ACTUARIAL REPORT

PROPOSED AMENDMENTS

TO THE

FRESNO COUNTY

EMPLOYEES' RETIREMENT SYSTEM

Made to the Board of Retirement

as of July 1, 1968

COATES, HERFURTH & ENGLAND, CONSULTING ACTUARIES

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COATES, HERFURTH & ENGLAND
CONSULTING ACTUARIES
320 CALIFORNIA STREET
SAN FRANCISCO 94104

OFFICES IN
SAN FRANCISCO
DENVER
PASADENA

TELEPHONE
(415) 433-4440

November 4, 1968

Board of Retirement
Employees' Retirement Association
County of Fresno
P. O. Box 747
Fresno, California

Gentlemen:

We are pleased to transmit herewith our report, setting forth the results of the actuarial survey we have made, in order to determine the cost to the County and to the members if certain amendments to the Fresno County Employees' Retirement System are adopted as of July 1, 1968. A detailed description of each of these proposed amendments will be given in the main body of the report.

This study has been based upon financial statements, which we have used without audit, and employee data previously furnished by the Retirement Office. It is intended to supplement the regular investigation and valuation of the Retirement System made as of June 30, 1967. All cost calculations have been based upon the current interest assumption of 4% per annum and all other actuarial assumptions found to be appropriate for the valuation.

After you have had an opportunity to study this report, if you have any questions, we would be pleased to hear from you.

Very truly yours,

COATES, HERFURTH & ENGLAND
Consulting Actuaries

By Robert D. Drisko
Robert D. Drisko

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Enclosures

ACTUARIAL REPORT

PROPOSED AMENDMENTS

TO THE

FRESNO COUNTY EMPLOYEES' RETIREMENT SYSTEM

INTRODUCTION

We have been authorized by the Board of Supervisors to conduct an actuarial survey as of July 1, 1968, to determine the effect on the contribution rates of the County and the members of the Fresno County Employees' Retirement System if the following proposed amendments are adopted by Fresno County:

A. Sections 31789 and 31790 of the 1937 County Retirement Law, providing for a $400 lump sum death benefit payable to beneficiaries of deceased members. Section 31789 provides for this benefit in the event of death after retirement, while Section 31790 provides it in the event of death before retirement, but after at least ten years of credited service.

B. Article 16.5 of the County Law, permitting future annual changes in retirement allowances of not more than 3% on account of cost-of-living.

On the following page, we have summarized the effects on the County contribution rate, expressed as a percentage of total salaries of all employees, and on the member contribution rates if each of these proposals is adopted by the County. Each proposal is covered in a separate part of this report, and reference should be made to that portion of the report for further details in connection with the proposal.

SUMMARY OF EFFECT ON THE COUNTY AND MEMBER CONTRIBUTION RATES IF THE FOLLOWING AMENDMENTS ARE ADOPTED:

A. Sections 31789 and 31790

1. The County contribution rate will increase by the following percentages of total salaries:

   a. Section 31789: .15%

   b. Section 31790: .04

   .19%

2. There will be no increase in member contribution rates.

B. Article 16.5

1. The increases in both the County contribution rate and the members' contribution rates are the same and are as follows:

   a. Flat contribution rate

      1. Nonrefundable basis .71% of total salaries

      2. Refundable basis .96% of total salaries

   b. Rates graded by sex and age

      1. Nonrefundable basis 9.60% of members' contribution rates

      2. Refundable basis 13.03% of members' contribution rates

PART A

ADOPTION OF SECTIONS 31789 AND 31790 OF THE 1937 COUNTY RETIREMENT LAW $400 LUMP SUM DEATH BENEFITS TO BENEFICIARIES OF DECEASED MEMBERS

Section 31789 provides for a $400 lump sum death benefit payable to the beneficiary of any retired member who dies after the effective date of adoption. Section 31790 provides the same benefit for beneficiaries of members who die before retirement and after the effective date, provided they have accrued at least ten years of credited service. Our calculations have used July 1, 1968, as the effective date of adoption of these two sections.

