

Report to the Colorado General Assembly:

# **PUBLIC EMPLOYEES' RETIREMENT**



**COLORADO LEGISLATIVE COUNCIL**

**RESEARCH PUBLICATION NO. 30**

**December 1958**

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OF THE  
COLORADO GENERAL ASSEMBLY

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The Legislative Council, which is composed of five Senators, six Representatives, and the presiding officers of the two houses, serves as a continuing research agency for the legislature through the maintenance of a trained staff. Between sessions, research activities are concentrated on the study of relatively broad problems formally proposed by legislators, and the publication and distribution of factual reports to aid in their solution.

During the sessions, the emphasis is on supplying legislators, on individual request, with personal memoranda, providing them with information needed to handle their own legislative problems. Reports and memoranda both give pertinent data in the form of facts, figures, arguments, and alternatives, without these involving definite recommendations for action. Fixing upon definite policies, however, is facilitated by the facts provided and the form in which they are presented.

**LEGISLATIVE COUNCIL**

**REPORT TO THE**

**COLORADO GENERAL ASSEMBLY**

**PUBLIC EMPLOYEES' RETIREMENT**

**Research Publication No. 30**

MEMBERS OF THE SENATE

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Charles E. Bennett  
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## Legislative Council

STATE CAPITOL - DENVER 2, COLORADO

RAY B. DANKS, Chairman                      WALTER W. JOHNSON, Vice-Chairman

LYLE C. KYLE, Director

### LETTER OF TRANSMITTAL

December 17, 1958

Senator Ray B. Danks  
Colorado Legislative Council  
Denver 2, Colorado

Dear Senator Danks:

Transmitted herewith is the report of the Legislative Council Committee on Public Employees' Retirement appointed pursuant to Senate Joint Resolution No. 6 (1958). This report covers the committee's study and evaluation of the retirement program of the Public Employees' Retirement Association (P. E. R. A.) as well as actuarial evaluations and discussion of several methods of combining P. E. R. A. with Old Age Survivors and Disability Insurance Program (O. A. S. D. I.).

The committee wishes to express its appreciation for the assistance rendered to the committee by: the actuarial firm of Coates, Hurfurth and England; Mr. F. Leighton Exel; Mr. A. C. Gabriel; Mr. Raymond J. Heath; Mr. Jack Kennedy; and the Council staff.

Sincerely yours,

/s/                      Representative Dewey Carnahan  
Chairman  
Committee on Public Employees'  
Retirement

DC:mrl

## FOREWORD

H. J. R. No. 42 (1957) directed the Legislative Council to study the problems of public employee retirement with specific instructions to determine the feasibility of combining P. E. R. A. with social security (O. A. S. D. I.).

A preliminary report was issued by the Legislative Council to the second regular session of the 41st General Assembly. That report concluded that it is feasible to combine P. E. R. A. and O. A. S. D. I.

At the second regular session of the 41st General Assembly S. J. R. No. 6 was passed which instructed the Legislative Council to continue to study public employee retirement problems with particular reference to proposing specific plans for combining P. E. R. A. and O. A. S. D. I.

The Chairman of the Legislative Council appointed a committee to carry out the provisions of this resolution. Those committee members were: Representative Dewey Carnahan, Chairman; Representatives Luther Bean and Gale Sellens; and Senators Hestia Wilson and James E. Donnelly.

One of the first problems that the committee faced was the necessity of securing actuarial evaluations of alternative combination plans. Since funds were not available to secure an independent actuarial study, arrangements were made with the P. E. R. A. Board of Directors to have A. C. Gabriel, the P. E. R. A. actuary, to evaluate the proposed plans. That service was provided by P. E. R. A. at a cost of \$5,475. In that connection, the P. E. R. A. board, Mr. Raymond J. Heath, Mr. Jack Kennedy and Mr. A. C. Gabriel generously cooperated with the committee and the staff throughout this study.

The actuarial firm of Coates, Hurfurth and England has served as an unpaid consultant to the committee throughout the study. That firm assigned Mr. F. Leighton Exel to work with the committee and his counsel and guidance has been of immeasurable value to the committee and the staff.

Harry O. Lawson, Senior Analyst, is the Council staff member who has had the major research responsibility for this report.

This report was not completed in time for the 1957-1958 Legislative Council to review. Since a new Council has not been appointed, the interim Chairman of the Legislative Council instructed the committee to issue its report to the General Assembly as a committee report in order that the General Assembly may have ready access to the results of the study.

Lyle C. Kyle  
Director

December 17, 1958

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## SUMMARY OF FINDINGS AND COMMITTEE RECOMMENDATIONS

### Findings

The Public Employees Retirement Association (P. E. R. A.) provides retirement coverage for some 27,000 Colorado employees in public service. These include 11,288 state employees, 14,489 school employees, 1,129 municipal employees, and 77 judges. Three other retirement systems provide coverage for some of Colorado's public employees.

The City and County of Denver school district employees have their own retirement system, as do the employees of the Denver Water Board. The faculty of the University of Colorado is covered by the Teachers' Annuity Insurance Association. Both the Denver Water Board employees and the University of Colorado faculty have combined their retirement systems with social security (O. A. S. D. I.). County employees and the majority of municipal employees are covered by O. A. S. D. I. only.

### P. E. R. A. Benefits

From the average employee's point of view, P. E. R. A. is a very satisfactory retirement plan. With 20 years' service at age 65, he receives a retirement annuity equal to one-half of his highest average salary for any consecutive five of the last ten years of service. Early retirement is allowed for 35 years' service at any age, 30 years' service at age 55 (35 years for school employees), and 20 years' service at age 60. Upon early retirement, an employee is eligible for an annuity equal to one-half his final average salary or \$300 per month, whichever is less.

Additional benefits under P. E. R. A. include disability retirement, survivorship benefits, death benefits, and deferred annuities. An employee with five years of P. E. R. A.-covered service is entitled to one-half of his monthly salary if he becomes permanently disabled on the job. If he has 15 years of service, he is entitled to a full retirement annuity if he has a non-employment permanent disability.

Survivorship benefits are provided for the spouse and children of a deceased member who has five years of covered service. Prior to completing his five years of service, he may choose to avail himself of group insurance coverage at a nominal monthly charge. In the event that a member dies before he is eligible either for retirement or for survivorship benefits, his beneficiary receives a lump sum refund of the contributions he has made to P. E. R. A. If he dies after he is eligible for retirement, his beneficiary will receive a reduced monthly annuity for the remainder of his or her life.

Members leaving P. E. R. A.-covered service after five years or more may leave their retirement deposits in the system until age 65, at which time they will receive a deferred annuity based on 2.5 per cent of final average salary multiplied by the number of years of covered service, not to exceed 20.

Colorado State Patrol employees and the judges who are members of the P.E.R.A. judges' division have slightly different annuity benefit formulae, but are eligible for all other P.E.R.A. benefits.

P.E.R.A. members get a very high return per dollar of contribution, and the rate of contribution is not excessive. All P.E.R.A. members except the state highway patrol contribute six per cent of salary. Because of more costly benefits, members of the state highway patrol contribute at a seven per cent rate. The employer also contributes at a six per cent rate for all members except the state highway patrol and judges. The employer contributes seven per cent for highway patrol members and 12 per cent for judges, again because of more costly annuity benefits.

While P.E.R.A. generally is a good retirement system from the employee's point of view, such may not be the case from the employer's standpoint, or for all employees. Careful consideration should be given to the costs of the P.E.R.A. program and the relative portions borne by employer and employee. Evaluation should be made of the career service aspects of P.E.R.A. and to the way it meets or fails to meet the needs of certain categories of employees. (It is extremely difficult to present a simplified picture of the costs and other factors pertaining to a retirement system. The general statements made below are covered in detail in the body of the report.)

#### Costs and Contributions

P.E.R.A. is a joint-contributory retirement plan, operating on an actuarial reserve basis. Contributions are made by both employer and employee as service is rendered. Contribution rates are often mistakenly equated with the actual cost of a retirement plan. The employee may assume that because both he and the employer contribute at the same rate, he is paying 50 per cent of the cost of his retirement annuity. The employer may also think that he is contributing 50 per cent of the cost of retirement or that his contributions are covering his entire costs, whatever proportion of the total this cost might be.

Actually, an employee's contributions to P.E.R.A. are more likely to constitute 20 to 30 per cent of the value of his retirement annuity. An employee who has a final average salary of \$4,800, with 20 years of service at age 65, contributes approximately 27 per cent of the value of his final annuity. This proportion includes the interest earned on his contributions. An employee with the same final average salary who retires at age 60 with 20 years' service contributes approximately 22 per cent of the value of his retirement annuity. If an employee with the same final average salary retires at age 55 with 30 years' service, he contributes approximately 31 per cent of his final annuity. These proportions are based on the assumptions that: 1) the employee receives gradual salary increases throughout the period of employment; and 2) the employee contributes at the same rate throughout the period of employment.

If employees have large salary increases during the last ten years of service, and/or contribute at a lesser rate during the period of significantly lower salary, the proportion

contributed of final annuities is less. These conditions reduce the proportion of the retirement annuity financed by employees, because these annuities are based on final average salaries resulting from the large salary increases and/or because the retirement annuities are based on the larger contribution rate, regardless of the number of years contributions may have been made into the retirement fund at a lesser rate.

Changes in the contribution rate and the sizable increase in salaries since World War II have had an effect on the proportion of retirement annuities financed through contributions to P.E.R.A. by state, school, and municipal employees -- some of whom have already retired. As of the end of the 1958 fiscal year, 88.6 per cent of the liabilities for retired or deceased state employees were employer financed. This proportion was slightly less for the school and municipal divisions. Prior to World War II, employees contributed at a 3.5 per cent rate. That rate was increased to five per cent in 1949 and to six per cent as of July 1, 1958.

Another significant factor in the small proportion of state employee contributions was the prior service credit without back payment granted to those state employees with a considerable number of years of service before the retirement system was established in 1931. Prior service credits were not granted members of the school and municipal divisions.

Even though the employer is paying the major portion of retirement benefits, the state has contributed fewer dollars to P.E.R.A. since its inception than have state employees. State employees have contributed \$18.5 million and the state as employer slightly in excess of \$17 million. During the first five years of the plan, the state made no contributions at all. Between 1936 and 1946, the state's annual contributions varied from token payments to a sum almost equal to that contributed by employees. Since 1946, the state's share has been approximately equal to employees' contributions. In both the school and municipal divisions, the employer rate of contribution has been approximately the same as the employees'.

#### Financing P. E. R. A. Benefits

At the present time there are unfunded accrued liabilities of \$35 million in the state division of P.E.R.A., almost \$15 million in the school division, and slightly more than \$.5 million in the municipal fund. These liabilities are computed by the system's actuary and are based on the difference between assets on hand and the liabilities resulting from benefits already earned by present members, both active and retired. These liabilities do not apply to future credits to be earned by present and new employees, as it is assumed that these will be met by future employer-employee contributions and the investment of these contributions.

In the state division the unfunded accrued liability exists because of: 1) the failure of the state to contribute in the past for prior service credits; 2) the failure of the state in the past to contribute at a rate which would meet its share of current financing; 3) the relatively recent salary increases which have raised the level of retirement annuities, which are based on final average salary; 4) the increased life expectancies of P.E.R.A. annuitants; and 5) the increase in the maximum annuity from \$200 per month to \$300 per month for those members retiring prior to age 65. Of these five the most important are 1) and 3).

This unfunded accrued liability, in a sense, is similar to the national debt, in that it becomes payable over a period of years, rather than all at once. As long as the retirement system continues, current income can be used to fund these liabilities as they become due. Future unfunded accrued liabilities resulting from the use of current income to cover past unfunded accrued liabilities, in turn, may also be financed in the same way.

To keep this liability from continuing to grow, it is necessary to meet the interest on this amount. The liability represents a deficit in assets which cannot be invested. If the employer contributes at a rate high enough to cover the interest lost because of the lack of these funds to invest, the unfunded liability will not increase, unless there is a continued sizable increase in salaries.

Except for prior service credits, the unfunded accrued liability has grown in the school and municipal divisions for the same reasons as the state division.

At present the state, school, and municipal employers are contributing at a rate of six per cent. According to the calculations made by the system's actuary, the state should be contributing at a rate of 6.7 per cent and the schools at a rate of 6.52 per cent to finance completely the interest on the unfunded liabilities. The current six per cent rate is sufficient not only to pay the interest but to amortize the unfunded liability in the municipal division in 15 years. Should a decision be made to amortize the unfunded liabilities in the state and school divisions, over a 35-year period, the state would have to contribute at a rate of 7.98 per cent and the schools, 6.99 per cent. If there were no further increases in the unfunded liability, the state's contribution rate in 1994 would fall to 4.94 per cent and the schools' to 5.87 per cent - the 1994 date corresponding to the end of the amortization period.

#### Coverage Problems Under P. E. R. A.

All full-time employees of the state and of those political subdivisions participating in the P. E. R. A program, with few exceptions, are required to be members of P. E. R. A. For a variety of reasons, some of these employees are not covered, and there is no legal requirement that coverage be provided for temporary and/or part-time employees. The P. E. R. A. retirement board has appeared reluctant to make an issue of requiring eligible employees to participate in the retirement program, even though it has the authority to do so; however, there are no penalties provided by law which may be imposed upon agencies or employees for not joining.

In addition to those employees of various state agencies and political subdivisions who should be covered, but are not, there are approximately 5,000 state employees who are actually temporary, part-time, or exempt from P. E. R. A. coverage. These employees are provided with no retirement coverage at all while in the employ of the state. The school and municipal divisions also have some temporary and part-time employees without retirement coverage, although the problem is not as extensive as in the state division.

The officials and employees of three member cities of the municipal division have indicated a desire to withdraw from P. E. R. A. and to substitute O. A. S. D. I. coverage instead. These cities, Arvada, Fort Morgan, and Gunnison, feel that they do not have career services, so that employees do not stay in service long enough to retire, and their employees object to six per cent deductions from their salaries.

#### Older Employees and P. E. R. A.

Another problem of some importance is that of older employees who reach age 65 or more without sufficient years of service to provide them with more than a small retirement benefit under P. E. R. A. This is especially a problem in the school division, where, as of June 30, 1958, a total of 530 employees over the age of 59 had four years of service or less. This group comprises one-third of the school division membership in this age category. Almost 20 per cent of all state members over 59 years of age fall in this group, as do 25 per cent of the municipal division membership.

Most of these employees have entered public service after their 55th birthdays, and it can be argued that the employer has no obligation to provide retirement benefits beyond those which accrue from the short period of public service. It should be remembered, however, that many of these employees have had O. A. S. D. I. coverage prior to entering P. E. R. A. -covered employment. During the years in which they work in P. E. R. A. -covered employment, no contributions are made to O. A. S. D. I., consequently their salary credits under O. A. S. D. I. are reduced. As a result, these employees receive a small retirement benefit from each source, the total of which may be less than that provided by the Colorado Old Age Pension.

Many of these employees are in the low salary brackets and hired at an advanced age to perform custodial work or other unskilled services. If such employees have only small benefits from both O. A. S. D. I. and P. E. R. A. and no other income, the only alternatives are to go on working or to go on the old age pension.

Because of the questionable efficiency of these older employees as they approach 70, it is possible that the state and other public employers may consider mandatory retirement as a means of removing older, less efficient workers from public service. In taking such a step, retirement provisions for these older workers should be carefully examined to see if improvements can be made which would be neither too costly, nor unfair to the long-term career service employee.

#### P. E. R. A. as a Career Service Retirement Plan

The normal working career is usually considered as 30 years or more, yet the maximum P. E. R. A. retirement benefits are based on 20 years' service at age 65. Employees who work more years for the state are penalized, because they continue to pay into P. E. R. A. without receiving any increase in benefits. The present plan also encourages employees to retire from P. E. R. A. -covered employment at an early enough age to acquire O. A. S. D. I. benefits or retirement benefits in another plan through subsequent employment.

P. E. R. A. is especially advantageous to the employee who enters covered public service at age 40 or later, since he will receive the same retirement benefit as the employee who enters covered public service at age 25 or 30. For these reasons, P. E. R. A. should be re-examined in light of public employment personnel practices, to see whether modifications may be needed in keeping with the concepts of career service.

#### O. A. S. D. I. Coverage for Public Employees

Amendments to the Social Security Act since 1950 have extended eligibility for O. A. S. D. I. coverage to public employees. Between 1950 and 1954 such coverage was available only for public employees who were not already members, or eligible to be members, of a public employees' retirement program. Under these provisions, Colorado passed legislation to make O. A. S. D. I. coverage available to employees of political subdivisions who were not already covered by a public employee retirement program.

Further changes in the Social Security Act in 1954 and 1956 extended coverage to those public employees covered by a retirement system, but only upon a favorable referendum of such employees. Under these amendments it is possible to divide a public employees' retirement system into several groups for referenda purposes. In Colorado these groups would include state employees, each institution of higher education, school districts (either as a group or by district), and municipalities (either as a group or by city). Police and firemen (and by implication, the state patrol) would be excluded from such referenda unless express permission is given the state for their inclusion through further amendment to the Social Security Act.

The 1956 amendments made it possible for specifically designated states to set up two-part retirement systems. One part would include those employees who desired to remain under the old plan, and the other those employees who wished to have their retirement system combined with O. A. S. D. I. The same subgroups could be established for referenda purposes, as is the case in the states without a two-part retirement system. States have been added to the two-part list upon their own initiative. State legislative and/or executive request has been sufficient to amend the Social Security Act to add states to the list.

#### Present O. A. S. D. I. Benefits and Contribution Rates

Retirement benefits under O. A. S. D. I. currently range between a minimum of \$33 and a maximum of \$127, depending upon average monthly wage. An additional benefit is payable to a retirant's wife. This spouse's benefit may be equal to one-half the husband's primary insurance benefit.

Survivorship benefits for the wife and family of a fully insured individual are payable up to a maximum of \$254 per month, depending on the number of children under age 18 and the average salary of the person insured. Disability benefits are also payable in an amount equal to the primary insurance benefit for disabled fully insured individuals who have attained their 50th birthdays and who have submitted proper proof of such disability.

Contribution rates for O. A. S. D. I. are currently 2.5 per cent of the first \$4,800 of annual salary for both employer and employee. These rates are scheduled to increase to three per cent in 1960, 3.5 per cent in 1963, four per cent in 1966, and 4.5 per cent in 1969.

#### Back-Dating of O. A. S. D. I. Coverage

For the purposes of computing O. A. S. D. I. retirement benefits a covered employee's salary is averaged from January 1, 1951, until the time of his retirement. This average includes only that portion of annual salary upon which O. A. S. D. I. contributions are made. Therefore, an employee is credited with a maximum of \$4,800 in any one year and with no salary in years in which the employee made no contributions to O. A. S. D. I.; however, the five lowest years may be dropped out in making these computations.

It was recognized that many public employees covered by a retirement system probably would not have O. A. S. D. I. coverage from January 1, 1951, until the date when the system was combined with O. A. S. D. I. Since the five lowest years may be dropped out in computing O. A. S. D. I. benefits, provision has been made to back-date O. A. S. D. I. coverage to January 1, 1956, for public employees who chose to combine the systems.

To include back-dating, the agreement providing for O. A. S. D. I. coverage must be dated no later than December 31, 1959. In other words, unless such an agreement is signed within the specified time, maximum O. A. S. D. I. benefits commensurate with salary cannot be provided. While this time period was extended in 1957, Congress may show reluctance to extend it any further.

#### Methods of Combining O. A. S. D. I. with a Public Employees' Retirement System

There are three basic ways in which O. A. S. D. I. may be merged with a public employees' retirement system.

Supplementation - O. A. S. D. I. benefits are added to the present retirement system; the present benefits are maintained in full measure without change. The benefits and contribution rates of the present system are continued at the existing level, with O. A. S. D. I. benefits and contributions added.



Offset - The retirement plan is fused with O.A.S.D.I. so that present retirement benefits would be directly offset by social security benefits. A complete merging of benefits and contributions is generally achieved. Consequently, as O.A.S.D.I. benefits and contribution rates increase, the retirement plan benefits and contribution rates decrease in the same proportion.

Coordination - O.A.S.D.I. is combined with an adjusted retirement plan. The present retirement plan would be revised downward with respect to benefits and contributions, although not necessarily in the same amount as O.A.S.D.I. benefits and contribution rates. For the present, contribution rates would be slightly higher than the system before combination. As O.A.S.D.I. rates increase, contribution rates would increase because there would be no downward revision in the present system either in rates or benefits.

#### Specific Proposals to Combine P.E.R.A. and O.A.S.D.I.

Several proposals for combining P.E.R.A. and O.A.S.D.I. were actuarially evaluated. These proposals included: 1) full supplementation, the most expensive method of combination; 2) full offset, the least expensive method of combination; 3) a coordinated plan in which P.E.R.A. benefits are reduced at age 65, with the effect that the total benefit is slightly higher than under P.E.R.A. alone; and 4) a new retirement plan based on 30 years of service and coordinated with O.A.S.D.I.

In presenting these proposals for evaluation it was specified that no present employee should receive less under a combination plan than he would receive under P.E.R.A.

Under the full supplementation plan, present P.E.R.A. benefits and contribution rates would be maintained, and O.A.S.D.I. benefits and contributions would be added. An employee who retired prior to age 65 would receive the same benefit he would have received under P.E.R.A. Upon reaching age 65, O.A.S.D.I. benefits would be added.

The offset plan is generally similar to P.E.R.A. with three exceptions: 1) O.A.S.D.I. survivorship benefits would replace P.E.R.A. survivorship benefits if higher; 2) O.A.S.D.I. disability benefits would be added to P.E.R.A. disability benefits; and 3) benefits would be the same as P.E.R.A. for retirement before age 65. At age 65, P.E.R.A. benefits would be reduced by the amount of the O.A.S.D.I. primary insurance benefit. Eligibility for the O.A.S.D.I. spouse's benefit would have no effect on the amount of the P.E.R.A. benefit to be received at age 65.



