311	0.538	0.277	
Other	0.215	0.357	0.549	0.17	

SOURCE: Chancellor's Office, 1993; RP Group, 1993.



NOTES ON ACADEMIC OBJECTIVES OF STUDENTS SURVEYED:

TRN: Transfer with or without AA/AS.
AS/AA: Associate degree, but not to transfer.
1J: Training for first job or career.
DJ: Training for different job or career.
JSK: Training to upgrade skills for current job.
BSK: Basic skills or developmental.
OTH: Other than the above.

APPENDIX G

Reasons for Student Withdrawal

This appendix highlights the results of a telelphone follow-up survey of students enrolled in Fall 1992, but who had withdrawn in the Spring 1993. The survey was conducted by the RP Group, with assistance from the Chancellor's Office.

Table G-1

RP/RA Telephone and Classroom Surveys, and SEARS, MIS

	WITH BACCALAUREATE				WITHOUT BACCALAUREATE			
	TELE	CLSRM	SEARS	MIS*	TELE	CLSRM	SEARS	MIS*
Male	38.3%		41.4%	45.2%	45.1%	43.4%	38.6%	45.8%
Female	61.7%		58.6%	54.8%	54.9%	56.6%	61.4%	54.2%
18–24	7.0%		5.0%	6.1%	48.0%	55.2%	45.9%	51.0%
25–49	73.9%		68.8%	49.1%	47.1%	40.7%	49.4%	34.7%
>49	19.1%		26.2%	44.7%	4.9%	4.1%	4.7%	14.3%
Asian	13.9%		9.2%	12.3%	21.6%	19.7%	10.7%	11.5%
Black	1.7%		3.8%	4.1%	5.9%	9.4%	8.5%	8.5%
Filipino	5.2%		2.3%	na	3.9%	3.2%	1.9%	na
Hispanic	10.4%		5.1%	6.2%	21.6%	18.9%	20.8%	20.6%
White	63.5%		77.3%	71.4%	47.1%	48.4%	54.9%	52.3%

SOURCE: Joint RP Group/Chancellor's Office Spring 1993 Student Survey.
North: Laney, Los Medanos, Ohlone, Vista; South: Glendale and Pasadena.

NOTES: MIS*: age breakdown here is 18–24, 25–39, >39; thus, the distribution will differ from the others.

