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ABSTRACT

Evaluation of the State Department of Finance enrollment projection techniques suggest they have become less accurate over time in projecting community college enrollments. In light of the continual growth of the California system, accurate enrollment projection techniques are needed if colleges are to be effectively planned and managed. The basic system of enrollment projection employed by the state, "BD-240," which applaes participation rates and grade progression ratios to counts of recent high school seniors, does not take into account trends toward part-time and evening enrollments or the increasing age of enrollees. Improved projection techniques should incorporate the number and character (age, sex, mobility, etc.) of service area population, local socioeconomic conditions (unemployment rate, etc.), and the changing policies of the particular college/district and nearby postsecondary institutions. Preliminary analysis of the results of BD-240 estimates since 1968 suggest that they typically have underestimated total student enrollment and overestimated weekly student contact hours for day-graded activity. Four options for future projections are presented, and enrollment projections based on the BD-240 and the four options are shown through 1985. State and selected district enrollment figures are noted, and the Community College Board of Governors policy statement on enrollment projections is appended. (Author/AH)

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## E N R O L L M E N T P R O J E C T I O N S

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AN EVALUATION OF CURRENT TECHNIQUES

CALIFORNIA COMMUNITY COLLEGES

CHANCELLOR S OFFICE

FEBRUARY 1975

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Preface

Evaluation of the State Department of Finance enrollment projection techniques suggests they have become less accurate over time in projecting Community College enrollments. Changing enrollment patterns among students and participation by individuals of all ages make accurate projections increasingly difficult. The Board of Governors of the California Community Colleges discussed its increasing concern about the current state of Community College enrollment projections in September and October 1974. At its December meeting the Board adopted a policy statement recommending steps to deal with existing deficiencies and improve planning projections generally (see Appendix A). The statement also suggests developing alternative techniques that include ageparticipation elements along with local demographic and socioeconomic characteristics.

Efforts to resolve these problems have moved forward on two levels. Chancellor's Office staff has worked directly with the Department of Finance on specific items of immediate concern. Additionally, a Task Force on Enrollment Projections composed of Community College representatives and staff from Finance and the Chancellor's Office has been working for four months on broader enrollment issues. (See Task Force membership in Appendix B.) A series of alternative projection methodotogies, potential data sources, and uses of projections have been discussed. Of particular interest have been suggestions for (a) increasing communications and understanding between the Department of Finance and Community College districts and (b) clearer definition of interagency working relationships, including the Chancellor's Office.

Three important changes will be incorporated in the upcoming 1975 capital outlay projections:

- Department of Finance staff who prepare projections will visit a number of districts in the next two months to evaluate special local conditions that may influence enrollment trends.
- 2. Projections will be based on age-participation techniques rather than on twelfth grade graduates.
- 3. Second reporting period, rather than year-end data will be used to estimate average annual student hour loads, thereby resulting in earlier availability of projections for state and local planning.

Several objectives remain to be achieved. An annual "spring survey" questionnaire will elicit information from districts to assist Finance in providing enrollment projections more sensitive to local conditions. Plans are being developed to prepare an enrollment projection source document covering topics of general interest as well as those of special importance to Community Colleges. Seminars and workshops are planned to improve districts' capabilities in enrollment projections.

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In the last decade and a half, California Community Colleges have experienced spectacular growth, student enrollment increasing from 340,000 in 1960 to more than 1,130,000 by 1974. In 1960, colleges enrolled one in every twenty-six Californians between the ages 18 and 64. This participation rate now has increased to one in every eleven The typical student long ago ceased to be a recent high school graduate attending full time. Seven of 10 students attend part time and more than one fourth are over thirty years of age.

Community College program objectives and enrollment patterns have undergone dramatic changes. Many observers have predicted stable and in some cases declining enrollments in institutions of postsecondary education generally. Community Colleges continue to grow, however, frequently serving new and different clienteles. California Community College enrollments, for example, have grown by nine and 12 percent the past two years. Obviously, accurate enrollment projection techniques are needed if colleges are to be effectively planned and managed.

This evaluation was prepared by staff of the Analytical Studies Unit with assistance from the Facilities Planning Section of the Chancellor's Office. On-going work of the Task Force on Enrollment Projections contributes significantly to the overall effort. Those desiring further information on past and present enrollment trends may refer to the report <u>Fall Enrollment 1974</u>, <u>California Community Colleges</u>, available from the Analytical Studies Unit of the Chancellor's Office.

Chuck McIntyre Director of Analytical Studies

Sidney W. Brossman Chancellor February 1975

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### ENROLLMENT PROJECTIONS CALIFORNIA COMMUNITY COLLEGES

#### Background

The Department of Finance is responsible for preparing capital outlay enrollment projections as provided in the Administrative Code, (T5, 57003) and Education Code (Section 20066):

> The plan for capital construction shall (include) ... enroliment projections for each district formulated by the Department of Finance, expressed in terms of weekly student contact hours. The enroliment projections for each individual college within a district shall be made cooperatively by the Department of Finance and the Community College district.

Title 5 also provides for Department of Finance projections of "growth in graded and ungraded enrollment determined for each district ... ."

The Interagency Committee on Enrollment Projections was established by the Coordinating Council for Higher Education some four years ago to advise the Department of Finance on inter- and intra-segmental aspects of student enrollments. The focus of this advice was to be the inputs and outputs of Finance's "long-range projection model." Presumably, the new Postsecondary Education Commission will continue the work of this committee.

Existing Community College enrollment projection techniques appear inadequate for planning operating budgets and capital outlay requirements. Statutes enacted under SB 6 compounded district fiscal problems inherent in under-or overprojecting enrollments when constructing operating budgets. Accurate projections are essential for numerous short-term decisions by local boards and administrators. The basic enrollment projection technique, "BD-240," used by the Department of Finance is to apply participation rates and grade progression ratics to counts of recent high school seniors. This method, as used for capital outlay planning, is inadequate, particularly now that utilization calculations are based on activity during both day and evening, rather than only day.