The coordinated plan is also similar to P.E.R.A. except that O.A.S.D.I. survivorship benefits would be substituted for P.E.R.A. survivorship benefits. Disability benefits would be provided by both plans. Retirement benefits prior to age 65 would be computed in the same way as P.E.R.A. at present. At age 65, P.E.R.A. benefits would be computed according to the following formula : one per cent of the first \$4,800 of final average salary times the number of years of service not to exceed 20 plus 2.5 per cent of the amount of final average salary above \$4,800 times the years of service not to exceed 20 plus the O.A.S.D.I. primary insurance benefit. The O.A.S.D.I. spouse's benefit, if payable, would be additional.

The new retirement plan is based on a career concept of 30 years' service and retirement at age 65. The benefit formula was devised to blend in with the O.A.S.D.I. primary benefit. Retirement benefits are computed according to the following formula at age 65: .67 per cent of the first \$4,800 of final average salary times years of service, with no limit plus 1.67 per cent of final average salary above \$4,800 times years of service, with no limit plus O.A.S.D.I. primary benefit. The O.A.S.D.I. spouse's benefit, if payable, would be additional. Retirement before age 65 is possible, but would be discouraged through the provision that the annuity paid for early retirement would be the actuarial equivalent of the same annuity at age 65. For example, an employee retiring at age 60 would receive a monthly benefit of approximately two-thirds of what he would have received for the same amount of service at age 65.

Other benefits of the new retirement plan would be similar to P.E.R.A., except that O.A.S.D.I. survivorship benefits would be substituted for similar benefits under P.E.R.A.

The evaluations for the offset and coordinated plans were made in two ways. First, it was assumed that credits already earned for service under P.E.R.A. would be converted to the combined plan formula. Second, it was assumed that credits already earned for service under P.E.R.A. would be frozen--that is, full credit would be given under the P.E.R.A. formula, with the new formula to apply only to service under the new plan. (The offset and coordinated plans with earned credits frozen are naturally more expensive than the offset and coordinated plans with no "frozen" earned credits.)

#### Contribution Rates, Costs, and Benefits

The contribution rates and costs for all of the combined plans will be higher than current P.E.R.A. rates, eventually, if not at present. The scheduled rate increases for O.A.S.D.I. will increase the contribution rates over existing rates for all plans, including offset. Employee contribution rates and benefits under each plan are the same for the state, school, and municipal divisions. Employer contribution rates for each plan vary somewhat from division to division.

Employee contribution rates on the first \$4,800 of salary for the various combination plans would vary in 1959 from five per cent (coordination) to 8.5 per cent (full supplementation). The employee contribution rate on the first \$4,800 of salary for the new retirement plan and the offset plan in 1959 would be six per cent, the same as P.E.R.A. Under all combination plans, employees would contribute at a rate of six per cent on the portion of annual salary above \$4,800. The employee contribution rate on the first \$4,800 of salary would increase as O.A.S.D.I. contribution rates increase, for all combination plans except offset. By 1969, these rates would be seven per cent for the coordinated plan, 7.5 per cent for the new retirement plan, and 10.5 per cent for full supplementation. These employee contribution rates would be the same for members of all P.E.R.A. divisions.

Employer contribution rates would vary from division to division. In 1959, the state would contribute at the following rates: full supplementation, 9.11 per cent; coordination, 6.3 per cent or 6.9 per cent (depending on whether earned credits are frozen); new retirement plan, 5.62 per cent; and offset, 5.15 per cent or 6.03 per cent (depending on whether earned credits are frozen). **These rates include the amount needed to meet the interest on the unfunded liability and are comparable to the 6.7 per cent rate needed for P.E.R.A. to meet the interest on the unfunded liability.**

The employer's contribution rates would also increase as O.A.S.D.I. contribution rates increased. In 1969, the state would contribute at the following rates: full supplementation, 10.9 per cent; coordination, 8.09 per cent or 8.69 per cent (depending on whether earned credits are frozen); new retirement plan, 7.41 per cent; and offset, 7.34 per cent or 8.22 per cent (depending on whether earned credits are frozen). **These rates are also based on meeting the interest on the unfunded liability, and are comparable to the 6.7 per cent employer contribution rate for P.E.R.A.** The employer rates for the school and municipal divisions are shown in Chapter III of the report. Also shown in Chapter III are the employer contribution rates if the unfunded liability were amortized over a 35-year period.

For employees with 20 years' service at age 65, annuity benefits under the offset plan would be the same as those under P.E.R.A., except that the O.A.S.D.I. spouse's benefit, if payable, would be added. Under full supplementation, all O.A.S.D.I. retirement benefits would be added to P.E.R.A. benefits. The coordinated plan would provide annuity benefits slightly in excess of P.E.R.A.'s at present, and the spouse's benefit, if payable, would be added. Under the new retirement plan employees at age 65 with 20 years' service would receive lower benefits than under P.E.R.A. However, after 25 years' service in the low salary brackets and 30 years' service in all other salary brackets, except the highest, benefits under the new retirement plan would be approximately the same or slightly higher than under P.E.R.A. Additional credits would be given for service in excess of 30 years. The spouse's benefit, if payable, would be in addition to the annuities discussed above.

For less than 20 years' service at age 65, the annuity benefits would be proportional to those shown above. Employees who retired prior to age 65 under all combination plans, except the new retirement plan, would receive the annuity similar to the one now provided under P. E. R. A. Under the new retirement plan, an employee who retired prior to age 65 would receive a reduced annuity based on the amount he would have received had he retired at age 65 with the same amount of service. (Chapter III presents a detailed discussion, with appropriate tables, of the retirement annuity benefits under the several combination plans at different salary levels and varying periods of service.)

#### P. E. R. A. and Combination Plans; Some Considerations

No clear-cut case can be made for combining or not combining P. E. R. A. and O. A. S. D. I. There are general advantages which should be considered, as well as good points and drawbacks to each of the proposed combination plans. Combination may or may not be desirable for a specific employee, depending on his age, years of service, marital status, salary, sex, and career aspirations.

In general, a combined plan will not be looked upon too favorably by employees who plan to retire before age 65, especially those who plan to work elsewhere in O. A. S. D. I. covered employment. Employees in the higher salary brackets and women whose husbands are working in O. A. S. D. I. -covered employment also may see little desirability in a combination plan.

Combination with O. A. S. D. I. would be most advantageous to older employees nearing age 65, married male employees who expect to qualify for the spouse's benefit, older employees who begin their state or local government service after a number of years of O. A. S. D. I. coverage, younger workers who are still more or less transient, and employees in the lower salary brackets.

Originally, survivorship benefits and continuity of retirement coverage for non-career employees were among the reasons that combination of O. A. S. D. I. and P. E. R. A. was advocated. The addition of survivorship benefits to P. E. R. A. has given O. A. S. D. I. little advantage in this respect. The addition of deferred annuities to P. E. R. A. minimizes the need of retirement coverage for transient employees, although the value of deferred annuities is questionable for younger employees with families, who may not be able to afford deferring a return on their contributions until age 65. Combination with O. A. S. D. I. is also looked upon favorably because of the spouse's benefit.

O. A. S. D. I. is designed to provide minimum retirement standards. Other retirement systems usually are designed to attract career employees whose final average salaries are considered a measure of their worth and upon which retirement benefits are usually based. It is argued that a combination of the two provides both minimum and maximum retirement limits. Some proponents argue that all employees probably will be covered by O. A. S. D. I. eventually, so that Colorado should take this step for its public employees now at the most advantageous time, while coverage may be back-dated to January 1, 1956, thus insuring present employees no loss in O. A. S. D. I. benefits.

On the other hand, it is pointed out that all combination plans are more costly than P. E. R. A. Some of the present P. E. R. A. provisions are either incompatible with O. A. S. D. I. or duplicate benefits. Retirement before 65 and deferred annuities do not blend in too well with O. A. S. D. I. The P. E. R. A. system also provides survivorship benefits similar to those of O. A. S. D. I., as well as superior disability benefits.

The advantages and disadvantages of P. E. R. A. have already been discussed. Full supplementation provides liberal benefits and is not incompatible with the present P. E. R. A. program. The basic objection to full supplementation is its cost and high contribution rate by both employer and employee.

Offset is the least expensive of the combination plans and provides the average employee with the same benefits he would receive under P. E. R. A., plus the spouse's benefit, if payable. The main objections to offset are: 1) P. E. R. A. would be closely integrated with O. A. S. D. I. to the extent that changes in O. A. S. D. I. would cause changes in P. E. R. A.; 2) upward revisions in O. A. S. D. I. benefits would not reflect in increased employee benefits, because P. E. R. A. benefits would be reduced proportionately; and 3) except for older workers and continuous minimum coverage for transient workers, none of the existing retirement problems are corrected.

The coordinated plan retains all of P. E. R. A.'s features, which may or may not be desirable. The benefits are slightly in excess of P. E. R. A.'s, but also cost more. Adoption of this plan would not provide solutions to all of the present problems under P. E. R. A.

The new retirement plan, based on 30 years' service at age 65, places a greater proportion of the total cost on the employee (approximately 45 per cent) and discourages early retirement. Transient employees and older employees would benefit from O. A. S. D. I. coverage.

The new retirement plan gives the employer the opportunity to correct any existing dissatisfactions with P. E. R. A. Present employees would not have a voice indetermining whether the plan should be set up, because the system can be established for all future employees; however, present employees could transfer, if they so desired. Career service is recognized through the 30-year base and the granting of additional credit for years of service over 30, with no limit. The new retirement plan costs would be in excess of P. E. R. A. costs, but less than those under any other combined plan except offset.

## Recommendations

The Legislative Council Committee on Public Employees' Retirement has reviewed the existing retirement system and the specific plans for combining P. E. R. A. and O. A. S. D. I. The committee recommends against consideration by the General Assembly of full supplementation, offset, and coordination as methods of combining P. E. R. A. and O. A. S. D. I. Full supplementation is not favored because of the extremely high cost to both employer and employee. Offset is opposed because the degree of integration required with O. A. S. D. I. would make P. E. R. A. dependent upon policy changes made in Washington; the cost and benefits of the P. E. R. A. portion of an offset plan would be reduced each time a change was made in social security. The coordinated plan overcomes some of the objections to both full supplementation and offset; however, the committee does not believe that the shortcomings of the existing retirement system could be corrected by this type of combination.

A referendum of employees would be necessary in the event that any of these plans were considered desirable. There has been no inclination on the part of the P. E. R. A. legislative committee to support a combination plan. In fact, this group has opposed combination in the past and is continuing to voice opposition.

The failure of the P. E. R. A. legislative committee to support combination makes it dubious that a referendum would be successful. It would be possible, however, under any of these proposals to have Colorado designated as a state with a two-part retirement system. If this were done, those employees who wanted combination could get it without affecting those who want to retain P. E. R. A. as it is. Yet, the committee cannot recommend any of the above mentioned combination plans, even if a two-part retirement system were established.

The elimination of these combination plans leaves two alternatives for the General Assembly if it is deemed desirable to improve the retirement program for public employees. Either P. E. R. A. can be changed, or a new retirement plan may be established, which would combine a modified P. E. R. A. plan with O. A. S. D. I.

The resolution directing this study called for a continued study of the problem of retirement for Colorado public employees. Consequently, your committee has reviewed the two alternative methods for improving the retirement program in light of the problems that are present in the existing retirement program.

### Improving P. E. R. A.

1) Financing of the interest and/or the amortization of present accrued unfunded liabilities could be handled under the existing retirement program. Solving this problem would require an increase in either the employee's or the employer's

contribution rate, or both, to at least pay the interest on the unfunded liability and perhaps that rate should be increased sufficiently to amortize the unfunded liability over a 35-year period.

2) The fact that the employer is currently paying 70 to 75 per cent of each retirement annuity cannot be changed as long as 20 years is used as a service career base and as long as equal six per cent contribution rates are maintained. Your committee is not saying that the employer's financing of 70 to 75 per cent of each annuity is either good or bad.

3) The problem attached to the lack of retirement coverage for temporary, part-time, and some full-time employees can be solved without combining with O.A.S.D.I. Those employees falling in the above categories could be covered by O.A.S.D.I. alone, if they are not eligible for P.E.R.A. A tightening of the eligibility requirements in P.E.R.A., with penalties for failure to comply, could solve the lack of coverage for some full-time employees.

4) The three member cities whose officials and employees want to withdraw from P.E.R.A. presents some problems. These problems cannot be solved to the satisfaction of the cities under the existing P.E.R.A. program. These cities would have to be deemed separate retirement systems for purposes of combining with O.A.S.D.I. and then later given the opportunity to drop P.E.R.A. coverage. If this procedure is followed there may be questions raised by the employees regarding impairment of benefits already earned under P.E.R.A.

5) The fact that some employees enter service at an advanced age and consequently cannot secure sufficient coverage for a full annuity is a problem that cannot be solved and perhaps shouldn't be solved under P.E.R.A. Employment policies perhaps should be reviewed in light of this problem, both as to the hiring and retention of older employees.

6) The fact that P.E.R.A. retirement benefits are based on a career concept of 20 years can be changed by legislative action for all future employees.

#### Combine O.A.S.D.I. and P.E.R.A. in a New System

1) Combining P.E.R.A. with O.A.S.D.I. will not obviate the necessity for increasing the employer's contribution rate to pay the interest on the unfunded liability and/or to amortize that unfunded liability.

2) A combination of the two retirement programs based on a 30 year concept would result in the employer paying approximately 55 to 60 per cent of each annuity as opposed to the 70 to 75 per cent relationship that now exists.

3) There would be no particular advantage of a combination plan to take care of those employees (part-time, temporary and some full-time) who are not now covered by P.E.R.A., except for those part-time or temporary employees who later become full-time permanent employees. In these cases a combination plan would provide continuity in coverage. These employees could be covered by O.A.S.D.I. alone under the present system or under a combination plan.

4) The only way that the three member cities of P.E.R.A. can get out of P.E.R.A. and under O.A.S.D.I. is through a combination plan. First the employees of these cities must come under a combination plan and then later vote to discontinue the P.E.R.A. portion of the retirement program.

5) For those current employees who enter P.E.R.A.-covered service at an advanced age, a combination plan would be of considerable advantage.

6) The combination plan offers a new career concept of 30 years' service with recognition of additional years beyond 30 as opposed to the existing 20-year base for maximum benefits.

Your committee makes the following recommendations:

1) establish the new retirement system combining O.A.S.D.I. with P.E.R.A. with a 30-year career base as detailed in this report;

2) cover all part-time and temporary employees with social security alone;

3) deem the following as separate retirement systems: a) State Division; b) Highway Patrol;<sup>1</sup> c) Judges' Division; d) School Division; e) the cities of Colorado Springs, Pueblo, Arvada, Gunnison, Fort Morgan, Wray, Alamosa, and Boulder; and f) each institution of higher education;

4) memorialize Congress to add Colorado to the list of states authorized to have a split retirement system;

5) establish the combination plan for all new employees and then permit all current employees to choose individually the plan to which they want to belong;

6) back-date social security coverage to January 1, 1956 for those current employees who choose to transfer to the new system and finance both the employee and employer back-date payments from the employees' contributions, which would follow them to the new system, and credit the employees' accounts for the amount paid on behalf of the employer; and

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1. The Highway Patrol must be excluded from the referendum under the provisions of Section 218 of the Social Security Act. This would allow the patrol to retain its present retirement program.



7) legislation should be passed by the General Assembly to permit the employees of the cities of Arvada, Gunnison, and Fort Morgan and other member cities so desiring to drop P.E.R.A. coverage, by employee referenda, after the combination plan has been adopted in those cities.

### Alternative Proposals

If the General Assembly decides against establishing a new retirement system, as suggested above, your committee recommends that the following steps be taken to improve the existing retirement program:

1) the employers' and/or the employees' contribution to P.E.R.A. should be increased to at least pay the interest on the unfunded accrued liability;

2) social security coverage should be provided for all part-time and temporary employees not now covered by P.E.R.A. or eligible to be covered by P.E.R.A.;

3) Congress should be memorialized to add Colorado to the list of states permitted to have split retirement systems in order that Arvada, Gunnison, and Fort Morgan could obtain O.A.S.D.I. coverage eventually; and

4) legislation should be passed by the General Assembly to permit the employees of the cities of Arvada, Gunnison, and Fort Morgan and any other member cities to drop P.E.R.A. coverage, by employee referenda, after the combination plan has been adopted in these cities.



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## PUBLIC EMPLOYEES' RETIREMENT ASSOCIATION

Retirement coverage for many public employees in Colorado is provided through the Public Employees' Retirement Association. Several categories of public employees are included under this statutory retirement program,<sup>1</sup> which is divided into the following divisions: state employees, school district employees, municipal employees, and judges. As of June 30, 1958, the state division had 11,288 members; the school division 14,489; the municipal division, 1,129; and the judge's division, 77.

The Colorado State Employees' Retirement Association was established by statute in 1931. In 1943, coverage was extended by law to include the employees of any school district, any city and county, and any municipality; however, each of these political subdivisions could refuse to avail itself of such coverage. At the same time, the State Employees' Retirement Association was renamed the Public Employees' Retirement Association (P.E.R.A.). Further statute changes in 1949 and 1951 added county and district health department employees and public housing authority employees to the list of those eligible for coverage under the municipal division of P.E.R.A. The 1951 legislation also made coverage for school employees mandatory except for those school districts which had set up a local retirement system. Coverage for the judiciary, originally provided only for supreme court judges, was extended by legislation in 1949, 1951, and 1952, and now includes judges of the Supreme Court, district courts, county courts, and juvenile courts.

All permanent, full-time state employees are required by law to be members of the state division P.E.R.A., with the following exceptions: elected state officials, including members of the General Assembly; district and supreme court judges, who have a separate retirement plan; district attorneys; county commissioners; and the presidents, deans, professors, and instructors in state educational institutions which have an established retirement or annuity plan for such employees. The latter exception applies specifically to the faculty of the University of Colorado, which is covered for retirement purposes by the Teacher's Insurance Annuity Association. Elected officials may choose to be covered by P.E.R.A. even though such coverage is not compulsory.

The same general coverage provisions also apply to those school districts and municipalities participating in the P.E.R.A. program. All school districts in the state except the City and County of Denver, which has its own retirement program, are included in P.E.R.A.

Only eight cities, Alamosa, Arvada, Boulder, Colorado Springs, Fort Morgan, Gunnison, Pueblo, and Wray took advantage of the extension of P.E.R.A. coverage to municipal employees in 1943. Only the Pueblo County Health Department has elected to cover its employees under P.E.R.A., and no public housing authorities have chosen such coverage.

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1. Chapter 111, Article 1 through 6, C.R.S. 1953 as amended by CS 1957.

Elective officials of these political subdivisions are exempt from P.E.R.A membership, as are policemen and firemen, who belong to a separate retirement system. These elective officials as well as state elective officials may choose to be covered by P.E.R.A., if they so desire.

### Retirement Benefits under P.E.R.A.

The benefits are generally similar under the three major divisions of P.E.R.A. (state, school, and municipal). The judges have a separate schedule of benefits as do members of the Colorado State Patrol. The latter group is a part of the state division. The provisions enumerated below apply to the three major P.E.R.A. divisions.

#### Retirement for Age

Retirement is possible: 1) at any age after 35 years of service; 2) at age 55 with 30 years of service (35 years for school employees); 3) at age 60 with 20 years of service; 4) at age 65 with at least five years of service. The maximum annuity for those retiring prior to age 65 is \$300 per month, or 50 per cent of the average annual salary for the highest five consecutive years in the last 10 years of service, whichever is less.

Employees who retire at age 65 or later with 20 years of service or more receive 50 per cent of the average annual salary for the highest five consecutive years in the last 10 years of service with no maximum limit. Those who retire at age 65 or later with less than 20 years of service receive an annuity proportionate to the years of service prior to retirement. For example, an employee who retires at age 65 or later with 10 years service would receive one-half as much as one who retires at the same age with 20 years service, or 25 per cent of the average annual salary for the highest five consecutive years in his ten years of service. No employee may receive an annuity at or after age 65, unless he has at least five years of service at the time of retirement.

An employee who works longer than 20 years and retires at age 65 or later receives the same monthly annuity he would have received had he retired at age 65 with 20 years service. In other words, except for allowing an earlier retirement age (at any age with 35 years' service or at age 55 - 30 years service), years of service in excess of 20 years do not qualify the employee for greater retirement benefits. Even though benefits do not increase, employees continue to pay their contributions into the retirement program for as long as they work in P.E.R.A. - covered employment.

#### Retirement for Disability

An employee with five years of service for which contributions have been made to P.E.R.A. is entitled to a full retirement annuity if he becomes permanently disabled on the job. An employee with 15 years of service -- five years as a contributing P.E.R.A. member -- is entitled to a full retirement annuity if he has a non-employment permanent disability.

#### Survivorship Benefits

Survivorship benefits were added to the P.E.R.A. program as a result of legislative action taken by the Forty-First General Assembly, first session, in 1957.

If a deceased member having five or more years of covered service leaves a widow and one or more children under 18, the widow shall receive \$200 per month until the youngest child reaches age 18.<sup>2</sup> This amount applies regardless of the salary of the deceased or the number of children. Upon remarriage or death of the widow prior to the youngest child's reaching age 18, the widow's allowances of \$200 ceases, but the children are then entitled to \$75 per month per child, not to exceed a total of \$200 per month to be distributed equally among three or more children. This benefit also applies if there is no widow, but only surviving children of a deceased member having five or more years of covered service.

If a member upon death has no children under 18 years, but leaves a widow, she receives an annuity of approximately 25 per cent of the member's final average salary, in most cases. This annuity commences when the widow attains age 62 and is payable for life or until remarriage.

The widow of a deceased member having 15 or more years credited service receives a benefit of approximately 25 per cent of the member's final average salary, starting at age 50 and payable for life or until remarriage. When no children or widow survive but dependent parents are living, a benefit of \$75 per month for each parent may be paid.

#### Death Benefits

In the event an employee covered under P.E.R.A. dies prior to eligibility for retirement and survivorship benefits are not payable, a lump sum refund is made to his named beneficiary, or in the event that he is eligible for retirement the plan provides for a reduced joint life, ordinary annuity, to the beneficiary who will receive monthly payments.