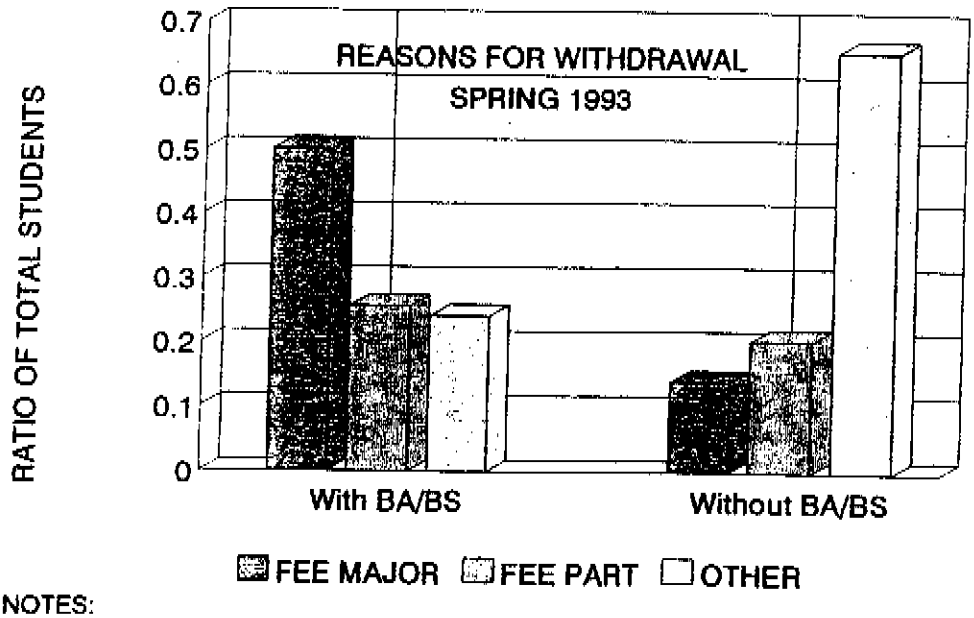
Table G-2

Reasons for Student Withdrawal

Spring 1993

	WITH BACCALAUREATE				WITHOUT BACCALAUREATE			
Fee Impact:	NORTH	SOUTH	TOTAL	%	NORTH	SOUTH	TOTAL	%
Fee Major	75	56	131	50.2%	14	19	33	14.0%
Partly Fee	33	34	67	25.7%	29	19	48	20.3%
Other	40	23	63	24.1%	92	63	155	65.7%
n	148	113	261	100.0%	135	101	236	100.0%
Reason:								
Transfer	9	6	15	5.8%	22	25	47	19.6%
Completed	30	23	53	20.5%	21	18	39	16.3%
Costs	62	57	119	46.2%	17	16	33	13.8%
Work	17	14	31	12.0%	24	14	38	15.8%
Other	28	12	40	15.5%	53	30	83	34.6%
n	146	112	258	100.0%	137	103	240	100.0%

SOURCE: Joint RP Group/Chancellor's Office, Spring 1993 Student Survey.
North: Laney, Los Medanos, Ohlone, Vista; South: Glendale and Pasadena



NOTES:

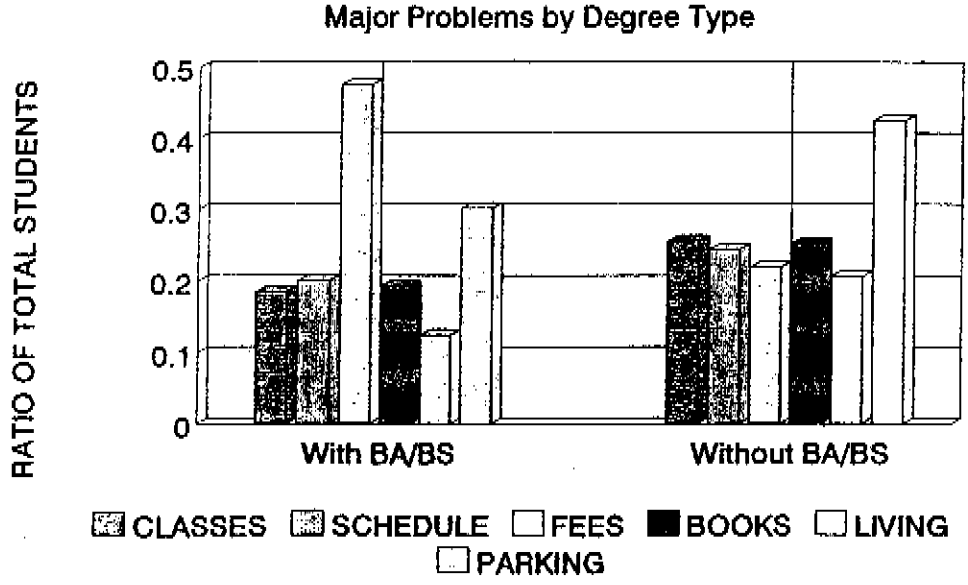
1. Three–fourths of students with BA/BS cited fees as at least part of the reason they didn't return in the Spring '93. Among other reasons: three of ten had completed their work, one in six had work schedule conflicts, 8% had transferred.
2. Among students without BA/BS, fees were a factor for one–third of those who withdrew. Another 1/3 had completed their work or transferred.
3. Results are consistent statewide, except that fees appear somewhat more important to students in the southern colleges.