Gradual trends toward part-time enrollment have accelerated during recent years. In addition, the age distribution of Community College students is becoming older. The average age is nearly 23 throughout the state. Increasing numbers of students are returning to college after having "dropped out." Significant numbers of Community College students never graduated from high school.

The traditional notion of a dual comprehensive college program -- one part offered during the day for recent high school graduates attending full-time for credit, the other part offered for adults attending parttime in the evening in largely non-credit courses -- is breaking down.

New patterns of student attendance are emerging in which the part-time student, though older, may plan to take an associate degree, certificate, or transfer to a four-year institution, and attends the same collegecredit courses taken by younger students. At the same time greater numbers of younger students in the 18-21 age bracket are attending parttime, particularly in urban areas where work opportunities may be more prevalent.

These changing patterns make it extremely difficult to predict enrollments accurately for planning purposes. In particular, techniques employed by the Department of Finance, in their "BD-240" projections, appear outmoded. Improved projection techniques are needed and should incorporate, to the extent possible, the following relevant factors:

- Number and character (age, sex, mobility, etc.) of service (a) area population.
- (b) Local socioeconomic conditions (unemployment rates, etc.), and
- (c) Changing policies of the particular college/district and nearby postsecondary institutions.

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Initially, the accuracy of the BD-240 technique needs to be evaluated, particularly with respect to actual and predicted:

- (a) Trends in high school graduates and total population.
- Participation rates of high school graduates as first-time (h) college freshmen.
- (c) Transition ratios from freshman to sophomore status.
- Relationships converting first-time freshmen from the district (d) area to total enroliment.
- (e) Contact hour loads per student.

In addition, alternative techniques need to be explored, beginning with a model involving straight Community College participation rates for all ages within the general population. This may be expanded to include as many of the other relevant factors as is feasible.

Preliminary Analysis of Department of Finance (BD-240) Projection Model

Preliminary analysis of the results of BD-240 estimates since 1968 suggest that typically these have (a) underestimated student enrollment and (b) overestimated weekly student contact hours (WSCH) for day-graded activity. Recent estimates have not been as accurate as in earlier years, such as 1968, 1969 and 1970. The method seems to be even less reliable when evening activity is included. Estimates of 1973 fall students and WSCH for day and evening were nearly 5 percent low.

The method seems to rely on a number of subjective elements, such as plans for new colleges or campuses. Certain critical ratios are trended without explicit ground rules on the statistical technique used. Besides possible subjective trending of future values, the BD-240 method is weak in its use of only high school seniors as a population base.

The BD-240 begins with the number of high school students graduated within a county or counties in which a Community College district is located. Predictions of future values for this statistic are generated by cohort survival techniques. From the number of high school graduates, an estimate is made of college first-time freshmen from the area. From this value, estimates of first-time freshmen from all of California and all new freshmen are derived. A grade-progression ratio is then applied to estimate is reached of total stude incollment. Values for these relationships are tabulated historically and extended into the future to develop predictions of total fall day-graded encollments.

Comparison of actual data with BD-240 projections for selected districts and the total of all districts provides a basis for evaluating the relative reliability of this projection technique. Results of several such comparisons are shown in attached tables.

## <u>Statewide experience</u>

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Statewide projections of Day Graded Weekly Student Contact Hours (WSCH) have been higher than the actual in 17 of the 21 instances dating back to 1968 (See Table I). By contrast, projections of student enrollment underlying the WSCH projections have been lower than actual in 14 of the 21 cases, though generally more accurate than the WSCH projections (see Table 2). The BD-240 is a demographic model designed primarily to project students rather than student hour-loads. The latter step is appended as the very last step of the procedure and, likely, does not receive the same degree of attention that elements of student-flow receive in the earlier sections of the model. Statewide, the margin of error in projecting student enrollment has never exceeded 6.5% in any one year, and in 12 of the 21 instances was less than 2.5%.

The 1970 edition of the BD-240 was the most accurate in predicting student enrollment, although 1968 and 1969 editions average only a 2.8% difference between projected and actual. Earlier editions of the BD-240 illustrate the possibility of increasing over-projection that occurs when enrollment patterns change suddenly. An abrupt downturn in full-timeness of students in 1972-73 marks the first break with earlier patterns. Up to that point projections were nearly on target each year, even with the trend change, and remained reasonably accurate until 1973-74.

The 1973 edition of the BD-240 reflects the inclusion of extended day and ungraded students and hours. For the first time since 1970 both student enroliment and WSCH categories for day-graded courses were under-projected. The projection was off by nearly 5% statewide for enrollment and WSCH

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when extended day and ungraded courses are added, i.e., when total activity, rather than only-day graded, is examined.

Higher projections of WSCH prior to 1973 resulted primarily from use of the most recent actual WSCH per student factor for nearly all districts. Since this factor has declined in recent years, the WSCH have been overprojected more often and to a greater degree than student enroliment. The latter is typically under-projected (see Table 3).

#### Experience of selected districts

Lassen and Palomar of the six districts examined have been significantly under-projected in terms of day-graded WSCH. Many of the same comments made above about statewide figures hold true for these districts. For those districts over-projected, the conditions worsen over time. For Lassen and Palomar, the degree of under-projection worsens over time. Table 3 reveals that, with but two exceptions, the 1973 edition for Palomar and Ventura for the 1973-74 year, projection of students has been lower than that of WSCH.

General over-projections of day-graded WSCH for Los Angeles and Marin Districts in earlier editions of the BD-240 and recently for Ventura are due in part to incorporating presumed effects of future colleges into the projections. Stated goals for these new colleges were not achieved, colleges scaled down, or not constructed on schedule, if at all. It may be presumed that the eventual meeting and slight exceeding of projections in 1973-74 year by Marin is the delayed influence of the completion of the Indian Valley Colleges. In Ventura, the Oxnard campus has not yet materialized, and in Los Angeles two of three planned colleges are operating, but on smaller scales than originally stated.

