REPORT OF THE

VIRGINIA RETIREMENT STUDY COMMISSION

TO

THE GOVERNOR

AND

THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 21

COMMONWEALTH OF VIRGINIA
DIVISION OF PURCHASES AND SUPPLY
RICHMOND
1979

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Report of the

Virginia Retirement Study Commission

To

The Governor and the General Assembly of Virginia

Richmond, Virginia

January, 1979

To: Honorable John N. Dalton, Governor of Virginia

and

The General Assembly of Virginia

I. INTRODUCTION

The study of the Virginia retirement systems and this interim report are the results of the following resolution passed at the 1978 Session of the General Assembly:

HOUSE JOINT RESOLUTION NO. 145

WHEREAS, the Committees designated to make the study required by House Joint Resolution No. 204 of 1977 recommended that the Virginia Supplemental Retirement System, the State Police Officers Retirement System and the Judicial Retirement System be structured to provide for (a) career service of thirty years with provisions for normal retirement at age sixty-five, except for members of the State Police Officers Retirement System, at age sixty; (b) early retirement with regular benefits at age sixty after thirty years of service, except for members of the State Police Officers Retirement System at age fifty-five, after thirty years of service; (c) contributions to these systems on behalf of both the employer and employee; (d) benefits under the system to vest after five years of covered employment; (e) benefits under such systems when combined with the Social Security benefit should provide a career employee at normal retirement with a retirement benefit of economic income generally equivalent to and not significantly in excess of such retired employee's economic income while employed immediately prior to retirement; and

WHEREAS, the Committees recognized that the retirement systems are interrelated with the Social Security System and that any evaluation of the systems should include a study of present and anticipated social security benefits; and

WHEREAS, a thorough examination of the alternative methods of achieving a combined benefits structure consistent with the recommended benefit objectives is necessary; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Virginia Retirement Study Commission is hereby created which shall be composed of fifteen members. Five of the members shall be members of the House of Delegates, appointed by the Speaker thereof; three shall be members of the Senate, appointed by the Senate Committee on Privileges and Elections; two shall be from the public at large appointed by the Governor. In addition, the following shall be members: President, Virginia Education Association; President, Virginia Governmental Employees Association; Executive Secretary, Virginia Municipal League; Executive Secretary, Virginia League of Counties and the Chairman of the Board of the Virginia Supplemental Retirement System, or the designee of such persons. In the event any ex officio member cannot or refuses to serve, the Governor shall appoint from the public at large a replacement for such person.

The Commission shall make a thorough examination of the combined benefits payable under Social Security and the respective retirement systems and the alternative methods of achieving a combined benefit structure consistent with the benefit objectives recommended as set forth herein and report their findings and recommendations to the General Assembly.

The members of the Commission shall be paid their necessary expenses incurred in the performance of their duties and legislative members shall receive such compensation as set forth in § 14.1-18 of the Code of Virginia.

The staff of the House Committee on Appropriations and the Division of Legislative Services shall provide such assistance as is necessary. In addition, all agencies of the State and the governing bodies and agencies of all political subdivisions of the State shall cooperate with and assist the Commission in its study.

The Commission may employ such financial consultants as are necessary for the conduct of the study, for which there is hereby allocated fifty thousand dollars from the contingent fund of the General Assembly.

The Commission shall report its findings and recommendations to the Governor and the General Assembly no later than December one, nineteen hundred seventy-eight.

The subject matter before this Commission is not new. It has long been recognized that the benefit structure of the Virginia Supplemental Retirement System, State Police Officers Retirement System and the Judicial Retirement System are significantly affected by increases in Social Security benefits over which the Commonwealth has no control. Because of significant changes at the federal level the General Assembly directed this Commission to make a thorough examination of the combined benefits payable under Social Security and the respective retirement systems to determine if the present benefit structure is in accord with the benefit objectives as set forth in House Joint Resolution No. 145. Secondly, the resolution directed the Commission to recommend alternative benefit structures if the present structure was not deemed to be in accord with the benefit objectives stated in House Joint Resolution No. 145.