Table G-3

Major Problems Confronting Those Who Withdrew

	WITH BACCALAUREATE				WITHOUT BACCALAUREATE			
Problems	NORTH	SOUTH	TOTAL	%	NORTH	SOUTH	TOTAL	%
Open Classes	15	34	49	18.5%	19	43	62	25.6%
Class Times	22	31	53	20.0%	21	38	59	24.4%
Study Help	2	1	3	1.1%	9	6	15	6.2%
Class Work	9	8	17	6.4%	9	5	14	5.8%
Cost of Fees	78	48	126	47.5%	33	20	53	21.9%
Cost of Books	34	17	51	19.2%	33	28	61	25.2%
Cost of Living	22	11	33	12.5%	27	23	50	20.7%
Parking	18	62	80	30.2%	32	71	103	42.6%
Child Care	7	4	11	4.2%	6	4	10	4.1%
Transportation	4	4	8	3.0%	7	4	11	4.5%
Faculty	7	2	9	3.4%	7	2	9	3.7%
Administration	3	5	8	3.0%	9	2	11	4.5%
Total n	150	115	265		139	103	242	

SOURCE: Joint RP Group/Chancellor's Office Spring 1993 Student Survey.
North: Laney, Los Medanos, Ohlone, Vista; South: Glendale and Pasadena.



NOTES:

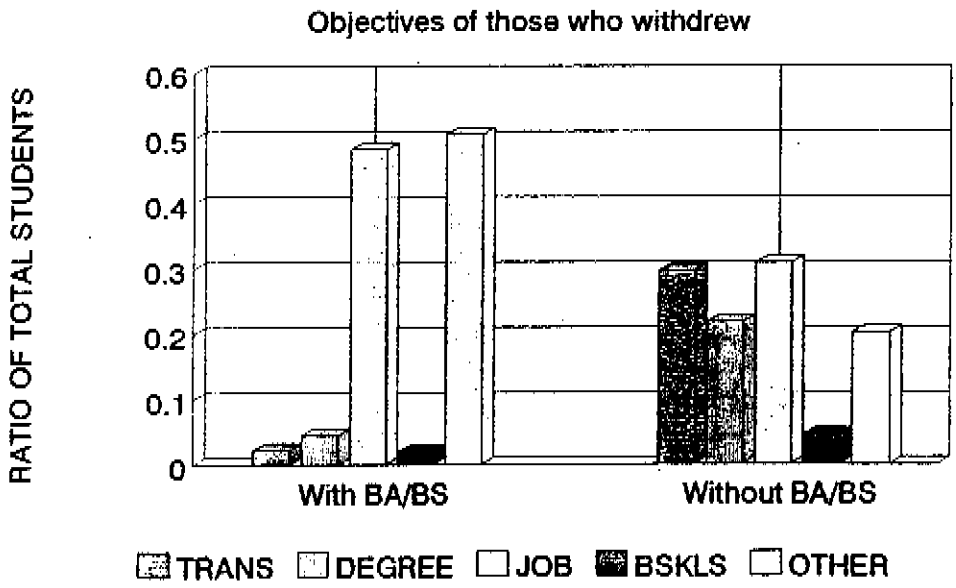
1. Fees were a major problem for nearly half of those with BA/BS; but, just 20% of those without BA/BS. These students, however, had more problems with classes, scheduling, and other costs for books and living expenses.
2. One in every four to five students had problems obtaining and scheduling classes; more so at the southern colleges.
3. Parking was a problem for many students; again, particularly at the southern colleges.

