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ABSTRACT

Faculty salary and fringe benefit data for 1985-1986 and 1986-1987 at California State University and the University of California are examined, along with data for comparison institutions. University of California medical faculty salary comparisons from 1984-1985 are also provided. Statistics on salary and fringe benefits are provided by faculty academic rank. The fringe benefit package includes retirement and a comprehensive array of insurance for life, medical and dental care, nonindustrial disability, workers' compensation, and unemployment. Also considered briefly are economic conditions in California and the nation. Appended materials include: state legislation concerning academic salaries and welfare benefits; information on procedures for state-level reporting on faculty salaries and fringe benefit costs in public higher education, 1985-1995; a 1965 state staff report on a method for reporting to the legislature on salaries and benefits for faculty at state institutions; a report on University of California faculty retirement income value of comparison institutions, 1984-1985; a report on faculty income maintenance programs at California State University and comparison institutions; and data on the University of California retirement system. (SW)

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Summary

Each year, in accordance with Senate Concurrent Resolution No. 51 of the 1965 General Legislative Session, the California Postsecondary Education Commission submits to the Governor and the Legislature an analysis of faculty salaries and the cost of fringe benefits for the University of California and the California State University and a group of comparison institutions for the forthcoming fiscal year.

This report constitutes the Commission's 1985 report for the 1986-87 fiscal year.

- Chapter One traces the history of these annual reports and explains changes during the past year in the methodology used for them (pages 1-3).
- Chapter Two presents a brief survey of recent economic trends affecting the faculty (pages 5-6).
- Chapter Three displays the results of the most recent comparison institution surveys for the University and State University, which indicate the University will need a 1.4 percent all-ranks salary increase to maintain parity during 1986-87 and -- based on incomplete data -- the State University will need a 6.68 percent increase (pages 7-12).
- Chapter Four offers data on the cost of fringe benefits at the two segments and comments on two recent fringe-benefit reports that they have submitted in response to legislative requests (pages 13-18).
- Chapter Five presents comparison institution data on medical school salaries during 1984-85 (pages 19-20).
- Chapter Six offers a summary of the report's findings as well as observations on faculty compensation and the effectiveness of the Commission's new methodology for gather comparative salary data (pages 21-22).
- The appendices on pages 23-87 provide background information for the several chapters.

The Commission adopted the report on December 16, 1985, for transmittal to the Legislature and other interested parties. Additional copies may be obtained from the Publications Office of the Commission. Further information about the report may be obtained from the Commission staff.

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FACULTY SALARIES IN CALIFORNIA'S PUBLIC UNIVERSITIES 1986-87

The Commission's 1985 Report to the Legislature and Governor in Response to Senate Concurrent Resolution No. 51 (1965)

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
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COMMISSION REPORT 85-43
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1 Introduction

ANNUALLY, in accordance with Senate Concurrent Resolution No. 51 of the 1965 General Legislative Session (reproduced in Appendix A on page 23), the University of California and the California State University submit to the Commission data on faculty salaries and the cost of fringe benefits for their respective institutions and for a group of comparison colleges and universities. On the basis of these data, Commission staff develops estimates of the percentage changes in salaries and the cost of fringe benefits required to attain parity with the comparison groups in the forthcoming fiscal year. The report is required by the methodology to be submitted to the Governor and the Legislature by January 1 of each year.

The methodology by which the segments collect these data and the Commission staff analyzes them (Appendix B, pages 25-29) has been designed by the Commission in consultation with the two four-year segments, the Department of Finance, and the Office of the Legislative Analyst and has been published in the Commission's *Methods for Calculating Salary and Fringe Benefit Cost Comparisons* (March 1985).

In 1979, the Legislative Analyst recommended that the Commission "include community college salaries and benefits in its annual report on faculty salaries." A preliminary report on that subject was submitted in 1979, and the Commission has continued to provide data and comments on the subject since then. For the 1986-87 budget cycle, the Commission will issue its Community College report in the spring of 1986.

History of the faculty salary reports

The impetus for the faculty salary report came from the Master Plan Survey Team in 1960, which recommended that:

> 3 Greatly increased salaries and expanded fringe benefits, such as health and group life insurance, leaves, and travel funds to attend professional meetings, housing, parking and moving expenses, be provided for faculty members in order to make college and university teaching attractive as compared with business and industry.
>
> . . . .
>
> 8. Because of the continual change in faculty demand and supply, the coordinating agency annually collect pertinent data from all segments of higher education in the state and thereby make possible the testing of the assumptions underlying this report (Master Plan Survey Team, 1960, p. 12).

For four years thereafter, the Legislature continually sought information regarding faculty compensation, information which came primarily from the Legislative Analyst in his *Analysis of the Budget Bill* and from the Coordinating Council for Higher Education in its annual reports to the Governor and the Legislature on the level of support for public higher education. While undoubtedly helpful to the process of determining faculty compensation levels, these reports were considered to be insufficient, especially by the Assembly, which consequently requested the Legislative Analyst to prepare a specific report on the subject (House Resolution No. 250, 1964 First Extraordinary Session; reproduced in Appendix C, pages 31-32).

Early in the 1965 General Session, the Legislative Analyst presented his report (Appendix D, pages 33-42) and recommended that the process of developing data for use by the Legislature and the Governor in determining faculty compensation be formalized. This recommendation was embodied in Senate Concurrent Resolution No. 51 (1965), which specifically directed the Coordinating Council to prepare annual reports in cooperation with the University of California and the California State Colleges.

Since that time, the Coordinating Council, and more recently the Commission, have submitted reports to the Governor and the Legislature. Prior to the 1973-74 budgetary cycle, only one report was submitted, usually in March or April. Between 1974-75 and 1985-86, the Commission compiled two -- a preliminary report transmitted in December, and a final report in April or May. The first was intended principally to assist the Department of Finance in developing the Governor's Budget, while the second was used by the Legislative Analyst and the legislative fiscal committees during budget hearings. Each of them compared faculty salaries and the cost of fringe benefits in California's public four-year segments with those of other institutions (both within and outside of California) for the purpose of maintaining a competitive position.

Changes in content and methodology

Over the years, the Commission's salary reports have become more comprehensive. Where they originally provided only comparison institution data, they have occasionally been expanded to include summaries of economic conditions; comparisons with other professional workers; discussions of supplemental income and business and industrial competition for talent; and analyses of collective bargaining, Community College faculty salaries, medical faculty salaries, and administrators' salaries. The last three of these additions to the annual reports were all requested by the Office of the Legislative Analyst, Community College and medical faculty salaries in 1979, and administrators' salaries in 1982.

In 1984, the Commission convened an advisory committee consisting of representatives from the segments, the Department of Finance, the Office of the Legislative Analyst, and other interested parties to review the methodology under which the salary reports are prepared each year. That committee's deliberations led to a number of substantive revisions which were approved by the Commission last March in the previously mentioned *Methods for Calculating Salary and Fringe Benefit Cost Comparisons*. Among the more significant of the changes were those to create a new list of comparison institutions for the State University, to produce only a single final report rather than both a preliminary and a final report, and to provide University of California medical faculty salary information biennially rather than annually. In this year's report, current medical faculty data are not presented, but because no report on medical salaries was published last year, last year's data are included in Chapter Five below. Not included in this report are data on administrators' salaries. Those data are still being collected and will be presented in a supplemental report in the spring of 1986 at about the same time as the Commission's regular report on Community College salaries.

In past years, particularly in the late 1970s and early 1980s, the Commission's faculty salary reports included comprehensive surveys of economic conditions and occupational comparisons. There was a compelling need for such data at that time since comprehensive evidence had shown that faculty salaries at most institutions of higher education across the country were not keeping pace with changes in the cost of living or with salary increases granted to other professional workers. Since faculty salaries in California are based primarily on inter-institutional comparisons, those at the University of California and the California State University were undergoing an economic erosion comparable to that experienced nationally. That erosion made it increasingly difficult to recruit the most talented young teachers and researchers, especially in competition with the substantially higher salaries generally available in business and industry. Consequently, in order to provide the Governor and the Legislature with as much information as possible on a complex situation, the Commission thought it prudent to expand considerably the scope of those salary analyses.

In the past two years -- 1984-85 and 1985-86 -- the salary deficiencies experienced by faculty in the two public four-year segments have largely been corrected, as have those of most other institutions of higher education across the country. With the impressive recovery of the national economy, and the even more impressive recovery of California's economy, funds have become available to restore faculty salaries to levels where the segments are better able to compete. As a result, there is less need for the extensive data on economic conditions and occupational comparisons that the Commission published in prior years.

Contents of this year's report

For the 1986-87 cycle, this report contains four more chapters beyond this introduction.

- Chapter Two offers a brief overview of economic trends and a few comments on the likelihood of continuing prosperity and low inflation.
- Chapter Three displays the results of the most recent comparison institution surveys for the University and the State University.
- Chapter Four shows similar data for the cost of fringe benefits and offers comments on two recent

fringe-benefit reports submitted by the four-year segments in response to legislative requests.

- Chapter Five presents comparison institution data on medical salaries from 1984-85.

- Finally, Chapter Six offers a summary of the report's findings as well as some observations on the general subject of faculty compensation and the effectiveness of the Commission's new methodology

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2 *Faculty Salaries and Economic Conditions*

THE 1983 recovery was among the more dramatic events in American economic history. Where the Gross National Product rose only a discouraging 0.1 percent for the entire three-year period between 1980 and 1982, it rose 3.7 percent in 1983 and 6.8 percent in 1984, all in constant 1972 dollars. A similar situation occurred with personal income. Between 1980 and 1982, annual rates of real (constant dollar) increase averaged 1.4 percent, but in 1983 and 1984, they climbed 5.5 percent each year. At the same time, where the United States Consumer Price Index (CPI) rose at an average annual rate of 10.9 percent for the four-year period between 1978 and 1981, it averaged only 3.9 percent from 1982 to 1984 and is running at an annual rate of 3.8 percent at present.

The trends for California were comparable but even more beneficial. According to the UCLA Graduate School of Management (1984), California's Gross State Product rose 0.6 percent per year between 1980 and 1982 in real terms, then 4.6 percent in 1983 and 9.4 percent in 1984. California's personal income increases in constant dollars were 2.1 percent per year from 1980 to 1982, 3.3 percent in 1983, and 9.0 percent in 1984. California price increases averaged 11.3 percent between 1978 and 1981, then 4.5 percent from 1982 to 1984, and approximately 5.5 percent since then. California's inflation rate is higher than that currently being experienced nationally, but this disadvantage is offset -- and probably caused in part -- by the fact that both the Gross State Product and State personal income are increasing at substantially higher rates than the Gross National Product and national personal income.

In spite of the fact that inflation has moderated to levels thought by many to be impossible five years ago, it remains a concern for a number of reasons, one of which is the fact that there is precedent for a re-ignition of price escalation. In 1973-74 and 1974-75, CPI changes were 9.0 and 11.1 percent, respectively. They dropped to only 5.8 percent in 1976-77, then rose to the record levels of the late decade. In addition, there is a general nervousness about economic conditions in a number of quarters, despite the fact that the economy is expanding, the stock market is booming, and inflation is low and stable. This may seem anomalous, but there are good reasons why caution should be exercised, particularly with regard to inflation. Six of the more prominent ones mentioned recently by the Research Institute of America can be summarized as follows:

1. *Federal Deficits:* Efforts to reduce the deficit have been almost entirely unsuccessful, and as of the end of the federal fiscal year (September 30), it stood at a record $217 billion. Large deficits have often been inflationary in the past, in part because they stimulate economic expansion and the demand for goods and services, and in part because they increase interest payments on the national debt, thereby either creating larger deficits or higher taxes, both of which can be inflationary.

2. *Taxes:* Most economists see a tax increase as inevitable as deficits grow.

3. *Imports and a Weakening Dollar:* The dollar has been very strong against other currencies for several years. It is weakening now, and as it does, the prices of imported products will rise. Areas to watch are automobiles, textiles, steel, and electronic products. If the prices of imports rise, American manufacturers may be tempted to follow suit.

4. *Unemployment:* Unemployment has remained high in spite of the recovery With Congressional elections coming up in 1986, the prospect of a jobs bill increases. If such a bill were passed, and survived a probable presidential veto, it could further increase the deficit and give further impetus to inflation.

5. *Oil:* Although prices have been stable for several years -- a condition caused at least in part by the disunity of the Organization of Petroleum Exporting Countries (OPEC) -- inventories are thinning, leading some analysts to predict near term increases.

6. *Recession:* There is no question that the recovery is slowing down, and this fact has increased spec-

ulation that a recession of unknown dimensions will occur in 1986. If it does, pressures on such government services as unemployment insurance and aid to families with dependent children will increase at the same time that revenues decrease. Under such circumstances, the deficit could grow even higher than the record levels evident today, thus reintroducing the possibility of an inflationary recession similar to that experienced only a few years ago.

Of course, none of these conditions or possibilities has yet occurred, and there appears to be no consensus among economists regarding the economy's direction in 1986. In the final faculty salary reports previously published in the spring, the Commission was able to include information from banks, the State Department of Finance, the Graduate School of Management at UCLA, and other economic forecasters on the probable state of the economy in the forthcoming calendar and fiscal years. Unfortunately, most of these formal forecasts are not available as of this writing, and those that are tend to be preliminary and tentative. Many indicators are contradictory, such as the stock market surge at the same time that growth in the Gross National Product is clearly slowing, and continuing price stability in the face of many factors, as noted above, that have often driven prices higher in the past. There is also the resiliency of a relatively high unemployment rate after three strong years of economic growth. Opposing factors such as these appear to account for the particularly large differences among economists in recent months as to where the economy is going.

3 Projected Salaries at the University of California and the California State University Required for Parity with Comparison Institution Projections, 1985-86 and 1986-87

University of California

On November 14 and 15, the Regents of the University of California met at UCLA and requested the Governor and the Legislature to approve funding sufficient to grant University faculty an average salary increase of 6.6 percent. This amount includes 1.4 percent to maintain parity with a group of eight comparison institutions plus another 5.2 percent to maintain what the University administration has termed the "margin of excellence" -- roughly the amount by which it currently leads the average of its comparison group in the current year. Display 1 below and Display 2 on page 9 show average salaries and parity requirements for University of California faculty for the current and budget years, but as Display 2 shows, the University's current-year lead over its comparison group is actually 5.9 percent.

The University requests this additional amount on at least three grounds according to the agenda item presented to the Regents.

- First, the "margin of excellence" has improved the University's recruiting environment considerably, but "it is important to sustain the competitive margin and not to lose the long-term benefits achieved by the substantial gains of the recent past."
- Second, the University argues that inflation in California is higher than the rest of the nation by about 0.6 percent (4.1 to 3.5 percent according to UCLA's Graduate School of Management) and that this difference should be recognized.
- Third, housing costs continue to be high in California.

Regarding these points, the California Postsecondary Education Commission has never taken an official position on the "margin of excellence" issue, since it is not one capable of analytical resolution but a policy question to be resolved by the Governor and the Legislature. Concerning inflation rates, predictive differences of less than 1 percent are too small to be considered reliable, especially for a salary year which will not begin until July 1, 1986. It therefore seems imprudent to provide for a salary differential based on that factor Finally, while it is a fact that housing costs in California are generally higher than in most other parts of the country, across-the-board salary increases may not be the best way to address the problem. This is because many current faculty members already own homes and are not in need of additional funds to finance them. A preferred approach is to provide special subsidies to those faculty who need assistance, and it is one approach that the University has adopted in recent years.

DISPLAY 1 University of California Actual and Projected Comparison Institution Salaries (Equal Weight to Each Comparison Institution)

Academic Rank	Comparison Group Unweighted Average Salaries 1980-81	Comparison Group Unweighted Average Salaries 1985-86	Compound Rate of Increase	Comparison Group Projected Salaries (1986-87)
Professor	$38,144	$55,136	7.647%	$59,352
Associate Professor	$25,635	$37,417	7.857%	$40,357
Assistant Professor	$20,096	$30,927	9.005%	$33,712

Source: Letter to Patrick M. Callan from Calvin C. Moore, Assistant Vice President - Academic Personnel and Planning, University of California, November 11, 1985.

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DISPLAY 2 Percentage Increase in University of California 1985-86 All-Ranks Average Salary Required to Equal the Comparison Group Projections for 1986-87

Academic Rank	University of California Average Salaries 1985-86	Comparison Group Salaries		Percentage Increase Required in University of California Salaries	
		1985-86 (Actual)	1986-87 (Projected)	1985-86 (Actual)	1986-87 (Projected)
Professor	$58,576	$55,136	$59,352	-5.873%	1.325%
Associate Professor	$38,871	$37,417	$40,357	-3.741%	3.822%
Assistant Professor	$34,188	$30,927	$33,712	-9.538%	-1.393%
All Ranks Averages	$51,188	$48,171	$51,929	-5.893%	1.448%

	Professor	Associate Professor	Assistant Professor	Total
University of California Projected Budget-Year Staffing Pattern	3,302	1,005	707	5,014

Source: Letter to Patrick M. Callan from Calvin C. Moore, Assistant Vice President - Academic Personnel and Planning, University of California, November 11, 1985.