The Commission was keenly aware of the importance of its study, to both the Commonwealth and its employees, as well as its complexity. Moreover, the Commission was aware of the voluminous number of studies and reports made with respect to the Retirement Systems since 1970. Because of these considerations, the Commission retained the services of the firm of Milliman & Robertson, Inc., a firm with a great deal of experience in the state pension field, to assist the Commission in its review.

II. THE CONSULTANT'S REPORT

The Commission's consultant has prepared a detailed report on the present benefit structure of the Virginia Supplemental Retirement System, suggested alternatives for modification of the present benefit structure, and set forth comments on a number of other matters which the Commission asked to be considered. The final report of Milliman and Robertson, Inc., is set forth in its entirety as Appendix A to this report and it is recommended that readers of this report review it carefully, particularly Section I relating to benefit levels. This final report along with other pertinent data that may come before the Commission in its deliberations will provide the basis for the Commission's future recommendations.

The Commission has stated on numerous occasions that any recommendations which it may make pertaining to benefit changes will apply to future benefit accruals only and that there will be no reduction in the amount of retirement benefits now being paid to retired members of the Systems, nor any reduction in accrued benefits for any employees presently covered by the Systems. The Commission again reaffirms this principle.

According to our consultants, the cost of the present plan will increase substantially in future years because of the present method of funding the cost-of-living benefit on a pay-as-you-go basis rather than on an actuarial basis. This has the effect of not reflecting in current state expenditures the full cost of employee benefits. The cost is being deferred to a future period. For example, for the biennium beginning July 1, 1976, the current payment for cost of living benefits amounted to 0.70% of payroll for state employees and 1.68% of payroll for teachers. Had the cost of living benefit been funded actuarially, the amounts would have been 2.63% and 2.17%, respectively. The dollar amount of the cost of living benefit for the period computed at the lower rates was $43.3 million. The difference in cost to the Commonwealth is clear.

The consultants also reviewed the question of whether or not the Commonwealth should withdraw from participation in the Social Security System. After examining the advantages and disadvantages of this proposal they recommended that the Commonwealth not withdraw from the Social Security System. The major criterion here is uncertainty, such as the indeterminate (and perhaps excessive) costs of replacing Social Security benefits, and possible federal legislation changing the method of financing Social Security and even mandatory universal coverage.

A review of the actuarial procedures and assumptions used to compute contributions to the retirement systems was made by the consultants to the Commission and they concur with the present actuarial procedures and assumptions except for the method of funding cost-of-living benefits.

III. THE COMMISSION'S RECOMMENDATIONS

Although the Commission has held a number of meetings, the complexity of the issues, the necessity for compiling detailed statistics, and the importance of the study have all interacted to cause the Commission to take more time than originally planned to complete its study of the issues. Moreover, the Commission realizes that even if its final recommendations had been formulated prior to the reporting date of December 1, 1978, there would not have been sufficient time to receive comments and hold the necessary public hearings prior to proposing legislation for consideration at the 1979 Session of the General Assembly.

The Commission therefore makes the following interim recommendations:

1. The Commonwealth give no further consideration to withdrawing from participation in the Social Security System.

2. The cost-of-living provisions of the Virginia Supplemental Retirement System, State Police Officers Retirement System and Judicial Retirement System be funded on a basis consistent with the actuarial methods and assumptions used for funding primary benefits.

3. The combined benefits of the Virginia Supplemental Retirement System (as well as the State Police Officers Retirement System and the Judicial Retirement System) and Social Security conform generally with the benefit objectives set out in House Joint Resolution No. 145 passed by the 1978 Session of the General Assembly.

4. The Commission be extended for an additional period of one year to complete the current study of the Virginia Supplemental Retirement System, State Police Officers Retirement System, and the Judicial Retirement System, hold public hearings, and prepare a final report by December 1, 1979. Consideration should be given to proposals of the consultant presented to the Commission as well as to an entirely new plan for new employees which would be extended to present employees on an optional basis. The Commission should consider any other plan modifications that might appear warranted as a part of the study.