There is no change in the member rates of contribution if these Sections are adopted, because all of the additional costs due to them fall upon the County.

The increases herein shown are based upon all the actuarial assumptions used in the valuation as of July 1, 1967. We have shown below our recommended County contribution rates which result from modifying the County rates as indicated in our report submitted on August 1, 1968, by adding the increases in the rate due to the additional liabilities described above. These rates are expressed as percentages of the first $350 of monthly compensation and percentages of compensation in excess of $350 of all members (those subject to and those not subject to the Modified System).

	Rate from August 1, 1968 Report		Increase a/c of Sec. 31789 and 31790		Resulting County Rate	
	1st $350 of Monthly Comp.	Excess of $350 of Mo. Comp.	1st $350 of Monthly Comp.	Excess of $350 of Mo. Comp.	1st $350 of Monthly Comp.	Excess of $350 of Mo. Comp.
Current Service	4.79%	7.18%	.16%	.23%	4.95%	7.41%
Death Benefits	.12	.18	-	-	.12	.18
Prior Service	.59	.89	-	-	.59	.89
	5.50%	8.25%	.16%	.23%	5.66%	8.48%

PART B

ADOPTION OF ARTICLE 16.5

OF THE COUNTY LAW

COST-OF-LIVING ADJUSTMENT

Article 16.5, entitled "Cost-of-Living Adjustments," provides the following:

1. The adjustments in service retirement, disability retirement, and death allowances shall be applied to all persons now receiving allowances, as well as to the allowances granted in the future.

2. The changes shall begin with the effective date of the program, or when an allowance is granted in the future.

3. The increases or decreases in benefits shall occur only when the cost-of-living index has changed, with the change in benefit limited to 3% in any year, but no allowance shall be reduced below the amount being received on the effective date of the allowance or the application of this Article, if later.

4. The source of financing the program shall be as follows:

   (a) For increases on account of service rendered to date, there shall first be applied any amounts in the contingency reserve in excess of 1% of the Retirement Fund assets.

   (b) The balance of the cost shall be shared equally between the County and the contributing members of the System.

Our actuarial calculations have been made on the basis of membership data, both active and retired, available to us in the investigation and valuation of the System, made as of June 30, 1967, supplemented by the Retirement Supervisor's statement of the monthly pension roll as of July 1, 1968. Also, in this special study, we have adopted and used without audit the statement of assets in the Retirement Fund as of the above date. The Retirement Supervisor has indicated that approximately $27,000 of the contingency reserve is in excess of 1% of total assets as of July 1, 1968. As in the valuation, an interest rate of 4% per annum has been used.

Funding the Program

We feel that the provisions of Article 16.5 have a number of points on which the intent is not as clearly defined as under the provisions of the 1937 Act for present benefits and contributions.

In recommending a funding program for Article 16.5, we have taken the following points into consideration:

1. That the cost of the benefit, as it ultimately develops, shall first be financed by an amount in the contingency reserve over and above 1% of total Retirement Fund assets.

2. That thereafter the cost of any benefits in excess of those which are financed by transfers from the contingency reserve shall be divided equally between the contributing members of the System and the County.

3. Members' contributions have been calculated on a flat percentage basis for all members, as well as on a basis related to sex and age of the member.

4. Contributions have been calculated both on a nonrefundable and a refundable basis. By "refundable" is meant that the additional contributions would be refunded if the member terminates from the System prior to retirement without receiving an allowance (either the member or his beneficiary).

5. That the benefit be financed on a partial actuarial-reserve basis.

By the actual provisions of Article 16.5, an increase in benefit can only occur when there is an increase in the Price Index, and such increases may be discontinued if there is a decrease in the Index. For this reason, the cost of the proposal depends on the future action of the Price Index, and could range from little or no cost if the Consumer's Price Index does not increase over its present level, to a maximum increase in overall costs of the System of 32% if there is an increase of 3% each year in the future indefinitely. This means that if a person is retired at age 60 and receives a benefit which would increase 3% each year for as long as he lives, the value of this increasing benefit would be 32% greater than a level benefit. Because the cost of the proposal cannot be forecast, and because the amount of the benefit is indefinite, we have recommended that the funding be placed on a partial-reserve basis, with adjustments in contributions made periodically to support the actual costs.