Palomar is most consistently under-projected of the six, reflecting a recognized weakness of the BD-240 procedure or any other that relies on a population data base other than the district itself. Because the BD-240's starting point is countywide public high school graduate projections, a district which is growing in population and high school graduates considerably faster than the county in which it is located will tend to be under-projected. The reverse may also be the case and account for over-projection in certain other districts. Lassen District projections demonstrate another recognized weakness of any projection technique, namely, the risk in projecting for small entities with primary reliance on a limited local data base.

There is an abrupt downward adjustment in the district projections prepared in 1973 (see Table 1). The only exception is the Coast District, which had had its projections considerably reduced the prior year. The long-range implications of these reductions cannot yet be determined. The reductions may have been too large in view of early reports on student enrollments this fall. For the Los Angeles and Ventura Districts, the adjustments resulted primarily from no longer making provision in

the projections for planned colleges as in earlier editionr. The result as measured by 1973-74 actual data was a more accurate estimate of the status quo.

#### Component trends

Two important relationships in developing estimates of student enrollment are (a) the degree to which new freshmen make up the total freshman class and (b) the fall-to-fall progression from freshman to sophmore status. These relationships are shown in Table 4 where, for 1973:

> <u>New 1973 freshmen</u> = 49.6% Total 1973 freshmen.

1973 sophomores 1972 freshmen

Over the past decade, new freshmen declined from two-thirds to half of total freshman enrollment. The assumption that this relation will stabilize, rather than continue to decline, needs further examination. The progression ratio of freshman to sophomore status has increased from 33% to 37% during the same period (see Table 4). The assumption that this ratio falls back to 34,5% in 1974 also needs further analysis.

= 36.8%

Another key relationship is that of WSCH to total enrollment (see Table 5). This ratio increased during the 1960's, peaked, then declined beginning 1970. As noted, WSCH typically have been overestimated.

## Illustrative age-participation projections

The BD-240 use of only high school graduates to predict Community College enrollments may be contrasted with techniques using all age groups. Projection of total fall student enrollment may be derived from projections of California's civilian population of all ages prepared by the Department of Finance. A single participation rate is calculated for each year from 1960 through 1973 (see Table 6). Four sets of projections, Options A, B, C, and D in Figure 1, represent four interpretations of future trends in historic participation rates.

Option A projects a minimum constant annual change in participation rates: the simple average of the smallest three actual annual increases. This projection does not exceed the BD-240 until 1980, when the latter begins to decline in line with projections of high school graduates. By 1983, the last year projected by the most recent BD-240, Option A is nearly 210,000 (18.8%) students higher.

Option B applies the average of the annual changes in actual participation rates since 1960. This assumes that the 14-year secular trend will continue over the next 12 years. By 1983 these figures exceed the BD-240 by more than 540,000 students, or 48.7%.

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Option C reflects recent experience, using a five-year moving average. This produces the highest projected enrollments at the end of the period, though less than Option D during interim-years. Option C is more than two-thirds, or 750,000 students, higher than the BD-240 by 1983.

Option D trends recent experience in changing participation rates to a level comparable to that of the early 1960's. Consequently, Option D begins higher than other projections, but then grows at increasingly smaller increments, ending somewhat lower than Option C by 1985.

Differences in enrollments projected by the BD-240 and those of the options are due largely to differences in the population bases used (see Figure 2).

Two sets of illustrative projections of total enrollment (Series A and B) have been prepared for each of six sample districts based on a single participation rate of 18-64 age population in the relevant county. These figures appear in Table 7 along with the 1974 edition of the BD-240 projections for each district. Series A figures assume that no increase in the 18-64 age participation rate will occur beyond Fail, 1974. This likely represents a lower limit projection. Underlying Series B figures is the assumption that the average annual increase in the participation rate will be half of the average annual increase experienced from Fall 1970 through Fall 1973. Even this series represents a drop in the trend of recent participations.

Three general results are obtained (see Table 7 and Figure 3):

- (1) BD-240 projections remain entirely within Series A and B during the ten-year period (Lassen).
- (2) BD-240 projections fall generally within Series A and B during the early years, but drop below Series A beyond 1980 (Los Angeles, Marin, and Ventura), or
- (3) BD-240 projections are consistently lower than Series A figures (Coast and Palomar).

## COMPARISON OF PROJECTED AND ACTUAL WEEKLY STUDENT CONTACT HOURS Predicted as percent of Actual

. ·	Year of Prediction DAY GRADED WSCH							
Year of BD-240	DAY GRADED WSCH							
Preparation	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1973-74	
· ·								
ALL DISTRICTS:	100.6	100.5	98.1	100.9	106.9	108.4	-	
1968	100.0	101.6	99.2	101.8	107.8	109.7	• `	
1969	-	101.0	99.7	102.5	108.7	110.9	-	
. 1970	-	-	-	105.3	111.6	113.9	•	
1971	•	-	-	-	106.8	108.9	• ,	
1972	-	-	-	-	10010	99.8	95.5	
1973	•	<b>-</b>	· •	-	•	,,,,,	••••••	
SELECTED DISTRI	CTS:							
Coast						• •		
1968	105.4	110.0	106.0	108.7	116.3	111.2	-	
1969		105.6	103.4	_ 106.6	114.3	109.7		
1970	•	-	98.6	<b>102.3</b>	110.4	106.7	-	
1971	-	· . •	_ •	104.6	112.5	108.5	•	
1972	-	•	· • •	-	· 99.0	95.1	■.	
1972	-	· •	-	-	•	95.4	93.5	
Lassen		· .			• •	•		
1968	112,9	108.3	91.9	77.6	86.1	80.6	-	
1969		104.4	88.6	· 76.2	85.0	80.1	-	
	-		92.3	78,7	85.9	81.4	• –	
1970	-		; •	102.1	121.6	118.0	• •	
1971	1	·	· •	• •	118.7	116.3	-	
1972		- - ·	•	-		.94.4	85.5 -	
1973	• •	-			·			
Los Angeles	95.6	98.9	105.5	109.7	118.4	172.3	-	
1968	92.0	102.7	108.6	113.4	122.0	125.9	-	
1969		102.7	106.8	111.7	119.2	.124.1	-	
1970	•	•	200.0	108.0	115.5	120.2	-	
1971	-	-	-	10.0	106.3	110.6	•	
1972	• `	. • •	-		100.5	100.5	93.3	
1973	•	-	、 · •	-	· .	200,12		
Marin	97.8	102.9	106.3	103.0	105.1	· 99.8	-	
1968	97.0	108.8	109.9	104.3	104.6	99.3	•	
1969	-	100.0	105.2	100.7	102.8	98.1	-	
1970	-	-	105.6	99.0	103.9	98.6	-	
1971	-	- 4	-	• • •	105.3	101.9	-	
1972	•	-	-	-	20510	94.5	95.0	
1973	•	•	-	-				
Palomar				98.1	98.1	85.9	-	
1968	109.7	110.0	105.7		95.7	85.7	-	
1969	-	104.0	102.0	94.4	94.9	84.8	· .	
1970	-	<b>"</b> æ	100.5	93.5		85.3		
1971	-	• ,	-	93.9	95.2	91.2		
1972	•		-	-	105.1	·85.0		
. 1973	-	-	-	-	-	0.00		
Ventura					<u> </u>	00.9	•	
1968	101.5	96.4	87.4	95.3	98.4	99.2	- · ·	
1969	-	96.7	86.6	94.6	97.6	98.5		
1970	-	-	99.0	112.0	115.2	117.6		
1970	-	•	-	116.1	119.8	- 121.9		
1972	-	-	<b>-</b> ,		106.9	110.0		
• 1073	• ·	-	-	12 -	•	98.2	93.5	
NIC 1973	•	-		- <sup>1</sup> - <b>Ful</b>	•	•		