5. That no changes of any kind be made in the retirement systems until consideration is given all pending legislative proposals and a comprehensive and integrated proposal incorporating all suggested changes can be costed, evaluated and presented for public comment and consideration.

Respectfully submitted,

Owen B. Pickett, Chairman

L. Ray Ashworth

Richard M. Bagley

Matthew T. Blackwood

Adelard L. Brault

Vincent F. Callahan, Jr.

Archibald A. Campbell

Richard L. DeCair

J. Smith Ferebee

Mary Hatwood Futrell *1

William B. Hopkins, Vice-Chairman

George Long

J. David Shobe, Jr. *2

William A. Truban

Erwin H. Will, Jr.

*1 Please see attached dissenting statement.

*2 Please see attached concurring statement.

VIRGINIA EDUCATION ASSOCIATION

Virginia Journal of Education

Gamble's Hill, 116 South Third Street, Richmond, Virginia 23219

January 16, 1979

Delivered by Hand

Delegate Owen B. Pickett
Office No. 525
General Assembly Building
910 Capitol Street
Richmond, Virginia 23219

Dear Delegate Pickett:

I am writing this letter in response to the report of the Virginia Retirement Study Commission which I received on January 2, 1979. I have had an opportunity to review the consultant's report as well as the draft of the Commission's report. This letter is to indicate that I am casting a "no" vote for approval of the report.

I am listing below some of the VEA concerns pertaining to the report.

1. The suggested alternatives in the consultant's report on the present benefit structure of VSRS are unacceptable to the Virginia Education Association, particularly the proposal that service credit under the formula be limited to thirty years. An alternative approach would be to provide a combined, maximum benefit limit which would not exceed 100% of average final salary. This approach would limit benefits for that segment of the VSRS membership which has the potential of exceeding their economic income immediately prior to retirement and would not reduce future benefits for all members of the system in order to deal with a problem that affects a segment of the membership.

2. Assumptions used to determine the number of employees exceeding the average economic income line six to ten years from now are unrealistic for the following reasons:

    a. The single exemption assumption was used to determine the dollar amount of federal and state income taxes withheld for the employee. This approach produces high income tax withholding amounts which are not representative of the VSRS membership.

b. The assumption was made that all VSRS active members now ages 55 to 59 would retire six to ten years from now at age 65 when, in reality, these active members will retire during the next ten years at varying ages and varying years of service credit.

c. No recognition was given to the fact that retirees must pay federal income taxes on their VSRS retirement benefits approximately three years after retirement.

d. No recognition was given to the fact that retirees have substantial health care costs during retirement. (The average retiree spends approximately $300 per year for health insurance premiums and, on average, an additional $400 per year for health care costs not covered by insurance policies.)

3. The projected VSRS cost figures prepared by the system actuary and used by the consultants in discussion with the Commission did not distinguish between "real dollars" and "inflated dollars" of the future. This approach tends to distort the real cost of the system in the future.

4. The report states that "no changes of any kind be made in the retirement systems. ..." This statement would appear to preclude consideration of important legislation during the 1979 General Assembly session which would allow teachers to receive maximum benefit from a favorable Internal Revenue Service Ruling pertaining to employer "pick-ups" of the employee's 5% VSRS contribution.

My "no" vote is also based in part on the consultant's report, page 15, and I quote:

> "The design of a new system is a major undertaking for which adequate time should be allowed to make the proper studies in connection with developing the formula that will properly coordinate with social security to achieve the desired benefit objective. We believe the Commission should anticipate a year-long study for proper completion of this project."

I must say that I am in agreement with this statement because if it will take a year to develop a program for new hirees who would participate in the three retirement systems (VSRS, the state police and the judicial retirement systems), it should take at least that same amount of time to repair the present formula for public employees who are in the current retirement systems. The recommendations made by the consultant firm are complicated and theoretical ones which have not been tested and for the Commission to approve a report without testing such ideas would show poor judgment on our part.

For the above reasons, I must disagree with the Commission's report.