Table G-4

Educational Objectives of Those Who Withdrew

	WITH BACCALAUREATE				WITHOUT BACCALAUREATE			
	NORTH	SOUTH	TOTAL	%	NORTH	SOUTH	TOTAL	%
Transfer	6	0	6	2.3%	35	37	72	29.8%
Degree	3	0	3	1.1%	16	15	31	12.8%
GenEduc	6	3	9	3.4%	11	11	22	9.1%
Career	14	9	23	8.7%	7	4	11	4.5%
Certificate	13	8	21	7.9%	10	12	22	9.1%
First Job	18	11	29	10.9%	3	1	4	1.7%
New Job	22	17	39	14.7%	12	2	14	5.8%
License	3	4	7	2.6%	1	1	2	0.8%
Basic Skills	2	3	5	1.9%	7	4	11	4.5%
Other	79	55	134	50.6%	35	14	49	20.2%
Total n	150	115	265	100.0%	139	103	242	100.0%

SOURCE: Joint RP Group/Chancellor's Office Spring 1993 Student Survey.
North: Laney, Los Medanos, Ohlone, Vista; South: Glendale and Pasadena.



NOTES:

1. Nearly half of the BA/BS students were enrolled for job training purposes; most of the balance had personal interests.
2. Roughly equal proportions (3 of every 10) of those without BA/BS were enrolled for transfer and job training.

APPENDIX H

Community College Five-Year Funding and Growth

The following analysis reviews the past five years of growth and funding for California Community Colleges (CCCs) and, for the next five years—1994-95 through 1998-99:

- Projects the annual growth rate in FTES (3.3% per year) that would be required for CCCs to serve **ALL** their estimated demand by 1998-99 . . . this would

  - accommodate adult population growth
  - increase the participation of underrepresented groups
  - enroll increasing numbers of high school graduates
  - train many of those unemployed by the recession

  (See Table H-1.)

- Forecasts the probable Proposition 98 (P98) and fee revenues, given assumptions that:

  - economic recovery begins in late 1994, but is relatively weak
  - the voucher initiative doesn't pass
  - student fee rates are unchanged
  - CCC's share of P98 stays at 9.7%

  (See Table H-2.)

- Compares the CCC revenues needed to accomplish the growth rates posed (in Table H-1) and the revenues that may be expected, given our assumptions (in Table H-2). The "gap" between needed and expected revenues increases from nearly $300 million next year—without further loans or alternative funidng, 1994-95 revenues may fall 3.7% below this year's level—to over $400 million by 1998-99. (See Table H-3.)

- Specific assumptions behind these forecasts are summarized in Table H-4.