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## COMPARISON OF PROJECTED AND ACTUAL ENROLLMENT Predicted as percent of Actual -

•		'ea'r	o f	Predi	ction	1	
c np 240		DAY		STUDENTS	3 .5		TOTAL STDNTS.
Year of BD-240 Preparation	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1973-74
<u>All Districts:</u> 1968 1969 1970 1971 1972 1973	99.8	97.6 99.4 - <sup>2</sup> -	- 94.6 96.1 - 98.1 - -	93.5 94.6 96.5 101.2	98.3 99.4 101.0 106.4 105.9	97.4 98.8 100.6 105.9 105.5 97.6	95.3

## Table 3

COMPARISON OF PROJECTED TO ACTUAL DAY GRADED STUDENTS AND WSCH

Predicted as percent of actual

Distant and Yoar of		1972-	-73	1973	73-74	
District and Year of Preparation of BD-240		Students	WSCH	Students	WSCH	
All Districts: Coast District: Los Angeles District: Palomar: Ventura:	1969 1970 1971 1973 1970 1971 1973 1969 1970 1971 1973 1970 1973 1971 1973	99.4 101.0 106.4 	107.8 108.7 111.6 	98.8 100.6 105.9 97.6 97.5 96.5 92.1 109.8 108.2 110.4 97.8 82.1 86.7 112.1 98.9	109.7 110.9 113.9 99.8 106.7 108.5 95.4 125.9 124.1 120.2 100.5 84.8 85.0 121.9 98.2	

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## Table 4

DAY GRADED ENROLLMENT

FALL	A NEW <u>FRESHMEN</u>	B TOTAL <u>FRESHMEN</u>	C % A IS OF B	D CONTINUING & RETURNING SOPHOMORES	E FRESHMEN TO <u>SOPH. GPR</u>
1964 1965 1966 1967 1968 1969 1970 1970 1971 1972 1973 (Actual)	108,472 124,309 128,025 137,631 144,663 152,846 165,308 166,385 149,219 169,088	164,388 193,466 197,242 219,325 240,039 265,159 297,362 320,542 315,468 340,737	66.0 64.3 64.9 62.8 60.3 57.6 55.6 51.9 47.3 ~49.6	53,769 61,191 69,033 77,299 88,918 100,457 109,152 113,487 115,933	0.327 0.316 0.350 0.352 0.370 0.379 0.367 0.354 0.368
<u>1973 BD-240</u> 1973 (Projected) 1974 1975 1976 1977 1978 1979 1980 1981 1981	166,859 174,057 181,788 183,933 188,462 192,989 196,479 194,554 190,407 187,486	331,918 346,649 363,001 368,105 377,668 386,934 394,148 389,906 381,225 374,322	50.3 50.2 50.1 50.0 49.9 49.9 49.8 49.9 49.9 50.1	114,585 119,650 125,655 132,333 134,796 138,714 142,220 144,928 143,509 140,347	0.345 0.345 0.346 0.360 0.357 0.359 0.361 0.372 0.376 0.375

## Table 5

## TOTAL ENROLLMENT

FISCAL	FALL TOTAL ENROLLMENT		ANNUAL AVERAGE WSCH	ANNUAL AVERAGE WSCH PER <u>TOTAL ENROLLMENT</u>
<u>YEAR</u> 1963-64 1968-69 1969-70 1970-71 1971-72 1972-73 1973-74 1974-75 (Est.) 1975-76 1976-77 1977-78 1978-79 1979-80 1980-81	ENROLLMENT 423,867 662,286 720,723 801,016 873,634 922,677 1,010,202 1,071,775 1,115,281 1,136,566 1,151,331 1,176,130 1,195,981 1,195,614	<i>ي .</i>	WSCH 3,948,929 6,895,746 7,660,815 8,528,067 8,998,073 9,399,376 10,272,038 10,887,591 11,333,882 11,532,485 11,680,674 11,928,038 12,121,950 12,113,967 11,899,122	9.32 10.41 10.63 10.65 10.30 10.19 10.17 10.16 10.16 10.15 10.15 10.15 10.14 10.14 10.13 10.13
1981-82 1982-83 198 <b>3-84</b>	1,174,787 1,158,389 1,110,507	14	11,729,404 11,240,849	10.13 10.12