Sincerely,

Mary H. Futrell

Mary H. Futrell
Member
Virginia Retirement Study Commission

MHF:gh
Copy to Mr. Garka
Enclosure

COMMENTS OF J. DAVID SHOBE, JR.:

I have approved the Commission's report but with some reservations. At this juncture, it appears to me that the final report of Milliman and Robertson, Inc. has its limitations because of some of the assumptions employed. An example of one such assumption is that the new retirees studied were single and therefore in a relatively high income tax bracket. A continuation of the study will serve to clarify this issue and others to the interests of all concerned.

David Shobe

APPENDIX A

SUMMARY REPORT ON
STUDY OF VSRS
for
VIRGINIA RETIREMENT STUDY
COMMISSION
DECEMBER 5, 1978

MILLIMAN & ROBERTSON, INC.

CONSULTING ACTUARIES

8990 WEST DODGE ROAD, SUITE 308

OMAHA, NEBRASKA 68114

402/393-9400

December 5, 1978

Dear Members of The Commission:

We are pleased to submit this summary report on our findings and conclusions developed from our studies during the past three months of the Virginia Supplemental Retirement System. These studies were conducted pursuant to our proposal to the Commission dated August 11, 1978 in response to the Commission's letter of request for proposals dated July 25, 1978.

Respectfully submitted,

Fenton R. Isaacson, F.S.A.
Consulting Actuary

Thomas P. Bleakney, F.S.A.
Consulting Actuary

FRI/TPB:jn

SUMMARY REPORT ON
FINDINGS AND CONCLUSIONS

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Section I
EXCESSIVE BENEFITS

Based on our detailed analysis of new VSRS retirees during the first seven months of 1978 and our projection of benefits for current active VSRS members retiring six to ten years from now, we find a substantial excessiveness of VSRS benefits in relation to the stated benefit objective in House Joint Resolution No. 145 -- i.e. "VSRS benefits when combined with the Social Security benefit should provide a career employee at normal retirement with a retirement benefit of economic income generally equivalent to and not significantly in excess of such retired employees's economic income while employed immediately prior to retirement." We believe HJR 145 to be a reasonable benefit objective.

The statistical data in Exhibits 1, 2, 3, 4, 5 and 6, appended to this report, reveals the extent to which VSRS pensions are exceeding the HJR 145 stated benefit objective for new retirees in 1978 and future retirees six to ten years from now. These samplings are sufficient to be indicative of the trend of benefit levels for all VSRS members in the future if the VSRS is continued without change.

Comments On Exhibits 1, 2, 3, 4, 5 and 6

Exhibit 1 reveals excessiveness of benefits is most prevalent among the new retirees with 25 or more years of service at all salary levels. For new retirees with less than 25 years of service, the excessiveness problem is concentrated at the salary levels below $15,000 per year. This exhibit also reveals that Social Security provides a much larger proportion of the retiring employees total pension at the lower salary levels -- i.e. Social Security is about two-thirds of the total pension for retirees with up to $5,000 salary grading down to 25% of the total for retirees in the $25,000 to $35,000 Final Average Salary range.

Exhibit 2 is based on the same 903 retirees that were used to prepare the bar graph in Exhibit 1. Exhibit 2 reveals that 284 retirees (or 31% of 903) have total pensions (VSRS plus primary Social Security) that are in excess of the average economic income line depicting the pension benefit objective in House Joint Resolution 145.

Exhibit 3 is similar to the bar graph in Exhibit 1, but it emphasizes the excessiveness problem for retirees at normal retirement age 65 because we have excluded the retirees at retirement ages 62 to 64; this eliminates the effect of reduction in VSRS and Social Security benefits for commencement prior to age 65. However, the general pattern of excessive benefits also prevails in Exhibit 3 in the same way as shown by Exhibit 1.

Exhibit 4 is based on the same 395 new retirees who retired at age 65 that were used to prepare the bar graph in Exhibit 3. This exhibit reveals that 169 new retirees (or 43% of 395) have total pensions exceeding the average economic income line. It will be noted that this percentage is 12 percentage points greater than the percentage of excessiveness that was revealed in Exhibit 2 due to excluding the effect of the reduction in pensions for retirees at ages 62 to 64.