Display 3 on the opposite page shows the average salaries for 1985-86 at the University's eight comparison institutions and the University's current position on the list at each rank. It indicates that the University ranks about third on the list overall with salaries 6.2 percent ahead of the average of the comparison group for full professors, 3.9 percent ahead for associate professors, and 10.5 percent ahead for assistant professors.

As noted in the discussion of the new methodology in Chapter One, this is the first year that final current-year data were to be obtained from the comparison institutions. Of the University's eight comparison institutions, complete figures were obtained from seven by the November 15 deadline the only exception being unable to submit final figures because its collective bargaining process remains incomplete as of this writing. Despite this difficulty, University of California officials talked at length to representatives of the institution involved, who indicated that its eventual settlement will probably involve a total increase of about 6.0 percent. Accordingly, that percentage has been applied to the 1984-85 data to produce a current-year figure that will probably be very close to the actual one. If that figure is high or low by 1 percent, it will affect the overall parity figure by only one-tenth of a percentage point. In other words, with the current parity figure of 1.449 percent for 1986-87, the change would only be negligible -- only to 1.439 or 1.459.

During the deliberations of the Commission's advisory committee on the methodology for determining faculty salary comparisons, the representative from the Department of Finance asked that the University use the same analytical technique employed by the State University -- an averaging of staffing patterns between the State University and its comparison group -- to compute its parity figure. The University did not agree to this change in the methodology for computing parity, but the Commission agreed to present the results of the technique in its annual report. The use of this technique would change the University's parity figure from 1.44 percent to 1.38 percent -- a difference of 0.06 percent. However, since salary appropriations are always rounded off to the nearest tenth of a percentage point, the parity figure remains at 1.4 percent, regardless of which calculation is used to produce it. The computations are shown in Display 4 at the top of page 10.

DISPLAY 3 Average Comparison Institution Salaries and University of California Position, 1985-86.

Institution	Professor/Rank	Associate Professor/Rank	Assistant Professor/Rank
H	$64,452 (1)	$36,065 (7)	$30,575 (6)
A	62,648 (2)	42,900 (1)	34,828 (1)
D	59,868 (3)	36,450 (6)	28,603 (9)
University of California	**58,576 (4)**	**38,871 (3)**	**34,188 (2)**
C	56,062 (5)	39,761 (2)	30,968 (4)
F	53,234 (6)	38,310 (4)	30,549 (7)
G	50,666 (7)	35,279 (8)	30,814 (5)
E	49,594 (8)	37,665 (5)	31,769 (3)
B	44,565 (9)	32,902 (9)	29,310 (8)
Average (excluding UC)	$55,136	$37,417	$30,927
University of California Lead Over the Comparison Institution Average	6.2%	3.9%	10.5%

Source: Letter to Patrick M. Callan from Calvin C. Moore, Assistant Vice President - Academic Personnel and Planning, University of California, November 11, 1985.

The California State University

The data submitted by the State University on November 15 were defective. When the Commission approved the new methodology last March, it approved a new list of 20 comparison institutions for the State University. Of those, only 16 originally agreed to supply data for the annual survey. Subsequent efforts to obtain substitute institutions produced two further acceptances early in the fall -- from Loyola University of Chicago as a substitute for DePaul, and from Reed College in Oregon for Lewis and Clark. The Baltimore campus of the University of Maryland and Tufts University have also agreed very recently -- as substitutes for the University of Miami (Florida) and Boston University -- but there has not been sufficient time to analyze those institutions' data. All of the substitutions have been reviewed by Commission staff for comparability to the State University, and all have been accepted by the Department of Finance and the Office of the Legislative Analyst.

Although 18 institutions have responded for the 1986-87 report, actual data were available from only five as of November 15. Additional data from eight institutions were received on December 4 and are currently being analyzed The remaining seven submitted partial data that require estimates or projections based on prior experience. Several are in various stages of completing salary negotiations, updating payroll computer runs, or in the process of forwarding data. Three of the seven who reported partial information were only able to provide cost of living (COLA) data.

The difficulty this presents stems from the fact that, although percentage increases for COLAs may be known early in the academic year, the effect on total salaries caused by merit increases, promotions, and turnover at each professional rank is substantial and must be accounted for when calculating parity figures for the budget year. Because of this, confidence in the projections can only be obtained by examining actual payroll runs, including the number of faculty at each rank. This confidence is important, since each percentage point of faculty salary increase at the State University represents an appropriation of approximately $7.3 million.

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DISPLAY 4 Percentage Increase in University of California 1985-86 All-Ranks Average Salary Required to Equal the Comparison Group Projections for 1986-87

Academic Rank	UC Average Salaries 1985-86	Comparison Group Salaries 1985-86 (Actual)	Comparison Group Salaries 1986-87 (Projected)	Percentage Increase Required in UC Salaries 1985-86 (Actual)	Percentage Increase Required in UC Salaries 1986-87 (Projected)
Professor	$58,576	$55,136	$59,352	3.066%	9.932%
Associate Professor	$38,871	$37,417	$40,357	-0.472%	6.290%
Assistant Professor	$34,188	$30.927	$33,712	1.196%	8.528%
All Ranks Averages					
Weighted by University of California Staffing Pattern	$51,188	$48,171	$51,929	-5.894%	1.448%
Weighted by Comparison Institution Staffing Pattern	$48,958	$45,976	$49,603	-6.091%	1.137%
Mean All-Ranks Average and Gross Percentage Amount	$50,073	$47,073	$50,766	-5.991%	1.384%

	Professor	Associate Professor	Assistant Professor	Total
Staffing Pattern:				
University of California	3,302	1,005	707	5,014
Comparison Group	4,836	1,803	1,918	8,557

Source: Letter to Patrick M. Callan from Calvin C. Moore, November 11, 1985, plus supplementary data from the Office of the President, University of California.

Over the next several months, the Office of the Chancellor will submit additional data to the Commission, but it is probable that a final delineation of current-year salary changes for all State University comparison institutions will not be available until February or March, 1986.

In order to identify methods of developing an accurate parity figure for 1986-87 for consideration by the Department of Finance in its preparation of the Governor's Budget, Commission staff reconvened the Faculty Salary Methodology Committee on November 26, 1985. During that meeting, several alternatives were discussed with staff from the Department of Finance, the Legislative Analyst's Office, and the segments. The consensus among State officials was that the Commission should not publish a parity figure for 1986-87 until actual data from a substantial majority of the comparison institutions were received. It was further agreed that State University officials would make every effort to obtain actual, current-year data from as many of the comparison institutions as possible, especially from those with the largest numbers of faculty, since those institutions have a greater impact on the parity figure than the smaller ones. The Committee finally agreed that the results of the State University's efforts would be shared among its members by December 13 in order to provide the Commission with the most up-to-date information for its deliberations. Staff will present these data to the Commission at its meeting on December 16.

As of December 13, the State University had compiled actual current-year data for 13 institutions and partial data for the remaining seven. In two cases, the partial data include the current-year staffing pattern as well as the percentage cost of living adjustment (COLA). Four others did not submit staffing data but did advise the State University concerning their COLAs. The seventh institution provided current-year staffing data but no COLA.

Given these data, Commission staff compiled the figures shown in Displays 5 and 6 on page 11. They

DISPLAY 5 *California State University Actual and Projected Comparison Institution Salaries (Weighted by Total Faculty at Each Rank)*[1]

Academic Rank	Average Salaries (Weighted by Size of Faculty at Each Institution) 1980-81	1985-86	Compound Rate of Increase	Comparison Group Projected Salaries
Professor	$34,208	$47,237	6.667%	$50,386
Associate Professor	$25,352	$35,233	6.804%	$37,630
Assistant Professor	$20,392	$29,085	7.360%	$31,226
Instructor	$15,804	$22,521	7.341%	$24,174

1. Comparison institution salaries for 1985-86 are estimates based on partial data.

Source: Letter to William L. Storey from Thierry Koenig, Office of the Chancellor, The California State University November 15, 1985.

DISPLAY 6 *Percentage Increase in California State University 1985-86 All-Ranks Average Salary Required to Equal the Comparison Group Projections for 1986-87*[1]

Academic Rank	CSU Average Salaries 1985-86	Comparison Group Salaries 1985-86 (Actual)	Comparison Group Salaries 1986-87 (Projected)	Percentage Increase Required in CSU Salaries 1985-86 (Actual)	Percentage Increase Required in CSU Salaries 1986-87 (Projected)
Professor	$45,820	$47,237	$50,386	3.093%	9.966%
Associate Professor	$35,383	$35,233	$37,630	-0.424%	6.351%
Assistant Professor	$28,558	$29,085	$31,226	1.845%	9.341%
Instructor	$24,955	$22,521	$24,174	-9.754	-3.129%
All Ranks Averages					
Weighted by CSU Staffing Pattern	$40,935	$41,825	$44,652	2.174%	9.081%
Weighted by Comparison Institution Staffing Pattern	$36,780	$37,247	$39,805	1.270%	8.226%
Mean All-Ranks Average and GPA[2]	$38,857	$39,536	$42,229	1 746%	8.676%
Adjustments					
Turnover and Promotions			-$78		0.200%
Effect of Law School Faculty			-$311		0.800%
Unallocated California State University Merit Award Adjustment			-$311		0.800%
Net Parity Salary and Percentage			$41,529		6.876%

	Professor	Associate Professor	Assistant Professor	Instructor	Total
Staffing Pattern:					
California State University	7,378	2,660	1,493	175	11,706
Comparison Group	3,992	4,214	2,993	473	11,672

1. Comparison institution salaries for 1985-86 are estimates based on partial data.
2. Gross Percentage Amount.

Source: Letter to William L. Storey from Thierry Koenig, Office of the Chancellor, The California State University, November 15, 1985.

indicate a parity deficiency in 1986-87 of 6 88 percent.

One remaining question concerns the relative accuracy of this figure. The answer is that it is probably not at variance by more than ±0.2 percent. In other words, the true parity figure -- comparable to any figure previously submitted in the Commission's final report in the spring -- probably lies between 6.7 and 7.1 percent. That statement is based on an analysis of the divergences between the data contained in previous preliminary and final reports and the fact that the available partial data from the seven comparison institutions come close to identifying the final figures.

Display 7 shows the discrepancies between preliminary and final reports since 1976-77. It shows a mean difference of only ±1 28 percent, the maximum difference that should be expected. Given the fact that "hard" data exist for 13 institutions, however, it must then be determined what percentage of the total faculty in all 20 comparison institutions are represented by those 13. For the current year, they represent 52.9 percent, leaving partial data for the remaining 47.1 percent. Multiplying ±1.28 by 52.9 percent produces an expected deviation of ±0.68 percent. However, the fact that some data do exist for the seven "partial" institutions cannot be disregarded.

Staff of the Office of the Chancellor performed a simulation that showed the differences between the COLA adjustments and the actual figures, and this produced a discrepancy of 7 percent In other words, if a COLA of 8 percent was reported for a particular institution, the actual data came within a range of 7.44 percent to 8.56 percent or 93 percent accuracy. Such accuracy warrants a further reduction in the predicted range of ±0.68 percent, probably to a negligible deviation from the 6.876 percent parity figure shown in Display 6. For the purposes of this report, however, Commission staff believes the range should be ±0.2 percent, between 6.7 and 7.1 percent for 1986-87.

One final comment on the State University's data collection problems should be added. Given the fact that this is the first year that the new methodology has been put into practice, Commission staff inquired as to whether improvements could be expected in future years. Staff of the Office of the Chancellor responded that improvement was unlikely since many of the comparison institutions do not complete their payroll calculations until after November 15 -- the date the State University is required by the methodology to submit its report to the Commission.

At the November 26 meeting, however, University of California representatives indicated that they encountered a similar situation, yet through extensive persuasion, requests for special efforts, and promises of data exchanges in the future, they were able to achieve an unusual degree of cooperation from their comparison institutions. In light of that success, it may be possible for the State University to obtain more accurate and timely data in the future, provided that a special effort is made. It is not reasonable to expect the State University to match the University's success in the current year, especially since the State University is in the process of establishing new relationships with its comparison institutions, whereas the University has maintained them for decades. However, it does seem reasonable to expect better performance in future years.

DISPLAY 7 Differences in Parity Figures for the California State University Between the Commission's Preliminary and Final Salary Reports, 1976-77 to 1984-85

	Estimated Percentage Increase Required to Attain Parity		
Year	**Preliminary Report**	**Final Report**	**Difference**
1976-77*	2.55%	4.57%	2 02%
1977-78	5.29	4.15	-1.14
1978-79	3.80	3.27	-0.53
1979-80	8.82	10.10	1.28
1980-81	0.77	0.84	0.07
1981-82	-2.59	-0.50	2.09
1982-83	0.47	2.29	1.82
1983-84	9.03	9.18	0.15
1984-85	10.00	7.60	-2.40
1985-86	Conversion year:	Data not published.	
Differences:			
Mean	---	---	0.37
Range	---	---	±1 28

* Ther first year in which data comparable to subsequent reports was published by the Commission.

Source: California Postsecondary Education Commission staff analyses.

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4 *Projected Cost of Fringe Benefits at the University of California, the California State University, and Their Comparison Institutions, 1985-86 and 1986-87*

University of California

Displays 8 and 9 below show the computations that produce the all-ranks average fringe benefit costs at the University of California. These data indicate that the University spends between $8,721 and $12,801 per faculty member per year, depending on rank, for a fringe benefit package which includes retirement and a comprehensive array of insurance

DISPLAY 8 University of California Actual and Projected Comparison Institution Fringe Benefit Costs (Equal Weight to Each Comparison Institution).

Academic Rank	Unweighted Average Fringe Benefit Costs 1980-81	Unweighted Average Fringe Benefit Costs 1985-86	Compound Rate of Increase	Comparison Group Projected Fringe Benefit Costs
Professor	$7,000	$11,528	10.492%	$12,738
Associate Professor	$4,961	$8,713	11.923%	$9,752
Assistant Professor	$4,037	$7,404	12.897%	$8,359

Source: Letter to Patrick M. Callan from Calvin C. Moore, Assistant Vice President - Academic Personnel and Planning, University of California, November 11, 1985.

DISPLAY 9 Percentage Increase in University of California 1985-86 All-Ranks Average Fringe Benefit Costs Required to Equal the Comparison Group Projections for 1986-87

Academic Rank	University of California Average Fringe Benefit Costs 1985-86	Comparison Group Fringe Benefit Costs 1985-86	Comparison Group Fringe Benefit Costs 1986-87	Percentage Increase Required in University of California Fringe Benefits Contribution 1985-86 (Actual)	Percentage Increase Required in University of California Fringe Benefits Contribution 1986-87 (Projected)
Professor	$12,801	$11,528	$12,738	-9.945%	-0.496%
Associate Professor	$9,504	$8,713	$9,752	-8.323%	2.608%
Assistant Professor	$8,721	$7,404	$8,359	-15.101%	-4.152%
All Ranks	$11,565	$10,382	$11,522	-10.229%	-0.372%
		Professor	Associate Professor	Assistant Professor	Total
University of California Projected Budget-Year Staffing Pattern		3,302	1,005	707	5,014

Source: Letter to Patrick M. Callan from Calvin C. Moore, Assistant Vice President - Academic Personnel and Planning, University of California, November 11, 1985.

coverages for life, medical and dental care, non-industrial disability, workers' compensation, and unemployment.

The largest component of the fringe benefit program is retirement, representing 63 percent of all the funds expended by the University for the purpose. This fact has made the analysis of fringe benefit programs difficult in the past because the benefits received by faculty often bear only an indirect relationship to the program costs. In addition, a satisfactory method of making viable comparisons between California and other states has never been found due to the fact that there are many different kinds of retirement programs and different assumptions underlying each of them. The Legislative Analyst has found this particularly frustrating and has made several attempts to obtain better information. The most recent attempt led to the Supplemental Language and segmental responses discussed below.

The California State University

California State University staff has advised the Commission that the State University was unable to collect cost data on fringe benefits this year, and thus it did not make its regular submission for this report. The State University staff indicates that comprehensive information from its comparison institutions will not become available for several months.

Segmental reports on fringe benefits

During the 1984-85 legislative session, Supplemental Language was added to the Budget Act which directed as follows

4. *Retirement System Data.* The University of California (UC) and the California State University (CSU) are directed to request from their faculty comparison group universities the following data on retirement benefits in addition to data currently collected:

   - Of the average amount identified for fringe benefits, the average dollar amount related to contribution for retirement.
   - The average contribution needed to fund the "normal costs" of the retirement system.
   - The average employee contribution to the retirement system.

   The California Postsecondary Education Commission (CPEC) is directed to include in its Annual Report on Faculty and Administrators' Salaries a table that compares the normal costs less the employee contribution of the UC and CSU retirement systems and the same data for their respective comparison university groups. The CPEC report shall also include data on the percentage of reported fringe benefits that are related to retirement for UC, CSU, and their respective comparison groups.

   It is further the intent of the Legislature that UC and CSU attempt to collect and provide information on actual benefits in addition to reported cost data for their comparison institutions.

University of California

In order to satisfy this directive, the University of California retained the actuarial consulting firm of Towers, Perrin, Forster & Crosby to collect and analyze data on both the University's and its comparison institutions retirement programs. The State University endeavored to collect and analyze the appropriate information internally. The University reported its data (Appendix E) to the Commission on August 23, 1985; the State University on August 22, 1985 (Appendix F).