#### Deferred Annuity

The deferred annuity was another benefit added by legislative action in 1957. Members leaving P.E.R.A. -- covered service after five or more years are entitled to leave their retirement deposits in the system until age 65. At that time, they will be eligible to receive a deferred annuity based on 2.5 per cent of final average salary multiplied by the number of years of covered service, not to exceed 20.

#### Colorado State Patrol

Members of the Colorado State Patrol, in general, receive the same retirement benefits as other members of P.E.R.A., with two notable exceptions: 1) Members of the highway patrol may retire at age 55 with 20 years' service or at any age with 30 years of service; 2) Members of the highway patrol are immediately eligible for benefits for disabilities incurred in the performance of official duties. Retirement at age 55 is at one-half pay based on the same formula as for other P.E.R.A. members, except for the maximum limitation imposed. Annuity payments to highway patrolmen with early retirement shall not exceed 60 per cent of the maximum salary for the rank of state patrolmen during the same period.

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2. Members may elect to participate in an optional group insurance program at nominal monthly cost to provide survivorship benefits prior to becoming eligible for these benefits under P.E.R.A.

Members of the state patrol pay an additional one per cent payroll contribution because of these more liberal benefits.

### Judges of Courts of Record

Supreme court, district court, county court, and juvenile court judges who have served for an aggregate period of 10 years -- not necessarily consecutive -- and who have reached the age of 65 years are eligible for retirement annuities according to the following schedule: 1) at least 10 years of service, but less than 16 years, a monthly annuity equal to 40 per cent of the highest monthly salary received during any five consecutive years of service contained within the 10 years of service immediately preceding retirement; 2) 16 years of service or more, a monthly annuity equal to 50 per cent of the average of the highest monthly salary received during any period of five consecutive years of service contained within the 10 years of service immediately preceding his retirement. Judges are eligible for all other P.E.R.A. benefits.

### Benefit Changes Since 1931

When P.E.R.A. was first established for state employees in 1931, retirement eligibility was based on 20 years service at age 65 or 35 years service at any age. Upon retirement, a state employee was eligible for benefits equal to 50 per cent of his average salary during his last five years of service or \$150 per month, whichever was less.

In 1935, the act was amended to provide compulsory retirement at age 70. To be eligible for retirement benefits, a state employee had to have a minimum of five years service. His annuity was based on the following formula: Number of years of service times  $1/20$  time 50 per cent of average annual salary for the last five years of service. The maximum annuity remained at \$150 per month. The compulsory retirement provision was removed in 1939. Instead, voluntary retirement at age 70 was made possible, if such employees had contributed to P.E.R.A. since its creation in 1931, and had 15 years' service or more.

Statutory changes in 1943 also included the provision of retirement benefits for municipal and school employees now eligible for coverage. School employees could retire after 35 years of covered employment at age 55 (municipal employees -- 30 years at age 55) or at age 65 after 20 years of covered employment. Upon retirement, the benefit would be equal to 40 per cent of final average salary during last five years of service, but not to exceed \$100 per month.

Retirement eligibility provisions were again changed in 1945. Legislation passed at that time made it possible for an employee to retire at age 65 if he had worked for the state 15 years or more, or at age 70 if he had worked for the state for five years or more and had been a member of P.E.R.A. for at least five years. The amount of annuity continued to be based on  $1/20$  times years of service times 50 per cent of average salary during the last five years of service, with a maximum of \$150 per month. The present retirement eligibility rules for the state patrol were also enacted into law in 1945.

The current retirement eligibility provisions were enacted into law in 1947. These included retirement at age 55 with 30 years' service, (35 years for school employees) retirement at age 60 with 20 years of service, and retirement at age

65 with 5 years of service. The formula for computing retirement annuities remained the same, as did the \$150 monthly maximum limit. This monthly maximum was raised to \$200 in 1949, and in 1953 the law was again changed so that the \$200 limit applied only to those who retired before the age of 65. For those retiring at age 65 or later, the maximum is equal to one-half of the final average salary for the highest five consecutive years in the last 10 years of service. An employee with 20 years service at age 65, therefore, would be eligible for the maximum annuity. In 1957, the \$200 monthly annuity limitation for employees who retire prior to their 65th birthday was raised to \$300.

Survivorship benefits and deferred annuities were also added to P.E.R.A. through legislation passed in 1957. Disability retirement annuities were made part of the plan at its inception in 1931.

### Optional Annuities

Employees who retire with P.E.R.A. benefits may choose one of four different annuities. Selection must be made at the time of retirement and no subsequent change may be made. The four annuity plans include: 1) a single life, ordinary annuity, payable for the life of the employee only, and terminating at his death without refund of any kind to the estate of the deceased annuitant or to his or her beneficiary of any difference in the amount paid into the fund by such employee and the amount withdrawn by him prior to his death; 2) a reduced single life, refund annuity which is the actuarial equivalent of the annuity in (1), payable only during the life of the employee, with a refund to his beneficiary or estate of any difference between the amount of his contributions and the amount withdrawn prior to his death; 3) a reduced joint life, ordinary annuity, which is the actuarial equivalent of the annuity payable in (1), payable for the joint lives of the employee and his designated co-beneficiary without any refund to the estate of either upon their deaths; and 4) a reduced joint life, ordinary annuity which is the actuarial equivalent of the annuity payable in (1), payable to the employee and his designated co-beneficiary in monthly amounts which shall be decreased by one-half upon the death of either of them, without refund to the estate of either upon their deaths.

### Prior Service Credits

Prior service credits for retirement are usually granted in recognition of service performed by older employees prior to the establishment of a retirement program. Such credits may also be granted to employees who did not join a retirement plan when it was established, but who chose to do so at a later date. Prior service credits were granted only to the members of the state division of P.E.R.A.

Employees who had worked for the state prior to the start of P.E.R.A. in 1931, received credit for those years of service when they retired if they had become members of P.E.R.A. before retirement. Employees who met the retirement eligibility requirements of age 65 and 20 years service or 35 years service at any age, could receive the maximum retirement annuity even though any or most of this service occurred prior to the creation of P.E.R.A. but no retirements were allowed until 1936 or after at least five years' payment and service. These prior service credits were granted without any employee contributions required. State employees were also eligible for certain other prior service credits upon payment of back contributions with interest at four per cent compounded semiannually.

The act creating the retirement system, in 1931, provided that state employees at that time could join the plan up to 1933, and receive credit back to August, 1931, by paying back contributions with four per cent interest compounded semiannually. In 1939, a provision was added that any employee not yet 55 years of age who began his employment with the state prior to July 1, 1940, could receive credit back to 1931, upon the payment of back contributions and interest.

Prior service credits were further liberalized in 1941. A retirement act amendment passed in that year made it possible for state employees who were in state service prior to 1931 to join the retirement plan if they had not already done so. This provision repealed the restriction in the 1931 law which gave state employees at that time only until 1933 to join the plan. Through the same statutory amendment, these employees could receive prior service credits back to 1931, upon payment of back contributions and interest, but no service credit was allowed to such members for service rendered before 1931. Employees in state service prior to 1941 who had not joined the retirement system were also provided for in this legislation. These employees, if they subsequently joined P.E.R.A. could also back-date their credits to January 1, 1941, by paying back contributions and interest.

Credits for military service were also provided by legislation in 1941 and 1945. State employees who served in the armed forces received retirement credit for the period of such service. No payments were necessary if the compensation received while a member of the armed forces was less than the salary received as a state employee.

State Department of Employment personnel who were on the federal payroll during the time this agency was under federal control also were eligible for prior service credits upon back payment of contributions with interest to cover this period. Those who were state employees prior to this transfer and who had withdrawn their P.E.R.A. contributions were required to pay back these contributions with interest in addition to those which covered the period during which they were employed by the federal government.

Employees who withdraw their accumulated contributions and leave covered service and then re-enter such service within five years may restore their retirement credits by repaying the amount withdrawn in addition to an amount with interest equal to the contributions which would have been made had they remained in state service.

#### Teachers' Retirement Fund

Although prior service credits are not allowed for municipal and school members of P.E.R.A., the General Assembly has provided minimum benefits for teachers who have retired with little or no coverage under P.E.R.A. These benefits, however, do not make up for the lack of prior service credits. The General Assembly established a separate teacher retirement fund in 1951 to be administered by the Commissioner of Education. Teachers who retire prior to July 1, 1967, and who have had 20 years' service and are at least 65 years of age are eligible for a maximum monthly benefit of \$100. Any annuity received from P.E.R.A. is subtracted from the \$100 maximum.

## Contributions and Costs

P.E.R.A. is a joint-contributory retirement plan, operating on an actuarial reserve basis.<sup>3</sup> Contributions are made by both employer and employee as service is rendered. In general, both employees and employers at present contribute six per cent of the employee's salary to the retirement association. State patrol employees and judges are the two exceptions. Because of more costly retirement benefits, both the patrol employees and the state contribute at a seven per cent rate. The judges contribute six per cent, but the employer's contribution is 12 per cent.

Contribution rates are often mistakenly equated with the actual cost of a retirement plan. The employee may assume that because both he and the employer contribute at the same rate, he is paying 50 per cent of the cost of his retirement annuity. Actually, the employee's contributions to P.E.R.A. are more likely to constitute 25 or 30 per cent of the value of his retirement annuity. The employer may also think that he is contributing 50 per cent of the cost of retirement or that his contributions are paying the employer's entire cost, whatever proportion of the total this cost might be. Actually, the employer's contributions have not met his share for a number of reasons which will be discussed after employees' contributions are analyzed.

### Examples of Employee Contributions

A state employee who is 65 and has worked for 20 years and who has a final average salary of \$4,800 (based on the high consecutive five years in the last 10 years of employment) is eligible for a \$200 per month retirement annuity until death. According to the mortality table used by P.E.R.A., the value of his retirement annuity is approximately \$26,880. Assuming that this employee has contributed six per cent of his salary throughout his 20 years of service, the total amount of his contributions including interest is approximately \$7,202, or 26.8 per cent of the value of his retirement annuity.

If this same employee had retired at age 60 with 20 years of service and the same final average salary (\$4,800), the value of his retirement annuity would be approximately \$31,920. The employee's contributions to P.E.R.A. including interest, would be approximately \$7,049 or 22.1 per cent of the value of his retirement annuity. His contribution total is less at age 60 than it would be for 20 years' service at age 65 because he would be at his maximum salary for fewer years, according to the actuarial tables and would live longer after retirement.

If this same employee had retired at age 55 with 30 years of service and the same final average salary (\$4,800) the value of his retirement annuity would be approximately \$36,960. The employee's contributions to P.E.R.A., including interest, would be approximately \$11,590 or 31.3 per cent of the value of his retirement annuity. Although this employee would have contributed to P.E.R.A. for 30 years instead of 20, he would still be paying less than one-third of the cost of his retirement annuity.

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3. Know Your Colorado Retirement Plan, issued by the P.E.R.A. Board of Control.

On the other hand, this same employee would be paying almost half of his retirement annuity if he had worked for 30 years prior to retirement at age 65. Assuming a final average salary of \$4,800, he would have contributed approximately \$12,024 or 44.7 per cent of the value of his retirement annuity; yet he would receive no greater annuity than an employee who worked 20 years and retired at age 65 after contributing 26.8 per cent of his final annuity.

These examples are not intended as argument either for or against the concept that employees should pay approximately one-half of the cost of their retirement annuity. Rather they dispute the commonly held assumption that employees are making such contributions at present.

These examples are based on two premises: 1) that the employee's salary increases gradually throughout his period of employment with his salary level not appreciably affected by inflation; and 2) that the employee's rate of contribution remains the same throughout his period of employment. If this employee had large salary increases during his last 10 years of service, and/or had contributed at a lesser rate during the period of significantly lower salary, the portion he would have contributed of his final annuity would be less. These conditions would reduce the proportion of the retirement annuity financed by the employee, because his annuity would be based on a final average salary resulting from the large salary increases and/or because his retirement annuity would be based on the larger contribution rate, regardless of the number of years he may have been paying into the retirement fund at a lesser rate.

#### Employee Contribution Changes and Salary Increases

Changes in the contribution rate and the sizable increase in salaries since World War II has had an effect on the proportion of retirement annuities financed through contributions to P.E.R.A. by state, school, and municipal employees -- some of whom have already retired. As of June 30, 1958, 88.6 per cent of the liabilities for retired or deceased state employees were employer financed.<sup>4</sup>

The proportions for the school and municipal division employees were similar; 85.9 per cent for schools, and 83.7 per cent for municipal.<sup>5</sup> Only \$1.4 million of the \$12.3 million liabilities for retired members in the state division as of June 30, 1958 were employee financed. Employees financed \$314,000 of the \$2.2 million liabilities in the school division and \$57,000 of the \$351,000 liabilities in the municipal divisions. One of the reasons for this small proportion of employee contributions was the lower contribution rate in effect during the first ten years or more of service, another was the large salary increases after World War II from which their final average salaries resulted. A significant factor was the prior service credit granted to those state employees with a considerable number of years of service before the retirement system was established in 1931.

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4. Actuarial Valuation, Members and Annuitants, P.E.R.A. of Colorado, A.G. Gabriel, June 30, 1958, p. 17.

5. Ibid. p. 34 and p. 48.



When the retirement program was set up, state employees were required to contribute at a rate of 3.5 per cent of monthly salary. This contribution rate obtained until 1949, when, as a result of legislation passed in 1947, the rate was increased to five per cent; annuity benefits were also increased.

In 1957, legislation was passed to increase the rate to six per cent as of July 1, 1958. At the same time, survivorship benefits and deferred annuities were added to the plan.

During the post-war period, there has been a steady increase in state employees' salaries. Since 1952, there has been an average annual increase of 4.7 per cent. Salaries for school administrators and teachers have almost doubled since 1946. The rate increase from 1952 to 1958 was 38.5 per cent, or almost 6.5 per cent per year. Municipal salaries have increased approximately 20 per cent since 1954, or five per cent per year.<sup>6</sup>

### Employer's Contributions

The employer's portion of P.E.R.A. retirement annuities comes from the contributions made by the participating agencies and political subdivisions. These contributions are based on a proportion of the payroll for the agency's or subdivision's employees who are members of P.E.R.A. The employer's contributions as well as the employees' are invested, with the resultant earnings also accruing to the retirement fund. While employees who leave P.E.R.A. -- covered service may withdraw their contributions, the employers' payments remain in the fund.

### State Division

During the first four years of the retirement program (1931-1935) the state made no contributions to P.E.R.A., or the State Employees Retirement Association, as it was then known. Legislation passed in 1935 provided that the state contribute at a rate of 3.5 per cent of the total salaries of the members of the retirement association; however, these funds were to come only from the delinquent tax penalties and interest fund and not from the budgets of the participating agencies nor through a special appropriation. There was no provision for making up the difference if this source did not produce 3.5 per cent of the retirement membership payroll, which was always the case. It should be remembered that these were depression years and that it was difficult for the state to meet its major obligations, let alone provide funds for the retirement program.

According to the executive secretary of P.E.R.A., the original purpose of the delinquent tax penalties and interest fund payments was to cover the state's share of prior service credits. The largest amount ever received from the delinquent tax penalties and interest fund was \$51,784 in 1939, as compared with employees' contributions for that year of \$177,406. Since 1945, the annual amount has rarely exceeded \$25,000, with \$27,213 in 1947 the highest.

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6. Accurate, comprehensive and comparable data for municipal salaries not available prior to 1954. These figures are based on three publications of the Colorado Municipal League: 1954 Wage and Salary Survey, Colorado Cities and Towns; Wages, Salaries, Fringe Benefits, 1956, Colorado Cities and Towns; and Wages, Salaries, Fringe Benefits, Colorado Cities and Towns, 1958 Supplement.

For a ten-year period beginning in 1940, the General Assembly appropriated a small amount each year to be paid to P.E.R.A. in addition to the funds from delinquent tax penalties and interest. In 1940 and 1941, \$25,000 was appropriated annually; from 1942 through 1949, the annual appropriation was \$35,000. When state agencies began budgeting their P.E.R.A. payroll contributions in 1941, the retirement fund received employer contributions from three sources. These were reduced to two after 1949, when special appropriations were no longer made.

In 1941, legislation was passed which made it mandatory for state agencies which operated on fee funds (such as revenue, agriculture, and fish and game) to budget for P.E.R.A. contributions at a rate of 3.5 per cent of payroll -- the same rate paid by employees. State agencies whose employees' salaries were payable through state general fund appropriations, or from funds in whole or in part derived from ad valorem taxes, tuition, or federal aid for extension or educational research, could make payroll contributions to P.E.R.A., but were not required to do so. Such contributions were made mandatory for all participating state agencies in 1945.

The employer's contribution rate was raised to five per cent as of July 1, 1949, and to six per cent as of July 1, 1958, equalling the employees' rate. Since 1931, state employees have contributed \$18,537,700 to P.E.R.A., and the state a total of \$17,005,081 from its three sources. A year by year breakdown of contributions is shown in Table I on the following page.

The effect of the state's failure to make contributions to P.E.R.A. equal to or in excess of employee contributions, or to finance its share of prior service credits will be discussed in the section on Financing P.E.R.A. Retirement Benefits.

#### Municipal and School Divisions

In 1943, when the employees of municipalities and school districts were first eligible for P.E.R.A. coverage, these subdivisions contributed 3.5 per cent of payroll. This rate increased to five per cent July 1, 1949, and to six per cent July 1, 1958. The employees' rate increased in the same way. Even though employer contributions matched those made by the employee, neither of these divisions has met the cost of its retirement program, although their unfunded liabilities are not as extensive as those of the state division. The financing of these two divisions will also be discussed in the following section.

Table I  
P.E.R.A. - State Employee's Division  
Employer and Employee Contributions, 1931 - 1958<sup>a</sup>

Year Ending	Employee Contributions	State Contributions		State Payroll Contributions
		D.T.P.&I <sup>b</sup>	Appropriations	
8/1/31 to				
6/30/33	\$135,909.76			
6/30/34	83,456.61			
6/30/35	84,750.49			
6/30/36	105,592.36			
6/30/37	132,430.63	\$39,559.14		
6/30/38	157,592.59	42,221.96		
6/30/39	177,406.23	51,784.14		
6/30/40	202,397.96	49,512.51	\$25,000.00	
6/30/41	208,086.06	46,189.44	25,000.00	
6/30/42	251,566.28	50,811.44	35,000.00	\$91,632.75
6/30/43	200,671.55	37,401.22	35,000.00	91,306.66
6/30/44	218,198.14	33,245.11	35,000.00	100,306.27
6/30/45	236,849.07	24,581.70	35,000.00	107,392.95
6/30/46	313,991.62	27,212.82	35,000.00	212,320.37
6/30/47	381,909.66	21,204.58	35,000.00	284,761.42
6/30/48	503,529.78	20,107.59	35,000.00	442,034.14
6/30/49	637,245.69	18,928.57	35,000.00	586,485.16
6/30/50	1,054,266.70	16,995.54		993,242.57
6/30/51	1,170,026.81	16,717.86		1,174,278.82
6/30/52	1,295,264.44	25,091.17		1,246,757.28
6/30/53	1,398,670.28	20,126.63		1,352,529.22
6/30/54	1,564,164.25	19,954.08		1,507,732.00
6/30/55	1,688,851.98	22,136.26		1,623,247.53
6/30/56	1,792,338.50	20,037.37		1,737,891.12
6/30/57	2,060,386.10	25,775.74		2,016,611.71
6/30/58	<u>2,480,846.57</u>	<u>27,092.14</u>		<u>2,449,813.70</u>
TOTALS	\$18,537,700.11	\$656,637.06	\$330,000.00	\$16,018,393.67

Total State Contributions: \$17,005,080.73

- a. Source: Executive Secretary, Public Employees Retirement Association.  
b. Delinquent Tax Penalty and Interest Fund.

Financing P.E.R.A. Retirement Benefits

An actuarial valuation of the several divisions of P.E.R.A. is made every five years by the system's consulting actuary. The most recent valuation of P.E.R.A. was made as of June 30, 1958. In making an actuarial valuation an inventory is made of the system's liabilities and assets. The liabilities are computed in part on predictions based on actuarial experience. This includes items such as the time present employees will retire and the value of their annuities according to the mortality tables; the employee turnover rate, which determines the amount of future refunds, as well as the amount of employer's contributions, which will remain in the fund; and the final average salary of present retirement system members. In

computing the system's assets, certain other actuarial predictions are made, such as future contributions to the system and the amount of interest to be earned on investment. An interest rate is assumed based on investment experience and is used for all of these calculations. Liabilities and assets are presented in an actuarial balance sheet and may be divided into accrued liabilities and assets and prospective liabilities and assets.

Accrued liabilities include the present value (in this case as of June 30, 1958) of:

- 1) accrued portions of superannuation annuities likely to be paid present members, based on service rendered before July 1, 1958;
- 2) expected future refunds of amounts deducted from members' salaries before July 1, 1958; and
- 3) liabilities for present members who have retired or whose beneficiaries are receiving survivor benefits.

Accrued Assets include the funds on hand from both employer and employee contributions as of June 30, 1958.

Prospective liabilities include the present value (June 30, 1958) of:

- 1) prospective portions of superannuation annuities likely to be paid present members based on services to be rendered after June 30, 1958;
- 2) disability annuities likely to be paid present members;
- 3) death-in-service annuities likely to be paid on account of the death of present members; and
- 4) expected future refunds of amounts to be deducted from members' salaries after June 30, 1958.

Prospective assets include the present value (June 30, 1958) of:

- 1) expected future contributions to be made by present members; and
- 2) expected future contributions by employer to meet prospective liabilities.

Accrued assets and accrued liabilities are balanced, and if there is any deficit, it is identified as the accrued unfunded liability. The existence of an accrued unfunded liability indicates that sufficient contributions including interest had not been paid into the retirement fund as of the date of the actuarial valuation to cover the retirement benefit credits already earned by active and retired members.

Prospective assets and liabilities are also balanced and equal each other because the employer's contribution rate is set at that proportion of prospective payroll which will produce an amount equal to the difference between the employees' prospective contributions and the total prospective liabilities. This process is known as current service financing.