Exhibit 5 focuses our attention on the 63 career new retirees who retired during the first seven months of 1978 at age 65 with 30 or more years of service on the normal form of pension. It will be noted that 100% of this group, all 63 of them, have total pensions (VSRS plus primary Social Security) in excess of the average economic income line depicting the House Joint Resolution 145 pension benefit objective. However, it should also be pointed out that 63 retirees represents less than 4% of the 1,831 VSRS new retirees occurring during the first seven months of 1978. This exhibit emphasizes that the excessive benefit problem is most prevalent among new retirees with 30 or more years of service and that the excessiveness is greatest (percentagewise) at the lower salary levels coupled with the long years of service.

Exhibit 6 presents the result of a projection of pensions made for VSRS active members now ages 55 to 59 who are assumed to retire six to ten years from now at age 65. Exhibit 6 indicates that 52% of the 13,337 active members assumed to be retiring six to ten years from now will have total pensions (VSRS + primary SS) in excess of the average economic income line. Thus, the excessive benefit problem will be greater in the future than it is at the present time -- i.e. Exhibits 1, 2, 3 and 4 indicate excessiveness of benefits today for about 30% of the new VSRS retirees, retiring at ages 62 to 65 on the normal form of pension. Our projection indicates the percentage will increase t 52% six to ten years from now.

It should be noted that we have assumed the same averag economic income line six to ten years from now as exists today. This assumes continuation of taxation levels in the same proportions of salaries as we have today. We feel that any reasonable variations that might occur in these proportions in the future would not alter our conclusion that the excessive benefit problem is going to grow in future years.

The Average Economic Income Line

Our determination of pension benefit excessiveness has been made in relation to the average economic income line which has been calculated on the basis of certain assumptions with respect to Federal and State income taxes, Social Security taxes and contributions to the retirement system, group life insurance and health insurance. The assumptions made with respect to Federal and State income taxes are subject to variation based on whether one uses standard deductions or assumes some itemization of tax deductions. We assumed standard deductions. However, we believe that any reasonable set of assumptions to arrive at the average economic income line will not alter the conclusion with respect to excessiveness of benefits.

Exhibit 8, appended hereto, displays our average economic income line and the points used to plot that line.

Section II

SOLUTIONS TO EXCESSIVE BENEFITS

Having identified the problem of excessive benefits in Section 1, we turn now to the various ways of dealing with this problem. In our report to the Commission on October 3rd, we made the general conclusion that the present benefit structure of VSRS is basically sound, but some modifications may be appropriate to deal with the excessive benefit problem. Several suggestions which we made to the Commission are as follows:

- 30 year limit on credited service.
- A maximum on the total VSRS plus SS pension, graded down by final average salary (FAS).
- Indexing the VSRS pension formula to the Social Security wage base.
- Reduce the percentage factor in the VSRS pension formula from 1.5% down to 1.375%.

The adoption of any one or all of the above benefit reductions would be made effective with respect to future benefit accruals only -- benefit accruals for all VSRS members up to the date of adoption of any of these reductions would not be subject to such reduction.

Each of the above suggestions approaches the excessive benefit problem from a different point of view:

1. <u>30 Year Limit On Credited Service:</u> The heaviest concentration of the excessive benefit problem is among those retirees with 30 or more years of service. Our

Exhibit 5 (appended hereto) shows that all 63 of the new retirees in the first seven months of 1978 with 30 or more years of service have combined VSRS plus SS pensions greater than their average economic income immediately before retirement. In fact, over half of them have a combined VSRS plus SS pension exceeding 90% of their final average salaries. Imposing the 30 year limit on credited service for these 63 new retirees brings their total VSRS plus SS pension closer to the HJR 145 objective, though still in excess thereof in all cases. The result of such limitation of credited service is illustrated by the dot graph for the 63 new retirees in Exhibit 7 appended to this report.