Based upon the above considerations, therefore, we have forecast the amount of the retirement roll for a number of years in the future and have estimated what the requirements would be on various assumptions as to

a rising cost-of-living index. Later in this report are shown the contribution rates needed from both the employees and the County to fund the costs of these benefits, depending upon which of the four bases of contributions is selected by the Board.

In accordance with the provisions of Article 16.5, contributions to support the program are to be divided equally between the members and the County. Therefore, if a refundable basis is used for contributions, we believe that the County contributions should also be on a "refundable" basis. If the County's contributions are made each month, when employees terminate and are refunded their cost-of-living contributions, an amount equal to the total employee contributions refunded must be deducted from the County's required contributions for the following month. This will result in net contributions by the County equal to those made by the employees. To arrive at rates of contributions for the cost-of-living benefit, which would be based on the age at entrance into the Retirement System and the sex of the member, we have related these increases in contributions to each member's normal contribution rate. This spreads the total required employee costs in proportion to each employee's normal contribution rate, thereby relating increased contributions to sex and age nearest birthday at entrance into the Retirement System. This does not mean, however, in our opinion, that each member would necessarily be paying his equitable share of the benefit he might eventually receive.

Summary of Cost Calculations

If the employee's contribution toward cost of living is expressed as a flat percentage of salary and is nonrefundable, the rate of contribution required by the employee and by the County would be .71% of salary from each. On a refundable basis, the corresponding employee and County rate would be .96% of salary from each.

Based upon our calculations as to the total dollar contributions needed from the employees, these contributions (on a nonrefundable basis) are equivalent to 9.60% of the total employee normal contributions being made to the Retirement System at the time of the June 31, 1967, valuation. This factor of 9.60% would then be applied to the normal rates of contribution of the members, to determine the additional contributions required from members and, of course, from the County. The corresponding rate if the contribution basis is refundable would be 13.03% applied to the normal rates of contribution of all members. We have shown in the attached tables the additional employee contribution rate on both a refundable and a nonrefundable basis if the rate is to be graded by age and sex of the member.

In our opinion, based on the information available to us at this time, the funds described above (depending upon the basis of contribution decided upon), plus transfer of the contingency funds in excess of 1% of the assets, will meet all disbursements anticipated by the proposed amendment during the next ten years and will, during that period, develop a reserve which can be applied against further benefits or adjustments in contributions when the situation is reappraised.

Recommendations

If the County adopts the provisions of Article 16.5 and also adopts one of the above four bases of contribution rates, we have the following recommendations to make, in the light of the last valuation we have made and the opinions expressed in the foregoing paragraphs:

1. That a special reserve account be established, entitled "Cost-of-Living Adjustment Reserve."

2. That as of the effective date of the program, and in accordance with the provisions of Article 16.5, the amount now held in the contingency reserve which is in excess of 1% of the assets of the Retirement System, ($27,475), be transferred to the Cost-of-Living Adjustment Reserve.

3. That each employee be required to contribute to the Cost-of-Living Adjustment Reserve the percentages of his compensation (either the flat percentages or those varying by sex and age), depending upon the single basis of contribution selected.

4. That the County contribute monthly an amount equal to that contributed by the employees (adjusted in each following month by the amount of cost-of-living contributions refunded to the members during the month, if the refundable basis is decided upon).

5. That regular interest be credited to the Cost-of-Living Adjustment Reserve in the same manner as for other reserves.

6. That any amounts paid as a result of the operation of Article 16.5 be charged against the Cost-of-Living Adjustment Reserve.

7. That the rates suggested in Items 3 and 4 above be reviewed in connection with each periodic revaluation of the System.

COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

COUNTY OF FRESNO

(Based on an assumed interest rate of 4% per annum)
Member Contribution Rates for "Cost-of-Living" Adjustment - Non-Refundable
(Based on 9.60% of Normal Contribution Rates)

	Male Members Contribution Rate Applicable to:		Female Members Contribution Rate Applicable to:	
Entry Age	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350
16	.32%	.48%	.36%	.54%
17	.32%	.48%	.36%	.54%
18	.33%	.49%	.37%	.55%
19	.33%	.49%	.37%	.56%
20	.33%	.49%	.38%	.56%
21	.33%	.50%	.38%	.57%
22	.33%	.50%	.38%	.58%
23	.34%	.50%	.39%	.58%
24	.34%	.51%	.39%	.59%
25	.34%	.52%	.40%	.60%
26	.35%	.52%	.41%	.61%
27	.35%	.53%	.41%	.62%
28	.36%	.54%	.42%	.63%
29	.36%	.54%	.43%	.64%
30	.37%	.55%	.43%	.65%
31	.37%	.56%	.44%	.66%
32	.38%	.57%	.45%	.67%
33	.39%	.58%	.45%	.68%
34	.39%	.59%	.46%	.69%
35	.40%	.60%	.47%	.70%
36	.41%	.61%	.48%	.71%
37	.41%	.62%	.48%	.73%
38	.42%	.63%	.49%	.74%
39	.43%	.64%	.50%	.75%

COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

COUNTY OF FRESNO

(Based on an assumed interest rate of 4% per annum)
Member Contribution Rates for "Cost-of-Living" Adjustment - Non-Refundable
(Based on 9.60% of Normal Contribution Rates)

	Male Members Contribution Rate Applicable to:		Female Members Contribution Rate Applicable to:	
Entry Age	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350
40	.44%	.65%	.51%	.76%
41	.44%	.67%	.52%	.78%
42	.45%	.68%	.53%	.79%
43	.46%	.69%	.54%	.80%
44	.47%	.71%	.55%	.82%
45	.48%	.72%	.56%	.83%
46	.49%	.73%	.57%	.85%
47	.50%	.75%	.58%	.86%
48	.51%	.76%	.59%	.88%
49	.52%	.78%	.60%	.89%
50	.53%	.79%	.61%	.91%
51	.54%	.81%	.62%	.93%
52	.55%	.82%	.63%	.94%
53	.56%	.84%	.64%	.96%
54	.57%	.86%	.65%	.98%
55	.58%	.87%	.66%	.99%
56	.59%	.89%	.67%	1.01%
57	.60%	.91%	.69%	1.03%
58	.62%	.92%	.70%	1.05%
59	.63%	.94%	.71%	1.07%

COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

COUNTY OF FRESNO

(Based on an assumed interest rate of 4% per annum)
Member Contribution Rates for "Cost-of-Living" Adjustment - Refundable
(Based on 13.03% of Normal Contribution Rates)

	Male Members Contribution Rate Applicable to:		Female Members Contribution Rate Applicable to:	
Entry Age	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350	First $350 of Monthly Compensation	Excess of Monthly Compensation Over $350
16	.44%	.65%	.48%	.73%
17	.44%	.66%	.49%	.74%
18	.44%	.66%	.50%	.75%
19	.44%	.67%	.50%	.75%
20	.45%	.67%	.51%	.76%
21	.45%	.67%	.51%	.77%
22	.45%	.68%	.52%	.78%
23	.46%	.69%	.53%	.79%
24	.46%	.69%	.54%	.80%
25	.47%	.70%	.54%	.82%
26	.47%	.71%	.55%	.83%
27	.48%	.72%	.56%	.84%
28	.49%	.73%	.57%	.85%
29	.49%	.74%	.58%	.87%
30	.50%	.75%	.59%	.88%
31	.51%	.76%	.60%	.89%
32	.52%	.77%	.61%	.91%
33	.53%	.79%	.62%	.92%
34	.53%	.80%	.63%	.94%
35	.54%	.81%	.64%	.95%
36	.55%	.83%	.65%	.97%
37	.56%	.84%	.66%	.99%
38	.57%	.86%	.67%	1.00%
39	.58%	.87%	.68%	1.02%