State Division

As of June 30, 1958, the state division of P.E.R.A. had total liabilities of \$110,841,436.<sup>7</sup> Of this amount, \$62,856,268 were accrued liabilities, that is, liabilities incurred from credits earned by present and retired members. These accrued liabilities are broken down as follows:

- 1) accrued portions of superannuation annuities for service already rendered by present members.....\$47,565,982
- 2) expected future refunds of members' deductions made before July 1, 1958.....\$ 3,012,942
- 3) annuitant and survivor benefit reserve liabilities.....\$12,277,344  
\$62,856,268

Prospective liabilities totaled \$47,985,168 and included the following:

- 1) prospective portions of superannuation annuities likely to be paid present members for services rendered after June 30, 1958.....\$31,512,564
- 2) disability annuities likely to be paid present members.....\$ 1,663,258
- 3) death-in-service annuities likely to be paid on account of the death of present members.....\$ 3,151,937
- 4) expected future refunds of deductions to be made after June 30, 1958, by present members.....\$11,657,909  
\$47,985,168

Prospective liabilities are balanced from two sources:

- 1) the present value of expected future contributions by present members; and
- 2) the present value of state contributions necessary to finance future liabilities. The present value of expected future employee contributions is \$26,384,080, based on six per cent of salary. This means that the state as employer will have to contribute \$21,601,088. This amount will be financed through a state contribution rate of 4.94 per cent of members' payroll as calculated by the actuary. This 4.94 per cent makes up the major portion of the state's total contribution of six per cent and is broken down as follows:

superannuation annuities	4.09 per cent
disability annuities	.30 per cent
death-in-service annuities	<u>.55 per cent</u>
	4.94 per cent

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7. Actuarial Valuation, Members and Annuitants op. cit., p. 18 and following. All actuarial and financial data in this section are based on this report unless otherwise indicated.

This funding of future liabilities is known as current service financing. All expected future liabilities are segregated and financed through current contributions of both employer and employee. An additional contribution on the part of the employer might be necessary, however, to finance unfunded accrued liabilities if such exist.

The accrued liabilities of almost \$63 million are offset by accrued or ledger assets. These include employer and employee accumulated contributions with interest. As of June 30, 1958, these assets in the state division of P.E.R.A. totaled \$27,586,658. When these accrued assets are subtracted from accrued liabilities, an unfunded accrued liability of \$35,269,610 remains. This unfunded accrued liability exists because past employee and employer contributions including interest have failed to approximate accrued liabilities, for the following reasons:

1) Prior service credits. For service before 1931, neither the state nor the employee paid; for prior service granted after 1931, employees have contributed, but not the state to any great extent. The executive secretary of P.E.R.A. estimates the state's unpaid share of prior service credits as slightly in excess of \$12 million, or more than a third of the total unfunded accrued liability.

2) Further deficit in state contributions. In addition to the deficit in the state's prior service credit contributions, the state has not contributed sufficiently over the years to handle its share of current service financing.

3) Salary Increases. The relatively recent salary increases have increased the cost of the retirement plan as employees' retirement annuities are based on final average salary.

4) Increase in Longevity. P.E.R.A. has adopted a new mortality table in line with the increased life expectancies of annuitants. This means that retired members of P.E.R.A. are living longer, which raises the value of their annuities and increases the cost of the program.

5) Increase in maximum retirement annuity prior to age 65. Retirement costs have also increased, because the maximum annuity for those members retiring prior to age 65 has been raised from \$200 per month to \$300.

In a sense, this unfunded accrued liability is similar to the national debt, in that it becomes payable over a period of years, rather than all at once. As long as the retirement system continues, current income can be used to fund these liabilities as they become due. Future unfunded accrued liabilities resulting from the use of current income to cover past unfunded accrued liabilities, in turn, may also be financed in the same way.

To keep the unfunded accrued liability from continuing to grow, it is necessary to meet the interest payment on this debt. The unfunded accrued liability represents \$35 million which is not available to be invested. At the interest rate assumed by the actuary (2.5 per cent), the state division is losing \$881,700 in interest annually. This interest deficit can be met through an additional payroll contribution on the part of the employer, the employee, or both.

The P.E.R.A. actuary has computed this rate at 1.76 per cent of payroll to be added to the state's contribution. When this is added to the 4.94 per cent contribution needed for current service financing, it makes the total required state

contribution rate 6.7 per cent of members' payroll. As the state is presently contributing six per cent, only .7 per cent instead of 1.76 per cent is being provided to meet the interest on the accrued unfunded liability. Consequently, at the present contribution rate, the accrued unfunded liability will continue to increase at a minimum of \$381,000 per year, or the amount of interest not being provided (assuming no increases in payroll).

The unfunded accrued liability as of June 30, 1953 (the date of the previous actuarial valuation) was \$10.8 million, as compared with the present \$35 million. However, the total liability of the state division at that time was only \$33 million, as compared with almost \$111 million in 1958. The accrued unfunded liability was 32.6 per cent of total liabilities in 1953, as compared with 31.8 per cent in 1958. The accrued unfunded liability has increased 218 per cent from 1953 to 1958, while total liabilities have increased 236 per cent. This increase in the accrued unfunded liability was caused by the reasons already enumerated.

In 1953, the actuary computed the state's contribution rate for current service financing at 5.28 per cent, with an additional .92 per cent necessary to meet the interest on the \$11 million unfunded liability at that time. The state continued to contribute at a rate of five per cent until July 1, 1958, so that not only was the interest on the accrued unfunded liability not met, but neither were the costs of current financing.

Failure to meet the interest requirements on the accrued unfunded liability in 1953 added another \$1.4 million to the unfunded liability over the five-year period. Approximately \$700,000 more resulted from the state's failure to contribute at the level determined necessary in 1953 to finance current service costs. Since these items account for less than 10 per cent of the five-year increase in accrued unfunded liability, it appears that the major reasons are: 1) the change in life expectancy for present and future annuitants; and 2) the increase in state salaries.

The payroll for the members of the state division increased from \$29 million in 1953 to \$49 million in 1958. Approximately half of this increase resulted from additional employees joining state service, and the other half from salary increases. In 1953, the 8,336 members of the state division had an average annual salary of \$3,502. In 1958, the 11,288 members of the state division had an average salary of \$4,371, an increase of 24.8 per cent over 1953. A retirement annuity for a state employee with 20 years service at age 65, based on a final average salary of \$4,371, has a value of \$4,861 more than a similar annuity for an employee with a final average salary of \$3,502. This is but one example of the effect of salary increases on the cost of the retirement program.

Should the current trend of general salary increases continue, it is likely that the unfunded accrued liability will continue to grow, although these increases will be offset to some extent by a larger payroll upon which contributions would be based. Any further increase in longevity would also increase retirement program costs.

There are several approaches which might be taken toward meeting the unfunded accrued liability. First, the state as employer can continue to follow its present policy -- one of meeting partially the interest requirements, with a resultant continuing unfunded liability increase for this reason alone. Second, the state can increase its contribution to the extent necessary to meet the interest on the unfunded liability. If this is done, the unfunded liability will not increase,

assuming other factors remain stable. Third, the unfunded liability could be amortized over a period of 20 to 40 years through an increase in the contribution rate on the part of the employer, the employee, or both. If employee rates are increased, present employees who are paying their share of current benefits will be asked to pay for benefits not financed in the past. They will also be asked to make up, at least in part, for the failure of the state to provide its share of the costs in the past. A further question is what proportion of salary should state employees contribute to their retirement program.

If the state were to amortize the unfunded liability over a 35 year period through an increase in payroll contributions, it would cost an estimated 7.98 per cent of payroll, assuming that the employees would continue to contribute at a six per cent rate. This would be 3.04 per cent more than the present 4.94 per cent contribution for current service financing, 1.98 per cent more than the state is now contributing, and 1.28 per cent more than the rate the state should be paying to meet the interest requirements on the unfunded liability. After the present accrued unfunded liability is retired in 1994, the state rate would return to 4.94 per cent, as compared with six per cent for employees, unless there were continued increases in the unfunded accrued liability which would make it impossible to amortize it by that time.

#### Interest on Investments

It has been suggested that the interest requirements of the unfunded liability might be met at least in part by an increase in the earning yields on present and future investments in the state divisions of P.E.R.A.

In making the actuarial valuation, the interest rate assumed by the actuary for all divisions of P.E.R.A. was 2.5 per cent, the same as for the accrued unfunded liability. This rate is applied to the ledger or accrued assets.

As of June 30, 1958, the state division had accrued assets of almost \$27.6 million; 2.5 per cent of this amount would be \$690,000. During the year ending June 30, 1958, the state division realized a gross interest return of \$663,000. Added to this was a net total of \$57,000, the difference between profit earned on redeemed investments and commissions paid on the purchase of new ones. When the state division's prorated share of administrative expenses (\$61,000) is deducted, it leaves a net return of \$659,000.<sup>8</sup> However, \$4 million in securities at an interest yield rate of four per cent were purchased too near the end of the fiscal year to realize any investment return, and another \$3 million at varied rates of interest (all 2.5 per cent or more) were purchased too near the end of the fiscal year to realize full return on investment. Assuming approximately the same amount of administrative expense, these investments should produce approximately \$789,000 in earnings during the 1958-59 fiscal year, or 2.86 per cent of assets.<sup>9</sup>

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8. Public Employees Retirement Association of Colorado, State Employees Division (Annual Audit as of June 30, 1958) Walter E. Heider and Company, Denver.

9. P.E.R.A. has computed the effective yield on the present investment portfolio at 3.04 per cent. From the above calculations, this would appear to be the approximate expected gross yield for the 1958-59 fiscal year. Actually, the rate of return would be lower if the yield were computed on the assets in the fund as of June 30, 1959. These yield rates are computations based on assets as of June 30, 1958.



The anticipated excess interest for 1959, .36 per cent, would provide only about \$100,000 of the required \$381,000 of unfunded interest. Such comparisons are, however, invalid and, in fact, improper, since the only method of correctly measuring the effect of the continuation of such excess earnings is to change the interest assumptions underlying the actuarial calculations. If such change is made in the assumptions, however, reductions will be necessary not only in the liability items but also in the prospective asset items, the combination of which might not produce the amount of reduction in unfunded liabilities anticipated.

By law, the retirement board of P.E.R.A. is limited in the investment of funds to the following:

- 1) bonds and warrants of the United States of America;
- 2) bonds and warrants of the State of Colorado;
- 3) certain general obligation bonds of Colorado cities, towns, and school districts; and
- 4) promissory notes secured by first lien mortgages or deeds of trust on real estate situated in Colorado and guaranteed or insured by the U.S. Government.

It would necessitate a statutory amendment, if the retirement board desired to improve its interest rate through purchase of blue chip stocks or top-rated private industry and utility bonds.

#### School and Municipal Divisions

Actuarial valuations are also made at the same five-year intervals for the school and municipal divisions. As of June 30, 1958, neither division showed as large an unfunded accrued liability as the state division. The school division had an unfunded accrued liability of \$14.9 million and the municipal division, \$547,144.

There are several reasons why the unfunded accrued liabilities are less in these two divisions than in the state division. First, neither division granted prior service credits. Second, employers in both divisions have always contributed at the same rate as employees since both divisions were created in 1943. Third, a greater proportion of the liabilities in the school and municipal divisions are prospective, rather than accrued -- approximately 65 per cent for the school division and 59 per cent for the municipal division, as compared with 44 per cent for the state division. Both of these divisions are 12 years younger than the state division and therefore have retired fewer people, as well as having less accrued service credits for present members. Fourth, the municipal division has so few members that its total liabilities of \$7.7 million are only 22 per cent as large as the state division's unfunded accrued liability.

The school division's unfunded accrued liability has increased from \$639,000 in 1953 to almost \$15 million in 1958. The large increase in school administrative and teaching salaries has been largely responsible for this rise. The average salary for the 8,347 school division members in 1953 was \$3,156. In 1958, the average salary was \$3,981 for the 14,489 members -- an increase of 26.2 per cent.

Another reason for the increase in unfunded accrued liabilities was the failure of the employers in the school division to contribute the 1953 actuarially determined rate of 5.66 per cent of the members' payroll. Only a small portion of this total, .06 per cent, was required to meet the interest on the accrued deficit at that time; the remainder was allocated for current service financing. As was the case with the state division, school division employers continued to contribute at the five per cent rate until July 1, 1958.

In order to meet the interest requirements of the school division's present unfunded accrued liability, a contribution rate of .65 per cent is considered necessary. The cost of current service financing is 5.87 per cent, bringing the total contribution rate to 6.52 per cent. The school division employers are currently contributing at a six per cent rate. Consequently, nearly \$300,000 annually in interest on the unfunded accrued liability is not being financed by the present contribution rate.

The municipal division did not have any accrued unfunded liability in 1953; rather, this division had a \$300,000 surplus. This surplus, plus the five per cent contribution rate by municipal employers, when only 4.46 per cent was necessary for current service financing, were the reasons that the present municipal division unfunded accrued liability is only slightly in excess of \$500,000 dollars. Municipal salaries have also been on the rise. The average salary for the 845 municipal members in 1953 was \$3,350. In 1958 the average salary was \$3,995 for the 1,129 members, an increase of 19.2 per cent. The six per cent contribution rate also maintained for municipal employers will be sufficient to handle current service financing and amortize the accrued unfunded liability in 15.2 years. The total current service contribution rate is 5.03 per cent, with an additional .97 per cent to amortize the accrued unfunded liability. The municipal division, therefore, is the only one of the three which has any prospect of amortizing its accrued unfunded liability at present contribution rates.

### Miscellaneous P.E.R.A. Provisions

#### Contribution Refunds

Members who leave P.E.R.A. covered employment may withdraw their accumulated contributions without interest; however, their \$5 membership fees are retained by P.E.R.A. As has been indicated above, members with at least five years of service may choose to leave contributions in the fund and receive a deferred annuity at age 65.

When P.E.R.A. was set up in 1931, the statutes provided that members who left state service could withdraw their accumulated contributions with 2.5 per cent interest compounded semiannually. This provision was amended in 1935 to exclude the payment of interest on accumulated contributions. This amendment was made because the small accumulation of assets made it difficult for the retirement fund to return contributions with interest and meet other obligations.

#### Administration of P.E.R.A.

A retirement board not to exceed 13 members is charged by statute with the responsibility for managing P.E.R.A. Three members of this board are state officials who serve permanently; the secretary of state, the state treasurer, and the state

auditor. Four board members represent the state division and are elected to serve staggered four-year terms. The school and municipal divisions are also entitled to representation on the board and may elect one board member for each 1,000 members, not to exceed a total of three. As presently constituted, the board consists of the three state officials, four representatives of the state division, three representatives of the school division and one representative of the municipal division, which has slightly in excess of 1,100 members.

Originally the retirement board consisted of seven members, but the number was increased in 1943 to provide for representation of school and municipal members, who became eligible for participation at that time.

The board is empowered to establish the rules and regulations for the administration of the retirement fund and to require that public employers furnish and keep such records as the board deems necessary for the discharge of its duties. The retirement board elects its own chairman and has the authority to appoint an executive secretary and such other employees as are considered necessary. The board also has the final power to determine the status of any state employee in respect to any provision of the retirement program. An executive secretary is employed by the board, who serves as the retirement program administrator. Administrative expenses in the 1957-58 fiscal year totaled \$145,423, which was apportioned among the four P.E.R.A. divisions, according to each division's proportion of total membership. The school division, having the largest membership, was assessed \$77,146 for administrative expenses; the state division, \$61,571; the municipal division, \$6,044; and judges' division, \$662.

#### Problems of Coverage Under P.E.R.A.

All full-time permanent employees of the state and those political subdivisions participating in the P.E.R.A. program, except for those categories of employees already cited, are required to be members of P.E.R.A. For a variety of reasons, some of these employees are not covered, and there is no legal requirement that coverage be provided for temporary and/or part-time employees.

#### State Division

The State Controller, in a memorandum dated November 1, 1950, set forth the rule for determining temporary and permanent employees:

"Temporary employees shall be deemed to be those employed to fill a specific temporary position, where such position is approved by the Civil Service Commission and the Governor's office as a temporary one. Likewise, those employed continuously for a period less than one year shall be deemed to be employees assigned to a specific position of less than one year's duration. Accordingly, if the position is permanent and continuing, the employee assigned is also permanent (for the application of the retirement deduction), unless the term of employment is for a specific period of time less than one year. Whether or not the employee is certified into the classified service, or on a provisional basis, is immaterial."

Administrators of the P.E.R.A. program are of the opinion that state department and agency heads have placed too loose a construction upon the word "temporary" in determining whether an employee should be covered by the retirement act. The State Highway Department and the State Hospital classify employees who work for six months or less as temporary. Other agencies generally use an employment period of 12 months to determine whether an employee may be considered permanent for the purposes of retirement coverage.

The P.E.R.A. retirement board has appeared reluctant to make an issue of requiring eligible employees to participate in the retirement program even though it has the authority to do so. The executive secretary of P.E.R.A. has pointed out that there are no penalties provided by law which may be imposed upon agencies or employees for not joining. It would seem, however, that an attorney general's opinion on the matter might be a sufficient mandate to require compliance.

In addition to those employees of various state agencies who may or may not be permanent employees, there are approximately 5,000 who are actually temporary, part-time, or exempt from P.E.R.A. coverage.<sup>10</sup> The greatest number of these employees were classified as temporary and were found to be employed principally by the universities and colleges (4,000); state hospital (244); State Home and Training Schools at Ridge and Grand Junction (205); Department of Agriculture (53); Office of the State Engineer (49); and the State Highway Department.<sup>11</sup>

These employees are provided with no retirement coverage at all while in the employ of the state. It has been suggested that coverage might be provided for these people through a statutory change in the definition of P.E.R.A. eligibility, such change to make coverage mandatory for any employees who are on the payroll longer than 90 days or six months. This approach confuses P.E.R.A. membership with effective retirement coverage. Bona fide temporary or part-time employees would be required to contribute to P.E.R.A. as would the employing agencies. These employees would have their contributions returned upon leaving state service, the employing agency would have added expense because its contributions would remain in the fund, and P.E.R.A. would have an added administrative burden in handling, accounting for, and returning funds. Most temporary employees can ill afford to have six per cent deducted from their earnings, and such deductions accomplish no purpose if they are merely forced savings rather than contributions toward earned retirement credits.

Coverage of these temporary and part-time employees under Old Age Survivors and Disability Insurance (O.A.S.D.I.) is one possible solution to the problem. The ways in which such coverage can be accomplished are discussed in subsequent chapters of this report. If these employees are placed under O.A.S.D.I., however, there is a question as to what course should be followed if any of them ultimately become full-time, permanent employees. They would then become eligible for P.E.R.A.,

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10. A Legislative Council state payroll survey which covered the 1956-57 fiscal year showed that on the average 4,670 state employees who drew warrants each month were not covered by P.E.R.A. In addition, the State Highway Department hires several hundred laborers each year on a temporary basis.
  11. Legislative Council Memorandum to the Forty-first General Assembly on Public Employees' Retirement, January, 1958, p. 3.

which is not now combined in any way with O.A.S.D.I. Either these employees would have to give up O.A.S.D.I. or would be required to carry both O.A.S.D.I. and P.E.R.A. coverage. The latter course would impose a high contribution rate (10.5 per cent on first \$4,800 of salary, by 1969) upon employer and employee alike and would result in a few employees (those covered by both P.E.R.A. and O.A.S.D.I.) receiving much greater retirement benefits than their co-workers covered only by P.E.R.A.

### School and Municipal Division

The school and municipal divisions also have some temporary and part-time employees, who at present do not have any retirement coverage. The problem is not as great as with the state division, and some school districts, according to the executive secretary of P.E.R.A., are declaring some of these employees, such as lunch room workers and custodial workers, eligible for P.E.R.A. Whether this is a satisfactory solution will depend on whether these employees work a sufficient length of time to be eligible for a substantial retirement benefit under P.E.R.A.

There is a further coverage problem in three of the member cities of the municipal division. Arvada, Fort Morgan, and Gunnison have indicated a desire on the part of both employees and employers to be removed from P.E.R.A. coverage and to obtain O.A.S.D.I. coverage instead. Under present law, there is no way in which these cities can terminate P.E.R.A. membership. There is also no way under present federal social security laws and regulations that these cities could become covered by O.A.S.D.I. if they drop P.E.R.A. first.<sup>12</sup>

All three of these cities were contacted by the Legislative Council staff, and the problem was discussed with both employees and city officials.

### Arvada

Arvada has 27 employees classified as permanent and full-time, and all 27 are presently covered by P.E.R.A. The city manager has indicated that both the city and the employees wanted to get out of P.E.R.A. and secure O.A.S.D.I. coverage and added that Arvada has been trying to do this for several years. He emphasized that the city was not overly concerned about the six per cent contribution rate, but that employee turnover rendered P.E.R.A. useless in Arvada. Only one employee at present appears to have the possibility of retiring under P.E.R.A.

### Fort Morgan

Fort Morgan has 66 permanent full-time employees, and only 19 of them are covered by P.E.R.A. The 47 not covered object to being included, and apparently the city administration is sympathetic to their viewpoint. At a meeting of 65 employees and city council members, the employees voted unanimously to substitute O.A.S.D.I. for P.E.R.A., even after the provisions and advantages of P.E.R.A. were discussed. Several of the 19 covered employees indicated that they would be willing to forgo their P.E.R.A. benefits in order to get the situation straightened out.

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12. The possibilities of accomplishing what the three cities wish will be discussed in subsequent chapters of this report dealing with O.A.S.D.I. and public employee retirement systems.

Employee turnover and the lack of a career service are the major reasons why Fort Morgan finds P.E.R.A. unacceptable. Fort Morgan accepted P.E.R.A. coverage in 1943 in order to do something for its employees when O.A.S.D.I. coverage was not possible for public employees. When such coverage was made available in 1950, the city was unable to avail itself of it, because of its P.E.R.A. membership.