According to the University's actuarial consultants, the definition of "normal cost" is as follows:

> The normal cost is the actual cost of a plan allocated to the 1984-85 year under the entry age actuarial cost method. Each university's normal cost is the total cost minus the members' contributions.

Under this definition, the consultants compiled the data shown in Display 10 on the opposite page.

This definition of normal costs is somewhat simplistic, however, in that it uses a term -- "actual cost" -- that cannot be calculated without some difficulty. The "actual cost" of a retirement plan may or may not bear a close relation to the amount of money invested in that plan by its members or their employers, and it is derived only through the application of a number of critical assumptions. In their report, the consultants listed 15 assumptions that produced the figures in Display 10:

1. Investment return on member contributions.

DISPLAY 10 Retirement System Normal Costs at the University of California and its Comparison Institutions as a Percentage of Covered Compensation.

Institution	Total Contribution (Normal Cost)	Member Contribution	Institutional Contribution
University of California	14.3%[1]	3.5%	10.8%[1]
Institution A	10.0	0.0	10.0
Institution B	11.0	0.0	11.0
Institution C	23.3[1]	8.0	15.3[1]
Institution D	15.0	5.0	10.0
Institution E	15.0	5.0	10.0
Institution F	13.9	.6	13.3
Institution G	8.2[1]	0.0[2]	8.2[1]
Institution H	14.3	3.9	10.4
Eight Institution Average (Equal Weight to Each Institution)	13.8%	2.81%	11.03%

1. Includes administrative expenses of 0.3 percent.
2. Institution G designates part of its contribution (5.0 percent of pay) as member contribution, to be paid to the member at termination or upon death.

Source: Appendix E.

2. Salary increases.
3. Social security benefits.
4. Mortality rates.
5. Member termination date.
6. Retirement incidence (retirements per 1,000 active members by age).
7. Disablement.
8. Mortality for disabled members.
9. Remarriage.
10. Proportion of active members who are married.
11. Number of dependents of married members.
12. Entry age for funding.
13. Administrative expenses.
14. Future service for part-time employees who are members.
15. Probability of electing a refund on termination of employment.

In addition, they applied the 15 to the comparison institutions as if they had the identical demographics, costing methods, and actuarial assumptions applicable to the University of California Retirement System (UCRS) and the University faculty. It is an approach similar to that traditionally used by the Commission for making salary and fringe benefit cost comparisons, since those are based on applying the University's staffing pattern to the average salaries paid within the comparison group. Analytically, there is no other way to compare the value of various retirement programs since, without a commonality of demographics and assumptions, the variables applicable to individual institutions would distort the results.

All of these assumptions require the application of probability tables, all of which are presented in Appendix G beginning on page 73. Even then, however, it is difficult to determine the superiority or inferiority of one system over another, since five of the eight comparison institutions use the Teachers Insurance and Annuity Association program, two have state-financed programs similar to California's, and one offers an option of using either one or both. This problem is discussed further below in the Commission's comments on the State University.

Concerning that portion of the Supplemental Language which requires the inclusion of data "on the percentage of reported fringe benefits that are related to retirement for UC, CSU, and their respective comparison groups," the University did not provide those data for its comparison institutions. For the current year, the applicable percentage for the University is 63 percent.

The California State University

In its report (Appendix F), the State University emphasized the fact that there are two basic types of retirement programs -- "defined contribution plans" and "defined benefit plans." The former is typified by TIAA-CREF, where both the member's and the institution's contributions are precisely determined but where the benefits depend largely on the capital growth accruing to the plan over the course of the member's employment. In defined benefit plans, however, the amount received upon retirement is ordinarily defined as a percentage of final salary times the number of years of service.

The two types of plans also differ in that institutional contributions to TIAA-CREF and similar plans are highly portable, while most defined benefit plans financed by governmental entities are not. In government plans such as the Public Employees Retirement System (PERS), employer contributions are never receivable in a lump sum or transferable to another retirement program by the employee. Benefits can only be received following both vesting and retirement. In general, the portability feature normally included with defined contribution plans is considered to be highly desirable.

The State University surveyed 16 of its 20 comparison institutions approved by the Commission last March. Of the 16, seven had defined contribution plans, five had defined benefit plans, and four offered faculty the option of selecting one or the other. Unlike the University of California, however, the State University did not apply the demographics of its system to the retirement systems in place in the comparison institutions.

In its report, the State University notes that normal costs for defined contribution plans are identical to the employer's and employee's contribution to it. For defined benefit plans, however, the normal cost can be determined only by the application of a number of assumptions similar or identical to those listed above. To obtain normal costs for the defined benefit plans, the State University consulted with PERS and with retirement experts in the applicable states to produce the data shown in Display 11 on the opposite page.

In determining normal costs for the defined benefit plans, the most important assumptions used by PERS are those governing interest rate growth in the contributions and the annual percentage increase in employee salaries. At present, PERS assumes 8.5 percent for the former and 8.0 percent for the latter. By contrast, the averages for the five defined benefit plan institutions are 7.3 and 5.45 percent, respectively -- percentages that lower considerably the normal costs of the comparison institution plans. As noted earlier, such percentages do not apply to defined contribution plans, since normal costs are identical to actual contributions.

Concerning that part of the Supplemental Language which called for the segments to indicate the percentage that retirement programs comprise of the total fringe-benefit package, the State University provided data for the 11 institutions with defined contribution programs but none for those with defined benefits. The absence of the latter stems from the fact that contributions do not relate closely to normal costs. For the 11, computations were made for life insurance, disability insurance, and Social Security (OASDI). Health insurance was not included for the following reason (p. 3):

> In consultation with staff of the Postsecondary Education Commission, the report omits comparison of health related benefits. The CSU offers some 25 different health benefit plans and the comparison institutions also offer numerous plans Data obtained in prior surveys indicate that CSU expenditures for health benefits are significantly above those other institutions across the country. It appears, however, that this cost difference reflects the higher cost of medical and hospital services in California than in the rest of the nation.

Also excluded were provisions for workmen's compensation and unemployment insurance, since "for the most part, full-time faculty are only remotely affected by these programs."

In spite of those restrictions, the State University did show the relationship between retirement and other fringe benefits on May 8 when it submitted its

DISPLAY 11 Normal Cost as a Percentage of Covered Compensation at the California State University and Sixteen of its Comparison Institutions, 1984-85.

Institution	Total Contribution (Normal Cost)	Member Contribution	Employer Normal Cost	Charge to Institution
California State University[1]	15.3%	5.0%	10.3%	17.6%
Institution A[1]	12.1	6.0	6.1	13.2
Institution B[1]	8.3	4.5	3.8	9.0
Institution C[1]	14.2	8.75	5.5	14.0
Institution D[1]	8.2	5.0	3.2	11.8
Institution E[1]	10.4	0.0	10.4	11.3
Institution F[2]	14.0	7.0	7.0	7.0
Institution G[2]	12.5	5.0	7.5	7.5
Institution H[2]	15.5[3]	5.5[3]	10.0[3]	10.0[3]
Institution I[2]	12.0[4]	6.0[4]	6.0[4]	6.0[4]
Institution J[2]	16.0	8.0	8.0	8.0
Institution K[2]	12.0	6.0	6.0	6.0
Institution L[2]	13.0	5.0	8.0	8.0
Institution M[2]	13.5[5]	1.5[5]	12.0[5]	12.0[5]
Institution N[2]	15.35	6.85	8.5	8.5
Institution O[2]	14.5	5.0	9.5	9.5
Institution P[2]	15.0	5.0	10.0	10.0
Averages:				
Defined Benefit Programs	10.6%	4.85%	5.8%	11.9%
Defined Contribution Programs	13.9%	5.52%	8.4%	8.4%

1. Defined Benefit Plans.
2. Defined Contribution Plans.
3. Average of a range of options available to the employee.
4. Range is between 10 percent and 14 percent. Contributions on salary below OASDI maximum are at 5 percent for both the employee and the institution; those above are at 7 percent for both.
5. Faculty hired since 1976 contribute at a 3 percent rate with University contributions at 9 percent on salary to $16,900 then 12 percent. Faculty hired before 1976 have no mandatory contributions; University contributes 12 percent on salary to $16,900 then 15 percent thereafter.

Source: Appendix F.

final salary and benefit report for 1985-86. Those data are shown below in Display 12 on page 18.

The State University listed eight "findings" in its report, the most important of which are as follows:

1. The State University's retirement program (PERS) is competitive with other retirement programs for faculty who retire in State University employment but not competitive for younger faculty in comparison to institutions with defined contribution plans similar to TIAA-CREF.
2. Comparisons of annual costs between CSU and comparison institutions with defined benefit plans are difficult to make since annual costs bear little relation to normal costs (see Display 11 on the previous page for Institutions A through E).
3. Average contributions to retirement programs by

faculty members in CSU and its comparison institutions are comparable (5.0 percent in CSU; 5.29 percent in the 16 comparison institutions surveyed).

DISPLAY 12 Cost of Fringe Benefits Provided Full-Time Faculty at the California State University and Sixteen Comparison Institutions as a Percentage of Salary Expenditures, 1984-85.

	California State University		**Sixteen Comparison Institutions**	
Type of Benefit	**Percent of Salary Expenditures**	**Percent of Total**	**Percent of Salary Expenditures**	**Percent of Total**
Retirement	17.60%	60.38%	10.08%	46.05%
Social Security	5.82	19.97	5.88	26.86
Medical/Dental Insurance	5.26	18.04	3.79	17.31
Workers' Compensation	0.29	0.99	0.27	1.23
Unemployment Insurance	0.17	0.58	0.21	0.96
Tuition Waivers	0.00	0.00	0.79	3.61
Life Insurance	0.00	0.00	0.64	2.92
Disability Insurance	0.00	0.00	0.23	1.05
Total Reported Fringe Benefit Expenditures	29.15%	99.96%[1]	21.89%	100.00%

1. Does not equal 100 percent due to rounding.

Source: Appendix F

5 Medical School Salaries

ITEM 322 of the 1978 Legislature's Conference Committee Supplemental Report on the Budget Bill states:

> The University of California shall report to the California Postsecondary Education Commission annually on (1) its full-time clinical faculty salaries and those of its comparison institutions (including a description of the type of compensation plans utilized by each UC school and each comparison institution), and (2) the number of compensation plan exceptions in effect at each UC school.

Since the Commission's final report for the 1979-80 budget year, the University has provided the requested data for the then current year. During deliberations over the revised faculty salary methodology which the Commission approved last March, however, the University requested a change to biennial rather than annual reports. In consultation with the Department of Finance and the Office of the Legislative Analyst, this suggestion was accepted, the University agreeing to supply data for the 1984-85 budget year and every two years thereafter.

For the 1985-86 cycle, the Commission published only one report, and it was not possible to include the medical faculty data within it. Accordingly, the data that ordinarily would have been presented then are presented here in Displays 13 and 14. Data for the 1986-87 year will be contained within the Commission's next annual report.

DISPLAY 13 1984-85 University of California Medical School Faculty Salary Survey: Pediatrics

	Professor		Associate Professor		Assistant Professor	
Institution	Salary	Rank	Salary	Rank	Salary	Rank
B	$112,600	1	$82,100	1	$56,200	3
F	98,216	2	78,205	2	65,186	1
University of California	**93,863**	**3**	**70,285**	**3**	**55,273**	**5**
G	92,143	4	64,040	8	54,144	6
A	91,239	5	67,418	5	58,248	2
D	90,587	6	69,615	4	55,759	4
E	85,444	7	66,053	6	43,688	9
H	79,377	8	60,968	9	47,167	8
C	74,500	9	64,182	7	52,600	7
Average	$90,885		$69,207		$54,252	
Standard Deviation	$10,991		$6,906		$6,196	

Source: Letter to Patrick M. Callan from Leon Mayhew, Acting Assistant Vice President - Academic Personnel and Planning, University of California, April 4, 1985.

DISPLAY 14 1984-85 University of California Medical School Faculty Salary Survey: Surgery and General Medicine

Institution	Professor		Associate Professor		Assistant Professor	
	Salary	Rank	Salary	Rank	Salary	Rank
Surgery						
G	$182,244	1	$141,478	1	$91,833	4
D	166,315	2	111,064	5	87,340	7
University of California	**155,907**	**3**	**108,202**	**6**	**86,715**	**6**
A	148,101	4	98,158	9	69,042	9
F	145,793	5	120,478	3	95,687	3
C	139,428	6	133,063	2	99,383	1
B	136,500	7	111,200	4	97,000	2
H	135,625	8	108,125	7	90,030	5
E	122,832	9	106,229	8	71,479	8
Average	$148,083		$115,333		$87,501	
Standard Deviation	$17,916		$13,876		$10,741	
General Medicine						
D	$112,951	1	$98,892	1	$83,243	1
B	106,700	2	73,100	6	55,150	8
F	105,011	3	84,235	2	59,350	6
University of California	**102,887**	**4**	**76,637**	**4**	**61,887**	**3**
G	102,707	5	79,336	3	62,729	2
A	97,726	6	72,300	7	60,008	5
E	88,657	7	68,905	8	49,381	9
H	86,313	8	73,238	5	61,083	4
C	80,321	9	65,000	9	57,647	7
Average	$98,141		$76,849		$61,164	
Standard Deviation	$10,786		$9,987		$9,236	

Source: Letter to Patrick M. Callan from Leon Mayhew, Acting Assistant Vice President - Academic Personnel and Planning, University of California, April 4, 1985.

6 Conclusions

THIS report has analyzed faculty salaries and fringe benefits at the University of California and the California State University, discussed economic conditions, and presented University of California medical faculty salary comparisons from 1984-85.

Regarding salaries, its principal discussion concerned the difficulties encountered by the California State University in obtaining actual, current-year salary data from the new list of comparison institutions approved by the Commission last March. Although all parties to this agreement, including the State University, intended that final data would be acquired from all 20 State University comparison institutions by November 15 each year, such data were made available to the Commission for only five by that date. According to State University officials, problems encountered ranged from refusals to cooperate by four institutions, protracted collective bargaining negotiations in two others, and delays in performing the necessary payroll computer runs and late deliveries at the remaining nine. In a letter dated December 3, 1985, the State University submitted an update that contained actual data for 13 institutions, partial data for three others, and estimates for the remaining four. Officials of the State University have advised the Commission that complete data for all 20 comparison institutions will probably not be available until February at the earliest, and that the problem of delays in obtaining comparison institution data is unlikely to be resolved in future years.

With regard to the University of California, final data were submitted for seven of the University's eight comparators, the only exception being one that could not submit data due to the absence of a collective bargaining agreement. In spite of this problem, University officials spoke at length to officials of that institution and received sufficient data to derive a reasonable estimate for that system, and Commission staff has determined that any conceivable deviation in that estimate will have only a minor effect on the University's projected parity percentage of 1.4 percent for 1986-87.

Concerning fringe benefits, the University submitted its usual report on employer costs, again providing an estimate for the one still without a collective bargaining agreement. The State University was unable to submit fringe benefit cost data for any of its comparison institutions. In addition, each segment submitted a report on fringe benefit "normal costs" in response to Supplemental Language contained in the 1984-85 Budget Act. Those reports were discussed in Chapter Four.

Based on the data submitted by the two universities and the analyses contained in this report, the Commission offers the following conclusions with regard to faculty salaries and fringe benefits for 1986-87:

Salaries

1. Based on the comparison institution data submitted by the University of California, the parity figure of 1.4 percent shown in Display 2 of Chapter Three is as accurate as any provided previously in the Commission's final annual report. The absence of final data from the one university is not expected to have any significant impact on the overall percentage increase needed to attain parity.

2. By the November 15 deadline, the State University submitted complete data from only five of its comparison institutions, estimates from 13 others, and no data from the final two. As of December 13, it had compiled actual current-year data for 13 institutions and partial data for the remaining seven. These data indicate a parity deficiency in 1986-87 of 6.88 percent, which is probably not at variance by more than ±0.2 percent. The true parity figure -- comparable to any in the Commission's previous final reports published in the spring -- probably lies between 6.7 and 7.1 percent.

3. During 1985, two changes were made in the State University's methodology that greatly increased the difficulty of collecting accurate salary information: (1) the date of the final salary report was moved back to December from May of each year; and (2) roughly two-thirds of the insti-

tutions on the State University's list of comparison institutions were replaced with new ones. In light of these challenges to implement the new procedures, the State University failed to invest adequate time and energy to secure the necessary degree of cooperation from its comparison group, and did not adequately inform Commission staff of its difficulties prior to the November 15 deadline.

Fringe benefits

4. The report submitted by the University of California is comprehensive in its attempt to establish true "normal costs" for both its own and its comparison institution's retirement systems. In comparing the total of employer and employee costs, it appears that the University's system (UCRS) is slightly more expensive than the average of those in its comparison institutions, but less expensive to the University and, therefore, to the State. The reason for this is that the contributions made by University of California faculty members are slightly higher than those made by faculty in the comparison group. Overall, however, the normal costs are very similar.