If the 30 year limit on credited service is adopted, there would be justification for a reduction or elimination of employee contributions after 30 years to recognize the fact that the employee is no longer getting an increase in pension on account of service after 30 years. However, the employee would continue to gain the benefit of an increase in his final average salary after 30 years of service, so this would warrant a continuation of some employee contributions after 30 years. Continuation of employee contributions at half rate after 30 years of service would seem appropriate.

The cost reduction effect for the 30 year limit on credited service is given in Exhibit 11, appended to this report, identified as proposal A therein.

2. <u>A Maximum On Total VSRS Plus SS Pension Graded By Final Average Salary:</u> The basic purpose of the graded maximum is to prevent a retiree's total pension from VSRS and his primary Social Security from exceeding a

certain maximum percentage of his final average salary. The following schedule is presented as an example of a graded maximum which we believe would be consistent with the pension objective set forth in House Joint Resolution No. 145.

Maximum Total Pension (VSRS + SS)
Graded By Final Average Salary

Final Average Salary	Graded Maximum (VSRS + SS)
$ 0 - $ 4,999	90%
5,000 5,999	89
6,000 - 6,999	88
7,000 7,999	87
8,000 8,999	86
9,000 9,999	85
10,000 - 10,999	84
11,000 11,999	83
12,000 - 12,999	82
13,000 - 13,999	81
14,000 - 14,999	80
15,000 15,999	79
16,000 16,999	78
17,000 17,999	77
18,000 - 18,999	76
19,000 19,999	75
20,000 - 20,999	74
21,000 - 21,999	73
22,000 22,999	72
23,000 - 23,999	71
24,000 24,999	70
25,000 - 25,999	69
26,000 - 26,999	68
27,000 - 27,999	67
28,000 28,999	66
29,000 - 29,999	65
30,000 - 30,999	64
31,000 31,999	63
32,000 - 32,999	62
33,000 33,999	61
34,000 and Over	60

The above schedule would be applied at all retirement ages and all years of service without reduction. Sometimes this type of a maximum is reduced for persons retiring with less than a specified period of service, such as 30 years, and also reduced for persons retiring before normal retirement age. We believe that reducing the maximum for reduced years of service and early retirement ages can cause more problems than it is worth. We feel that benefit reductions for lower retirement ages and lower years of service should be reflected in the basic pension formula and actuarial reduction factors. Such is the case at the present time in the VSRS system. We have pointed out by the use of bar graphs that the present VSRS pension formula does a good job of grading the pensions by years of service and early retirement ages.

Time has not permitted the development of any figures on cost reduction effect on VSRS for adopting this "graded cap."

3. <u>Indexing The VSRS Pension Formula</u> To <u>The Social Security Wage Base:</u> The present VSRS normal pension formula has a step rate change point at $13,200 of Final Average Salary -- i.e. for persons with less than that amount of FAS, their benefit is 1.5% times FAS times years of service; for persons with more than $13,200 of FAS, their benefit is computed as 1.65% times (FAS minus $1,200) times years of service.

The $13,200 step rate change point in the VSRS formula was established at a time when the Social Security maximum taxable wage base was at about that level. We are suggesting that this step rate change point be indexed with the Social Security taxable wage base so that the $13,200 would move upward from month to month in accordance with the movement of the maximum Social Security taxable wage base. We are suggesting that this movement be based on a 36 month running average of the Social Security maximum taxable wage base to correspond with the concept of a 36 month averaging process in determining Final Average Salary under VSRS. Under this concept, the step rate change point in the VSRS pension formula would move up to $15,600 for April, 1978 retirees, $15,700 for May, 1978 retirees, $15,800 for June, 1978 retirees and so forth. At the same time, the salary offset factor in the 1.65% portion of the formula would increase from the present $1,200 up to $1,418 for April, 1978 retirees, $1,427 for May, 1978 retirees, $1,436 for June, 1978 retirees and so forth. Putting this information in tabular form would appear as follows:

<u>Indexing of Present VSRS Pension Formula</u>

MONTH OF RETIREMENT	SALARY STEP RATE CHANGE POINT	DEDUCTION FACTOR
April, 1978	$15,600	$1,418
May, 1978	15,700	1,427
June, 1978	15,800	1,436
July, 1978	15,900	1,445
....	....	....
July, 1979	17,767	1,615
....	....	....
July, 1980	20,600	1,873
....	....	....
July, 1981	24,167	2,197
....	....	....