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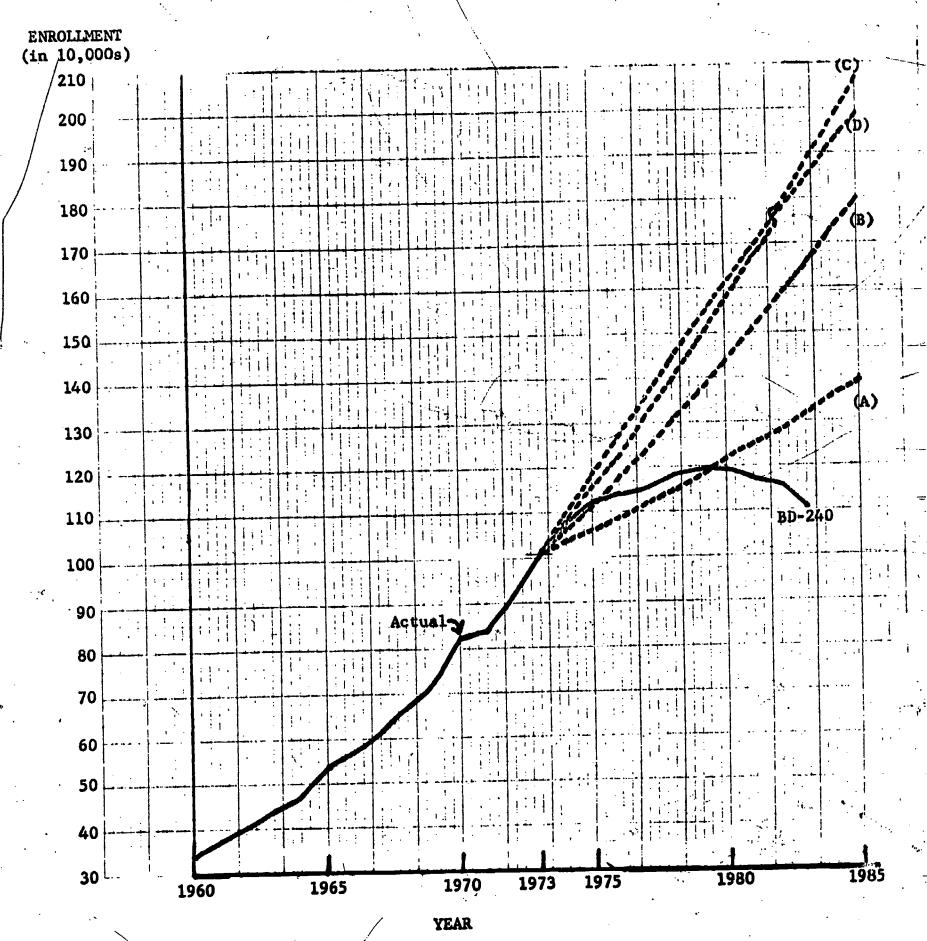
## COMMUNITY COLLEGE ENROLIMENT AND CIVILIAN POPULATION, CALIFORNIA

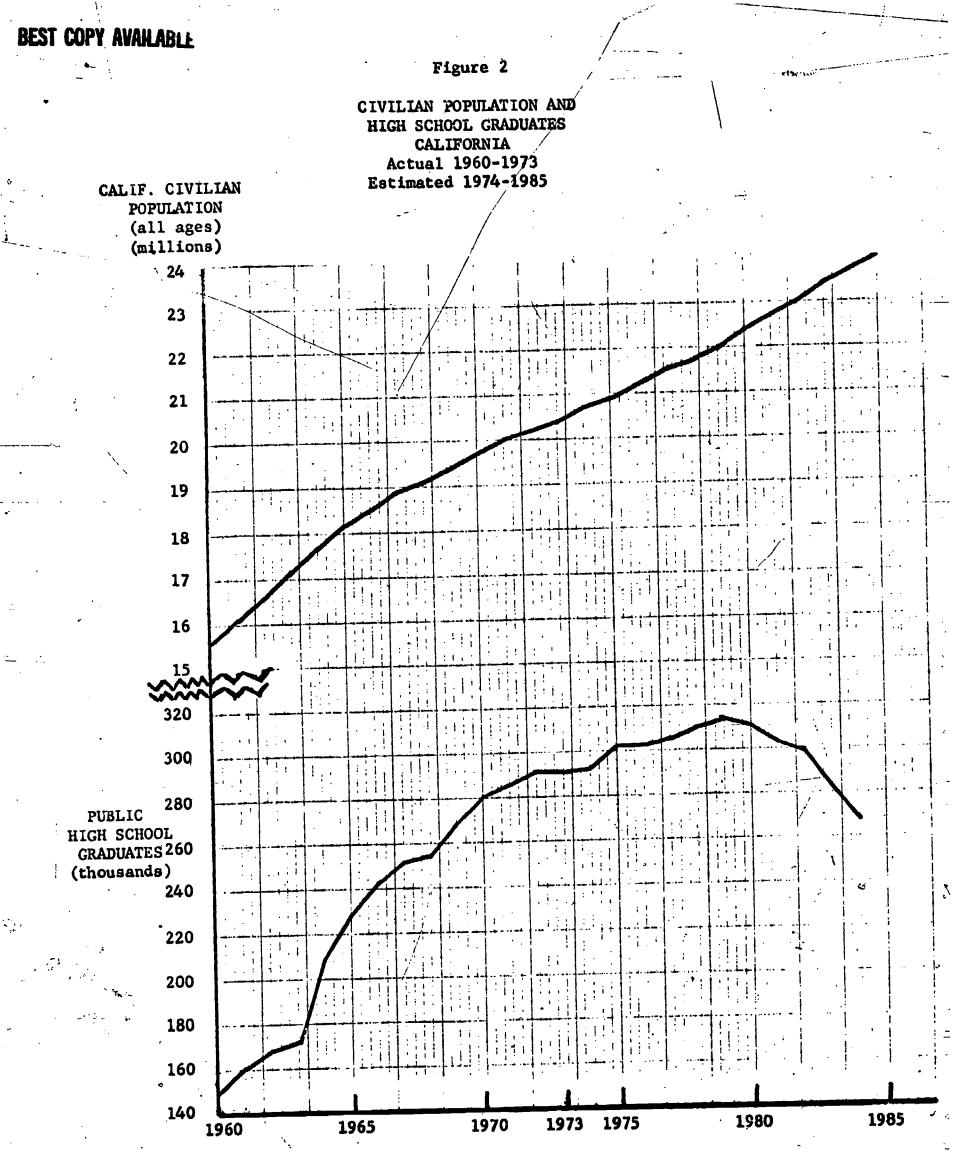
	Total		
	<b>California</b>		0-11
\	Civilian	Fall Total	College Enrollment
	Population	Enrollment	
<u>Year</u>	<u>(July 1)</u>	in CCC	<u>Rate/1,000</u>
, i	•		
1960	15,565,000	340,049	21.847
. 1	16,073,700	370,033	23.021
` 1961	10,073,700	570,000	· • •
1962	16,593,400	402,646	24.265
	•	434,792	25.293
1963	17,190,100	434,772	231270
1964	17,703,800	473,501	26.746
			20.000
1965	18,169,500	543,225	29.898
1966	18,484,200	570,907	30.886
1700			
1967	18,852,900	610,769	3/2.397
10/0	19,126,600	665,490	34.794
1968	19,120,000		
1969	19,435,300	722,429	j 37 <b>.171</b>
2000		$\tau \sim \sqrt{2}$	
1970	19,720,000	825,154	41.844
1071	19,990,000	837,350	41.888
1971	19,990,000		,
1972	20,208,000	922,065	45.629
			49.454
1973	20,441,000	1,010,889	47,434
1974	20,933,000	1,131,846	54.070