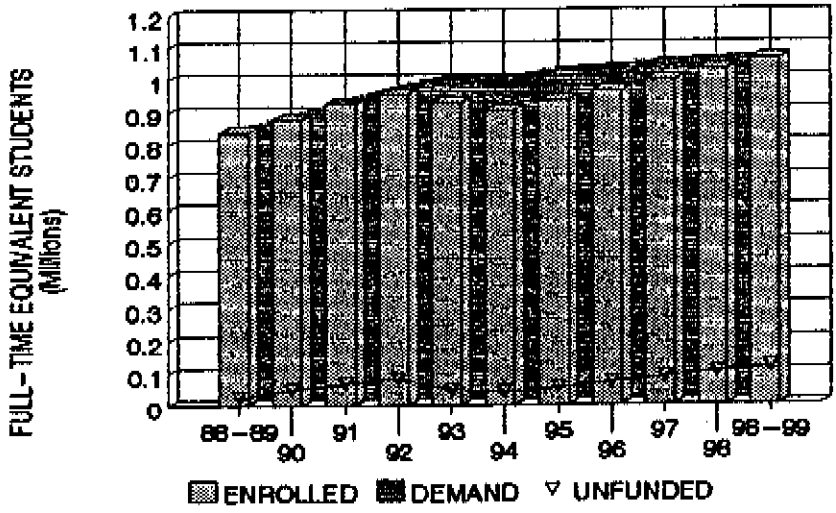
Table H-1

CCC FTES Enrollment and Demand

Actual 1988-93; Projected 1994-99

	DEMAND		ENROLLED		UNFUNDED	UNSERVED
YEAR	FTES	%CHG	FTES	%CHG	FTES	FTES
88–89	836,790	5.1%	836,790	5.1%	7,847	0
90	875,915	4.7%	875,915	4.7%	32,061	0
91	925,139	5.6%	925,139	5.6%	50,201	0
92	968,282	4.7%	952,654	3.0%	66,180	15,628
93	997,263	3.0%	927,365	−2.7%	30,783	69,898
94	999,068	0.2%	904,240	−2.5%	27,000	94,828
95	1,019,716	2.1%	934,000	3.3%	39,670	85,716
96	1,032,266	1.2%	965,000	3.3%	54,512	67,266
97	1,047,004	1.4%	997,000	3.3%	69,914	50,004
98	1,054,781	0.7%	1,030,000	3.3%	85,765	24,781
98–99	1,063,794	0.9%	1,063,794	3.3%	100,813	0

SOURCE: Chancellor's Office, September 7, 1993.



NOTES:

1. "FTES DEMAND" is the enrollment that is estimated if CCCs had received their statutory COLA and growth beyond 1990–91 and if fees had not increased beyond their 1990–91 levels.
2. "FTES ENROLLED" is the actual and projected FTES based on a projected policy of serving ALL of the estimated demand by the year 1998–99.
3. "UNFUNDED FTES" are those who enrolled, but are not funded; i.e., "overcap."
4. "UNSERVED FTES" is the difference between (1) and (2); i.e., those we estimate would have enrolled but did not because of high fees, lack of classes, etc.
5. FTES for 1993–94 are estimated from the Fall 1993 enrollment: now estimated at 9% below Fall 1992. Given the loss of BA–holders and increase in younger, full–time students, average student loads are up and the expected loss in annual 1993–94 FTES is about 2.5%.

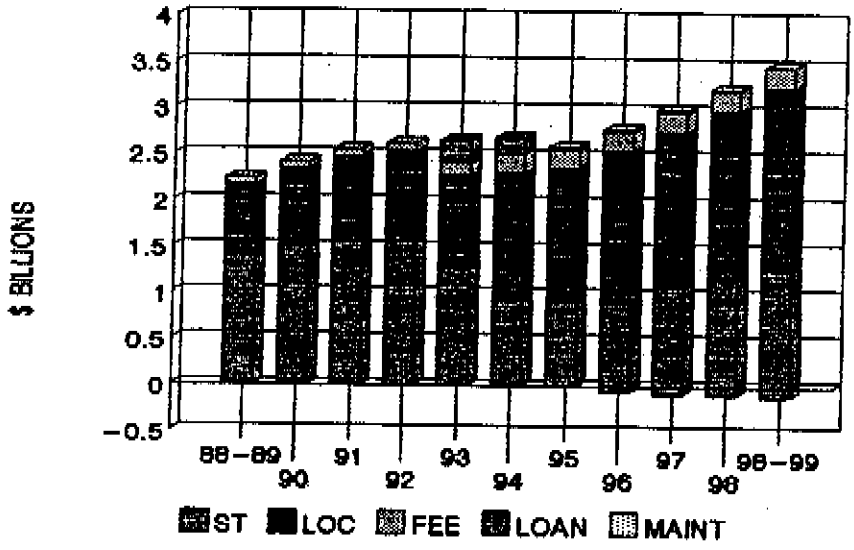
Table H-2

Proposition 98, Fees, Loans, and Maintenance

1988-98 Actual; 1994-99 Estimated ($ in millions)

YEAR	STATE	LOCAL	FEES	LOANS	MAINT.	TOTAL	%Chg
88-89	$1,401	$770	$66			$2,237	
90	$1,503	$845	$67			$2,415	8.0%
91	$1,565	$917	$72			$2,554	5.8%
92	$1,557	$981	$84			$2,622	2.7%
93	$1,263	$1,024	$122	$241		$2,639	1.1%
94	$921	$1,396	$196	$178		$2,691	1.5%
95	$916	$1,453	$196		$26	$2,591	-3.7%
96	$992	$1,573	$196	($64)	$25	$2,722	5.0%
97	$1,069	$1,699	$202	($79)	$29	$2,920	7.3%
98	$1,165	$1,835	$209	($92)	$20	$3,137	7.4%
98-99	$1,277	$1,982	$216	$102)		$3,373	7.5%

SOURCE: Chancellor's Office, 1993, September 7, 1993.