5. It is not possible to compare percentages of costs devoted to retirement in the University's comparison institutions since the University did not provide those data. At the University, the current percentage retirement costs represent of total fringe benefit costs is about 63 percent.

6. The data provided by the California State University made a clear distinction between "defined contribution" retirement systems and "de fined benefit" systems. Considered as a group, it appears that California's system is slightly less expensive for faculty and somewhat more expensive for the State University (and the State) than systems in place at the comparison institutions. This conclusion, however, must be modified by the fact that the State University did not apply its demographics or the Public Employees Retirement System assumptions to the programs in place at the other institutions. Given the more modest assumptions used by the comparison institutions relative to interest rates and salary increases, it seems probable that the differences between the two would have narrowed.

7. Comparisons between the State University and its comparison institutions are further complicated by the fact that a true faculty-to-faculty comparison cannot be made so long as the PERS system as a whole is the basis for that comparison. State University faculty are only one employee group within PERS, and it cannot be determined from the State University's report whether a true comparison affecting only faculty would raise or lower employee contributions or employer normal costs.

8. At both the University and the State University in 1984-85, actual employer contributions exceeded employer normal costs by a considerable margin. At the University of California, employer normal costs were 10.8 percent of salary per employee with an employer contribution of 14.6 percent. At the California State University, the figures were 10.3 and 17.6 percent, respectively.

9. At both the University and the State University, the determination of actual benefits received depends heavily on the individual, since both UCRS and PERS offer comparatively advantageous retirement incomes after many years of service but do not offer portability for employer contributions. This means that faculty who remain for less than five years (the minimum term for benefits to vest) receive no employer benefits at all, those who remain only a few more than five years very little, and those who remain for a career a substantial amount. At institutions with defined contribution plans like TIAA-CREF, benefits are almost directly proportional to years served. This difference makes a consistent comparison of benefits received almost impossible.

10. Given the difficulties inherent in retirement system comparisons, it would appear that recommendations for changes in California's programs would be justified only if it could be demonstrated that there were radical differences in cost and benefit levels. At the present time, such differences are not evident.

Appendix A

Senate Concurrent Resolution No. 51, 1965 General Session, Relative to Academic Salaries and Welfare Benefits

WHEREAS, The Joint Legislative Budget Committee pursuant to House Resolution No. 250, 1964 First Extraordinary Session, has had prepared and has adopted a report of the Legislative Analyst containing findings and recommendations as to salaries and the general economic welfare, including fringe benefits, of faculty members of the California institutions of higher education; and

WHEREAS, The study of the Joint Legislative Budget Committee found that the reporting of salaries and fringe benefits as it has been made previously to the Legislature has been fragmentary and has lacked necessary consistency, with the result that the Legislature's consideration of the salary requests of the institutions of higher learning has been made unnecessarily difficult; and

WHEREAS, The report recommends that the Legislature and the Governor should receive each December 1 a report from the Coordinating Council for Higher Education, plus such supplementary information as the University of California and the California State Colleges desire to furnish independently, containing comprehensive and consistently reported information as outlined specifically in the report adopted by the Joint Legislative Budget Committee; and

WHEREAS, The reporting recommended by the committee would include essential data on the size and composition of the faculty, the establishment of comprehensive bases for comparing and evaluating faculty salaries, the nature and cost of existing and desired fringe benefits, the nature and extent of total compensation to the faculty, special privileges and benefits, and a description and measurement of supplementary income, all of which affect the welfare of the faculties and involve implications to the state now, therefore, be it

Resolved by the Senate of the State of California, the Assembly thereof concurring, That the Coordinating Council for Higher Education in cooperation with the University of California and the California State Colleges shall submit annually to the Governor and the Legislature not later than December 1 a faculty salary and welfare benefits report containing the basic information recommended in the report of the Joint Legislative Budget Committee as filed with the President of the Senate and the Speaker of the Assembly, under date of March 22, 1965.

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Appendix B

NOTE: The following material is reproduced from Chapter Two, "The Revised Methodology," of *Methods for Calculating Salary and Fringe Benefit Cost Comparisons, 1985-86 to 1994-95: A Revision of the Commission's 1977 Methodology for Preparing Its Annual Reports and Faculty and Administrative Salaries and Fringe Benefit Costs.* Commission Report 85-11. Sacramento: California Postsecondary Education Commission, March 1985, pp. 7-16.

The following procedures will be employed by the California Postsecondary Education Commission to develop its annual report on faculty salaries and fringe benefit costs in California public higher education for the ten-year period of 1985-86 to 1994-95, unless noted otherwise.

1. Number and timing of reports

One report will be prepared by the Commission each year. That report will contain current-year data from both the University of California's and the California State University's comparison institutions, such data to be submitted by the segments to the Commission, the Department of Finance, and the Legislative Analyst not later than November 15 each year. The Commission's report will be submitted to the Department of Finance and the Joint Legislative Budget Committee not later than January 1.

2. Principle of parity

The report will indicate needed percentage increases (or decreases) for the forthcoming fiscal year in salaries and fringe benefit costs for University of California and California State University faculty to achieve and maintain parity with comparison institution faculty at the ranks of professor, associate professor, assistant professor, and (at the State University only) instructor. Parity is defined as the mean of all salaries paid by the comparison institutions as a whole at each rank. A separate list of comparison institutions will be used by each of the four-year California segments of higher education. The report will separate calculations and displays of data related to percentage increases required for salary parity from those related to fringe benefit cost parity.

3. Comparison institutions

University of California

Comparison institutions for the University of California, with independent institutions asterisked, will be the following:

Cornell University*
Harvard University*
Stanford University*
State University of New York at Buffalo
University of Illinois Urbana Campus
University of Michigan - Ann Arbor
University of Wisconsin - Madison
Yale University*

The University's list of comparison institutions remains an open item before the Technical Advisory Committee during 1985 and may be recommended for change for 1986-87 and subsequent budget years.

California State University

Comparison institutions for the California State University, with independent institutions asterisked, will be the following for the years 1985-86 through 1994-95.

Northeast

University of Bridgeport*
Boston University*
Rutgers the State University of New Jersey (Newark Campus)
State University of New York at Albany
Bucknell University*

South

University of Miami (Florida)*
Georgia State University
North Carolina State University
Virginia Polytechnic Institute and State University

North Central
DePaul University*
Wayne State University
Mankato State University
Cleveland State University
University of Wisconsin-Milwaukee

West

Arizona State University
University of Southern California*
University of Colorado at Denver
Lewis and Clark College*
University of Nevada-Reno
University of Texas at Arlington

4. Faculty to be included and excluded

University of California

Faculty to be included in the comparisons are those at the ranks of professor, associate professor, and assistant professor (the University does not use the rank of instructor) employed on nine- and eleven-month (prorated) appointments, with the exception of faculty in law, the health sciences, summer sessions, extension programs, and laboratory schools, to the extent that these faculty are covered by salary scales or schedules other than those of the regular faculty. Faculty on the special salary schedules for engineering, computer science, and business administration will be included with the regular faculty.

Faculty members to be included are those assigned to instruction (regardless of their assignments for research and other University purposes), department chairmen (if not on an administrative salary schedule), and faculty on salaried sabbatical leave.

The number of University faculty will be reported on a full-time-equivalent basis.

The California State University

Faculty to be included in the comparisons are those with full-time appointments at the ranks of professor, associate professor, assistant professor, and instructor, employed on nine- and eleven-month (prorated) appointments, department chairmen, and faculty on salaried sabbatical or special leave. Faculty teaching seminar sessions or extension will be excluded.

Funds appropriated for "outstanding professor awards" will be included in the State University's average salaries.

The number of State University and comparison institution faculty will be reported on a headcount basis.

5. Computation of comparison institution average salaries and fringe benefit costs

As indicated below, the University and the State University use different methods to compute average salaries in their respective groups of comparison institutions. The Commission will provide a detailed explanation for these differences in its annual report.

University of California

For the University's comparison group, the average salary at each rank will be obtained for each comparison institution. The average salary at each rank for the comparison group as a whole will then be calculated by adding the average salaries at the eight comparison institutions and dividing by eight. The same procedure will be used to compute the cost of fringe benefits. (The use of equal weights for University of California comparison institutions is an unresolved issue to be discussed by the Technical Advisory Committee during 1985.)

The California State University

For the State University's comparison group, the total actual salary dollars paid at each rank for the group as a whole will be divided by the number of faculty within the rank at all 20 institutions to derive the average salary for each rank. Average costs of fringe benefits will be computed in the same manner.

6. Five-year compound rate of salary and fringe benefit cost growth

In order to compute the estimated salaries and benefit costs to be paid by the comparison institutions in the budget year, a five-year compound rate of change in salaries and the cost of fringe benefits will be computed using actual salary and benefit data for the current year and the fifth preceding year.

Each segment will compute the average salary and fringe benefit cost to the employer by rank for their respective comparison groups as specified in Section 5 above. Each will then calculate the annual compound rate of growth at each rank between the current year and the year five years previous to the current year. These rates of change will then be used to project average salaries and costs of fringe benefits for that rank forward one year to the budget year.

(The use of a five-year compound average is one of the unresolved issues to be discussed by the Technical Advisory Committee during 1985. The Legislative Analyst has suggested that a shorter period of between two and four years be used or that the more recent years be accorded a greater weight than the earlier years. Consequently, the five-year compounded average will apply only to the 1985-86 budget cycle.)

7. All ranks average salaries and fringe benefit costs

All-ranks average salaries and fringe benefit costs will be calculated for each segment and for each respective comparison group in both the current and budget years, by using the following procedures.

University of California

For the University, both its and the comparison institutions' rank averages will be weighted by the University's projected staffing pattern for the budget year. The all-ranks averages produced thereby will be compared and percentage differentials computed for both the current and budget years. The percentage differential between the University's current year all-ranks average and the comparison group's projected budget year all-ranks average will constitute the percentage amount by which University salaries will have to be increased (or decreased) to achieve parity with the comparison group in the budget year. The same procedures will be followed with respect to the cost of fringe benefits.

The California State University

For the State University, both its and the comparison group's current year staffing patterns will be employed. The rank-by-rank averages will be separately weighted by the respective staffing patterns for both the current and budget years so that two sets of all-ranks averages will be derived. The two all-ranks averages for the State University in the current year (the first weighted by the State University staffing pattern and the second by the comparison group's staffing pattern) will be added together and divided by two to produce the mean. Similarly, the current- and budget-year averages for the comparison institutions will be added and divided by two to produce mean all-ranks averages for both the current and budget years. The mean State University current-year all-ranks average will then be compared to the mean current- and budget-year comparison-institution all-ranks averages to produce both a current- and budget-year parity percentage. The percentage differential between the State University's current-year all-ranks average and the comparison group's projected budget-year all-ranks average will constitute the "Gross Percentage Amount" by which State University salaries will need to be increased or decreased to achieve parity with the comparison group in the budget year.

The "Gross Percentage Amount" will be reduced by two adjustments:

- First, two-tenths of one percent (0.2 percent) will be deducted to account for the effect of turnover and promotions in the budget year.
- Second, an additional eight-tenths of one percent (0.8 percent) will be deducted to account for the effect of higher paid law-school faculty in ten of the State University's comparison institutions.

(These several adjustments are estimates to be used only for the 1985-86 budget year. During 1985, a survey will be conducted by the State University to determine the accuracy of these adjustments for future years. Commission staff will review the State University's findings in both of these areas.)....

8. Administrative, medical, and community college salaries

Administrative salaries

In its annual faculty salary report, the Commission will include data on the salaries paid to administrators at the University, the State University, and their respective comparison institutions. The State University will use the same group of comparison institutions as for its faculty survey. For 1985-86 only, the University of California will use the same list of comparison institutions and administrative position descriptions as were used for the 1983-84 budget cycle. Both the comparison group and the positions to be surveyed for future years remain unresolved at this time and will be considered by the Advisory Committee during 1985.

Medical faculty salaries

The Commission will include data on comparative salaries and compensation plans for the University of California and a select group of comparison institutions on a biennial basis commencing with the 1985-86 academic year. Comparison institutions to be surveyed will be Stanford University, the University of Chicago, the University of Illinois, the University of Michigan, the University of North Carolina, the University of Texas at Houston, the University of Wisconsin, and Yale University. Disciplines to be surveyed will be internal medicine, pediatrics, and surgery, which, taken together, will be considered representative of the medical profession as a whole.

Community college faculty salaries

In its annual report on faculty salaries, the Commission shall include such comments as it considers appropriate to satisfy the recommendation of the Legislative Analyst contained in the *Analysis of the Budget Bill, 1979-80*. Comments shall be directed to, but need not be limited by, the contents of the *Annual Report on Staffing and Salaries* of the Community Colleges' Chancellor's Office.

9. Supplementary information

Supplementary information remains an unresolved issue. The categories of data to be supplied by the segments and the years to be included in historical series will be discussed by the Technical Advisory Committee in 1985.

10. Criteria for the selection of comparison institutions

University of California

The following four criteria will be used to select comparison institutions for the University:

1. Each institution should be an eminent major university offering a broad spectrum of undergraduate, graduate (Master's and Ph.D.), and professional instruction, and with a faculty responsible for research as well as teaching.
2. Each institution should be one with which the University is in significant and continuing competition in the recruitment and retention of faculty.
3. Each institution should be one from which it is possible to collect salary and benefit cost data on a timely, voluntary, and regular basis. (Not all institutions are willing to provide their salary and benefit cost data, especially in the detail required for comparison purposes.)
4. The comparison group should be composed of both public and private institutions.

In selecting these institutions, stability over time in the composition of the comparison group is important to enable the development of faculty salary market perspective, time-series analysis, and the contacts necessary for gathering required data.

The California State University

The following five criteria will be used to select comparison institutions for the California State University.

1. *General Comparability of Institutions:* Comparison institutions should reflect the mission, functions, purposes, objectives, and institutional diversity of the California State University system. Faculty expectations at the comparison institutions, in terms of pay, benefits, workload, and professional responsibilities, should be relatively similar to those prevailing at the California State University. To those ends, State University comparison institutions should include those that offer a wide variety of programs at both the undergraduate and graduate levels but that grant very few if any doctoral degrees. Specifically, the 20 institutions that awarded the largest number of doctoral degrees during the ten-year period between 1973-74 and 1983-84 should be excluded. The list should include both large and small, and urban and rural institutions from each of the four major regions of the country (Northeast, North Central, South, and West). Approximately one-fourth to one-third of the institutions on the list should be private or independent colleges and universities, and none of these institutions should be staffed predominantly with religious faculty.

2. *Economic Comparability of Institutional Location:* The comparison group, taken as a whole, should reflect a general comparability in living costs and economic welfare to conditions prevailing in California. Consequently, institutions located in very high cost areas, such as New York City, or in severely economically depressed areas, such as portions of the deep South, should not be included on the list. In order to ensure a continuing economic comparability between California and those regions in which comparison institutions are located, the Commission will periodically review such economic indicators as it considers appropriate and include the results of its surveys in its annual report on faculty salaries and fringe benefit costs.

3. *Availability of Data:* Each institution should be one from which it is possible to collect salary and benefit cost data on a timely, voluntary, and regular basis. (Not all institutions are willing to provide their salary and benefit cost data, especially in the detail required for comparison purposes.)

4. *Fringe Benefits: The* comparison institutions should provide fringe benefits, including a retirement program that vests in the faculty member within five years. This criterion will be reviewed further by the Technical Advisory Committee (see Chapter Four).

5. *University of California Comparison Institutions:* The comparison group developed for the California State University should not include any institution used by the University of California for its comparison group.

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Appendix C

House Resolution No. 250, 1964 First Extraordinary Session, Relative to the Economic Welfare of the Faculties of the California Public institutions of Higher Education

WHEREAS, The Master Plan for Public Higher Education strongly recommended that every effort be made to ensure that the institutions of higher education in California maintain or improve their position in the intense competition for the highest quality of faculty members; and

WHEREAS, The Coordinating Council for Higher Education in its annual report to the Governor and the Legislature regarding level of support for the California State Colleges and the University of California recommended that funds should be provided to permit at least an additional 5 percent increase in academic salaries for the California State Colleges and the University of California; and

WHEREAS, The Trustees of the California State Colleges in their annual report to the Legislature declared that the California State Colleges are falling far behind in the face of this competition and that by 1964-65 faculty salaries will be lagging 14 to 18 percent behind those of comparable institutions; and

WHEREAS, Greatly increasing enrollments in institutions of higher education in California during the next decade will cause a demand for qualified faculty members which cannot possibly be met unless such institutions have a recruitment climate which will compare favorably with other colleges, universities, and business institutions, industry, and other levels of government; and

WHEREAS, California has achieved an enviable momentum in business and industrial development, a momentum now threatened by lagging faculty salaries so that failure to maintain adequate salary scales for faculty members in California institutions of higher education would be false economy; and

WHEREAS, There have been widespread reports from the State College and University campuses that higher salaries elsewhere are attracting some of the best faculty members from the California institutions of higher education, and if such academic emigration gains momentum because of inadequate salaries, the effect will disrupt the educational processes and result in slower economic growth, followed by lower tax revenues; and

WHEREAS, The Legislature has a continuing interest in the difficult and pressing problems faced by the California institutions of higher education in attracting and maintaining outstanding faculty members in a period of stiff competition and rapid growth; and

WHEREAS, The Legislature has a continuing interest in the difficult and pressing problems faced by the California institutions of higher education in attracting and maintaining outstanding faculty members in a period of stiff competition and rapid growth; and

WHEREAS, The State's investment in superior teaching talent has been reflected in California's phenomenal economic growth and has shown California taxpayers to be the wisest of public investors, but unless the superiority in faculty quality is maintained, the contributions by the California institutions of higher education to the continued economic and cultural development of California may be seriously threatened; now, therefore, be it

Resolved by Assembly of the State of California, That the Assembly Committee on Rules is directed to request the Joint Legislative Budget Committee to study the subject of salaries and the general economic welfare, including fringe benefits, of faculty members of the California institutions of higher education, and ways and means of improving such salaries and benefits in order that such California institutions of higher education may be able to compete for the talent necessary to provide the highest quality of education, and to request such committee to report its findings and recommendations to the Legislature not later than the fifth legislative day of the 1965 Regular Session.