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ENROLLMENT PROJECTIONS FOUR AGE PARTICIPATION OPTIONS, 1974 BD-240

Figure 1----





YEAR

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## COMPARISON OF TOTAL ENROLIMENT PROJECTIONS

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	• •	COAST	;		-*	LASSEN	
1974 1975 1976 1977 1978 1979 1980 1981 1982 1983	BD-240 42,551 45,497 46,817 47,333 48,899 50,052 50,551 50,551 50,258 48,301	<u>Series A</u> 44,709 46,758 48,705 50,622 52,523 54,363 56,136 57,835 59,428 60,855	<u>Series</u> 42,623 46,030 49,462 52,984 56,608 60,282 63,995 67,732 71,446 75,054	1974 	BD-240 2,367 2,331 2,386 2,502 2,631 2,665 2,665 2,665 2,665 2,665 2,665	<u>Series A</u> 2,158 2,204 2,240 2,278 2,320 2,352 2,383 2,417 2,449 2,470	<u>Series B</u> 2;236 2,373 2,505 2,643 2,788 2,924 3,061 3,204 3,349 3,480

		LOS ANGELES			· • • • • • •	MARIN	
1974 1975 1976 1977 1978 1979 1980 1981 1981 1982	BD-240 108,301 111,750 113,129 113,797 115,614 117,136 116,012 113,093 112,749	LOS ANGELES Series A 108,873 109,093 109,524 109,932 110,390 110,775 111,124 111,527 111,909	<u>Series B</u> 109,291 111,191 112,894 115,006 117,183: A19,296 120,954 123,108 125,252	1974 1975 1976 1977 1978 1979 1980 1981 1982 1983	BD-240 13,805 14,010 14,013 13,995 14,288 14,394 13,858 12,995 12,306 11,810	<u>Series A</u> 12,990 13,137 13,338 13,533 13,734 13,939 14,153 14,368 14,586 14,827	<u>Series</u> B 12,964 13,662 14,405 15,184 15,959 16,782 17,635 18,477 19,370 20,283
1983	110,404	112,163	127,262		• •		

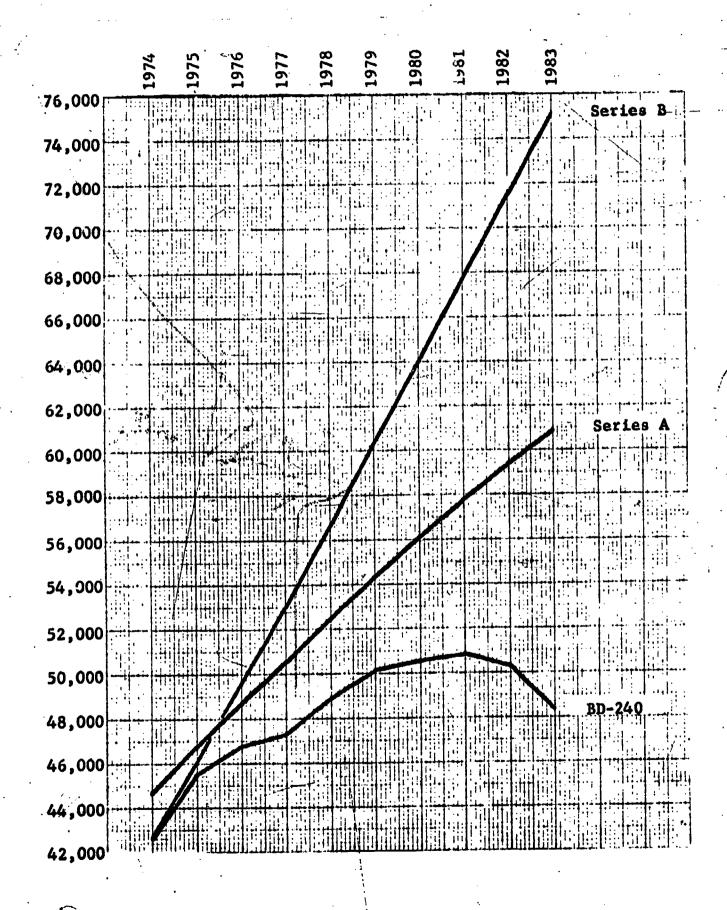
•	PALOMAR	· .		-	VENTURA	(
BD-240197410,812197511,306197611,576197711,931197812,365197912,751198012,953198113,043198213,025198312,490	<u>Series A</u> 11,248 11,588 11,927 12,263 12,611 12,952 13,289 13,624 13,970 14,321	<u>Series B</u> 10,648 11,433 12,245 13,244 14,124 15,025 15,947 16,894 17,882 18,904	1974 1975 1976 1977 1978 1979 1980 1981 1982 1983	BD-240 22,587 24,433 25,776 26,817 27,663 28,265 29,559 29,889 29,339 28,567	Series A 22,540 23,479 24,575 25,691 26,843 27,983 29,121 30,250 31,353 32,391	<u>Serics B</u> 22,039 23,218 24,575 25,947 27,409 28,853 30,351 31,863 33,339 34,802