### Gunnison

The city of Gunnison has 20 full-time employees of which only two are covered by P.E.R.A. One of these two employees is an elected official, who requested inclusion under P.E.R.A. There are two reasons why Gunnison has not forced its employees under P.E.R.A. First, Gunnison has an annual employee turnover rate of about 30 per cent. Second, the employees, most of whom are in the low salary brackets, do not want such large deductions taken from their pay check, especially since most of them are transient. The mayor and city manager were of the opinion that any improvement in the retirement program or any fringe benefits would have little effect on the turnover rate. The municipal salary scale is unfavorable when compared with private employment in unskilled jobs, and it is this relationship which causes the high rate of turnover. With one exception, employees and officials were in agreement on their desire to substitute O.A.S.D.I. for P.E.R.A.

Legally all full-time permanent employees of these municipalities are required to be members of P.E.R.A. But the retirement board has not forced compliance even though it has the authority to do so. This policy of partial coverage in Fort Morgan and Gunnison has not provided a satisfactory solution to the problem.

The other five municipal members of P.E.R.A. (Alamosa, Boulder, Colorado Springs, Pueblo, and Wray) appear generally satisfied with P.E.R.A., at least to the extent that none of them wishes to do away with P.E.R.A. entirely. Boulder has expressed interest, as have a number of Pueblo employees, in a combination of P.E.R.A. and O.A.S.D.I.

Boulder, Colorado Springs, and Pueblo are large enough, with adequate salary scales, to have career service programs. P.E.R.A. fits in more with this employment situation than in those cities with a high annual turnover rate.

The member cities of P.E.R.A. which have the highest rate of employee turnover, such as Fort Morgan and Gunnison, feel that their employee contributions are going to finance retirement of career service employees in other cities. One way to avoid this resentment would be to establish each city as a separate retirement system with its contribution rates based upon its own actuarial experience; such a method, however, would entail large administrative costs. Other methods can be found to produce the desired objective with only moderate increases in administrative costs.

### Older Employees and P.E.R.A.

Another problem of some importance is the number of older employees who reach age 65 or more without sufficient years of service to provide them with more than a small retirement benefit under P.E.R.A. This is especially a problem in the school division where, as of June 30, 1958, 530 employees over the age of 59 had four years of service or less. This group comprises one-third of the school division membership in this age category. Almost 20 per cent of all state members over 59 years of age fall in this category, as do 25 per cent of the municipal division membership.

Table II shows the number of older employees in each division by age group who have less than four years service and those with 5-9 years service. Also shown is the proportion of members in each age group who fall in these categories.

Table II  
Older Employees Covered by P.E.R.A., Age, and  
Years of Service, June 30, 1958<sup>a</sup>

Age	State				School				Municipal			
	0-4 years		5-9 years		0-4 years		5-9 years		0-4 years		5-9 years	
	No.	Pct. <sup>b</sup>	No.	Pct. <sup>b</sup>	No.	Pct. <sup>b</sup>	No.	Pct. <sup>b</sup>	No.	Pct. <sup>b</sup>	No.	Pct. <sup>b</sup>
59-61	165	28.3%	73	12.5%	253	41.2%	229	37.3%	25	32.5%	30	38.9%
62-64	115	21.5	140	26.2	139	28.4	217	44.4	12	28.6	16	38.1
65 & Over	78	11.5	176	25.9	138	28.9	216	45.3	9	13.8	30	46.1
Total	358	19.9%	389	21.6%	530	33.5%	662	41.9%	46	25.0%	76	42.4%

- a. Source: Actuarial Valuation, Members and Annuitants, P.E.R.A. of Colorado, June 30, 1958.  
b. Per cent of members in age group.

Employees who have reached their 59th birthday with less than 10 years service would have a maximum of 15 years service by age 65. This means that many of them would not be eligible for a full retirement annuity until age 70, and some would have to work longer than that. Altogether, 747 older state employees fall into this category, as do 1,192 school employees, and 124 municipal employees. This group includes 40.5 per cent of state employees over the age of 59, 75.4 per cent of school employees over age 59 and 67.4 per cent of municipal employees over age 59.

Most of these employees obviously have entered public service well past their 55th birthday and it can be argued that the employer therefore has no obligation to provide retirement benefits beyond those which accrue from their short period of public service. It should be remembered, however, that many of these employees have had O.A.S.D.I. coverage prior to entering P.E.R.A. covered public employment. During the years in which they work in P.E.R.A. covered employment, no contributions are made to O.A.S.D.I. and consequently their salary credits under O.A.S.D.I. are reduced. As a result, these employees receive a small retirement benefit from each source, the total of which may be less than that provided by the Colorado Old Age Pension.

The problem is further complicated by the fact that many of these employees are in the low salary bracket hired at an advanced age to perform custodial work and other unskilled services. A P.E.R.A. retirement benefit for an employee making \$225 per month with five year's service at age 65 would be \$28 per month. If he has only a small benefit from O.A.S.D.I. and no other income, his only alternatives are to continue working or to go on the old age pension. A question may be raised as to the efficiency of some of these older employees, especially as they approach 70. It is possible that the state and other public employers may consider mandatory retirement as a means of removing older, less efficient workers from public service. In taking such a step, retirement provisions for these older workers should be carefully examined to see if any improvements can be made which would neither be too closely or unfair to the long-term career service employee.

## P.E.R.A. as a Career Service Retirement Plan

The normal working career is usually considered as 30 years or more, yet the maximum amount of P.E.R.A. retirement benefits are based on 20 years' service by age 65. Employees who work more years for the state are penalized, because they continue to pay into P.E.R.A. without any further increase in benefits.

The present plan also encourages employees to retire from P.E.R.A. covered employment at an early enough age to acquire O.A.S.D.I. benefits or retirement benefits in another plan through additional employment. An employee is able to do this in one or two ways:

1) He can retire from P.E.R.A. covered employment at any age after 35 years' service, at age 55 with 30 years' service, or at age 60 with 20 years' service and draw P.E.R.A. retirement benefits up to \$300 per month for life, and seek other employment.

2) Any P.E.R.A. covered employee who works for at least five years can change his employment and receive a deferred annuity from P.E.R.A. at age 65. This makes it possible for an employee in his forties, at the peak of his career, to leave P.E.R.A. covered employment and even leave the state and still be able to draw a deferred annuity at age 65 based on fifteen years or more of service.

P.E.R.A. is especially advantageous to the employee who enters covered public service at age 40 or later, as he will receive the same retirement benefits as the employee who enters covered public service at 25 or 30.

For these reasons, P.E.R.A. should be re-examined in light of public employment personnel practices to see whether modifications may be needed in keeping with the concepts of career service.

### A Re-examination of P.E.R.A. is Desirable

The next chapters of this report deal with the possibilities and the pros and cons of combining P.E.R.A. with O.A.S.D.I. Even if none of these combinations prove acceptable to the General Assembly and public employees, it is still desirable that P.E.R.A. be re-examined in light of some of the present problems to see if adequate solutions can be found within the framework of the present retirement program.

In brief these problems include:

- 1) the financing of the interest and/or the amortization of present accrued unfunded liabilities;
- 2) the present financing by the employer of 70 to 75 per cent of each retirement annuity;
- 3) the lack of retirement coverage for temporary, part-time, and some full-time employees;
- 4) the dissatisfaction with P.E.R.A. expressed by three municipal member cities and their employees;



5) the employees entering P.E.R.A. covered service at an advanced age, especially in low salary jobs, who are eligible only for small retirement annuities; and

6) the serious question as to whether P.E.R.A. is really a career service retirement plan.

## II

### O.A.S.D.I. COVERAGE FOR PUBLIC EMPLOYEES

Prior to 1950, state and local government employees were not eligible for coverage under Old Age Survivors and Disability Insurance. Between 1950 and 1954, coverage was possible only for public employees who did not belong to a public employees' retirement system such as P.E.R.A. Public Law 761 passed by the 83rd Congress in 1954 amended the Social Security Act so as to extend coverage under O.A.S.D.I. to state and local government employees covered by retirement systems upon favorable referendum vote of the covered members.

Public Law 880 passed during the second session of the 84th Congress in 1956 further liberalized the provisions for extending O.A.S.D.I. coverage to members of public employee retirement programs. It authorized certain specified states and their subdivisions which have retirement systems to divide such systems into two groups: one in which the retirement plan would be combined with O.A.S.D.I. and the second in which the retirement system would continue without combination with O.A.S.D.I. This change permitted referendum to be held in which each member of the retirement system would determine to which plan he wanted to belong. All new employees would automatically become members of the combined plan. The named states specifically asked for such designation, and other states have been added at their own request.

#### O.A.S.D.I.: What It Is

The federal social security act was passed in 1935 and since that time has been amended several times. It provided originally for a national program for retirement and survivor benefits through employer and employee contributions. Disability benefits were added in 1954, and further amended in 1956 and 1958. Federal officials estimate that at least 92 per cent of the jobs in the United States are covered by the O.A.S.D.I. program. Primary retirement benefits currently range between a minimum of \$33 and a maximum of \$127, depending upon average monthly wage. An additional benefit is payable to a retirant's wife. This spouse's benefit is equal to one-half of the husband's primary insurance benefit if the wife has reached age 62.

Survivorship benefits for the wife and family of a fully insured individual upon his death are payable up to a maximum of \$254 depending on the number of children under the age of 18 and the average salary of the insured individual. Disability benefits are also payable in an amount equal to the primary insurance benefit for disabled fully insured individuals who have attained their 50th birthday and who have submitted proper proof of such disability. Public Law 840 passed by the 85th Congress in 1958 further liberalized disability benefits by providing that under certain conditions additional payments may be added to the wife and/or children of a disabled worker.

Contribution rates for O.A.S.D.I. are currently 2.5 per cent of the first \$4,800 of annual salary for both employer and employee. These rates are scheduled to increase to three per cent in 1960, 3.5 per cent in 1963, four per cent in 1966, and 4.5 per cent in 1969.

## O.A.S.D.I. Coverage for Colorado Employees

The Thirty-eighth General Assembly in 1951 passed legislation to make it possible for local government employees not part of a retirement system to be covered under O.A.S.D.I.<sup>1</sup> Such legislation was necessary before the state could enter into an agreement with the federal government for these local government employees. This legislation provided specifically that each political subdivision of the state not belonging to a retirement plan could have its employees covered by O.A.S.D.I., and authorized the State Department of Employment to enter into an agreement for this purpose.

Since this agreement was signed, O.A.S.D.I. coverage has been extended to almost 20,000 local government employees in Colorado including the following political subdivisions:

- 62 counties
- 1 city and county
- 140 municipalities
- 129 other local government districts
- 17 judicial districts (employees other than judges).

As a consequence of the 1954 Social Security Act Amendments, which extended coverage to public employees who are members of another retirement system, the Colorado General Assembly amended the state's enabling legislation to permit members of certain public employees' retirement systems to hold a referendum for this purpose. Such permission was given faculty members of institutions of higher learning covered by the Teachers' Insurance Annuity Association (T.I.A.A.) and to employees of individual municipalities or subdivisions thereof having a separate and independent retirement system, except that policemen and firemen were excluded.<sup>2</sup>

Under the provisions of this legislation the members of two separate retirement systems voted for O.A.S.D.I. coverage. Faculty members of the University of Colorado -- the only group covered by T.I.A.A. -- voted to coordinate or partially supplement their retirement coverage with O.A.S.D.I. Originally, they had contributed at a rate of seven per cent to T.I.A.A.; when O.A.S.D.I. coverage was added the contribution rate to T.I.A.A. was reduced to five per cent. Employees of the Denver Water Board voted to add O.A.S.D.I. coverage and contribution to the coverage and contribution rate of their separate retirement plan. This method of combination is known as full supplementation.

No provision was made by state legislation either in 1955 or later for a referendum to be held by members of P.E.R.A., nor did Colorado request inclusion as one of the states permitted to have two retirement systems as provided in the

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1. 111-7-1 through 8 CRS 1953 as amended by CS 1957  
2. 111-7-9 CS 1957 to CRS 1953.

1956, 1957, and 1958 amendments to the Social Security Act. It would necessitate further amendment to the state enabling legislation before P.E.R.A. members would be able to hold a referendum for O.A.S.D.I. coverage. If two separate retirement systems were desired, not only would amendment to the state's enabling legislation be needed, but also a change in the federal act to add Colorado to the list of states in which two systems are permitted.

No addition or change in federal legislation would be needed to cover state and school temporary and part-time employees, who are not eligible for P.E.R.A., under O.A.S.D.I. but changes would have to be made in the state's enabling legislation. Temporary and part-time employees of the eight P.E.R.A. member municipalities might be covered under O.A.S.D.I. through a modification of the present agreement without further statutory change.

#### Specific Provisions for Combining O.A.S.D.I. and Public Employee Retirement Systems

The 1954 amendment to Section 218 of the Social Security Act sets forth the procedure by which members of a public employee retirement system could combine their retirement plan with O.A.S.D.I. In setting up these procedures, the amendment states congressional policy in respect to retirement for public employees. "It is hereby declared to be the policy of the Congress...that the protection afforded employees in positions covered by a retirement system...will not be impaired as a result of making this agreement applicable or as a result of legislative enactment in anticipation thereof."

The amendment specifies that the governor of the state must certify to the Secretary of Health, Education, and Welfare that the following conditions have been met:

- 1) a referendum by secret written ballot was held on the question of whether service in positions covered by such retirement system should be excluded from or included under an agreement to provide O.A.S.D.I. coverage.
- 2) an opportunity to vote in such referendum was given (and was limited) to eligible employees;
- 3) not less than 90 days' notice of such referendum was given to all such employees;
- 4) such referendum was conducted under the supervision of the governor, or an agency, or individual designated by him; and
- 5) a majority of the eligible employees voted in favor of including service in such positions under an agreement to provide O.A.S.D.I. coverage.

The 1954 amendment also made it possible to divide a public employee's retirement system into separate groups for the purpose of holding a referendum. Separate retirement systems could be set up for state employees, one or more political subdivisions, and for each institution of higher learning.

Under the provisions of the 1954 amendment, every member of a retirement system would be covered by O.A.S.D.I., if a majority of the members voted for such coverage. However, it would be possible to have state employees, employees of each institution of higher learning, school employees -- either as a group or by school district, and employees of municipalities -- either as a group or by municipality -- vote separately on such coverage.

These procedures still apply unless a state is designated as one of those which may have two retirement systems. This provision, added to the Social Security Act in 1956, makes it possible for employees not wishing O.A.S.D.I. coverage to continue with their present retirement system. All employees who wish O.A.S.D.I. coverage combined with their retirement plan become part of a new retirement system. All new employees are required to become part of the combined plan.

For referendum purposes the same retirement system breakdown applies in this situation as it does for states not desiring dual retirement plans. In other words, it would be possible to have two state employee retirement systems, two or more school retirement systems, two or more municipal retirement systems, and two retirement systems for each institution of higher learning.

Fourteen states and one territory are now enumerated as those in which the retirement system(s) may be divided into two parts. Nine of these were listed in the 1956 amendment and the rest were added by the 1957 and 1958 amendments. These states and one territory include: California, Connecticut, Florida, Georgia, Massachusetts, Minnesota, New York, North Dakota, Pennsylvania, Rhode Island, Tennessee, Vermont, Washington, Wisconsin, and Hawaii.

The 1958 amendment further liberalized O.A.S.D.I. coverage for public employees by providing that any employee who originally chose to remain in the retirement plan which was not combined with O.A.S.D.I. can change later to the plan in which combination coverage is provided; however, such change can be made no later than 12-31-59.

#### Back Dating of O.A.S.D.I. Coverage

For the purposes of computing O.A.S.D.I. retirement benefits, a covered employee's salary is averaged from January 1, 1951, until the time of his retirement. This average includes only that portion of annual salary upon which O.A.S.D.I. contributions were made. This means that an employee will receive a maximum of \$4,800 for any one year and with no salary in years in which the employee made no contributions to O.A.S.D.I., however, the five lowest years may be dropped out in making the computations.

This problem of no salary credits for years in which no contributions to O.A.S.D.I. have been made was taken into account in the provisions for combining O.A.S.D.I. with public employee retirement systems. It was recognized that many public employees covered by a retirement system probably would not have O.A.S.D.I. coverage during the period from January 1, 1951, until the date when the system was combined with O.A.S.D.I. Since the five lowest years may be dropped out in computing O.A.S.D.I. retirement benefits, provision has been made to back date O.A.S.D.I. coverage to January 1, 1956, for public employees who choose to combine their retirement systems with O.A.S.D.I.

In order to be eligible for the back dating provision, the agreement for providing O.A.S.D.I. coverage for members of public employees' retirement systems can be dated no later than December 31, 1959. In other words, unless such an agreement is signed within the specified time, maximum O.A.S.D.I. retirement benefits commensurate with salary cannot be provided for members of a public employees' retirement system. While this time period was extended in 1957, Congress may show reluctance to extend it any further.

Methods of Combining O.A.S.D.I. With  
a Public Employees' Retirement System

There are three basic ways in which O.A.S.D.I. may be merged with a public employees' retirement system.

1) Offset - The retirement plan is fused with O.A.S.D.I. so that present retirement plan benefits would be directly offset by social security benefits. A complete merging of benefits and contributions is generally achieved. Consequently, as O. A.S.D.I. benefits and contribution rates increase, the retirement plan benefits and contribution rates decrease in the same proportion.

2) Supplementation - O.A.S.D.I. benefits are superimposed upon the present retirement system, with the present benefits to be maintained in full measure without change. The benefits and contribution rates of the present system are continued at the existing level with O.A.S.D.I. benefits and contributions added.

3) Coordination - O.A.S.D.I. is combined with an adjusted retirement plan. The present retirement plan would be revised downward with respect to benefits and contributions, although not necessarily in the same amount as O.A.S.D.I. benefits and contribution rates. Consequently, the total retirement benefits might be more than those presently provided by the retirement without combination with O.A.S.D.I., but less than those which would be provided through full supplementation. Contribution rates, at least at the present, would usually be maintained at a level slightly higher than those for the retirement system prior to the O.A.S.D.I. adjustment. In the future, contribution rates would increase as O.A.S.D.I. rates increased, because there would be no further downward revision in the present retirement system, either in contribution rates or benefits.

Freezing of Earned Credits

In combining by either the offset or coordination methods, a decision must be made as to whether credits earned before merging with O.A.S.D.I. should be frozen. If these credits are frozen, employees would get full credit under the old retirement plan formula for all service rendered prior to the merging of the plan with O.A.S.D.I. Credits earned for service after the plans are combined would be computed according to the new formula and added to those frozen to compute the total retirement benefit. If credits already earned are not frozen, service under the old plan will be recomputed according to the new formula, so that service rendered both before and after combination with O.A.S.D.I. will be computed in the same way.

When earned credits are frozen it increases the cost of the retirement plan, because benefits are increased for those employees who had prior service credit. It also means that all present employees will retire with a higher benefit than those hired in the future, all of whose service credit would be computed according to the new formula. The freezing of credits, however, makes it unlikely that any member of the present retirement system would contest combination with O.A.S.D.I. because of impairment of benefits already earned. It also makes combination especially advantageous to older employees with considerable service under the old retirement plan.

### Advantages and Disadvantages

The chief advantage to an offset plan is its low cost. Its major disadvantage is that it ties the local retirement system very closely to O.A.S.D.I. Any adjustment in O.A.S.D.I. must be reflected by an opposite adjustment in the local retirement system. This has the effect of placing the responsibility for local retirement policy in Washington. Employees usually object to an offset plan, because it provides them with approximately the same benefits they had before combination with O.A.S.D.I. at a higher contribution rate. Any further increase in O.A.S.D.I. benefits do not result in higher benefits for employees under an offset plan, because the local retirement system benefits are reduced by the same amount.

Full supplementation provides greatly increased benefits, but at a much higher contribution rate. This rate will continue to increase as the O.A.S.D.I. contribution rate goes up. It is the most expensive method of combining with O.A.S.D.I. Many employers oppose full supplementation, because of the greater cost. Employees look with favor upon the benefits, but also object to the high contribution rates.

A coordinated plan is usually more expensive than offset, but less costly than full supplementation. It has the advantage of not being tied so closely to O.A.S.D.I. that local retirement policy is dictated by changes in O.A.S.D.I. It may offer benefits slightly in excess of those under the local plan before combination. Any further increase in O.A.S.D.I. benefits are realized by the employees, because local retirement benefits are not reduced.

Thus far, it has been assumed that O.A.S.D.I. will be added in some way to the present retirement plan modified for such purpose. It is also possible to set up a completely new and separate retirement plan providing for combination with O.A.S.D.I. This method has certain advantages in that any inadequacies or inequities of the present plan can be eliminated in the new one, and the new plan can be actuarially conceived to blend in with O.A.S.D.I. in the way desired, rather than merely grafted on to the existing plan. It would also eliminate the necessity of a vote of the employee members of the present plan to put it into operation, and would avoid the imposition of O.A.S.D.I. benefits upon those who did not want them.

If such a plan were considered, it would be necessary for the state to be included among those which may have two retirement systems under Section 218 or the Social Security Act. If this were done, all new employees would be required to become members of the new system. Old employees could switch over if they chose, but their prior service credits would be recomputed according to the new plan formula. Only those employees who would gain more through O.A.S.D.I. coverage than they would lose through a recomputation of their credits would likely transfer to the new plan.

### Combination With O.A.S.D.I. In Other States

Thirty-three states have combined their retirement programs for state employees with O.A.S.D.I. Thirteen of these states have set up coordinated plans; 10 have provided for full supplementation; and the remainder have integrated plans providing for total or partial offset. Teacher retirement plans in 27 states have been combined with O.A.S.D.I. Fifteen have full supplementation, seven have a coordinated plan, and five have some form of integration. At least some local government employees in 30 states have their retirement plans combined with O.A.S.D.I. In 12 states supplementation plans have been authorized, seven states have authorized coordinated systems, and three states have authorized offset plans. The remainder have separate plans in which more than one method of combination has been used.

Following is a breakdown of states according to the categories of employees covered under combined plans:<sup>4</sup>

State Employees, Local Government Employees and Teachers: Alabama, Indiana, Maryland, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, Tennessee, Texas, Washington, West Virginia, and Wisconsin.

State Employees and Local Government Employees Only: California, Delaware, Florida, Georgia, Iowa, Oregon, Rhode Island, Vermont, and Virginia

State Employees and Teachers Only: Arizona, North Dakota, South Carolina and Wyoming.

State Employees Only: Connecticut.