Appendix D

A RECOMMENDED METHOD FOR REPORTING TO THE LEGISLATURE
ON FACULTY SALARIES AND OTHER BENEFITS
AT THE UNIVERSITY OF CALIFORNIA AND
THE CALIFORNIA STATE COLLEGES

(Pursuant to HR 250, 1964 First Extraordinary Session)

Prepared by the

Office of the Legislative Analyst
State of California

January 4, 1965

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INTRODUCTION

The purpose of this staff report is to recommend a method for reporting to the Legislature on salaries, fringe benefits and other special economic benefits for faculties of the University of California and the California State Colleges. This report has been prepared by the Joint Legislative Budget Committee in response to House Resolution 250 (1964 First Extraordinary Session, Appendix 1)[1] which resolved:

"That the Assembly Committee on Rules is directed to request the Joint Legislative Budget Committee to study the subject of salaries and the general economic welfare, including fringe benefits, of faculty members of the California institutions of higher education, and ways and means of improving such salaries and benefits in order that such California institutions of higher education may be able to compete for the talent necessary to provide the highest quality of education, and to request such committee to report its findings and recommendations to the Legislature not later than the fifth legislative day of the 1965 Regular Session."

Staff of the Joint Legislative Budget Committee initiated its study by seeking information which would reflect the magnitude of California's long-range and immediate problems regarding the need to recruit and retain an adequate number of high quality faculty. While reviewing past reports presented to the Legislature as justification for salary increase recommendations by the Coordinating Council for Higher Education, the University of California and the California State Colleges, it became apparent that the first step in trying to improve faculty salaries and other benefits is to furnish the Legislature with comprehensive and consistent data which identify the nature and level of competitive benefits. The costs associated with recommendations, rated according to priority, should be included in proposals by the segments in order to aid the Legislature in determining how much to appropriate and the benefits which an appropriation will buy.

There has existed in the past a difference between what the institutions have recommended as the need for salary and benefit increases and what has finally been appropriated by the Legislature. There are two principal reasons for this difference which at times may be closely related: (1) The Legislature may disagree with what is proposed as to need, or (2) there may not be enough funds to meet the need because of higher priorities in other areas of the budget.

These needs are very complex and, for example, include such factors as:

1. Disagreement with conclusions drawn from data submitted in justification of recommendations;
2. Lack of confidence in the quantity, quality, or type of data;
3. The failure of advocates to make points which are concise and clearly understandable;
4. The submission of conflicting data by legislative staff or the Department of Finance.

[1] Appendices deleted.

After careful consideration, it was determined that a special report should be made to the Budget Committee containing recommendations as to the kind of data the Legislature should be furnished for the purpose of considering salary and other benefit increases.

On August 5, 1964 a letter (Appendix 2) was sent from the Legislative Analyst to the Coordinating Council for Higher Education, the University of California, the California State Colleges, the Department of Finance and various faculty organizations informing them that the Joint Legislative Budget Committee was planning to hold a public hearing in connection with HR 250 and asking for replies to a series of questions designed to gather background information about salary and fringe benefits data (Appendix 3. Copies of Replies Received). The primary purpose of the hearing was to provide the University of California, the California State Colleges and interested groups the opportunity to indicate the basis on which salary and fringe benefits should be reported to the Legislature, including the kind of data to be compiled and who should compile and publish it (Appendix 4. Copies of Prepared Testimony Filed with the Joint Legislative Budget Committee at the October 15, 1964 Hearing). The contents of most of the prepared statements discussed problems and in some instances recommendations relating to faculty salaries and other benefits rather than the primary purpose of the hearing, but the testimony did serve to identify areas of concern. The hearing also established legislative interest in the subjects of faculty workload and sources of supplementary income.

The review of past faculty salary reports, the replies to the Legislative Analyst's letter of August 5, 1964, the oral and prepared statements received at the October 15, 1964 hearing of the Joint Legislative Budget Committee and other sources have revealed significant findings and permitted the development of recommendations concerning the type of information and method of presentation that should be included in future faculty salary reports prepared for the Legislature.

BACKGROUND

Current procedures for review of faculty salary and other benefit increase proposals, starting with the presentation of recommendations by state colleges and University of California administrative officials to their respective governing boards, appear generally to be adequate, with minor reservations. The State College Trustees and the Regents of the University of California generally formulate their own proposals in December and forward them to the State Depart-

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ment of Finance for budget consideration. Concurrently the Coordinating Council for Higher Education also makes a report with recommendations which is made available to the State Department of Finance. The Governor and the Department of Finance consider these salary increase proposals in relation to the availability of funds and their own analysis of faculty salary needs and decide how much of an increase, if any, to include in the Governor's Budget. The Legislative Analyst in the *Analysis of the Budget Bill* provides analysis and recommendations as to the Governor's budget proposal.

When appropriate legislative committees hear the budget request for faculty salary increases they may be confronted with several recommendations from various sources. Their first responsibility is to consider the Governor's recommendations in the Budget Bill. However, the University and the California State Colleges generally request the opportunity to present their own recommendations, which frequently differ from the Governor's proposal. Also, the Coordinating Council for Higher Education presents its recommendations. Various faculty organizations may desire to make independent proposals. The Legislature has been cooperative in providing all interested parties the opportunity to present their views, but these presentations have been marked by extreme variations in recommendations and in the data which support the requests.

WHO SHOULD PREPARE FACULTY SALARY REPORTS

There appears to be some difference of opinion concerning the purpose of faculty salary reports and recommendations prepared by the Coordinating Council for Higher Education. The University of California and the California State Colleges contend that they should make direct recommendations to the Governor and the Legislature and that Coordinating Council recommendations should be regarded as independent comments. Conversely, the Department of Finance and the Coordinating Council for Higher Education believe that salary reports and recommendations of the Coordinating Council should be the primary report submitted to the Department of Finance and the Governor to consider in preparing budget recommendations. The Department of Finance states that such a report should be regarded as similar in status to the annual salary report relating to civil service salaries prepared by the State Personnel Board for the Governor and the Legislature. It is our opinion that the Legislature should give specific and primary consideration to the recommendations in the Governor's Budget and to the annual faculty salary report of the Coordinating Council for Higher Education. However, any separate recommendations of the University of California and the California State Colleges should also be considered.

WHAT FACULTY SALARY REPORTS SHOULD CONTAIN

We do not believe that reporting required of the University, the California State Colleges, and the Coordinating Council for Higher Education should limit the right of these agencies to emphasize specific points in supporting their own recommendations. However, the Legislature should take steps to establish a consistent basis upon which it will receive comprehensive information about faculty salaries, other benefits, and related subjects from year to year. After careful consideration of the statistical and other grounds presented in support of salary and other benefit increase proposals in the past, we recommend that basic data be included in faculty salary reports to the Legislature in a consistent form in the following areas:

A. Faculty Data
B. Salary Data
C. Fringe Benefits
D. Total Compensation
E. Special Privileges and Benefits
F. Supplementary Income

Since it is necessary for staff of the executive and legislative branches of government to analyze recommendations prior to the commencement of a legislative session, all reports and recommendations should be completed by December 1 of each year.

A. Faculty Data

1. Findings
   a. Informative data about the size, composition, retention, and recruitment of California State College faculty has been presented to the Legislature from time to time, but usually it has been so selective that it lacks objectivity and has been inconsistent from year to year.
   b. Superior faculty performance has not been demonstrated as a reason to justify past requests for superior salaries.
2. Recommendations

   The following data should be compiled and presented annually on a consistent basis. Definitions of what constitutes faculty are left to the discretion of the University and the state colleges but should be clearly defined in any report. Additional data may be included in any given year to emphasize special problems, but such data should supplement not replace the basic information recommended below. Graphs should be used when practical, accompanied by supporting tables in an appendix. Recommended faculty data includes:

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a. The number of faculty, by rank and the increase over the previous five years to reflect institutional growth.

b. Current faculty composition expressed in meaningful terms, including but not limited to the percentage of the faculty who have PhD's.

c. Student-faculty ratios as a means of expressing performance.

d. Data relating to all new full-time faculty for the current academic year including the number hired, source of employment, their rank and highest degree held. Existing vacancies should also be noted. Pertinent historical trends in these data should be analyzed. We do not believe that subjective and incomplete data estimating reasons for turning down offers, such as has been presented in the past, serves any useful purpose.

e. Faculty turnover rates comparing the number of separations to total faculty according to the following suggested categories; death or retirement, to research or graduate work, intra-institutional transfers, other college or University teaching, business and government, other.

3. Comments

The first three recommendations above are designed to reflect faculty size, composition, rate of growth, and workload. The inclusion of consistent data from year to year will facilitate trend analysis as it relates to the institutions involved and, when possible, to comparable institutions. The purpose of including data on new faculty and faculty turnover is to provide a quantitative base for discussions of problems relating to faculty recruitment and retention. It may also be beneficial to include some basic statistics about the available supply of faculty to see what proportion of the market, new PhD's for example, California institutions hire every year.

B. Salary Data

1. Findings

a. The University for several years has exchanged salary data to provide a consistent comparison with a special group of five "eminent" universities, as well as with a group of nine public universities. Conversely, the California State Colleges have not yet established a list of comparable institutions which is acceptable to them.

b. Both the University of California and the Coordinating Council for Higher Education maintain that salary comparisons to appropriate institutions is the best single method of determining salary needs.

c. The University of California places less significance on salary comparisons with nonacademic employment than the Coordinating Council on Higher Education and the California State Colleges.

d. Salary increases have been proposed on the basis of differentials between total compensation (salaries plus fringe benefits) in comparable institutions.

e. Both the University and the California State College have tended to relate the size of proposed salary increases to how much of an increase would be necessary to return to a specific competitive position which existed in 1957–58 and which [illegible] unusually advantageous.

f. Salary comparisons have frequently been made to various levels of teaching including elementary, high school, and junior college salaries.

g. Methods of salary comparisons with other institutions have varied from year to year in reports prepared by the state colleges.

2. Recommendations

a. We recommend that proposed faculty salary increases distinguish between: (1) increases necessary to maintain the current competitive position and (2) increases to improve the current competitive position.

(1) Proposed increases to maintain the existing competitive position should be equivalent to projection of the average salary relationship between the University, or state colleges, and comparable institutions during the current fiscal year to the next fiscal year. We recommend that this projection be based on a projection of actual salary increases by rank in comparable institutions during the past five years, permitting statistical adjustments for unusual circumstances. Thus the proposed increase to maintain the existing competitive position would, in effect, be equal to the average of annual salary increases in comparable institutions during the past five years. A record of the accuracy of projections should be maintained in an appendix.

(2) Recommendations to improve the current competitive positions should be related to the additional advantages to be derived.

b. It is also recommended that the California State College Trustees select a list of comparable institutions within the next year and that agreements be negotiated to exchange salary data in a form which will facilitate comparisons. A list of the criteria used to select comparable institutions, plus characteristics of the institutions selected, should be included in next year's report.

c. Specific proposals for salary increases should be accompanied by comparisons of current salary amounts and historic trends to comparable institutions. The following general principles are considered to be important:

(1) Salary data should be separated from fringe benefit and special benefit data for purposes of reporting salary comparisons.

(2) A consistent form should be used from year to year to present salary data. A suggested form might be to illustrate a five-year historic trend in average salaries by using a line graph for each rank. An alternative might be a table which simply shows where California ranked among comparable institutions during the past five years.

The current salary position might best be illustrated by showing a list of average salaries of the California institutions and the other comparable institutions from the highest to the lowest average, by rank, for the last actual and current years. This will show the relative position of the California institution for the last actual and current years, as well as the range of averages. Frequency distributions of faculty by rank or professor should be incorporated in an appendix and any significant limitations in the use of averages between those particular institutions in a given year should be noted. For example, an unusual proportion of faculty in the high ranks or the low ranks would affect the comparability of the arithmetic means.

(3) Special data to illustrate a particular problem in any given year would be appropriate as long as it supplements, rather than replaces, basic salary data.

d. Finally, it is recommended that salary data be reported in a form by rank which compensates for differences in faculty distributions.

C. Fringe Benefits

1. Findings

a. The definition of fringe benefits generally includes benefits available to all faculty that have a dollar cost to the employer. Benefits and services in kind are considered to be fringe benefits only if a cash payment option is available. Retirement and health insurance, by definition, are the only two programs considered as fringe benefits by the University of California and the California State Colleges.

b. Comparisons of fringe benefits, when comparisons have been made at all, have generally been limited to the dollar contribution by the employer and have not included any analysis of the quality of the benefits to the employee.

2. Recommendations

a. It is recommended that fringe benefit comparisons of type of benefit be included in faculty salary reports, but compared separately from salaries. Such comparisons should include an analysis of the quality of the benefits as well as the dollar cost to the employer.

b. Proposals to increase specific fringe benefits should be made separately from salaries, including separate cost estimates.

3. Comments

Separate proposals for increases in salaries and fringe benefits should be made to minimize misunderstanding about competitive positions. For example, information submitted to the 1963 Legislature by the University of California, in support of a proposed salary increase for 1963–64, compared total compensation data (salaries plus fringe benefits) rather than salaries alone. This report stated in part: "In comparing salaries, fringe benefits must be taken into account. Salary comparisons between the University and other institutions based on salary *alone* look far more favorable than comparisons of salaries *plus benefits*." The least favorable comparison was with fringe benefits, not salaries, thus the report recommended a salary increase largely on the basis of a difference in fringe benefits. Although it is felt that comparisons of total compensation are appropriate inclusions in a faculty salary report, such data should only be in addition to rather than in place of separate analyses of the current competitive position in salaries and fringe benefits.

D. Total Compensation

1. Findings

a. Total compensation data consists of average salaries plus a dollar amount representing the employer's cost of fringe benefits.

b. The Coordinating Council for Higher Education, the University of California and the California State Colleges have in the past all

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used total compensation data prepared and published by the American Association of University Professors in their respective faculty salary reports.

2. Recommendations

We recommend that total compensation data, as reported by the American Association of University Professors, be included in faculty salary reports as a supplement to separate salary and fringe benefit information.

E. Special Privileges and Benefits

1. Findings

There are other faculty privileges and economic benefits which are not classified as fringe benefits because they may not be available to all faculty or fit the definition of a fringe benefit in some other respect. Examples at the University of California include up to one-half the cost of moving expenses, vacations for 11-month appointees, the waiving of nonresident tuition for faculty children, sabbatical leaves with pay, and other special and sick leaves with or without pay.

2. Recommendations

It is recommended that a list of special privileges and benefits be defined and summaries of related policies be included in a special section in future faculty salary reports so that the Legislature will be aware of what these privileges and benefits include.

3. Comments

The expansion or establishment of some of these special privileges and benefits could improve recruiting success more than the expenditure of comparable amounts in salaries. For example, moving expenses are not currently offered by the state colleges but some allowance might make the difference of whether a young candidate from the East could accept an appointment. If this type of benefit is proposed, it must include adequate controls.