·

## FIGURE 3

### COMPARISON OF TOTAL ENROLLMENT PROJECTIONS

Figure 3(a) COAST

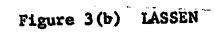


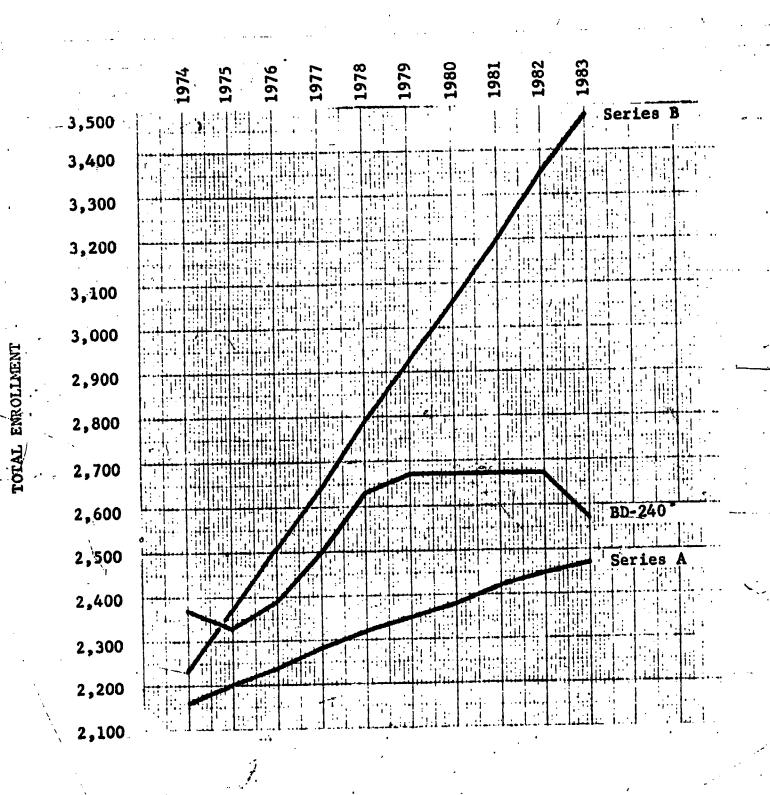
19

TOTAL ENROLLMENT

FIGURE 3 (contd.)

### COMPARISON OF TOTAL ENROLLMENT PROJECTIONS

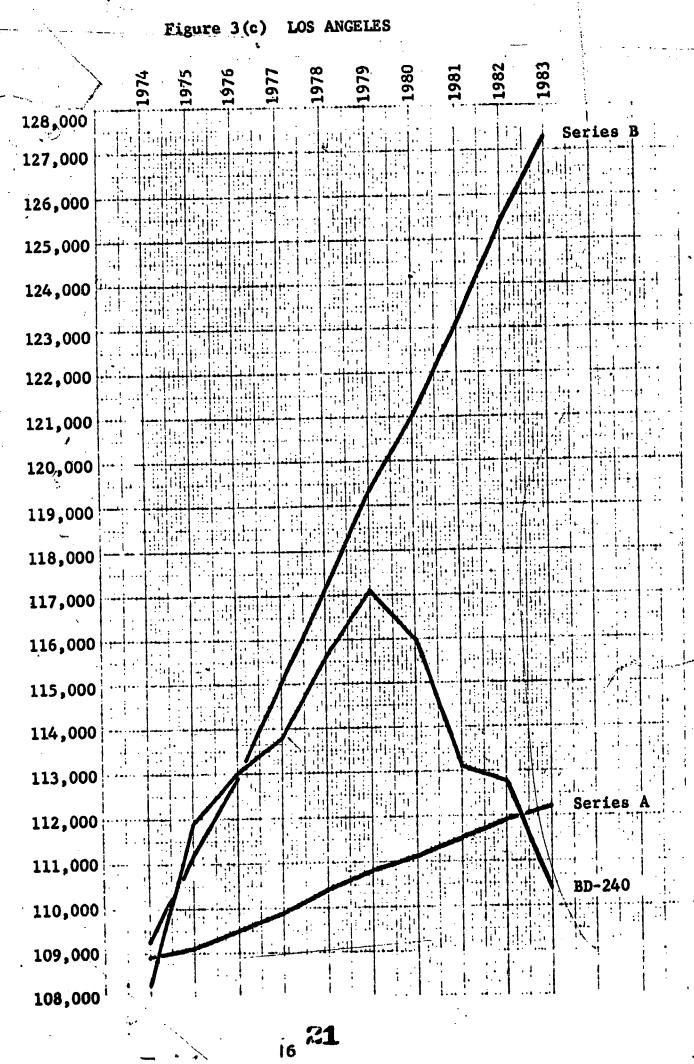




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FIGURE 3 (contd.)