NOTES: These forecasts are based on current law and assumptions that
1. Loans are discontinued after 1993–94, but must be repaid beginning 1995–96.
2. State and local funding between 1994 and 1999 results from growth in P98 plus receipt of P98 "maintenance factor," the make–up for 1992–93 and 1993–94 when P98 was funded under "Test 3." CCCs will receive about $100 million for maintenance and are repaid at the minimum rate under law.
3. CCC share of P98 remains at 9.7%, below 1989–90 statutory level of 10.9%.
4. The voucher initiative (11/93) does not pass.
5. Student fee rates do not change.
6. Economic recovery begins in late–1994 and increases gradually throughout this decade, but at a lower rate than prior recoveries.

(See Table 4 for specific assumptions.)

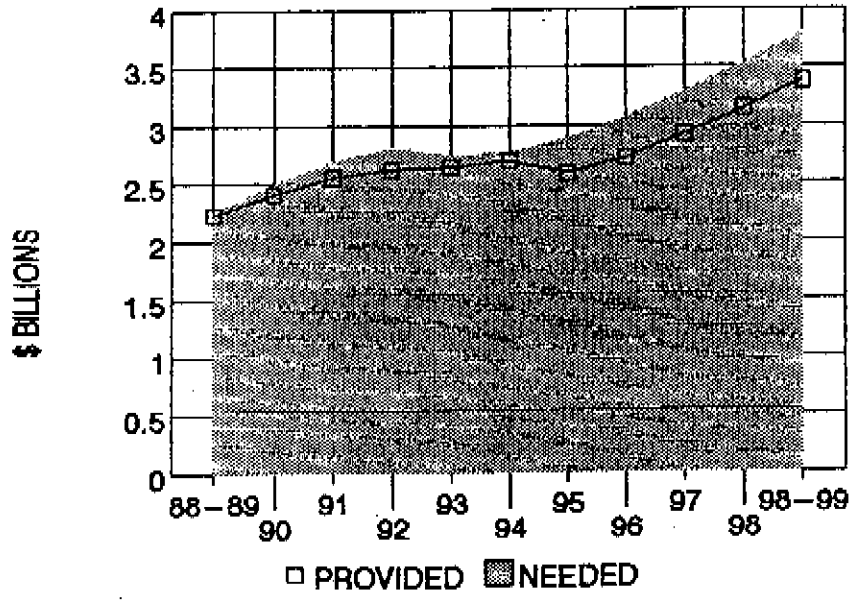
Table H-3

CCC P98 Revenue: Needed and Provided

1988-93 to 1998-99

YEAR	APPORT. ELIGIBLE FTES	%CHG	$/FTES	%CHG	TOTAL REVENUE (in $ millions) NEEDED	PROVIDED	GAP
88–89	812,391	5.1%	$2,754		$2,259	$2,237	$22
90	858,285	5.6%	$2,814	2.2%	$2,505	$2,415	$90
91	896,712	4.5%	$2,848	1.2%	$2,697	$2,554	$143
92	922,569	2.9%	$2,994	5.1%	$2,820	$2,622	$198
93	897,583	−2.7%	$3,059	2.2%	$2,744	$2,650	$94
94	875,000	−2.5%	$3,122	2.1%	$2,775	$2,691	$84
95	903,875	3.3%	$3,198	2.4%	$2,890	$2,591	$299
96	933,703	3.3%	$3,290	2.9%	$3,072	$2,722	$350
97	964,515	3.3%	$3,406	3.5%	$3,285	$2,920	$365
98	996,344	3.3%	$3,543	4.0%	$3,530	$3,137	$393
98–99	1,029,223	3.3%	$3,685	4.0%	$3,793	$3,373	$420

SOURCE: Chancellor's Office, 1993, September 7, 1993.