F. Supplementary Income

1. Findings

a. The multiple loyalties created by permitting faculty to supplement their salaries by earning extra income from various sources within and outside his college or University is recognized as a problem common to institutions of higher education throughout the United States.

b. There apparently are proportionately more private consulting opportunities in California than in other areas of the nation. For example, 51 percent of the federal research defense contracts were concentrated in California during 1963–64.

c. The University of California has general policies designed to insure that outside activities do not interfere with University responsibilities. If outside activities interfere with University responsibilities, the faculty member generally must take a leave of absence without pay until such outside activities are completed. These and other related University policies were praised in a 1956 Carnegie-financed study titled *University Faculty Compensation Policies and Practices.*

d. The Coordinating Council for Higher Education submitted excerpts from nationwide studies relating to the magnitude of outside activities. We have no way of determining how the data may relate to California, but if the figures are reasonable, then it appears that probably a large percentage of faculty have at least one source of extra income. Sources of income were reported are follows:

Source	*Percent of faculty earning additional income from source*
Lecturing	31%
General writing	23
Summer and extension teaching	25
Government consulting	18
Textbook writing	16
Private consulting	12
Public service and foundation consulting	9
Other professional activities	13

Source: University Faculty Compensation Policies and Practices in the U. S., Association of American Universities, University of Illinois Press, Urbana, 1956.

e. The United State Office of Education has just completed a nationwide sample survey of outside earnings of college faculty for 1961–62. Although data has not been published yet, special permission has been received to report the following results which are quoted from a letter sent to the Legislative Analyst on December 3, 1964 from the staff of the California State College Trustees:

OUTSIDE EARNINGS OF TEACHING FACULTY ON ACADEMIC YEAR CONTRACTS (9–10 MONTHS)

The U. S. Office of Education has just completed a nationwide survey of outside earnings by a sampling of all college faculty nationwide for 1961–62. The results are as follows:

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	Percent	Average earnings
All with outside earnings	74	$2,200
Summer teaching	44	1,300
Other summer employment	11	1,800
Other teaching	13	900
Royalties	8	1,200
Speeches	9	200
Consultant fees	18	1,400
Retirement (individuals who have retired who teach elsewhere after retiring)	1	3,400
Research	7	1,800
Other professional earnings	10	1,200
Non-professional earnings	8	1,700

The highest average earnings by teaching field and the percentage with outside earnings are:

	Percent	Average earnings
Law (which we do not have)	78	$3,300
Engineering	83	3,200
Business and Commerce	73	2,900
Physical Sciences	80	2,900
Agriculture	71	2,800
Psychology	85	2,700

In light of the Joint Committee discussion you might be interested in the following:

	Percent	Average earnings
Social Sciences	74	$1,900
Fine Arts	74	1,600
Philosophy	74	1,500
Religion and Theology	78	1,200

2. Recommendations

a. We recommend that the Coordinating Council for Higher Education, the University of California and the California State Colleges cooperate in determining the extent to which faculty members participate in extra activities to supplement their nine-month salaries including information as to when extra activities are usually performed (such as vacations, etc.). Such activities would include, but not be limited to, lecturing, general writing, summer and extension teaching, government consulting, textbook writing, private consulting, public service and foundation consulting, and other professional activities. If such a study suggests that the magnitude of these activities is such that the performance of normal University and state college responsibilities are perhaps being adversely affected, then consideration should be given to the possibility of maintaining more complete and meaningful records. Such records would aid administrative officials and academic senates when reviewing recommendations for promotions and salary increases and provide summary data for reporting to the Legislature on these significant faculty welfare items. Next year's faculty salary report of the Coordinating Council for Higher Education should incorporate the results of this study.

b. We also recommend that existing state college policies and enforcement practices regarding extra employment be reviewed and updated.

c. Finally, it is recommended that faculty salary reports keep the Legislature informed about policies and practices relating to extra employment.

3. Comments

In our opinion, it would seem that any extra employment would affect the quality of performance of University responsibilities since faculty surveys indicate that the average faculty workweek is 54 hours. The time spent on activities for extra compensation (except during the summer) would be on top of what the faculty has defined as their average workweek. Because, in some instances, it is difficult to determine whether a given income-producing activity, such as writing a book, is considered a normal University responsibility or an extra activity, distinctions between normal and extra activities need to be more clearly defined.

Much of the outside compensation received by faculty comes in the form of grants made directly to the faculty member rather than through the University or colleges. There is no regular reporting of these grants or the personal compensation which they provide to faculty, and the colleges and University do not consider the reporting of such income to be feasible. It may be desirable to encourage the Congress to direct that greater number of grants made by United States agencies for research be made directly to academic institutions.

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Appendix E

UNIVERSITY OF CALIFORNIA

BERKELEY · DAVIS · IRVINE · LOS ANGELES · RIVERSIDE · SAN DIEGO · SAN FRANCISCO · SANTA BARBARA · SANTA CRUZ

DAVID PIERPONT GARDNER
President

WILLIAM R. FRAZER
Senior Vice President—
Academic Affairs

OFFICE OF THE PRESIDENT
BERKELEY, CALIFORNIA 94720

August 23, 1985

Director Patrick M. Callan
California Postsecondary Education Commission
1020 Twelfth Street
Sacramento, CA 95814

Dear Pat:

As you know in Supplemental Language to the 1984-85 State Budget the Legislature directed as follows:

"4. Retirement System Data. The University of California (UC) and the California State University (CSU) are directed to request from their faculty comparison group universities the following data on retirement benefits in addition to data currently collected:

- Of the average amount identified for fringe benefits, the average dollar amount related to contribution for retirement.
- The average contribution needed to fund the 'normal costs' of the retirement system.
- The average employee contribution to the retirement system.

The California Postsecondary Education Commission (CPEC) is directed to include in its Annual Report on Faculty and Administrator Salaries a table that compares the normal costs less the employee contribution of the UC and CSU retirement systems and the same data for their respective comparison university groups. The CPEC report shall also include data on the percentage of reported fringe benefits that are related to retirement for UC, CSU, and their respective comparison groups."

"It is further the intent of the Legislature that UC and CSU attempt to collect and provide information on actual benefits in addition to reported cost data for their comparison institutions."

I am enclosing the Towers, Perrin, Forster & Crosby (TPF&C) report which responds to the questions directed to the Postsecondary Education Commission and to the three questions directed t the University (and the CSU).

The comments below provide additional information which should clarify our response to these questions.

Question 1 "Of the average amount identified for fringe benefits. the average dollar amount related to the contribution for retirement."

We have prepared this answer utilizing the salary data and percent contribution for retirement reported by the comparison eight.

Question 2 "The average contribution needed to fund the 'normal cost' of the retirement system."

Total cost for a defined contribution plan is the normal cost of the plan. Another plan's normal cost would be equal to that for the University of California if demographics were the same. Total cost for a defined benefit plan is the normal cost plus the amortization for past service liability. Past service liability is determined on a plan's demographics, actuarial assumptions, cost methods and prior business decision, e.g., expected and actual investment results and funding objectives. Consequently, the total cost for a defined benefit plan reflects multiple variables.

C calculated normal cost for the Comparison Eight utilizing our faculty demographics, our costing method and our actuarial assumptions for each of the plans. Therefore, the numbers listed as "normal costs" represent a calculated number for comparison only, and may not represent the normal costs as reported by each of these plans. Our normal cost was determined utilizing our faculty population only, and not our total population. The faculty's higher compensation, higher age at entry into the plan and greater likelihood of receiving plan benefits contribute to a higher cost. Consequently, our normal cost in this report is greater than the previous reports prepared by our actuaries.

Question 3 "The average contribution to the retirement system."

Our consultant, TPF&C, utilized the same methodology as reported in Question 2.

We hope this response will prove useful. If there are any questions on this

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report please call me at (ATSS) 582-2626, or (415) 642-2626.

Very truly yours,

Calvin C. Moore
Assistant Vice President--
Academic Personnel and Planning

Attachment

cc: Senior Vice President Frazer
Associate Vice President Albertson (w/o att.)
Assistant Vice President Hershman
Director Condren (w/o att.)
Coordinator Stark (w/o att.)
Mr. Stan Lena, Department of Finance
Mr. Stuart Marshall, Legislative Analyst's Office

UNIVERSITY OF CALIFORNIA

FACULTY RETIREMENT INCOME VALUE

OF COMPARISON INSTITUTIONS

FOR CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

ANNUAL REPORT ON FACULTY AND ADMINISTRATOR SALARIES

1984-85 FISCAL YEAR

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BACKGROUND

The University of California (UC) provides faculty salaries and the value of fringe benefits for an annual report of the California Postsecondary Education Commission (CPEC). In connection with the 1984-85 report:

> "The California Postsecondary Education Commission (CPEC) is directed to include in its Annual Report on Faculty and Administrator Salaries a table that compares the normal costs less the employee contribution of the UC and CSU retirement systems and the same data for their respective comparison university groups."

Normal costs have been determined using the actuarial cost method and assumptions approved by The Regents for 1984-85 University of California Retirement System (UCRS) normal costs (Table 85-3). The normal costs for defined benefit plans (UC, Illinois and Wisconsin) include a provision for administrative expense of 0.3% of covered compensation. The charge for administrative expense is included in the basic contribution rate of the other defined contribution plans. To neutralize different demographic characteristics of comparison institutions, the normal cost of each institutions's retirement plan was determined as though the plan applied to UCRS faculty members. Faculty members are restricted to those who have teaching responsibility, as defined by the title codes shown in Table 85-1. A summary of the number and 1984-85 expected salaries of these faculty members is displayed on an age/service matrix in Table 85-2. This data was extracted from the UCRS active member system as of April 1, 1984.

The institutions involved in the comparison are:

Cornell	Stanford
Harvard	State University of New York (SUNY)
Illinois	Wisconsin
Michigan	Yale

The faculty retirement plan of each institution was used for the comparison. These plans are summarized in Table 85-4. The TIAA-CREF plan was used for SUNY since we understand that 90% of the faculty belong to this plan.

Participants are fully covered by Social Security except at UC and Illinois. UC participants are covered by Social Security if they were hired after March 31, 1976 or if they elected to be covered. Illinois participants are not covered by Social Security. The expected Social Security taxes for old age, disability and survivor benefits, payable during the 1984-85 fiscal year are shown for each institution so this can be factored into the total contribution picture.

NORMAL COST RESULTS

The normal cost is the total cost of a plan allocated to the 1984-85 year under the entry age actuarial cost method. Each university's normal cost is the total normal cost minus the members' contributions.

	Normal Cost as Percent of Covered Compensation		
	Total	Member	University
California	14.3% (1)	3.5%	10.8% (1)
Cornell	10.0	0.0	10.0
Harvard	11.0	0.0	11.0
Illinois	23.3 (1)	8.0	15.3 (1)
Michigan	15.0	5.0	10.0
Stanford	15.0	5.0	10.0
SUNY	13.9	0.6	13.3
Wisconsin	8.2 (1)	0.0 (2)	8.2 (1)
Yale	14.3	3.9	10.4

Notes: (1) Includes administrative expense of 0.3%.

(2) Wisconsin designates part of its contribution (5.0% of pay) as member contribution, to be paid to the member at termination or upon death.

SOCIAL SECURITY TAXES

Expected old age, survivors and disability taxes for the 1984-85 plan year are 5.7% of Social Security covered wages. The institution and the covered employee both pay the same tax. The following is the institution's tax as a percent of total covered compensation.

	Taxes as Percent of Covered Compensation
California	2.5%
Illinois	0.0
All Others	4.6

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TITLE CODES USED IN THE CPEC FACULTY SALARY REPORT

1100	Professor - 9 months
1103	Professor - 9 months - 1/9 payment
1104	University Professor
1110	Professor - 11 months
1130	Professor - 10 months
1143	Professor - 9 months - Business/Engineering
1144	Professor - 11 months - Business/Engineering
1145	Professor - 9 months - 1/9 payment - Business/Engineering
1200	Associate Professor - 9 months
1203	Associate Professor - 9 months - 1/9 payment
1210	Associate Professor - 11 months
1230	Associate Professor - 10 months
1243	Associate Professor - 9 months - Business/Engineering
1244	Associate Professor - 11 months - Business/Engineering
1245	Associate Professor - 9 months - 1/9 payment - Bus/Eng.
1300	Assistant Professor - 9 months
1301	Acting Assistant Professor - 9 months - 1/9 payment
1303	Asistant Professor - 9 months - 1/9 payment
1307	Acting Assistant Professor - 9 months
1310	Assistant Professor - 11 months
1317	Acting Assistant Professor - 11 months
1330	Assistant Professor - 10 months
1343	Assistant Professor - 9 months - Business/Engineering
1344	Assistant Professor - 11 months - Business/Engineering
1345	Assistant Professor - 9 months - 1/9 payment - Bus/Eng.
1977	Acting Assistant Professor - 9 months - Business/Engineering
1978	Acting Assistant Professor - 11 months - Business/Engineering
1979	Acting Assistant Professor - 9 months - 1/9 payment - Bus/Eng.
1400	Instructor - 9 months
1403	Instructor - 9 months - 1/9 payment
1410	Instructor - 11 months

TPF&C TOWERS, PERRIN, FORSTER & CROSBY

UCHS 1984 ACTIVES

TABLE 85-2

TOTAL FACULTY MEMBERS IN CPEC STUDY

AGE LAST BIRTHDAY		COMPLETED YEARS OF CONTINUOUS SERVICE: 0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	OVER 34	TOTAL
15-19	NUMBER	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
	AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	NUMBER	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOT PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
	AVG PAY	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	NUMBER	40	20	24	8	3	11	3	0	0	0	0	0	109
	TOT PAY	1035426	572260	723984	277234	103074	312283	90041	0	0	0	0	0	3114302
	AVG PAY	25886	28613	30166	34654	34358	28389	30014	0	0	0	0	0	28572
30-34	NUMBER	63	51	78	93	56	141	6	0	0	0	0	0	488
	TOT PAY	1630148	1490691	2327956	2678472	1716581	4567062	194710	0	0	0	0	0	14605620
	AVG PAY	25875	29229	29846	28801	30653	32391	32452	0	0	0	0	0	29930
35-39	NUMBER	23	38	47	59	59	417	172	2	0	0	0	0	817
	TOT PAY	713506	1205837	1540184	1904081	1888350	14304089	6390616	71708	0	0	0	0	28018371
	AVG PAY	31022	31733	32770	32273	32006	34302	37155	35854	0	0	0	0	34294
40-44	NUMBER	16	21	21	41	35	260	419	245	8	0	0	0	1066
	TOT PAY	550361	818897	762166	1667919	1354343	9779833	16668747	10800206	423164	0	0	0	42825636
	AVG PAY	34398	38995	36294	40681	38696	37615	39782	44082	52896	0	0	0	40174
45-49	NUMBER	3	9	11	11	14	86	204	435	109	2	0	0	884
	TOT PAY	126592	460537	486068	534669	583838	3802353	8760053	20320571	5750676	133592	0	0	40958949
	AVG PAY	42197	51171	44188	48606	41703	44213	42941	46714	52758	66796	0	0	46334
50-54	NUMBER	6	6	3	5	10	56	106	324	214	47	2	0	779
	TOT PAY	330502	299927	169929	284723	635685	2808913	5123047	15889501	11647370	2785047	122810	0	40097454
	AVG PAY	55084	49988	56643	56945	63569	50159	48331	49042	54427	59256	61405	0	51473
55-59	NUMBER	2	1	4	1	4	26	65	210	185	82	22	3	605
	TOT PAY	99249	70902	212781	62946	199730	1362300	3633139	11343832	10297765	4633329	1303908	192029	33411910
	AVG PAY	49625	70902	53195	62946	49933	52396	55894	54018	55664	56504	59269	64010	55226
60-64	NUMBER	2	2	2	3	4	23	53	127	146	74	64	34	534
	TOT PAY	181375	110774	142622	186029	248561	1280132	3025575	7095242	8512625	4030592	3654290	2175688	30643505
	AVG PAY	90688	55387	71311	62010	62140	55658	57086	55868	58306	54467	57098	63991	57385
OVER 64	NUMBER	0	0	2	1	1	5	12	55	83	15	44	36	254
	TOT PAY	0	0	157052	70635	56021	262068	757151	2945803	4837949	827334	2478377	2144576	14536166
	AVG PAY	0	0	78526	70635	56021	52414	63096	53546	58289	55156	56327	59572	5722[illegible]
TOTAL	NUMBER	155	148	192	222	186	1025	1040	1398	745	220	132	73	5536
	TOT PAY	4667159	5029825	6522742	7666708	6786183	38479033	44643079	68466063	41469549	12409894	7559385	4512293	248211913
	AVG PAY	30111	33985	33973	34535	36485	37541	42926	48974	55664	56409	57268	61812	44836

AVERAGE AGE = 47.5 = AVERAGE SERVICE = 14.0

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TPF&C TOWERS, PERRIN, FORSTER & CROSBY

UNIVERSITY OF CALIFORNIA CPEC COMPARISON

SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS
AS OF JULY 1, 1984
(APPROVED BY THE REGENTS IN OCTOBER 1983)

A. ACTUARIAL METHODS

1. Calculation of Normal cost and Actuarial Accrued liability: The method used to determine the normal cost and actuarial accrued liability was a combination of the Entry Age Actuarial Cost Method described below.

Entry Age Actuarial Cost Method
Projected retirement benefits payable at the assumed retirement ages and projected benefits payable in the event of the preretirement death or disability of eligible members were determined for all active members. Cost factors designed to produce annual costs as a constant percentage of each member's expected pay in each year from the assumed entry age to the assumed retirement ages were applied to the projected benefits to determine the normal cost (the portion of the total cost of the plan allocated to the current year under the method). The actuarial assumptions shown below for normal cost and actuarial accrued liability were used in determining the projected benefits and cost factors. The actuarial accrued liability for active members (the portion of the total cost of the plan allocated to prior years under the method) was determined as the excess of the actuarial present value of projected pension benefits over the actuarial present value of future normal costs.

The actuarial accrued liability for retired and disabled members and their beneficiaries currently receiving benefits and terminated vested inactive members not yet receiving benefits was determined as the actuarial present value of the benefits expected to be paid. No normal costs are now payable in respect of these members.

The normal cost was reduced by the actuarial present value of member contributions expected to be paid during the fiscal year.