Local Government Employees Only: Illinois, Kentucky, Louisiana, and Mississippi.

Teachers Only: Idaho, Kansas, Missouri.

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3. O.A.S.D.I., The American Federation of State, County and Municipal Employees AFL-CIO, March 1, 1958
  4. Several states also have combined coverage for university and college employees. These include: Arkansas, Indiana, Kentucky, Louisiana, Maine, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, Oklahoma, Tennessee, Texas, Vermont, Washington and West Virginia



### III

#### SPECIFIC PROPOSALS TO COMBINE P.E.R.A. AND O.A.S.D.I.

Without specific proposals to examine as to costs and benefits, it is impossible to determine satisfactorily whether it is desirable to combine P.E.R.A. and O.A.S.D.I. Three bills have been introduced in recent years in the General Assembly to permit referenda for the purpose of combining P.E.R.A. and O.A.S.D.I., but these proposals were not evaluated actuarially as to costs and benefits prior to their introduction.<sup>1</sup>

These bills failed to pass; further discussion of combination prior to this study by the Legislative Council Committee on Public Employees Retirement was limited to general pros and cons. Recognizing that a good case could be made both for and against combination depending on viewpoints and initial assumptions, the committee had several methods of combination actuarially evaluated to provide a factual basis for discussion.<sup>2</sup>

These proposals included:

- 1) full supplementation, the most expensive method of combination;
- 2) full offset, the least expensive method of combination;
- 3) a coordinated plan in which P.E.R.A. benefits are reduced at age 65, with the effect that the total benefit is slightly higher than under P.E.R.A. alone; and
- 4) a new retirement plan based on 30 years of service and coordinated with O.A.S.D.I.

In evaluating these proposals, the committee specified that no present employee should receive less under a combination plan than he would receive under P.E.R.A. In all proposals except the new 30-year plan, present P.E.R.A. provisions for retirement prior to age 65 were continued, with adjustment for O.A.S.D.I. primary insurance benefits to be made at age 65. The request also was made that the offset and coordinated plan be evaluated in two ways: first, without earned credits frozen; and second, with earned credits frozen. In all proposals, it was assumed that O.A.S.D.I. coverage for employees who are already members of P.E.R.A. would be backdated to 1-1-56.

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1. H.B. 84 and H.B. 103, 40th General Assembly, 1st Session, 1955; S.B. 208, 41st General Assembly, 1st Session, 1957.
  2. These actuarial evaluations were made by A. G. Gabriel, P.E.R.A. system actuary. The committee was assisted in preparing these proposals for evaluation by F. Leighton Exel, actuary, Coates, Herfurth & England.

Backdating would apply only to those present P.E.R.A. members who decide to join the combination plan. If the state did not have authorization to have a two-part retirement system, backdating of O.A.S.D.I. coverage would be necessary for all employees in the retirement system divisions in which a majority of employees voted for a combination plan. With a two-part retirement system, backdating would apply only to those present P.E.R.A. employees who decide to join the combination plan. New employees would have their O.A.S.D.I. coverage begin upon entrance into the combination plan, so backdating would not apply. The cost of backdating, therefore, would be determined by the number of present P.E.R.A. members who chose coverage under the combined plan. If all present employees in the state division transferred to a combination plan, the cost of backdating the employer's share alone of O.A.S.D.I. to 1-1-56 would be between three million and four million dollars.

There are several possible ways in which the cost of backdating could be met. The necessary funds could be taken from both the employers' and employees' contributions already made. If a two-part system were set up, however, it might not be legally possible to transfer employer contributions to the combined plan, although employee contributions could be transferred for those employees who choose a combined plan. Even if the transfer of employer contributions were possible for those employees who select the combined plan, it might not be advisable. As the executive secretary of P.E.R.A. points out, it might be better to leave these employer contributions in the P.E.R.A. portion of a two-part system to insure that there would be sufficient assets for those members who decide to remain in P.E.R.A.

If only the employee contributions for those who choose the combined plan are transferred, it would be possible to use a portion to pay both the employees' and employers' share of backdating. The employees who transferred to the combined plan would then be credited for their payment of the employers' share which would ultimately be replaced through employer contributions. Another possible method of paying the employer's share of backdating would be through a general appropriation. However, this would prove expensive to many school districts and municipalities and as indicated above might cost the state between three and four million dollars.

#### Basic Provisions of the Combination Plans

Full Supplementation. This plan is similar to P.E.R.A. in every respect except that O.A.S.D.I. benefits would be added to P.E.R.A. benefits at age 65. An employee who retired prior to age 65 would receive the same benefit he would have received under P.E.R.A. At age 65 he would continue to receive his P.E.R.A. benefit plus his O.A.S.D.I. benefit. Under this proposal, an employee would be eligible for disability benefits and survivorship benefits under both P.E.R.A. and O.A.S.D.I.

Offset (earned credits not frozen). This plan is generally similar to P.E.R.A. with three exceptions: 1) O.A.S.D.I. survivorship benefits are subtracted from P.E.R.A. benefits; 2) O.A.S.D.I. disability benefits are added to P.E.R.A. disability benefits; and 3) benefits would be the same as P.E.R.A. for retirement before age 65. At age 65, P.E.R.A. benefits would be reduced by the amount of the O.A.S.D.I. primary insurance benefit.

Eligibility for the O.A.S.D.I. spouse's benefit would have no effect on the amount of the P.E.R.A. benefit to be received at age 65. In the instance that an employee has not worked five years under P.E.R.A. at the time of his retirement, he would receive his O.A.S.D.I. benefit in addition to the actuarial equivalent of his contributions to P.E.R.A. In other words, he would receive a P.E.R.A. benefit equal to the value of his contribution plus interest in addition to his O.A.S.D.I. primary benefit. As credits already earned are not frozen, prior service would be recomputed according to the new formula at age 65.

Offset (earned credits frozen). This plan is the same as the offset plan above except that credits already earned would be frozen. The new formula would apply only to service after the date the plan goes into effect. For example, an employee with 10 years prior service who retired with 20 years service at age 65 would receive a benefit equal to one-half the P.E.R.A. benefit (first 10 years, earned credits frozen) plus the actuarial equivalent of the second 10 years P.E.R.A. contributions plus O.A.S.D.I. primary insurance benefit. If the total of the three were less than the normal P.E.R.A. benefit for similar service, his P.E.R.A. benefit would be increased in the amount needed to equal the normal P.E.R.A. benefit when added to the O.A.S.D.I. primary benefit. The O.A.S.D.I. spouse's benefit, if payable, would be in addition.

Coordination (earned credits not frozen). This plan is also similar to P.E.R.A. except that O.A.S.D.I. survivorship benefits are substituted for P.E.R.A. survivorship benefits. Disability benefits would be provided by both plans. Retirement benefits prior to age 65 are computed in the same way as P.E.R.A. at present. At age 65, P.E.R.A. benefits would be computed according to the following formula; one per cent of the first \$4,800 of final coverage salary times the number of years of service not to exceed 20 plus 2.5 per cent of the amount of final average salary above \$4,800 times the years of service not to exceed 20 plus the O.A.S.D.I. primary insurance benefit. The O.A.S.D.I. spouse's benefit, if payable, would be additional. As earned credits are not frozen, prior service would be recomputed at age 65 according to the above formula. In no instance, however, would the combined P.E.R.A. - O.A.S.D.I. total be less than the amount which would have been received under the regular P.E.R.A. formula.

Coordination (earned credits frozen). This plan is the same as coordination above except that credits already received under P.E.R.A. would be frozen and would not be computed according to the new formula at age 65. The new formula would apply only to future service. For example, an employee with 20 years service at age 65, 10 of which were prior to the initial date of the combined plan would receive an annuity according to the following formula: one-half P.E.R.A. benefit (10 years prior service) plus one per cent of final average salary below \$4,800 times 10 years service plus 2.5 per cent of final average salary (if any) above \$4,800 times 10 years service plus O.A.S.D.I. primary annuity, with the O.A.S.D.I. spouse's benefit if payable, in addition.

New Retirement Plan. The new retirement plan is based on a career concept of 30 years service and retirement at age 65. The benefit formula was devised to blend in with the O.A.S.D.I. primary benefit. Retirement benefits

are computed according to the following formula at age 65: .67 per cent of the first \$4,800 of final average salary times years of service, with no limit plus 1.67 per cent of final average salary above \$4,800 times years of service, with no limit plus O.A.S.D.I. primary benefit. The O.A.S.D.I. spouse's benefit, if payable, would be additional. Retirement before age 65 is possible, but would be discouraged through the provision that the annuity paid for early retirement would be the actuarial equivalent of the same annuity at age 65. For example, an employee retiring at age 60 would receive the same total annuity (except for O.A.S.D.I.) that he would receive at age 65, except that it would be apportioned over his longer life expectancy. The monthly benefit he would receive would be approximately two-thirds of what he would have received for the same amount of service at age 65. If he retired at age 55 with 30 years service, his monthly annuity would be approximately 47 per cent of what he would have received for the same amount of service at age 65.

Other benefits of the new retirement plan would be similar to P.E.R.A. except that O.A.S.D.I. survivorship benefits would be substituted for similar benefits under P.E.R.A.

Deferred annuities as provided in P.E.R.A. are incorporated in all of the combination proposals except that they would be computed according to each plan's formula at age 65. Members who leave covered service and are not eligible for a deferred annuity or who do not choose to avail themselves of such benefits would be entitled to refunds of all contributions except for those made of O.A.S.D.I. Except for the new retirement plan, these refunds would be made without interest, the same as the present P.E.R.A. provision. The new retirement plan provides for refunds at the interest rate assumed for the system -- in this instance, 2.5 per cent.

#### Contribution Rates, Costs and Benefits

The contribution rates and costs for all of the combined plans will be higher than P.E.R.A., eventually, if not at present. The scheduled rate increases for O.A.S.D.I. will increase the contribution rates over existing rates for all plans, including the offset plans. Employee contribution rates and benefits under each plan are the same for the state, school, and municipal divisions. Employer contribution rates for each plan vary somewhat from division to division. Employer contribution rates were computed with two different assumptions: 1) that only the interest on the unfunded liability would be financed annually; and 2) that the unfunded liability would be amortized over a 35 year period.

Table III shows the state division contribution rate comparison for both employer and employees for P.E.R.A. and the selected combination plans. The years 1959 and 1969 are used in the comparison to show: 1) the initial contribution rate for each plan; and 2) the contribution rate for each plan when O.A.S.D.I. contribution rates reach the scheduled maximum of 4.5 per cent. Employer contributions shown in Table III include the contribution rate necessary to meet only the annual interest payments on the accrued unfunded liability.

Table III

State Division

Employee and Employer Contribution Rates,<sup>a</sup> P.E.R.A.  
Compared with Selected Plans for Combining P.E.R.A. and O.A.S.D.I.  
1959 and 1969

	1959		1969	
	Employee <sup>b</sup>	Employer <sup>c</sup>	Employee <sup>b</sup>	Employer <sup>c</sup>
1. P.E.R.A.	6.00%	6.70%	6.00%	6.70%
2. <u>Full Supplementation</u>				
P.E.R.A.	6.00	6.87	6.00	6.87
O.A.S.D.I.	2.50	2.24	4.50	4.03
Total	8.50%	9.11%	10.50%	10.90%
3. <u>Offset Total<sup>f</sup></u>	6.00%	5.15%	6.00%	7.34%
4. <u>Offset (E.C.F.)<sup>d</sup> Total<sup>f</sup></u>	6.00%	6.03%	6.00%	8.22%
5. <u>Coordination Total<sup>f</sup></u>	5.00%	6.30%	7.00%	8.09%
6. <u>Coordination (E.C.F.)<sup>d</sup> Total<sup>f</sup></u>	5.00%	6.90%	7.00%	8.69%
7. <u>New Retirement Plan Total<sup>f</sup></u>	5.50%	5.62% <sup>e</sup>	7.50%	7.41% <sup>e</sup>

- a. Employer rates based on financing the interest only on unfunded accrued liabilities.
- b. Employee rates shown for combined plans apply to first \$4,800 of salary. Contribution rate of 6 per cent on salary above \$4,800 for all combined plans.
- c. Employer O.A.S.D.I. contribution rates are weighted per cents of full payroll based on June 30, 1958 payroll.
- d. E.C.F. - earned credits frozen.
- e. These rates are approximations only; actual rates will be based on the number of present employees who transfer to the new plan. The assumption is made that the employer would also contribute at the same rate for those employees who remain under P.E.R.A. While a portion of the contribution rate would apply to O.A.S.D.I. under the new plan, the total rate would apply to P.E.R.A.
- f. Including O.A.S.D.I.

The offset combination (as was discussed above) presents the least expensive method of combining P.E.R.A. and O.A.S.D.I. and full supplementation represents the most expensive. In 1959, the two coordinated plans and the new retirement

plan have the lowest contribution rates for employees. As O.A.S.D.I. contributions increase so do the employee contribution rates, so that they will be one per cent higher on the first \$4,800 in 1969 and in the years following than either of the offset plans or P.E.R.A.

Employee rates for the offset plan stay at six per cent, because increases in O.A.S.D.I. contributions are reflected in a proportionate decrease in contributions to P.E.R.A. Since O.A.S.D.I. rates are added to P.E.R.A. under full supplementation, the employee would begin by contributing 8.5 per cent, and his contributions would increase to 10.5 per cent in 1969.

Employer contribution rates are lowest in 1959 for the offset plan, without earned credits frozen; 1.45 per cent less than the current rate for P.E.R.A. In 1969, this rate would increase to 7.34 per cent or .64 per cent more than the current P.E.R.A. rate. The cost effect of freezing credits can be seen in the comparison between the two offset plans and between the two coordinated plans. In 1959, the employer would have to contribute .88 per cent more if earned credits were frozen under the offset plan, and .6 per cent more if earned credits were frozen under the coordinated plan. This increase also obtains to 1969 and the years following.

The employer's contribution rate for the new retirement plan is approximated at 1.08 per cent less than P.E.R.A. in 1959, but .71 per cent higher in 1969.

The comparison of contribution rates for school and municipal division employers is shown in Table IV. Employee contributions remain the same for all three divisions and are as shown for state employees in Table III. The same variations which were shown in the state division's employer contributions also appear in the rates for school and municipal employers, although the rates are somewhat different.

The contribution rates for the school and municipal divisions include the rate necessary to meet the interest payments on the accrued unfunded liability. The contribution rates for the municipal division include the rate necessary to amortize the unfunded accrued liability over a period of 15.2 years.

Table IV

Employer Contribution Rates, School and Municipal Divisions, P.E.R.A.  
Compared with Selected Plans for Combining P.E.R.A. and O.A.S.D.I.<sup>a</sup>  
1959 and 1969

	1959		1969	
	School <sup>b</sup>	Municipal <sup>b</sup>	School <sup>b</sup>	Municipal <sup>b</sup>
1. P.E.R.A.	6.52%	5.03%	6.52%	5.03%
2. <u>Full Supplementation</u>				
P.E.R.A.	6.68	5.49	6.68	5.49
O.A.S.D.I.	2.40	2.35	4.32	4.24
Total	<u>9.08%</u>	<u>7.84%</u>	<u>11.00%</u>	<u>9.73%</u>
3. <u>Offset Total<sup>e</sup></u>	4.48%	4.24%	7.10%	6.53%
4. <u>Offset (E.C.F.)<sup>c</sup> Total<sup>e</sup></u>	5.20%	4.35%	7.42%	6.64%
5. <u>Coordination Total<sup>e</sup></u>	5.99%	4.95%	7.91%	6.84%
6. <u>Coordination (E.C.F.)<sup>c</sup>     Total<sup>e</sup></u>	6.43%	5.17%	8.35%	7.06%
7. <u>New Retirement Plan Total<sup>e</sup></u>	4.95% <sup>d</sup>	4.01% <sup>d</sup>	6.87% <sup>d</sup>	5.90% <sup>d</sup>

- a. Employer O.A.S.D.I. contribution rates are weighted per cents of full payroll based on June 30, 1958 payrolls.
- b. Employer rates based on financing the interest only on unfunded accrued liability.
- c. E.C.F. - earned credits frozen.
- d. These rates are approximations only; actual rates will be based on the number of present employees who transfer to the new plan. The assumption is made that the employer would also contribute at the same rate for those employees who remain under P.E.R.A. While a portion of the contribution rate would apply to O.A.S.D.I. under the new plan, the total rate would apply to P.E.R.A.
- e. Including O.A.S.D.I.

The employer contribution rates for the state and school divisions would be considerably higher if the accrued unfunded liability were amortized over a 35-year period. Once the unfunded liability is amortized, however, assuming no further increase, there would be a sizeable decrease in employer contribution rates. Table V shows the employer contribution rate comparisons between P.E.R.A. and the combination plans for the state and school division if the accrued unfunded liability is amortized over a 35 year period.

Table V

Employer Contribution Rates, State, School Divisions,  
Accrued Unfunded Liability Amortized Over 35 Year Period, P.E.R.A.  
Compared with Selected Plans for Combining P.E.R.A. and O.A.S.D.I.  
1959, 1969, and 1994

	1959		1969		1994	
	State	School	State	School	State	School
1. P.E.R.A. Total <sup>c</sup>	7.98%	6.99%	7.98%	6.99%	4.94%	5.87%
2. Full Supplementation <u>Total<sup>c</sup></u>	10.51%	9.67%	12.30%	11.59%	8.97%	10.19%
3. Offset Total <sup>c</sup>	5.58%	4.48%	7.81%	7.10%	6.69	7.09%
4. Offset (E.C.F.) <sup>a</sup> <u>Total<sup>c</sup></u>	7.07%	5.41%	9.30%	7.63%	6.74%	7.13%
5. Coordination Total <sup>c</sup>	7.10%	6.12%	8.89%	8.04%	6.98%	7.74%
6. Coordination (E.C.F.) <sup>a</sup> <u>Total<sup>c</sup></u>	8.07%	6.84%	9.86%	8.76%	7.08%	7.80%
7. New Retirement Plan <sup>b</sup> <u>Total<sup>c</sup></u>	6.92%	5.53%	8.71%	7.45%	5.62%	6.08%

- a. E.C.F. - earned credits frozen.
- b. Costs are approximate.
- c. Including O.A.S.D.I.

If the unfunded accrued liability is amortized over a 35-year period instead of financing the interest annually state employer contribution rates would be from .47 per cent (offset) to 1.4 per cent (full supplementation) higher in both 1959 and 1969. If the unfunded liability is retired in 1994, state employer contribution rate decreases would range from .65 per cent (offset) to 1.93 per cent (full supplementation).

Comparative figures for the school division show a contribution increase range from .13 per cent (coordination) to .59 per cent (full supplementation). There would be no rate increase for amortizing the unfunded liability under the offset plan with no earned credit frozen.



Municipal employer contribution rates amortizing the accrued unfunded liability over a 35-year period are shown below. Along with the rate reduction in 1994:

	<u>1959</u>	<u>1969</u>	<u>1994</u>
P.E.R.A.	5.55%	5.55%	5.03%
Full Supplementation	8.18	10.07	9.27
Offset	4.24	6.53	6.53
Offset (earned credits frozen)	4.41	6.70	6.56
Coordination	4.95	6.84	6.84
Coordination (earned credits frozen)	5.28	7.17	6.90
New Retirement Plan	4.29	6.18	5.52

### Retirement Annuity Benefits

The retirement annuities which would be received under the various combined plans are compared in Table VI for employees with 20 years of service or more at age 65. These annuities are shown for employees with different final average salaries, ranging from \$250 to \$600 per month. The O.A.S.D.I. primary insurance benefit is based upon average salary during the period contributions were made to O.A.S.D.I. This average was computed according to actuarial tables.<sup>3</sup> The spouse's benefit, if payable, would be in addition to the totals shown in the table.

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3. Actuarial Valuation, Members and Annuitants op. cit. p. 54; the O.A.S.D.I. summary annuity for school division employees would be slightly higher than the amounts shown in Table VI because of a higher average career salary at each final average salary than state and municipal employees.