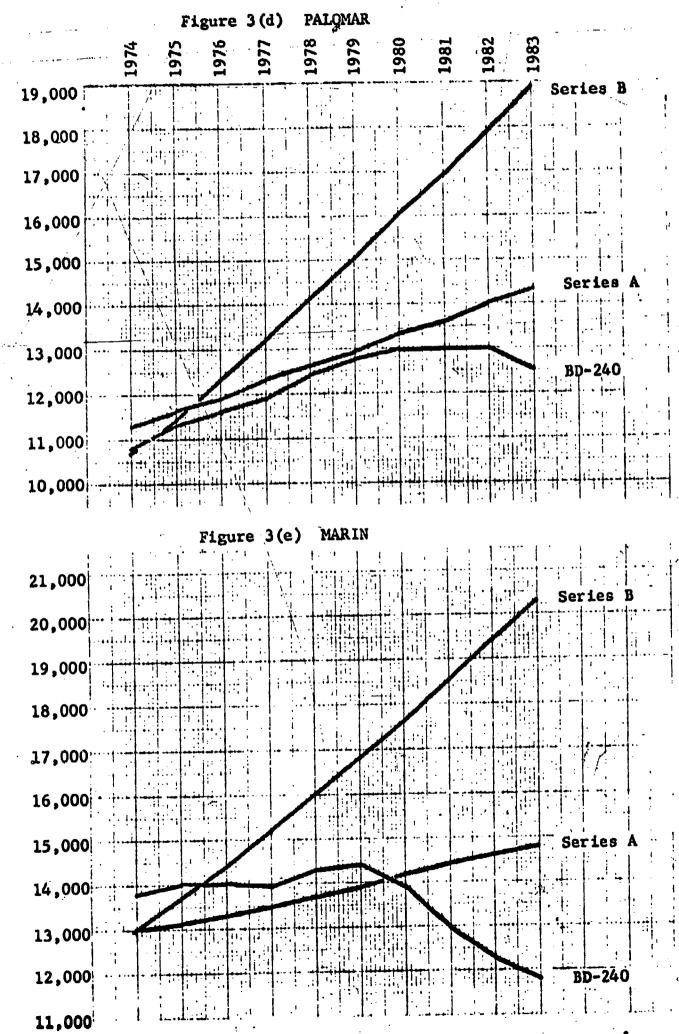
#### COMPARISON OF TOTAL ENROLIMENT PROJECTIONS



TOTAL ENROLLMENT

FIGURE 3 (contd.)

#### COMPARISON OF TOTAL ENROLIMENT PROJECTIONS



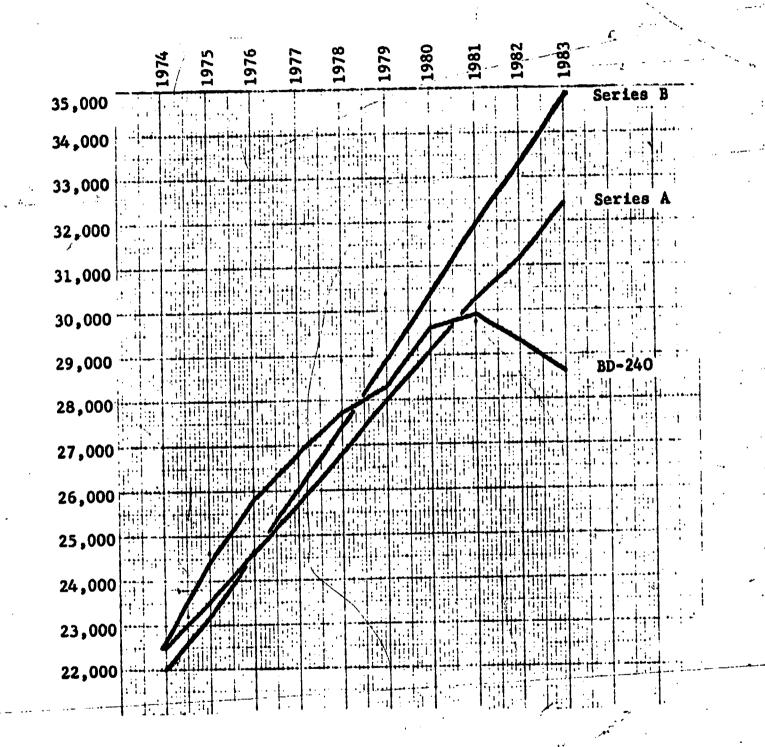
72

TOTAL ENROLIMENT

FIGURE 3 (contd.)

### COMPARISON OF TOTAL ENROLLMENT PROJECTIONS

Figure 3(f) VENTURA



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TOTAL ENROLIMENT

#### APPENUIX A

### POLICY STATEMENT ON ENROLLMENT PROJECTIONS BOARD OF GOVERNORS CALIFORNIA COMMUNITY COLLEGES

The Department of Finance method of projecting Community College students enrolled in graded courses during the day should be modified, with particular attention paid to:

- (a) Use of a broader community age cohort than only high school seniors as a population base.
- (b) Instances where there is a significant difference between the population growth of a Community College district and the county(les) in which the college is located.
- (c) Trends in the ratio of first-time to total freshman, year-to-year progression from freshman to sophmore status, and the relationship of student headcount to course hours, including possible use of standard statistical projection techniques.
- (d) Other factors which influence student enrollment and class hour loads in individual districts such as community socioeconomic conditions, changing curriculum, programs, and methods of delivery, regional programs, new facilities, and changes in legislation and administrative policies.
- 2. An age-participation model should be developed to project student enrollment and class-hour loads in evening graded courses and classes for adults.
- Use of an age participation model to project all Community College students and their related class hour loads should be explored.
- 4. The Chancellor should work closely with (a) the State Department of Finance and college representatives to modify the BD-240 method and develop alternative projection techniques and (b) the Postsecondary Education Commission (Interagency Committee on Enrollment Projections) to insure that Community College projections adequately reflect the plans and policies of other institutions of postsecondary education, particularly at the lower division level.

5. The Chancellor should explore the use of alternative techniques for state and local use to improve enrollment forecasting by including factors such as (a) number and character (age, sex, mobility, etc.) of service area population, (b) local socioeconomic conditions (unemployment rates, etc.), and (c) policies, programs, and delivery techniques of Community Colleges and nearby postsecondary institutions.

### Chancellor's Office California Community Colleges January 1975

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Dr. Arthur Cherdack Director of Educational Research and Analysis Los Angeles Community College District

Mrs. Isabel Hambright •Staff Demographic Analyst Department of Finance

Dr. Milton Kielsmeier Director of Research Sonoma County Junior College District

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## UNIVERSITY OF CALIF. LOS. ANGELES

APR 18 1975

CLEARINGHOUSE FOR JUNIOR COLLEGE

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