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B. ACTUARIAL ASSUMPTIONS

	Normal Cost and Actuarial Accrued Liability	Actuarial Present Value of Accumulated Plan Benefits
1.	**Investment return**	
	8% per year.	8% per year.
2.	**Salary increases**	
	Rates which vary by attained age (Exhibit C).	Rates which vary by attained age, applied to estimate past salary (Exhibit C).
3.	**Social Security benefits**	
	Benefits payable at age 65 under the law in effect on July 1, 1983 and assuming future average wages increase at 7% per year and cost of living increases at 6% per year (Exhibit K).	Benefits payable at age 65 under the law in effect on July 1, 1983 (Exhibit K).
4.	**Mortality for non-disabled members**	
	1971 TPF&C Forecast (Exhibit A).	1971 TPF&C Forecast (Exhibit A).
5.	**Member termination**	
	Rates which vary by employment classification, age and duration of service as set forth in Exhibit B-1.	Rates which vary by employment classification, age and duration of service as set forth in Exhibit B-1.
6.	**Retirement incidence**	
	Rates which vary by employment classification as set forth in Exhibit L-1.	Rates which vary by employment classification as set forth in Exhibit L-1.
7.	**Disablement**	
	Rates developed from the Society of Actuaries study of incidence of disablement for corporate long-term disability plan from 1966 to 1970 (Exhibit D).	Rates developed from the Society of Actuaries study of incidence of disablement for corporate long-term disability plans from 1966 to 1970 (Exhibit D).

	Normal Cost and Actuarial Accrued Liability	Actuarial Present Value of Accumulated Plan Benefits
8.	Mortality for disabled members	
	1965 Railroad Retirement Board disabled annuitants mortality table - ultimate (Exhibit E).	1965 Railroad Retirement Board disabled annuitants mortality table - ultimate (Exhibit E).
9.	Remarriage	
	1962 Railroad Retirement Board remarriage table - ultimate (Exhibit F). No remarriage for spouses older than age 59.	1962 Railroad Retirement Board remarriage table - ultimate (Exhibit F). No remarriage for spouses older than age 59.
10.	Proportion of active members who are married	
	Rates as detailed in Exhibits G and H. It is assumed that wives are three years younger than husbands.	Rates as detailed in Exhibits G and H. It is assumed that wives are three years younger than husbands.
11.	Number of dependents of married members	
	Number as detailed in Exhibits I and J.	Number as detailed in Exhibits I and J.
12.	Entry age for funding	
	Age on birthday nearest July 1 following employment.	N/A
13.	Administrative expenses	
	None included.	No charge against the Trust Fund.
14.	Future service for part-time employees who are members	
	Member will become full-time for all future years.	N/A
15.	Probability of electing a refund on termination of employment	
	Rates which vary by age and service as set forth in Exhibit M.	Rates which vary by age and service as set forth in Exhibit M.

Appendix F

Faculty Income Maintainance Programs
In the California State University
and the
Comparison Institutions

A Report Prepared for the California
Postsecondary Education
Commission

by the
Office of the Chancellor
The California State University

August 1985

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Table of Contents

List of Tables

Table No. Page:

Introduction

This report reviews fringe benefits provided to faculty in The California State University during the 1984-85 academic year in relation to the benefits provided at 16 "comparison" universities that submitted faculty salary data to the Chancellor's Office in the Spring of 1985.

The report is prepared in response to the Legislature's request that the California Postsecondary Education Commission collect additional information regarding faculty fringe benefits in the University of California and the CSU and their respective comparison institutions.

The primary focus of the report is on the various income maintainance programs established for faculty: retirement, life insurance, disability income protection, and social security. A brief summary of tuition benefits at the comparison institutions is also appended.

In consultation with staff of the Postsecondary Education Commission, the report omits comparison of health related benefits. The CSU offers some 25 different health benefit plans and the comparison institutions also offer numerous plans. Data obtained in prior surveys indicate that CSU expenditures for health benefits are significantly above those of other institutions across the country. It appears, however, that this cost difference reflects the higher cost of medical and hospital services in California than in the rest of the nation.

Also omitted from the report are provisions of workmen's compensation and unemployment insurance for which faculty are eligible. For the most part, full-time faculty are only remotely affected by these programs.

Summary of Findings

1. The faculty income maintainance programs available to CSU faculty (Social Security, retirement, death benefits and disability protection are commonly found among the comparison institutions.

2. The retirement benefits obtained by CSU faculty who retire directly from CSU employment are competitive with those provided by the comparison instititutions with similar retirement plans.

3. The retirement benefits accrued by younger CSU faculty whose careers will take them to other higher education institutions are not competitive with those accruing to faculty at institutions that participate in defined contribution plans such as TIAA.

4. The cost of the CSU retirement plan is not readily comparable to that in other instititutions of higher education. The cost of similar retirement plans at other universities, as reported in faculty compensation surveys, bears little relation to the "normal" cost of these plans.

5. The average contribution made by faculty in the comparison institutions for their retirement benefits is 5.29% of salary. The contribution rate for CSU faculty is 5%.

6. The life insurance and survivors' benefits provided to tenured CSU faculty prior to the mininum retirement age are less than those found in the comparison group.

7. The disability income protection available to CSU faculty is below the average found in the comparison institutions.

8. Half of the comparison institutions provide tuition remission benefits to faculty spouses and dependent children.

Social Security

After retirement plan expenses, Social Security taxes are the largest fringe benefit expense incurred by the CSU and the 16 comparison institutions All but two of these institutions participate in Social Security. In addition, one of the participating universities incurs a much higher cost than the others because it pays nearly half of the taxes normally paid by employees. Overall, CSU expenses are very similar to those incurred by the entire comparison group. In 1984-85, CSU expenses averaged 5.82% of salary expenditures (for full-time faculty) while the average for the comparison group was 5.88%.

As Social Security benefits are determined by Federal law, benefits available to CSU faculty are identical to those for faculty at other participating universities, with the one exception where the university pays part of the faculty member's OASDI taxes.

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Retirement

Faculty in the 16 comparison institutions are provided retirement benefits through a variety of different plans. (See table #1) The vast majority participate in "defined contribution" or money purchase plans associated with the Teachers Insurance and Annuity Association (TIAA-CREF). Eleven of the 16 universities offer TIAA retirement benefits. At seven campuses, TIAA was the basic plan available to faculty; at four other institutions TIAA was a major option to the state teacher or public employee retirement system, an option chosen by a majority of faculty.

At the five remaining institutions, faculty participate in public employee or state teacher retirement systems that are "defined benefit" plans. Two of the five have significant money purchase options similar to TIAA. The other three have plans analagous to the California Public Employees Retirement System (PERS). None of the comparison institutions operates its own retirement system.

The provisions for participation in TIAA at the eleven universities are shown on table #2 and the level of contribution by the faculty and the universities are shown on table #3. As a rule, university contributions to TIAA begin upon appointment, though two universities make no contributions until a faculty member's second year.

Universities participating in TIAA contribute, on the average, 8.4% of their faculty salary expenditures to fund annuity accounts owned by the faculty. The latter's average contributions is 5.6% of salary. As a result, approximately 14% of salary are accumulated each year toward retirement of the faculty in these institutions. After a very short time (in most cases immediately) these contributions and the interest earned thereon are irrevocably the property of the faculty member.

These growing balances, however, are not accessible to faculty except in the form of annuities beginning at age 55 or later. The longer these balances accumulate and the older the faculty is on retirement the larger his or her monthly annuity can be. At retirement, the annuities payable are materially affected by the rate of interest then prevailing, as well as for the preceding intervening years.

The increasing value of TIAA accounts occurs regardless of where a person is employed. The immediate vesting of employer contributions and extensive portability of TIAA appear to be major reasons why most faculty with the option to choose between a defined benefit plan or TIAA choose the latter. This choice occurs even when it results in reduced take home pay, as in the case of two of the four universities with that alternative.

With regard to defined benefit plans, their operations are generally more complex than money purchase plans. Table #4 presents the basic payout formula of the various plans in terms of the percentage factor applied to final salary and the age at which the factor is reached. It also shows the time required for the retirement benefit to vest including the earliest age at which the retirement benefit becomes fully vested.

Overall, it is evident that the CSU/PERS retirement benefits are equal to or superior to the benefits provided by the five other defined benefit plans. Table #5 lists certain provisions in the different plans that alter their relative value under particular circumstantces. The special attributes of the other plans are their greater portability, possible through money purchase options and the right to receive credit for public employment or teaching in jurisdictions outside the state's boundaries. The main attribute of California's plan is the high payout ratio (2.4%) at age 63.

In conclusion, the retirement plan available to CSU faculty appears well suited to older faculty who intend to remain at the CSU till retirement. For younger faculty who can expect to move to other institutions, the CSU retirement plan is probably of far less value than any of the defined contribution plans and at least two of the defined benefit plans, in other words than 13 of the 16 comparison institutions.

# # # # #

It was not possible for the CSU to establish a common "employer normal" cost for the various retirement plans. For the defined contribution plans, the resptective rates of contribution determines their normal cost.

For the defined benefit plans, however, the computations of normal cost depend upon a number of assumptions. The principal assumptions, regarding the rate of return on investments (interest rate) and the rate of growth in salaries, made by each plan in determining the normal cost are shown on table #6. The table also shows employee contribution rates and the rates which participating agencies are charged.

It is evident from table #6 that the assumptions used by PERS are a significant factor raising the normal cost determination. The anticipated payroll increase of 8% is much higher than the assumptions used by the other retirement systems. This is not a criticism of the PERS assumptions which undoubtedly are based upon the best judgement of its actuaries. But an indication that the normal cost values shown on the table are derived very differently.

Table #6 also indicates that the expenses reported by the various universities for retirement bear no practical relationship to the normal cost of their plans. This is true of the CSU and the five other universities with defined benefit retirement plans.

Finally, the average employee contribution to retirement benefits was 5.56% for faculty at institutions with TIAA and 4.77% for faculty at campuses with defined benefit plans. The overall average was 5.29% of salary. The contribution rate of CSU faculty is 5%.

Table 1

Types of Retirement Plans Available in CSU and Comparison Institutions in 1984-85

	Defined Contribution	Defined Benefit
CSU		X
A	X	X
B	X	
C	X	
D		X Money purchase option
E	X	
F		X
G		X
H	X	
I	X	X
J	X	
K	X	X
L	X	X
M	X	
N		X
O	X	
P		X Money purchase option

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Table 2

Provisions of Defined Contribution Retirement Plans in CSU Comparison Institutions

University	University Contributions: Begin	Vest	End
A	On appointment	5 years	Retirement
B	On appointment	Immediately	"
C	After one year	Immediately	68
E	After one year	Immediately	65
H	On appointment	Immediately	Retirement
I	On appointment	5 years[1]	"
J	On appointment	After one year	"
K	Cn appointment	Immediately	"
L	On appointment	Immediately	"
M	On appointment	Immediately	65
O	After two years	Immediately	Retirement

1. University contributions revert to State Retirement system if faculty separates within five years and does not go to another employer with TIAA.

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Table 3
University contributions to income maintaince programs
Defined Contribution plans

	Retirement		Life Ins.	Disability Insurance	Total Univ.
	Fac.	Univ.	Univ.	Univ.	
A	7.0%	7.0%	0.05%	0.37%	7.42%
B	5.0	7.5	0.73	0.47	8.70
C	5-6.0[a]	10.0	0.46	0.43	10.89
E	5-7.0[b]	5-7.0[b]	0.04	0.71	5.75
H	8.0	8.0	-	-	8.00
I	6.0	6.0	-	-	6.00
J	5.0	8.0	0.82	0.18	9.00
K	0-3.0[c]	9-15.0[c]	-	0.18	14.38
L	6.85	8.5	-	-	8.50
M	5.0	9.5	0.40	n/a	9.90
O	5.0	10.0	0.22	0.82	11.04
Weighted ave.	5.6%	8.41%	0.19%	0.24%	8.85%

a. Faculty have the option of contributing at either 5 or 6% rate.
b. Contributions on salary below OASDI maximum are at 5%, those above are at 7%.
c. Faculty hired since 1976 contribute at 3% rate; University contributions are 9% on salary to $16,900 then 12%. Other faculty have no mandatory contributions, while university's are 12% and 15%.

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Table 4

Provisions in Defined <u>Benefit</u> Retirement
Plans in CSU and Comparison Institutions, 1984-85

	Formula	Vesting Period	Early Retirement and Salary Reduction
CSU/PERS	2% at 60	5 yrs.	50 yrs. 0.25-0.5%/mo.
F	2% at 62	10 yrs.	60 yrs. 0.25%/mo.
G	1-1.5% at 65	10 yrs.#	55 yrs. 0.25-0.5%/mo.
D	2% at 65	5 yrs.	55 yrs. 0.5%/mo.
N	1.65% at 65	5 yrs.	55 yrs. 0.5%/mo.
P	1.6% at 65	Immediate	55 yrs. 0.4%/mo.

Parameters in Alternative Plans

A	2% at 65	5 yrs.#	50 yrs. 0.25-0.5%/mo.
K	1.67-2% at 62	10 yrs.	55 yrs. 0.25-0.5%/mo.
I	1.57% at 65	5 yrs.	50 yrs. 0.25%/mo.
L	2% at 65	10 yrs.	55 yrs. 0.5%/mo.

Faculty age 65 or over may retire with one year's service.

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Table 5

Special Considerations Affecting Defined Benefit Plans

CSU	Benefit percentage rises to 2.4% at age 63
F	Credit for out of state public service or teaching can be purchased; with 30 yrs. service 2% applies regardless age.
G	Deferred annuities rise 3%/yr. until retirement.
D	Money purchase option matches employee contributions and interest; out of state credit purchasable.
N	-
?	Money purchase option matches employee contributions and interest

Alternative Plans

A	2% applies at 60 with 25 yrs.; at 62 w/10 yrs.
K	Benefits vary extensively depending upon particular date of entry into retirement plan
I	Out of state credit purchasable; w/30 yrs. 1.57% factor applies regardless of age.
L	Out of state credit purchasable; w/20 yrs. 2% factor applies regarless of age.

Table 6

Assumptions and Normal Cost Values Reported By Defined Benefit Retirement Plans

	Interest Rate	Payroll Increase	"Normal" Cost	Employee Contrib.	Employer Normal	Agencies Charged
CSU/PERS	8.5%	8.0%	15.3%	5.0%	10.3%	17.6%
F	7.0	5.5	12.1	6.0	6.1	13.2
G	8.0	6.5	8.3	4.5	3.8	9.0
D	7.5	5.25	14.2	8.75	5.5	14.0
N	6.5	4.0	8.2	5.0	3.2	11.8
P	7.5	6.0	10.4	0	10.4	11.3
Weighed Average				4.77%		

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Appendix G

EXHIBIT A

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

ANNUAL RATES OF MORTALITY

MALE AGE	ANNUAL RATE OF MORTALITY	MALE AGE	ANNUAL RATE OF MORTALITY	MALE AGE	ANNUAL RATE OF MORTALITY	MALE AGE	ANNUAL RATE OF MORTALITY
10	.000406	35	.001168	60	.013216	85	.130743
11	.000413	36	.001253	61	.014452	86	.140002
12	.000422	37	.001348	62	.015773	87	.149447
13	.000430	38	.001454	63	.017202	88	.159267
14	.000439	39	.001571	64	.018935	89	.169541
15	.000451	40	.001700	65	.020982	90	.180337
16	.000462	41	.001862	66	.023475	91	.191428
17	.000476	42	.002082	67	.026287	92	.202675
18	.000490	43	.002352	68	.029332	93	.215006
19	.000506	44	.002674	69	.032595	94	.229719
20	.000524	45	.003041	70	.036284	95	.245661
21	.000543	46	.003453	71	.040205	96	.262162
22	.000566	47	.003907	72	.044043	97	.280078
23	.000589	48	.004400	73	.047723	98	.299603
24	.000615	49	.004933	74	.051474	99	.320625
25	.000644	50	.005501	75	.055566	100	.343642
26	.000676	51	.006106	76	.060364	101	.368879
27	.000712	52	.006744	77	.066249	102	.396582
28	.000751	53	.007418	78	.072953	103	.428983
29	.000794	54	.008124	79	.080085	104	.468359
30	.000842	55	.008866	80	.087862	105	.517025
31	.000895	56	.009577	81	.095916	106	.577334
32	.000953	57	.010313	82	.104202	107	.651687
33	.001018	58	.011113	83	.112857	108	.739187
34	.001089	59	.012091	84	.121713	109	.844683
						110	1.000000

NOTE

ANNUAL RATES OF MORTALITY AMONG FEMALES ARE THOSE FOR MALES SET BACK 6 YEARS.