Table VI

Annuity Benefit Comparison, P.E.R.A. and Selected Combination Plans,  
Employees with 20, 25, 30, and 35 Years Service at Age 65  
Exclusive of Spouse's Benefit

Retirement Plan	P.E.R.A.	\$250M			P.E.R.A.	\$300M			
		O.A.S.D.I. Primary	Total	O.A.S.D.I. Primary		Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$125	----	\$125	\$150	----	\$150	\$175	----	\$175
2. Full Supplementation	\$125	\$ 93	\$218	\$150	\$104	\$254	\$175	\$114	\$289
3. Offset	\$ 32	\$ 93	\$125	\$ 46	\$104	\$150	\$ 61	\$114	\$175
4. Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 32	\$ 93	\$125	\$ 46	\$104	\$150	\$ 61	\$114	\$175
5 years	\$ 41	\$ 94	\$135	\$ 49	\$104	\$153	\$ 60	\$115	\$175
10 years	\$ 69	\$ 94	\$163	\$ 83	\$105	\$188	\$ 97	\$116	\$213
15 years	\$ 97	\$ 95	\$192	\$117	\$105	\$222	\$137	\$116	\$253
20 years	\$125	\$ 95	\$220	\$150	\$105	\$255	\$175	\$116	\$291
5. Coordination	\$ 50	\$ 93	\$143	\$ 60	\$104	\$164	\$ 70	\$114	\$184
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 50	\$ 93	\$143	\$ 60	\$104	\$164	\$ 70	\$114	\$184
5 years	\$ 68	\$ 94	\$162	\$ 83	\$104	\$187	\$ 97	\$115	\$212
10 years	\$ 87	\$ 94	\$181	\$105	\$105	\$210	\$122	\$116	\$238
15 years	\$106	\$ 95	\$201	\$128	\$105	\$233	\$149	\$116	\$265
20 years	\$125	\$ 95	\$220	\$150	\$105	\$255	\$175	\$116	\$291
7. New Retirement Plan <sup>b</sup>									
Future Service:									
20 years	\$ 33	\$ 93	\$126	\$ 40	\$104	\$144	\$ 47	\$114	\$161
25 years	\$ 42	\$ 93	\$135	\$ 50	\$103	\$153	\$ 58	\$113	\$171
30 years	\$ 50	\$ 92	\$142	\$ 60	\$102	\$162	\$ 70	\$112	\$182
35 years	\$ 58	\$ 91	\$149	\$ 70	\$102	\$172	\$ 82	\$112	\$194

  

Retirement Plan	P.E.R.A.	\$400M			P.E.R.A.	\$500M			
		O.A.S.D.I. Primary	Total	O.A.S.D.I. Primary		Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$200	----	\$200	\$250	----	\$250	\$300	----	\$300
2. Full Supplementation	\$200	\$125	\$325	\$250	\$127	\$377	\$300	\$127	\$427
3. Offset	\$ 75	\$125	\$200	\$123	\$127	\$250	\$173	\$127	\$300
4. Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 75	\$125	\$200	\$123	\$127	\$250	\$173	\$127	\$300
5 years	\$ 75	\$125	\$200	\$123	\$127	\$250	\$173	\$127	\$300
10 years	\$111	\$126	\$237	\$142	\$127	\$269	\$173	\$127	\$300
15 years	\$156	\$127	\$283	\$198	\$127	\$325	\$236	\$127	\$363
20 years	\$200	\$127	\$327	\$250	\$127	\$377	\$300	\$127	\$427
5. Coordination	\$ 80	\$125	\$205	\$130	\$127	\$257	\$180	\$127	\$307
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 80	\$125	\$205	\$130	\$127	\$257	\$180	\$127	\$307
5 years	\$110	\$125	\$235	\$160	\$127	\$287	\$210	\$127	\$337
10 years	\$140	\$126	\$266	\$190	\$127	\$317	\$240	\$127	\$367
15 years	\$170	\$127	\$297	\$222	\$127	\$349	\$270	\$127	\$397
20 years	\$200	\$127	\$327	\$250	\$127	\$377	\$300	\$127	\$427
7. New Retirement Plan									
Future Service:									
20 years	\$ 53	\$125	\$178	\$ 86	\$127	\$213	\$120	\$127	\$247
25 years	\$ 67	\$124	\$191	\$109	\$127	\$236	\$150	\$127	\$277
30 years	\$ 80	\$123	\$203	\$130	\$127	\$257	\$180	\$127	\$307
35 years	\$ 93	\$122	\$215	\$151	\$127	\$278	\$210	\$127	\$337

a) E.C.F. - earned credits frozen

b) Would be applicable to all employees hired in 1959 or later and to those present P.E.R.A. members who wished to come into the new plan. All other P.E.R.A. members could remain under the present plan if they wished.

Several items in Table VI are worthy of note:

1. For all plans except the new retirement plan, maximum benefits are received with 20 years service at age 65.
2. The plan which provides the largest annuity is full supplementation. This plan is also the most costly. However, if earned credits are frozen, employees with 20 years prior service would receive approximately the same amount under offset, coordination, and full supplementation.
3. Under both offset and coordination with earned credits frozen, employees with five or more years of prior service will receive larger annuities than under P.E.R.A. This explains why the offset and coordination plans with earned credits frozen are more expensive than the same plans without this provision.
4. The new retirement plan provides benefits equal to P.E.R.A. for 20 years service at age 65 only for those employees with a final average salary of \$250 per month. With 25 years service, benefits are similar or slightly more than P.E.R.A. for employees with a final average salary of \$350 per month or less. With 30 years of service or more, benefits under this new retirement plan exceed those under P.E.R.A. for all employees with final average salaries shown in the table.
5. Under both coordinated plans and the new retirement plan, the employees with less than \$400 per month final average salary benefit the most in comparison with P.E.R.A. This relationship results from the \$4,800 limit on O.A.S.D.I., and the fact that O.A.S.D.I. is weighted toward providing benefits for employees with lower incomes.

Age 65, Five and Ten Years' Service. O.A.S.D.I. combination plans would be especially advantageous for those employees who reach their 65th birthday with 10 years' service or less. Under P.E.R.A., the employees with five years' service at age 65 are entitled to an annuity equal to one-eighth of final average salary. With 10 years' service at age 65, they are entitled to an annuity equal to one-fourth of final average salary. Tables VII and VIII show comparative benefits for P.E.R.A. and the various combined plans for employees with five and ten year's service at age 65.

The O.A.S.D.I. primary insurance benefits shown in these tables are based on the assumption that O.A.S.D.I. coverage began during the period these employees worked for the state and that such coverage for present employees was backdated to January 1, 1956. Therefore, the primary insurance benefit is the maximum that would be possible for the final average salaries shown in the two tables. For those employees who had O.A.S.D.I. coverage prior to entering state service, the amount of the primary insurance benefit would be less if their average salaries throughout their O.A.S.D.I. coverage were less than the final average salaries shown in the table. Even if this were the case, annuity benefits would be considerably greater than under P.E.R.A.

The P.E.R.A. benefits shown under the offset plans are the actuarial equivalents of employees' contributions plus interest. O.A.S.D.I. spouses' benefits, if payable, would be in addition to the totals shown in Tables VII and VIII on pages 45 and 46.

Retirement, Prior to age 65. Annuity benefits for retirement at age 60 with 20 years service would be the same for P.E.R.A. and all combination plans except the new retirement plan. All of the combined plans except the new retirement plan provide for retirement prior to age 65 in the same way that P.E.R.A. does at present. The formulae for computing benefits under these combination plans do not go into effect until annuitants reach age 65. The new retirement plan provides an annuity for retirement before age 65 which is the actuarial equivalent of the same annuity at age 65. In other words, an employee who retires with 20 years' service at age 60 would receive an annuity of about two-thirds as much monthly as he would have received had he retired with the same number of years of service at age 65.

The above remarks also apply to employees who retire at age 55 with 30 years service. All of the combination plans, except the new retirement plan, are similar to P.E.R.A. Under the new retirement plan, an employee who retires at age 55 with 30 years' service would receive an annuity which is equal to about 47 per cent per month of the one he would have received for 30 years service at age 65.

The benefit comparison for P.E.R.A. and the various combination plans for retirement prior to age 65 are shown in Tables IX and X on page 47.

Under all plans except P.E.R.A., the annuity benefits will change at 65 for all employees who retired prior to reaching this age. Benefits are recomputed to allow for combination with O.A.S.D.I. and the amount of the O.A.S.D.I. primary insurance benefit. The amount of the O.A.S.D.I. primary benefit will depend on the average wage received during the period covered by O.A.S.D.I. An employee who retires prior to age 65 and does not work in O.A.S.D.I. covered employment after such retirement will receive a lower O.A.S.D.I. primary insurance benefit, because the uncovered years will reduce his average salary upon which O.A.S.D.I. benefits are based.

Under full supplementation, O.A.S.D.I. benefits at age 65 would be added to the P.E.R.A. annuity established at the time of early retirement. Under the offset plan, the P.E.R.A. annuity received before age 65 will be reduced by the amount of the O.A.S.D.I. primary insurance benefit. This plan is the only one under which an employee would not be penalized if he failed to work in O.A.S.D.I. covered employment after early retirement under P.E.R.A. The P.E.R.A. annuity would be reduced only by the amount of the O.A.S.D.I. primary benefit, so the total benefit would remain the same. Under the new retirement plan, the O.A.S.D.I. primary benefit would be added to the annuity received prior to age 65.

Table VII

Annuity Benefit Comparison, P.E.R.A.  
and Selected Combination Plans,  
Employees with Five Years' Service at Age 65  
Exclusive of Spouse's Benefit.

Retirement Plan	\$250M			\$300M			\$350M		
	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$ 31	----	\$ 31	\$ 38	----	\$ 38	\$ 44	----	\$ 44
2. Full Supplementation	\$ 31	\$ 95	\$126	\$ 38	\$105	\$143	\$ 44	\$116	\$160
3. Offset	\$ 4	\$ 95	\$ 99	\$ 5	\$105	\$110	\$ 5	\$116	\$121
4. Offset (E.C.F.) <sup>a</sup> Prior Service: 5 years	\$ 31	\$ 95	\$126	\$ 38	\$105	\$143	\$ 44	\$116	\$160
5. Coordination	\$ 13	\$ 95	\$108	\$ 15	\$105	\$120	\$ 18	\$116	\$134
6. Coordination (E.C.F.) <sup>a</sup> Prior Service: 5 years	\$ 31	\$ 95	\$126	\$ 38	\$105	\$143	\$ 44	\$116	\$160
7. New Retirement Plan	\$ 8	\$ 95	\$103	\$ 10	\$105	\$115	\$ 12	\$116	\$128

Retirement Plan	\$400M			\$500M			\$600M		
	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$ 50	----	\$ 50	\$ 63	----	\$ 63	\$ 75	----	\$ 75
2. Full Supplementation	\$ 50	\$127	\$177	\$ 63	\$127	\$190	\$ 75	\$127	\$202
3. Offset	\$ 6	\$127	\$133	\$ 9	\$127	\$136	\$ 12	\$127	\$139
4. Offset (E.C.F.) <sup>a</sup> Prior Service: 5 years	\$ 50	\$127	\$177	\$ 63	\$127	\$190	\$ 75	\$127	\$202
5. Coordination	\$ 20	\$127	\$147	\$ 33	\$127	\$160	\$ 45	\$127	\$172
6. Coordination (E.C.F.) <sup>a</sup> Prior Service: 5 years	\$ 50	\$127	\$177	\$ 63	\$127	\$190	\$ 75	\$127	\$202
7. New Retirement Plan	\$ 13	\$127	\$140	\$ 22	\$127	\$149	\$ 30	\$127	\$157

a) E.C.F. - earned credits frozen.

Table VIII

Annuity Benefit Comparisons, P.E.R.A. and Selected Combination Plans,  
 Employees With 10 Years' Service at Age 65  
 Exclusive of Spouse's Benefit

Retirement Plan	P.E.R.A.	\$250M		P.E.R.A.	\$300M		P.E.R.A.	\$350M	
		O.A.S.D.I. Primary	Total		O.A.S.D.I. Primary	Total		O.A.S.D.I. Primary	Total
1. P.E.R.A. (present plan)	\$ 63	----	\$ 63	\$ 75	----	\$ 75	\$ 88	----	\$ 88
2. Full Supplementation	\$ 63	\$ 95	\$158	\$ 75	\$105	\$180	\$ 88	\$116	\$204
3. Offset	\$ 7	\$ 95	\$102	\$ 8	\$105	\$113	\$ 10	\$116	\$126
4. Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 7	\$ 95	\$102	\$ 8	\$105	\$113	\$ 10	\$116	\$126
5 years	\$ 35	\$ 95	\$130	\$ 42	\$105	\$147	\$ 49	\$116	\$165
5. Coordination	\$ 25	\$ 95	\$120	\$ 30	\$105	\$135	\$ 35	\$116	\$151
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 25	\$ 95	\$120	\$ 30	\$105	\$135	\$ 35	\$116	\$151
5 years	\$ 44	\$ 95	\$139	\$ 52	\$105	\$157	\$ 61	\$116	\$177
7. New Retirement Plan									
Future Service:									
10 years	\$ 17	\$ 95	\$112	\$ 20	\$105	\$125	\$ 23	\$116	\$139

Retirement Plan	P.E.R.A.	\$400M		P.E.R.A.	\$500M		P.E.R.A.	\$600M	
		O.A.S.D.I. Primary	Total		O.A.S.D.I. Primary	Total		O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$100	----	\$100	\$125	----	\$125	\$150	----	\$150
2. Full Supplementation	\$100	\$127	\$227	\$125	\$127	\$252	\$150	\$127	\$277
3. Offset	\$ 11	\$127	\$138	\$ 17	\$127	\$144	\$ 22	\$127	\$149
4. Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 11	\$127	\$138	\$ 17	\$127	\$144	\$ 22	\$127	\$149
5 years	\$ 56	\$127	\$183	\$ 71	\$127	\$198	\$ 87	\$127	\$214
5. Coordination	\$ 40	\$127	\$167	\$ 65	\$127	\$192	\$ 90	\$127	\$217
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 40	\$127	\$167	\$ 65	\$127	\$192	\$ 90	\$127	\$217
5 years	\$ 70	\$127	\$197	\$ 95	\$127	\$212	\$120	\$127	\$247
7. New Retirement Plan									
Future Service:									
10 years	\$ 27	\$127	\$154	\$ 43	\$127	\$170	\$ 60	\$127	\$187

a) E.C.F. - earned credits frozen.

Table IX

Annuity Benefit Comparisons, P.E.R.A.  
and Selected Combination Plans,  
Employees with 20 Years' Service at Age 60

	\$250 Month	\$300 Month	\$350 Month	\$400 Month	\$500 Month	\$600 Month
1. P.E.R.A. and All Other Plans Except	\$125	\$150	\$175	\$200	\$250	\$300
2. New Retirement Plan	\$ 22	\$ 27	\$ 31	\$ 35	\$ 57	\$ 80

Table X

Annuity Benefit Comparisons, P.E.R.A.  
and Selected Combination Plans,  
Employees with 30 Years' Service at Age 55

	\$250 Month	\$300 Month	\$350 Month	\$400 Month	\$500 Month	\$600 Month
1. P.E.R.A. and All Other Plans Except	\$125	\$150	\$175	\$200	\$250	\$300
2. New Retirement Plan	\$ 23	\$ 28	\$ 33	\$ 37	\$ 61	\$ 84

For employees who retired prior to age 65, the annuity amount at age 65 would be equal to or higher than the present P.E.R.A. annuity under all combination plans except the new retirement plan. Those employees with prior service would benefit considerably from either the offset or coordinated plans with earned credits frozen, except that employees with 20 years prior service at age 60 or 30 years prior service at age 55 would not be able to retire and receive an O.A.S.D.I. annuity unless they worked elsewhere in O.A.S.D.I. covered employment between the time of retirement and age 65. Without this additional covered employment they would not have a sufficient number of O.A.S.D.I. covered quarters. Tables XI and XII show the annuity benefits at age 65 for employees who retired at age 60 with 20 years service and for those who retired at age 55 with 30 years service, see pages 49 and 50. The O.A.S.D.I. primary benefits shown in these tables are based on the assumption that employees who retire before 65 will not work elsewhere in O.A.S.D.I. covered employment. If such employees should work in O.A.S.D.I. covered employment between retirement and age 65, the O.A.S.D.I. primary benefits would be larger. Spouses' benefits, if payable, are in addition to the totals shown in these tables.

#### P.E.R.A. and Combination Plans: Some Considerations

No clear-cut case can be made for combining or not combining P.E.R.A. and O.A.S.D.I. There are general advantages which should be considered, as well as good points and drawbacks to each of the proposed combination plans. Employers and employees may look at these from different points of view. Combination may or may not be desirable for a specific employee, depending on his age, years of service, marital status, salary, sex, and career aspirations.

In general, a combined plan will not be looked upon too favorably by employees who plan to retire before age 65, especially those who plan to work elsewhere in O.A.S.D.I. covered employment. Employees in the higher salary brackets and women whose husbands are working in O.A.S.D.I. covered employment also may see little desirability in a combination plan.

Combination with O.A.S.D.I. would be most advantageous to older employees nearing age 65, married male employees who expect to qualify for the spouse's benefit, older employees who begin their state or local government service after a number of years of O.A.S.D.I. coverage, younger workers who are still more or less transient, and employees in the lower salary brackets.

Originally, survivorship benefits and continuity of retirement coverage for non-career employees were among the reasons that combination of O.A.S.D.I. and P.E.R.A. was advocated. The addition of survivorship benefits to P.E.R.A. has given O.A.S.D.I. little advantage in this respect. The addition of deferred annuities to P.E.R.A. minimizes the need of retirement coverage for transient employees, although the value of deferred annuities is questionable for younger employees with families, who may not be able to afford deferring a return on their contributions until age 65. Combination with O.A.S.D.I. is also looked upon favorably because of the spouse's benefit.



Table XI

Annuity Benefit Comparisons at Age 65, P.E.R.A. and Selected Combination Plans,  
Employees who Retired at Age 60 with 20 Years' Service  
Exclusive of Spouse's Benefit

Retirement Plan	P.E.R.A.	\$250M			\$300M			P.E.R.A.	\$350M		
		O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.		O.A.S.D.I. Primary	Total	
1. P.E.R.A. (Present Plan)	\$125	----	\$125	\$150	----	\$150	\$175	----	\$175		
2. Full Supplementation	\$125	\$ 82	\$207	\$150	\$ 90	\$240	\$175	\$ 98	\$273		
3. Offset	\$ 43	\$ 82	\$125	\$ 60	\$ 90	\$150	\$ 77	\$ 98	\$175		
4. Offset (E.C.F.) <sup>a</sup>											
Prior Service: None	\$ 43	\$ 82	\$125	\$ 60	\$ 90	\$150	\$ 77	\$ 98	\$175		
5 years	\$ 44	\$ 81	\$125	\$ 60	\$ 90	\$150	\$ 77	\$ 98	\$175		
10 years	\$ 68	\$ 79	\$147	\$ 82	\$ 87	\$169	\$ 95	\$ 94	\$189		
15 years	\$ 97	\$ 74	\$171	\$116	\$ 80	\$196	\$135	\$ 87	\$222		
5. Coordination	\$ 50	\$ 82	\$132	\$ 60	\$ 90	\$150	\$ 70	\$ 98	\$168		
6. Coordination (E.C.F.) <sup>a</sup>											
Prior Service: None	\$ 50	\$ 82	\$132	\$ 60	\$ 90	\$150	\$ 70	\$ 98	\$168		
5 years	\$ 68	\$ 82	\$150	\$ 83	\$ 90	\$173	\$ 97	\$ 98	\$195		
10 years	\$ 87	\$ 82	\$169	\$105	\$ 90	\$195	\$122	\$ 98	\$220		
15 years	\$106	\$ 82	\$188	\$128	\$ 90	\$218	\$149	\$ 98	\$247		
7. New Retirement Plan	\$ 22	\$ 82	\$104	\$ 27	\$ 90	\$117	\$ 31	\$ 98	\$129		

Retirement Plan	P.E.R.A.	\$400M			\$500M			P.E.R.A.	\$600M		
		O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.		O.A.S.D.I. Primary	Total	
1. P.E.R.A. (Present Plan)	\$200	----	\$200	\$250	----	\$250	\$300	----	\$300		
2. Full Supplementation	\$200	\$107	\$307	\$250	\$110	\$360	\$300	\$110	\$410		
3. Offset	\$ 93	\$107	\$200	\$140	\$110	\$250	\$190	\$110	\$300		
4. Offset (E.C.F.) <sup>a</sup>											
Prior Service: None	\$ 93	\$107	\$200	\$140	\$110	\$250	\$190	\$110	\$300		
5 years	\$ 94	\$106	\$200	\$142	\$108	\$250	\$192	\$108	\$300		
10 years	\$109	\$102	\$211	\$147	\$103	\$250	\$197	\$103	\$300		
15 years	\$155	\$ 93	\$248	\$194	\$ 94	\$288	\$234	\$ 94	\$328		
5. Coordination	\$ 80	\$107	\$187	\$130	\$110	\$240	\$180	\$110	\$290		
6. Coordination (E.C.F.) <sup>a</sup>											
Prior Service: None	\$ 80	\$107	\$187	\$130	\$110	\$240	\$180	\$110	\$290		
5 years	\$110	\$107	\$217	\$160	\$110	\$270	\$210	\$110	\$320		
10 years	\$140	\$107	\$247	\$190	\$110	\$300	\$240	\$110	\$350		
15 years	\$170	\$107	\$277	\$222	\$110	\$332	\$270	\$110	\$380		
7. New Retirement Plan	\$ 35	\$107	\$142	\$ 57	\$110	\$167	\$ 80	\$110	\$190		

a) E.C.F. - earned credits frozen.

Table XII

Annuity Benefit Comparisons at Age 65, P.E.R.A.  
and Selected Combination Plans,  
Employees Who Retire at Age 55 with 30 Years' Service  
Exclusive of Spouse's Benefit

Retirement Plan	\$250M			\$300M			\$350M		
	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$125	----	\$125	\$150	----	\$150	\$175	----	\$175
2. Full Supplementation	\$125	\$ 78	\$203	\$150	\$ 85	\$235	\$175	\$ 92	\$267
3. Offset	\$ 47	\$ 78	\$125	\$ 65	\$ 85	\$150	\$ 83	\$ 92	\$175
4. Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 47	\$ 78	\$125	\$ 65	\$ 85	\$150	\$ 83	\$ 92	\$175
5 years	\$ 48	\$ 77	\$125	\$ 66	\$ 84	\$150	\$ 83	\$ 92	\$175
10 years	\$ 50	\$ 75	\$125	\$ 68	\$ 82	\$150	\$ 86	\$ 89	\$175
15 years	\$ 68	\$ 73	\$141	\$ 81	\$ 80	\$161	\$ 95	\$ 86	\$181
20 years	\$ 87	\$ 69	\$156	\$104	\$ 76	\$180	\$121	\$ 81	\$202
5. Coordination	\$ 50	\$ 78	\$128	\$ 60	\$ 85	\$145	\$ 70	\$ 92	\$162
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 50	\$ 78	\$128	\$ 60	\$ 85	\$145	\$ 70	\$ 92	\$162
5 years	\$ 71	\$ 77	\$148	\$ 85	\$ 84	\$169	\$ 99	\$ 92	\$191
10 years	\$ 92	\$ 75	\$167	\$110	\$ 82	\$192	\$128	\$ 89	\$217
15 years	\$100	\$ 73	\$173	\$120	\$ 80	\$200	\$140	\$ 86	\$226
20 years	\$108	\$ 69	\$177	\$130	\$ 76	\$206	\$152	\$ 81	\$233
7. New Retirement Plan	\$ 23	\$ 78	\$101	\$ 28	\$ 85	\$113	\$ 33	\$ 92	\$125

Retirement Plan	\$400M			\$500M			\$600M		
	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total	P.E.R.A.	O.A.S.D.I. Primary	Total
1. P.E.R.A. (Present Plan)	\$200	----	\$200	\$250	----	\$250	\$300	----	\$300
2. Full Supplementation	\$200	\$100	\$300	\$250	\$105	\$355	\$300	\$105	\$405
3. Offset	\$100	\$100	\$200	\$145	\$105	\$250	\$195	\$105	\$300
Offset (E.C.F.) <sup>a</sup>									
Prior Service: None	\$100	\$100	\$200	\$145	\$105	\$250	\$195	\$105	\$300
5 years	\$101	\$ 99	\$200	\$146	\$104	\$250	\$196	\$104	\$300
10 years	\$104	\$ 96	\$200	\$149	\$101	\$250	\$199	\$101	\$300
15 years	\$108	\$ 92	\$200	\$154	\$ 96	\$250	\$204	\$ 96	\$300
20 years	\$138	\$ 87	\$225	\$174	\$ 90	\$264	\$212	\$ 90	\$302
5. Coordination	\$ 80	\$100	\$180	\$130	\$105	\$235	\$180	\$105	\$285
6. Coordination (E.C.F.) <sup>a</sup>									
Prior Service: None	\$ 80	\$100	\$180	\$130	\$105	\$235	\$180	\$105	\$285
5 years	\$113	\$ 99	\$212	\$172	\$104	\$196	\$230	\$104	\$334
10 years	\$147	\$ 96	\$243	\$213	\$101	\$314	\$280	\$101	\$381
15 years	\$160	\$ 92	\$252	\$222	\$ 96	\$318	\$285	\$ 96	\$381
20 years	\$173	\$ 87	\$260	\$232	\$ 90	\$322	\$290	\$ 90	\$380
New Retirement Plan	\$ 37	\$100	\$137	\$ 61	\$105	\$166	\$ 84	\$105	\$189

a) E.C.F. - earned credits frozen.