NOTES:

1. APPORT. ELIGIBLE FTES are those FTES eligible for state apportionment.
2. NEEDED REVENUE is the statutory level per student needed to fund all FTES enrolled during 1994–1999, including "overcap" FTES. For 1988–93, needed revenue is what was provided plus the value of the unfunded (overcap) FTES.
3. PROVIDED REVENUES are taken from Table 1; i.e., they are what has been provided between 1988–93 and what can be expected between 1994 and 1999, given our assumptions.
4. GAP is the difference between needed and provided revenue.

Table H-4

Assumptions for Five-Year CCC Projections

(Annual Percent Change)

YEAR	SLGP INDEX	ADLT POPN	CCC FUND	INC/ POPN	K–12 ADA	P98 T2	UNEMP	PROP TAX	GF/ POPN
88–89	4.7%	2.2%	6.9%	4.9%	6.4%	13.3%	–3.5%	8.6%	11.4%
90	4.6%	2.4%	7.1%	4.9%	4.9%	9.8%	5.0%	9.7%	1.8%
91	4.7%	2.1%	6.7%	4.2%	3.8%	8.0%	24.6%	8.5%	–4.0%
92	5.1%	1.7%	6.8%	4.1%	3.2%	7.4%	28.8%	7.0%	7.9%
93	2.2%	1.6%	3.8%	–0.6%	1.9%	1.2%	11.4%	4.4%	–4.0%
94	2.1%	1.7%	3.7%	2.7%	1.7%	4.4%	1.3%	36.3%	–2.7%
95	2.4%	1.9%	4.3%	1.8%	2.3%	4.1%	–1.2%	4.1%	3.1%
96	2.9%	1.7%	4.6%	4.0%	3.1%	7.1%	–5.0%	8.3%	5.2%
97	3.5%	1.7%	5.2%	4.2%	3.7%	7.9%	–5.0%	8.0%	5.5%
98	4.0%	1.7%	5.8%	4.4%	4.0%	8.4%	–5.0%	8.0%	5.7%
99	4.0%	1.8%	5.8%	4.6%	4.0%	8.6%	–5.0%	8.0%	6.0%

SOURCES: Prepared in Chancellor's Office, September 7, 1993.

SLGP INDEX:	1988–1996 Department of Finance (DOF); 1997–1999 Chancellor's Office (COCCC).
ADLT POPN:	1988–1999 DOF.
CCC FUND:	1988–1999: Sum of SLGP and ADLT POPN.
INC/POPN:	1988–96 DOF; 1997–1999 COCC.
K–12 ADA:	1988–1997 DOF; 1998–1999 COCCC; 1994 DE.
P98 T2:	1988–1999: Sum of INC/POPN and K–12 ADA.
UNEMP:	1988–1995 Employment Development Department; 1996–1999 COCCC.
PROP. TAX:	1988–1996 DOF; 1997–1999 COCCC.
GEN FUND/POPN:	1988–1995 DOF; 1996–99 COCCC.

In general, the forecasts assume that economic recovery will not begin until mid– to late–1994 and that it will be less robust than were recoveries from the last three recessions. Thus, it is assumed that income per capita increases and unemployment decreases at rates lower than previous recoveries.

Most of the rates are provided by other agencies, except for the last three or four years of several series where we (COCCC) have extrapolated the rates in concert with overall assumptions. For instance, increase in General Funds per capita for 1996–99 is forecast using a model that projects past experience with the way the General Fund changes in relation to personal income changes and in relation to major tax law changes.