(1971 TPF&C FORECAST MORTALITY TABLE)

EXHIBIT B-1

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

ACADEMIC

ANNUAL RATES OF WITHDRAWAL

NUMBER OF TERMINATIONS EXPECTED PER 1000 ACTIVE EMPLOYEES

YEARS OF SERVICE

	MALES				FEMALES			
AGE	0-1	1-2	2-3	3+	0-1	1-2	2-3	3+
***	***	***	***	***	***	***	***	***
25	280	280	260	240	480	480	4[illegible]	380
26	260	260	240	210	460	460	420	360
27	240	240	220	180	440	440	400	340
28	220	220	200	150	420	420	380	320
29	200	200	180	130	400	400	360	300
30	180	180	160	110	360	360	320	290
31	160	160	140	100	320	320	280	260
32	140	140	120	90	280	280	260	240
33	120	120	100	80	240	240	230	220
34	100	100	80	70	200	200	200	200
35	100	100	80	60	200	200	180	180
36	100	100	80	50	200	200	180	160
37	100	100	80	40	200	200	170	140
38	100	100	80	40	200	200	170	120
39	100	100	80	30	200	200	160	100
40	100	100	80	30	200	200	150	100
41	100	100	80	30	200	200	160	100
42	100	100	80	20	200	200	160	90
43	100	100	80	20	200	200	160	90
44	100	100	80	20	200	200	160	80
45	100	100	80	20	200	200	160	80
46	100	100	80	20	200	200	160	80
47	100	100	80	20	200	200	160	80
48	100	100	80	20	200	200	160	80
49	100	100	80	20	200	200	160	80
50	100	100	80	10	200	200	160	70
51	100	100	80	10	200	200	160	70
52	100	100	80	10	200	200	160	60
53	100	100	80	10	200	200	160	60
54	100	100	80	10	200	200	160	50

TPF&C TOWERS, PERRIN, FORSTER & CROSBY

EXHIBIT C

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

EMPLOYEE EARNINGS PROJECTIONS

A = RATIO OF FINAL EARNINGS AT RETIREMENT TO CURRENT EARNINGS
B = PERCENTAGE INCREASE ANTICIPATED IN YEAR OF AGE

MALES		AGE	FEMALES	
A	*B*		*A*	*B*
20.106	9.0	25	20.106	9.0
18.446	8.9	26	18.446	8.9
16.933	8.9	27	16.933	8.9
15.552	8.8	28	15.552	8.8
14.291	8.8	29	14.291	8.8
13.140	8.7	30	13.140	8.7
12.088	8.6	31	12.088	8.6
11.127	8.6	32	11.127	8.6
10.248	8.5	33	10.248	8.5
9.443	8.5	34	9.443	8.5
8.707	8.4	35	8.707	8.4
8.032	8.3	36	8.032	8.3
7.414	8.3	37	7.414	8.3
6.847	8.2	38	6.847	8.2
6.327	8.2	39	6.327	8.2
5.849	8.1	40	5.849	8.1
5.411	8.0	41	5.411	8.0
5.008	8.0	42	5.008	8.0
4.638	7.9	43	4.638	7.9
4.298	7.9	44	4.298	7.9
3.985	7.8	45	3.985	7.8
3.696	7.7	46	3.696	7.7
3.431	7.7	47	3.431	7.7
3.186	7.6	48	3.186	7.6
2.961	7.6	49	2.961	7.6
2.752	7.5	50	2.752	7.5
2.560	7.5	51	2.560	7.5
2.382	7.5	52	2.382	7.5
2.216	7.5	53	2.216	7.5
2.061	7.5	54	2.061	7.5
1.917	7.5	55	1.917	7.5
1.783	7.5	56	1.783	7.5
1.659	7.5	57	1.659	7.5
1.543	7.5	58	1.543	7.5
1.436	7.5	59	1.436	7.5
1.335	7.5	60	1.335	7.5
1.242	7.5	61	1.242	7.5
..156	7.5	62	1.156	7.5
1.075	7.5	63	1.075	7.5
1.000	0.0	64	.000	0.0

EXHIBIT D

UNIVERSITY OF CALIFORNIA
RETIREMENT SYSTEM

ANNUAL RATES OF DISABLEMENT

NUMBER OF DISABILITIES EXPECTED PER 10,000 ACTIVE EMPLOYEES AT EACH AGE

MALES	AGE	FEMALES
4	31	6
4	32	6
4	33	7
4	34	8
4	35	9
5	36	10
6	37	12
7	38	14
8	39	16
10	40	19
12	41	22
14	42	25
17	43	28
20	44	32
23	45	36
26	46	40
30	47	44
34	48	48
39	49	52
44	50	56
50	51	60
56	52	64
62	53	68
68	54	72
74	55	78
80	56	84
90	57	90
100	58	100
112	59	112
128	60	128
144	61	144
167	62	167
180	63	180
192	64	192
212	65	212

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UNIVERSITY OF CALIFORNIA
RETIREMENT SYSTEM

ANNUAL RATES OF DISABLED MORTALITY

NUMBER OF DEATHS EXPECTED PER 1,000 DISABLED EMPLOYEES AT EACH AGE

AGE	NO.	AGE	NO.
35	44	53	47
36	44	54	47
37	44	55	48
38	44	56	49
39	44	57	50
40	44	58	51
41	44	59	52
42	44	60	53
43	44	61	55
44	44	62	56
45	44	63	58
46	44	64	59
47	45	65	61
48	45	66	63
49	45	67	66
50	45	68	68
51	46	69	71
52	46	70	75

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

ANNUAL RATES OF REMARRIAGE

NUMBER OF REMARRIAGES EXPECTED PER 1,000 SURVIVING SPOUSES AT EACH AGE

AGE	NO.	AGE	NO.
20	119	43	21
21	116	44	19
22	113	45	17
23	108	46	16
24	101	47	14
25	93	48	13
26	87	49	12
27	81	50	11
28	76	51	10
29	71	52	9
30	66	53	8
31	62	54	8
32	59	55	7
33	55	56	6
34	50	57	6
35	46	58	5
36	41	59	5
37	37		
38	34		
39	31		
40	28		
41	26		
42	23		

EXHIBIT G

UNIVERSITY OF CALIFORNIA
RETIREMENT SYSTEM

PERCENTAGE OF ACTIVE EMPLOYEES MARRIED -- FEMALES

AGE	PERCENT	AGE	PERCENT
20	33	45	85
21	46	46	85
22	61	47	84
23	69	48	84
24	75	49	83
25	79	50	82
26	81	51	82
27	82	52	81
28	83	53	80
29	84	54	79
30	85	55	78
31	86	56	77
32	87	57	76
33	87	58	74
34	87	59	72
35	88	60	70
36	88	61	68
37	88	62	66
38	87	63	64
39	87	64	62
40	87	65	60
41	87	66	58
42	86	67	56
43	86	68	54
44	86	69	51

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EXHIBIT H

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

PERCENTAGE OF ACTIVE EMPLOYEES MARRIED -- MALES

AGE	PERCENT	AGE	PERCENT
20	16	45	88
21	28	46	89
22	42	47	89
23	54	48	89
24	63	49	90
25	70	50	90
26	75	51	90
27	78	52	90
28	80	53	90
29	82	54	89
30	83	55	89
31	84	56	89
32	85	57	89
33	85	58	88
34	85	59	88
35	86	60	88
36	86	61	86
37	86	62	88
38	86	63	87
39	87	64	87
40	87	65	86
41	87	66	86
42	88	67	85
43	88	68	84
44		69	83

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EXHIBIT I

UNIVERSITY OF CALIFORNIA
RETIREMENT SYSTEM

NUMBER OF DEPENDENTS EXPECTED PER ACTIVE MALE EMPLOYEE AT EACH AGE

AGE	NO.	AGE	NO.
20	1.0	45	3.0
21	1.2	46	2.9
22	1.5	47	2.8
23	1.6	48	2.7
24	1.7	49	2.6
25	1.8	50	2.5
26	1.9	51	2.4
27	2.0	52	2.3
28	2.1	53	2.2
29	2.2	54	2.1
30	2.3	55	2.0
31	2.4	56	1.9
32	2.5	57	1.8
33	2.7	58	1.7
34	2.9	59	1.6
35	3.0	60	1.5
36	3.1	61	1.5
37	3.2	62	1.4
38	3.3	63	1.4
39	3.4	64	1.3
40	3.5	65	1.3
41	3.4	66	1.2
42	3.3	67	1.2
43	3.2	68	1.1
44	3.1	69	1.1

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EXHIBIT J

UNIVERSITY OF CALIFORNIA
RETIREMENT SYSTEM

NUMBER OF DEPENDENTS EXPECTED PER ACTIVE FEMALE EMPLOYEE AT EACH AGE

AGE	NO.	AGE	NO
20	1.0	45	2.0
21	1.4	46	1.9
22	1.8	47	1.8
23	2.0	48	1.7
24	2.2	49	1.6
25	2.3	50	1.5
26	2.5	51	1.5
27	2.7	52	1.4
28	2.9	53	1.4
29	3.0	54	1.4
30	3.2	55	1.3
31	3.3	56	1.3
32	3.5	57	1.2
33	3.4	58	1.2
34	3.3	59	1.1
35	3.1	60	1.1
36	3.0	61	1.1
37	2.9	62	1.1
38	2.8	63	1.1
39	2.6	64	1.1
40	2.5	65	1.1
41	2.4	66	1.1
42	2.3	67	1.0
43	2.2	68	1.0
44	2.1	69	1.0

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EXHIBIT K

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM

MAXIMUM ANNUAL SOCIAL SECURITY BENEFITS EXPECTED

YEAR OF 65TH BIRTHDAY	AVERAGE AWI/CPI/FUTURE INFLATION RATE 0%/0%	VAL ASSUMP: 7.0%/6.0%
1983	8517.	8517.
1984	8445.	8445.
1985	8307.	8823.
1986	8513.	9615.
1987	8297.	10596.
1988	8364.	11396.
1989	8426.	12252.
1990	8485.	13168.
1991	8540.	14149.
1992	8591.	15198.
1993	8639.	16321.
1994	8685.	17524.
1995	8762.	18877.
1996	8844.	20344.
1997	8927.	21929.
1998	9010.	23634.
1999	9088.	25457.
2000	9170.	27432.
2001	9252.	29558.
2002	9332.	31839.
2003	9411.	34290.
2004	9489.	36929.
2005	9567.	39768.
2006	9642.	42807.
2007	9716.	46074.
2008	9787.	49568.
2009	9856.	53317.
2010	9912.	57274.
2011	9968.	61520.
2012	10023.	66074.
2013	10077.	70956.
2014	10131.	76192.
2015	10166.	81660.
2016	10197.	87480.
2017	10223.	93665.
2018	10237.	******

TPF&C TOWERS PERRIN FORSTER & CROSBY

EXHIBIT L-1

UNIVERSITY OF CALIFORNIA RETIREMENT SYSTEM
ACADEMIC

ANNUAL RATES OF RETIREMENT

NUMBER OF RETIREMENTS EXPECTED PER 1000 ACTIVE EMPLOYEES-
ELIGIBLE TO RETIRE AT EACH AGE

MALES	AGE	FEMALES
30	55	30
20	56	20
20	57	20
20	58	20
20	59	20
60	60	60
60	61	60
120	62	120
160	63	160
100	64	100
250	65	250
200	66	200
350	67	350
500	68	500
650	69	650
1000	70	1000

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TPF&C TOWERS PERRIN FORSTER & CROSBY

U. C. R. S.

PROBABILITY OF ELECTING A REFUND UPON TERMINATION

AGE AT TERMINATION	YEARS OF SERVICE 5	10	15	20	25	30	35
35&UNDER	1.000	1.000	1.000				
36	1.000	0.980	0.955				
37	0.960	0.935	0.910				
38	0.915	0.890	0.865	0.840			
39	0.870	0.845	0.820	0.795			
40	0.825	0.800	0.775	0.750			
41	0.780	0.755	0.730	0.705			
42	0.735	0.710	0.685	0.660			
43	0.690	0.665	0.640	0.615	0.590		
44	0.645	0.620	0.595	0.570	0.545		
45	0.600	0.575	0.550	0.525	0.500		
46	0.555	0.530	0.505	0.480	0.455		
47	0.510	0.485	0.460	0.435	0.410		
48	0.465	0.440	0.415	0.390	0.365	0.340	
49	0.420	0.395	0.370	0.345	0.320	0.295	
50	0.375	0.350	0.325	0.300	0.275	0.250	
51	0.330	0.305	0.280	0.255	0.230	0.205	
52	0.285	0.260	[illegible]	0.210	0.185	0.160	
53	0.240	0.215	0.190	0.165	0.140	0.115	0.090
54	0.195	0.170	0.145	0.120	0.095	0.070	0.045
55	0.150	0.125	0.100	0.075	0.050	0.025	0.000
56	0.105	0.080	0.055	0.030	0.005	0.000	0.000
57	0.060	0.035	0.010	0.000	0.000	0.000	0.000
58	0.015	0.000	0.000	0.000	0.000	0.000	0.000
59&OVER	0.000	0.000	0.000	0.000	0.000	0.000	0.000

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature.

Members of the Commission

The Commission consists of 15 members. Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly. The other six represent the major segments of postsecondary education in California.

As of 1985, the Commissioners representing the general public are:

Seth P. Brunner, Sacramento, *Chairperson*
C. Thomas Dean, Long Beach
Seymour M. Farber, M.D., San Francisco
Patricia Gandara, Sacramento
Ralph J. Kaplan, Los Angeles
Roger C. Pettitt, Los Angeles
Sharon N. Skog, Mountain View
Thomas E. Stang, Los Angeles, *Vice Chairperson*
Stephen P. Teale, M.D., Modesto

Representatives of the segments are:

Sheldon W. Andelson, Los Angeles; representing the Regents of the University of California

Claudia H. Hampton, Los Angeles; representing the Trustees of the California State University

Peter M. Finnegan, San Francisco; representing the Board of Governors of the California Community Colleges

Jean M. Leonard, San Mateo; representing California's independent colleges and universities

Darlene M. Laval, Fresno; representing the Council for Private Postsecondary Educational Institutions

Angie Papadakis, Palos Verdes; representing the California State Board of Education

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs."

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including Community Colleges, four-year colleges, universities, and professional and occupational schools.

As an advisory planning and coordinating body, the Commission does not administer or govern any institutions, nor does it approve, authorize, or accredit any of them. Instead, it cooperates with other state agencies and non-governmental groups that perform these functions, while operating as an independent board with its own staff and its own specific duties of evaluation, coordination, and planning,

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California. By law, the Commission's meetings are open to the public. Requests to address the Commission may be made by writing the Commission in advance or by submitting a request prior to the start of a meeting.

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its director, Patrick M. Callan, who is appointed by the Commission.

The Commission issues some 30 to 40 reports each year on major issues confronting California postsecondary education. Recent reports are listed on the back cover.

Further information about the Commission, its meetings, its staff, and its publications may be obtained from the Commission offices at 1020 Twelfth Street, Second Floor, Sacramento, CA 98514; telephone (916) 445-7933.

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FACULTY SALARIES IN CALIFORNIA'S PUBLIC UNIVERSITIES 1986-87
California Postsecondary Education Commission Report 85-43

ONE of a series of reports published by the Commission as part of its planning and coordinating responsibilities. Additional copies may be obtained without charge from the Publications Office, California Postsecondary Education Commission, Second Floor, 1020 Twelfth Street, Sacramento, California 95814; telephone (916) 445-7933.

Other recent reports of the Commission include

85-25 Commission Comments on the Intersegmental Task Force Report, *Facilitating the Transfer of Community College EOPS Students to California's Public Universities* (April 1985)

85-26 Policy Options for the Cal Grant Programs: The Second of Two Reports on California Student Aid Commission Grant Programs Requested by the Legislature in Supplemental Language to the 1984-85 Budget Act (April 1985)

85-27 Segmental Responses to Assembly Concurrent Resolution 71 Regarding Ethnic Awareness (April 1985)

85-28 Comments on the California Community Colleges' Library Space Study: A Report to the Board of Governors of the California Community Colleges in Response to Budget Control Language in the 1984-85 Budget Act (April 1985)

85-29 Reauthorization of the Federal Higher Education Act of 1965: A Staff Report to the California Postsecondary Education Commission (July 1985)

85-30 Director's Report, August 1985: [illegible] the 1985-86 State Budget for the [illegible] of Postsecondary Education (August 1985)

85-31 [illegible] and Related Matters in the California Community Colleges, 1975-85 (September 1985)

85-32 [illegible] Report on [illegible] (September 1985)

85-33 Independent Higher Education in California, 1982-1984 (September 1985)

85-34 California College-Going Rates, 1984 Update (September 1985)

85-35 Oversight of Out-of-State Accredited Institutions Operating in California: A Report to the California Postsecondary Education Commission Pursuant to Senate Bill 1036 (December 1985)

85-36 Director's Report, December 1985: From Ninth Grade Through College Graduation: Who Makes It in California Education (December 1985)

85-37 Foreign Graduate Students in Engineering and Computer Science in California's Public Universities: A Report to the Legislature in Response to Supplemental Language in the 1985-86 Budget Act (December 1985)

85-38 Instructional Equipment Funding in California Public Higher Education: A Report to the Legislature in Response to Supplemental Language in the 1985-86 Budget Act (December 1985)

85-39 Self-Instruction Computer Laboratories in California's Public Universities: A Report to the Legislature in Response to Supplemental Language in the 1985-86 Budget Act (December 1985)

85-40 Proposed Creation of a California State University, San Bernardino, Off-Campus Center in the Coachella Valley (December 1985)

85-41 [illegible] Program: A Report [illegible] Assembly [illegible] Statutes of 1984 (December 1985)

85-42 [illegible]

Faculty Salaries in California's Public Universities, 1986-87 California Postsecondary Education Commission Report 85-43

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