O.A.S.D.I. is designed to provide minimum retirement standards. Other retirement systems usually are designed to attract career employees whose final average salaries are considered a measure of their worth and upon which retirement benefits are usually based. It is argued that a combination of the two provides both minimum and maximum retirement limits. Some proponents of combination plans agree that all employees probably will be covered by O.A.S.D.I. eventually, so that Colorado should take this step for its public employees now at the most advantageous time, while coverage may be back-dated to January 1, 1956, which would insure present employees no loss in O.A.S.D.I. benefits.

On the other hand, it is pointed out that all combination plans are more costly than P.E.R.A. Some of the present P.E.R.A. provisions are either incompatible with O.A.S.D.I. or a duplication of benefits. Retirement before 65 and deferred annuities do not blend in too well with O.A.S.D.I. P.E.R.A. also provides survivorship benefits similar to O.A.S.D.I., as well as superior disability benefits.

Perhaps the best way to determine whether combination is desirable is to examine the advantages and disadvantages of P.E.R.A. and the combination plans from the viewpoint of both the employee and employer.

#### P.E.R.A.

From the average employee's viewpoint, P.E.R.A. is a more than adequate retirement plan. Its retirement benefit formula provides a combination of both the social approach (minimum standards) and the career service approach to superannuation.

The average employee who retires after 20 years pays, at the most, less than 30 per cent of his final annuity. He gets a very high return per dollar of contribution, and the contribution rate is not excessive. Early retirement is another employee advantage. Survivorship and disability benefits are also included in the P.E.R.A. package. P.E.R.A. is completely controlled on the state level, by a board composed primarily of representatives of the system's membership. Policy decisions and benefit changes may be made without interference by or dependence on the national government.

In respect to benefits for older employees with relatively few years of service, it can be argued that P.E.R.A. meets the employer's responsibility for that portion of working lifetime spent in public service; any additional benefits would be unfair to career employees. Employees who leave covered service are entitled to refunds or deferred annuities if eligible, and temporary workers are entitled to P.E.R.A. coverage if they become permanent employees.

The average employee evaluates a retirement program on the basis of what he contributes and receives. The employer looks at several aspects including the retirement plan's application to all employees, its cost, and the effect on personnel policies, recruitment, and retention. The question has been raised as to whether P.E.R.A. is a career service retirement program, since no credit is given for more than 20 years service. Early retirement is possible which could deprive the employer of skilled services during an employee's most productive period. If the retirement of older

employees is deemed desirable or necessary, then perhaps the retirement program should make some additional provision for these employees. The problem of minimum retirement benefits for older employees with few years of service becomes even more important if some sort of compulsory retirement is considered advantageous by the employer. The lack of retirement coverage under P.E.R.A. for the temporary or casual employee is also of importance to the employer. Last, but not least, is the fact that the employer is paying 70 per cent or more of each employee's retirement benefit.

### Supplementation

This is the most expensive of the combination plans. It provides the employee with double coverage for disability and survivorship benefits and adds O.A.S.D.I., retirement benefits at age 65 to the annuity provided by P.E.R.A., including the spouse's benefit if payable. It would not interfere with early retirement, except that failure to work elsewhere in O.A.S.D.I. covered employment upon such retirement would result in a lower O.A.S.D.I. primary benefit at age 65. Employees who plan to retire early (between 55 and 60) and work in O.A.S.D.I. covered employment could receive as high an O.A.S.D.I. summary retirement benefit as they would under a full supplementation plan, if they had not been covered by O.A.S.D.I. prior to retirement from P.E.R.A. covered service.

The basic objection to full supplementation is its cost and high contribution rate by both employer and employees. Older employees nearing retirement would benefit under full supplementation because of the addition of primary benefits, and it would provide minimum continuous coverage for transient employees. The employer would continue to contribute the same proportion of the P.E.R.A. annuity, in addition to a contribution equal to the employees' for O.A.S.D.I. Twenty years' service at age 65 would continue to be the standard for maximum benefits.

### Offset

This is the least costly of the combined plans, although more expensive than P.E.R.A. It provides the average employee with the same benefits he would receive under P.E.R.A. plus the spouse's benefit, if payable. It provides transient employees with continuous minimum retirement coverage. It does not interfere with early retirement as the employee's benefit will be the same before and after age 65, because the P.E.R.A. portion is decreased only by the amount of the O.A.S.D.I. primary benefit. For this reason it doesn't matter whether the employee works in O.A.S.D.I. covered employment between his early retirement and age 65. Under the other combination plans, with fixed formulae at age 65, any decrease in the O.A.S.D.I. primary annuity would result in a decrease in the total annuity. Older employees with limited service would benefit under the offset plan because they would have O.A.S.D.I. benefits to add to their minimum P.E.R.A. benefits.

The main objections to offset are: 1) P.E.R.A. would be closely integrated with O.A.S.D.I. to the extent that changes in O.A.S.D.I. would cause changes in P.E.R.A.; 2) upward revisions in O.A.S.D.I. benefits would not reflect in increased employee benefits, because P.E.R.A. benefits would be reduced proportionately; and 3) except for older workers and continuous minimum coverage for transient workers, none of the existing retirement problems are corrected.

## Coordination

This method of combination provides at a higher cost benefits slightly in excess of current P.E.R.A. benefits plus the spouse's benefit, if payable. Early retirement is still possible, but failure of the early-retired employee to work in O.A.S.D.I. covered employment elsewhere until age 65 would result in a lower O.A.S.D.I. primary benefit and consequently a lower total benefit at age 65. Older employees and transient employees would benefit more than they do at present under P.E.R.A. (which is true of all combination plans). The basic P.E.R.A. formula is retained, so that the coordinated plan does not answer the problem of career service, nor does it adjust employer-employee proportionate shares of total cost.

## New Retirement Plan

This plan, based on 30 years service at age 65, places a greater proportion of the total cost on the employee (approximately 45 per cent) and discourages early retirement. Transient employees and older employees would benefit from O.A.S.D.I. coverage; in addition, transient employees would have their non O.A.S.D.I. contributions returned with interest.

The new retirement plan gives the employer the opportunity to correct any existing dissatisfactions with P.E.R.A. Older employees would not have a voice in determining whether the plan should be set up, because the system can be established for all future employees; however, present employees could transfer, if they so desired. Career service is recognized through the 30-year base and the granting of additional credit for years of service over and above 30, with no limit. The new retirement plan costs would be in excess of P.E.R.A., but less than under any other combined plan except offset.

## Freezing of Earned Credits

Freezing of earned credits is not a consideration under either full supplementation or the new retirement plan. Under full supplementation, O.A.S.D.I. is added to P.E.R.A., so credits earned are in effect already frozen. The new retirement plan could be set up for all new employees, and old employees would transfer only if their previous service as computed under the new plan formula plus O.A.S.D.I. benefits would exceed the expected annuity under P.E.R.A.

Under the offset and coordinated plans, the freezing of earned credits bears serious consideration. If benefits are frozen, present employees will receive higher annuity benefits -- the amount being proportionate to the number of years of prior service. Consequently, it would be advantageous for most present employees -- especially those near retirement -- to transfer to a combined plan. The costs, as was shown, for the offset and coordinated plans would be higher with earned credits frozen, and present employees would receive higher benefits than employees entering covered service in the future.

Even though it would be more costly, it may be desirable to freeze earned credits. Employees are usually less reluctant to support a combined plan under such circumstances and it would eliminate the possibility of law suits on the grounds that retirement rights have been impaired.

## IV

### RETIREMENT PROBLEMS AND POSSIBLE SOLUTIONS

Six present retirement questions were enumerated in Chapter I. In brief these include:

- 1) the financing of the interest and/or the amortization of present accrued unfunded liabilities;
- 2) the present financing by the employer of 70 to 75 per cent of each retirement annuity;
- 3) the lack of retirement coverage for temporary, part-time, and some full-time employees;
- 4) the dissatisfaction with P.E.R.A. expressed by three member cities and their employees;
- 5) the employees entering P.E.R.A.-covered service at an advanced age, especially in low salary jobs, who are eligible only for small retirement annuities; and
- 6) the question as to whether P.E.R.A. is a career service retirement plan.

#### P.E.R.A.

Should the decision be made not to combine P.E.R.A. and O.A.S.D.I., there are several things which might be done concerning these problems within the framework of P.E.R.A.

1) Accrued Unfunded Liability. The employer's contribution rate could be raised to meet the interest requirement on the unfunded liability and the employers rate could be increased to amortize the unfunded liability over a period of years. It would necessitate a contribution rate increase of .7 per cent in the state fund and .52 per cent in the school fund to pay the interest on the unfunded liability. If a decision were made to amortize the unfunded liability over a period of 35 years, it would necessitate an employer contribution increase of 1.98 per cent to 7.98 per cent in the state division, and one of .99 per cent to 6.99 per cent in the school division.

Any rate increase would necessitate a change in the statutory provision for employer's contributions. If the intent is to meet the interest only on the unfunded liability, legislation must be considered which would tie the employers' contribution rates to the actuarial valuation so that the rate could be adjusted automatically every five years according to the actuarial valuation results.

2) Employee's Proportion of Retirement Costs. If the General Assembly decides that the employee should pay a greater proportion of the cost of his annuity, one of two things could be done. First, the employee's contribution rate could be increased to more nearly approximate the amount necessary to finance 50 per cent of the annuity. This would correspond to the erroneous impression currently held by some people that the fact that both the employer and employee are contributing six per cent of salary means that the employee is presently paying half the cost of his annuity. The second alternative would require a 30 year career base, instead of the existing 20 year base, in order to qualify for a full retirement annuity.

3) Lack of Coverage for Some Employees. This is really two problems. One can be solved by inserting penalties in P.E.R.A. legislation for failure to cover all full-time permanent employees. If a decision is made to provide O.A.S.D.I. coverage for those employees not eligible for P.E.R.A., an amendment to the state O.A.S.D.I. enabling legislation would be needed to extend these statutes to cover such employees. 1

Then, the present agreement with the Secretary of Health, Education and Welfare could be modified in line with the amended state legislation to provide O.A.S.D.I. coverage for temporary and part-time employees. If this is done a question arises as to the continuation of O.A.S.D.I. coverage for those temporary and part-time employees who may eventually become permanent employees eligible for P.E.R.A. If O.A.S.D.I. coverage is continued, the contribution rates will be higher for both employer and employee or equal to the costs of full supplementation. This means that the state will be contributing more for a few employees and that a few employees will receive greater benefits than the rest. On the other hand, if O.A.S.D.I. coverage is terminated for those temporary and part-time employees who become eligible for P.E.R.A. coverage, there is a question as to the advantage in providing O.A.S.D.I. coverage for them in the first place.

4) The Three Cities. In order to allow Arvada, Fort Morgan, and Gunnison to drop P.E.R.A. coverage and replace it with O.A.S.D.I., the following steps would have to be taken:

First, amend the state's enabling legislation to specify each of the cities as a separate retirement plan and to permit a referendum of employees to be held in each city that so desired to determine whether they want O.A.S.D.I. coverage in addition to P.E.R.A. Then, further state legislation would be needed to allow the employees of each of these cities to hold a second referendum to drop P.E.R.A. coverage. If this were done, these cities could achieve their objective of substituting O.A.S.D.I. for P.E.R.A. There appears to be no other way, because of the provisions of Section 218 of the Social Security Act as amended, in which P.E.R.A. can be replaced by O.A.S.D.I. coverage. Section 218 states that public employees whose positions were covered by a retirement system as of January 1, 1954 cannot obtain O.A.S.D.I. unless a referendum is held even if these employees are no longer members. Therefore, if P.E.R.A. coverage were dropped first in these cities, there would be no retirement system members to vote for O.A.S.D.I. coverage.

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1. 111-7-1 and following, CS 1957 to CRS 1953.

The procedures outlined above create additional problems, however. Very few employees in Fort Morgan and Gunnison have been enrolled as members of P.E.R.A., so that these few would be determining the fate of the rest, unless these cities enrolled additional employees prior to the first referendum. A decision would have to be made as to what should be done about the service credits earned by employees in these cities who are presently covered by P.E.R.A. One possibility would be the provision of a deferred annuity with refunds to those employees who either are not eligible for a deferred annuity or do not wish to avail themselves of it. It is important that some sort of agreement be reached with these employees to avoid any lawsuits claiming impairment of benefits arising from the two referenda.

5) Older Employees with Limited Covered Service. Unless the P.E.R.A. formula is drastically altered, there is no way within the framework of the existing retirement system and within sound financing practice in which additional benefits or coverage could be provided for current older employees nearing retirement with but a few years of coverage under P.E.R.A. This would become an increasing problem, if some method of mandatory retirement after age 65 were considered desirable personnel policy. In the future this might be remedied by reviewing hiring policies of the state government.

6) Career Service Aspects of P.E.R.A. P.E.R.A.'s formula could be changed to a 30-year plan with the granting of additional credit for any years of employment over 30. This would also result in the employees' paying a larger portion of their retirement annuities. Early retirement could be discouraged by providing that employees would receive only the actuarial equivalent of what they would be entitled to at age 65 for the same number of years of service. These changes would produce a plan similar to the new retirement plan, except that O.A.S.D.I. coverage and benefits would not be combined with P.E.R.A. Legislation would be necessary to make these changes, but they could be made without any vote of the present P.E.R.A. membership. The new formula would apply to all new employees and for the future service of present employees.

#### All Combination Plans Except the New Retirement Plan.

First, the basic decision must be made as to whether P.E.R.A. should be divided into two parts: one combined with O.A.S.D.I. and the other, P.E.R.A. alone. If it is decided that a dual system is not wanted, there will be no need to have Colorado added to the states listed in Section 218 of the Social Security Act as allowed to have a dual retirement system. If the General Assembly decides to maintain only one plan, but that one to be a combination plan, all that would be required is amendment of the present enabling legislation to provide for a referendum and a selection by the General Assembly of the form of combination: full supplementation, offset, or coordination. If either the offset or coordination method is selected, a further decision would have to be made as to whether or not to freeze earned credits. The importance of qualified actuarial and legal assistance in drawing up the enabling legislation cannot be stressed too strongly. Actuarially and legally sound enabling legislation would avoid the pitfalls and complications which have developed in some other states.



Under the provisions of Section 218 of the Social Security Act, the following portions of P.E.R.A. membership may be deemed separate retirement systems: state employees; state patrol; judges; school employees (either as a group or each school district separately); municipal employees (either as a group or each city separately); and each institution of higher learning. The state patrol could be excluded from the referendum under the provisions of Section 218 which exclude police and firemen unless inclusion of these portions is expressly requested by a state. This means that the state patrol would maintain its present retirement system.

A possible arrangement for Colorado under this provision would appear to be the establishment of the following as separate retirement systems for referendum purposes: state employees, highway patrol, judges, school employees, each municipality, and each institution of higher learning. This breakdown would give the membership of each municipality and college the opportunity of deciding for itself whether to combine, without having the larger membership of certain municipalities and colleges decide the fate of combination for the whole group. It would also make it possible for the state division and school division to vote independently, and the vote of their large memberships would not decide the fate of combination for the municipalities and colleges.

#### Split System.

Serious thought should be given, however, to having Colorado added to the list of states which may have a divided retirement system. The chief disadvantage would be the burden of administering a number of separate retirement systems. The advantages appear to outweigh the disadvantages, however. Each employee would be able to choose the combination plan or to retain membership in P.E.R.A., according to which would be best for him. The majority could choose the plan it wished without affecting the desires of the minority. With a divided system there would be no need for freezing earned credits, because an employee would not have to transfer to the combination plan unless it was to his advantage, meaning that P.E.R.A. benefits recomputed according to the combined plan formula plus O.A.S.D.I. benefits would be greater than the expected benefits under P.E.R.A.

It would also solve the impairment of benefits problem for the three cities that wish to substitute O.A.S.D.I. for P.E.R.A. The employees of these three municipalities who wished to retain their P.E.R.A. coverage would be permitted to do so.

Colorado's Congressional delegation would have to be contacted immediately so that Colorado could be added to the dual-system states through legislation passed at this session of Congress. The state enabling legislation would have to be passed at this session of the 42nd General Assembly to become effective upon the change in federal legislation. These immediate steps are necessary to insure that an agreement modification can be signed with the Secretary of Health, Education, and Welfare prior to December 31, 1959, so that O.A.S.D.I. benefits can be backdated to January 1, 1956. It is suggested that the same portions of P.E.R.A. mentioned above be deemed separate retirement systems for the holding of dual-system referenda, namely: the state division, state patrol, judges, school division, each municipality, and each institution of higher learning.

1. Accrued Unfunded Liability. Under a combined plan set up by either method outlined above, handling of the accrued unfunded liability would be the same as under P.E.R.A. without combination.

2. Employer's Proportion of Retirement Costs. Any combination of P.E.R.A. as presently constituted and O.A.S.D.I. would leave the proportion of retirement costs for employer and employee approximately the same as at present.

3. Lack of Coverage for Some Employees. Provision of O.A.S.D.I. coverage for part-time and temporary employees, as outlined in the section above on P.E.R.A., would dovetail with a combined plan in that temporary and part-time employees who became permanent and eligible for retirement coverage under the combined plan would be able to continue their O.A.S.D.I. coverage, along with other permanent employees.

4. The Three Cities. The same procedure could be followed as outlined in the section on P.E.R.A. above. With a dual system, the cities would run little risk of impairment of benefit suits, because these employees would be able to stay under P.E.R.A.

5. Older Employees with Limited Coverage. The provision of O.A.S.D.I. through a combined plan would make it possible for older employees to receive greater benefits, because of the addition of the O.A.S.D.I. primary benefit, as well as the spouse's benefit, if payable. This would make it easier to develop a plan for compulsory retirement, if such is considered desirable.

6. Career Service Aspects of P.E.R.A. The adoption of a combination plan would make early retirement less attractive; however, all present employees under a two-part system could retain membership in P.E.R.A. and retire prior to age 65 as at present. The 20 year basis for maximum retirement benefits at age 65 would remain unchanged for current P.E.R.A. members.

#### The New Retirement Plan

In order to set up the new retirement plan it would be necessary to have Colorado added to the list of dual retirement system states. Again, it is important that this be done during the present session of Congress and that this session of the 42nd General Assembly pass enabling legislation contingent upon the change in the Social Security Act. Unless this is done, the O.A.S.D.I. coverage agreement cannot be signed in time to backdate O.A.S.D.I. to January 1, 1956.

It would be possible to set up the new retirement plan after January 1, 1960, even though O.A.S.D.I. coverage could not be backdated. If this were done, however, any present employees who transferred to the new plan would suffer a loss in the O.A.S.D.I. primary benefit, because of the lack of coverage between January 1, 1956, and the signing of the coverage agreement. It would have no effect on the new employees, who would automatically become members of the new retirement plan.

In either case, present employees would have the opportunity to decide in a referendum whether to transfer from P.E.R.A. to the new retirement plan. Earned credits would not be frozen, and each present employee would have to determine whether his expected benefits under the present plan would be greater than the combined benefits under the new retirement plan, with credits already earned recomputed according to the new plan formula.

1. Accrued Unfunded Liability. The unfunded liability could be handled in the same way as under P.E.R.A. or the other combined plans.
2. Employer's Share of Retirement Costs. As the new retirement plan is based on 30 years' service at age 65, instead of 20, the employer's share of the cost of each annuity would be decreased to approximately 55-60 per cent.
3. Lack of Coverage for Some Employees. O.A.S.D.I. coverage for temporary employees would dovetail with the new retirement plan in the same way as with the other combined plans.
4. The Three Cities. This problem could be handled in the same way as with the other combined plans under a two-part retirement system.
5. Older Employees with Limited Coverage. The new retirement plan has the same advantages for older employees with limited service as the other combined plans.
6. Career Service Aspects of P.E.R.A. The adoption of the new retirement plan is one method of combination by which a career service retirement system can be established. Retirement benefits would be geared to 30 years' service at age 65, with additional benefits for years of service in excess of 30. Even though 30 years is the standard, it is possible to get a substantial retirement benefit for 20 or 25 years' service at age 65, especially for those employees whose final average salary is \$4,800 or less. Early retirement would still be possible, but would be discouraged because the monthly retirement benefit received would be the actuarial equivalent of the benefit paid at age 65 for the same number of years of service. An employee with 30 years' service who retired at age 55 would receive a monthly annuity approximately 47 per cent as large as he would have received for the same number of years' service at age 65. If he retired at age 60, his monthly annuity would be approximately two-thirds as large as it would have been at age 65 for the same number of years' service. When these early-retiring employees reach age 65, O.A.S.D.I. benefits would be added, but the new retirement plan annuity would remain the same.