The cost reduction effect for indexing the VSRS pension formula in combination with the 30 year limit on credited service is given in Exhibit 11, appended to this report, identified as proposal B therein.

By indexing the VSRS pension formula with the Social Security covered wage base, we will automatically keep the VSRS pension formula in step with Social Security i.e. the step rate change point in the VSRS formula will coincide with changes in the maximum Social Security taxble wage base from year to year. This is in keeping with the concept that it is appropriate to grant a larger percentage benefit from a system for that portion of salary which is in excess of Social Security coverage so that the combined VSRS and SS portion will meet a certain objective.

Although there is a high volume of recordkeeping and calculations in maintaining a pension formula that is indexed to earnings (i.e. complete wage history on each member), in today's computerized record keeping environment it can be efficiently handled. We believe the advantage of keeping the VSRS pension formula closely meshed with Social Security benefits to meet the desired total pension objective is well worth the time, effort and cost needed to maintain a pension formula indexed to earnings.

4. <u>Percentage Reduction</u> in VSRS Pension Formula: Another corrective measure for the Commission's consideration is to reduce the 1.5% factor in the VSRS pension formula to 1.375%. This would be returning the factor to the level that it was prior to the 1970 amendment. This represents an across-the-board reduction in future benefits of 8 1/3% for members with a Final Average

Salary under $13,200 and a lesser percentage reduction for members above that salary.

5. A Combination of Modifications: In our report to the Commission on October 26th, we presented a suggestion for modifying the VSRS pension formula which combined the 30 year limit on credit service, indexing to the Social Security wage base and reducing the percentage factor from 1.5% to 1.375% in the VSRS formula. This resulted in a formula which appears as follows:

> FOR MEMBERS WITH A FINAL AVERAGE SALARY OF LESS THAN $15,600* 1.375% OF FAS TIMES YEARS OF SERVICE UP TO 30.
>
> FOR MEMBERS WITH A FINAL AVERAGE OF $15,600* OR MORE -- 1.65% OF (FAS MINUS $2,600**) TIMES YEARS OF SERVICE UP TO 30.

*, ** Index Factors For Above Formula Are:

Month of Retirement	*Salary Step Rate Change Point	**Deduction Factor
April, 1978	$15,600	$2,600
May, 1978	15,700	2,617
June, 1978	15,800	2,633
July, 1978	15,900	2,650
....	....	....
July, 1979	17,767	2,961
....	....	....
July, 1980	20,600	3,433
....	....	....
July, 1981	24,167	4,028
....	....	....

The cost reduction effect for this combination of modifications is given in Exhibit 11, appended to this report, identified as proposal C therein.

Section III

A NEW SYSTEM FOR NEW EMPLOYEES

All of the solutions described in Section II necessarily involve some reduction in benefits, compared to those currently projected for present employees. In other public systems where this problem has been faced, an alternative solution has been used. This involves closing off the existing system to all but present members. Future employees become members of a new system, which is better designed to dovetail with Social Security, and present members are given the option to either remain in the old system or transfer to the new system.

Although such a solution was not within the scope of our study, we feel it has substantial advantages which might be seriously considered by the Commission. Such an approach does not cure the existing excessive benefit problems immediately, but it does set a boundary on them and avoids any question of a possible breach of faith concerning the benefits present members will receive. Further, and perhaps most importantly, the design of the new formula need not be constrained to a pattern similar to that of the present formula. For example, a noncontributory system might be established, providing certain tax advantages to the employees, as well as providing greater flexibility in benefit design.

In one respect, there is a major advantage to be gained by designing a new plan of benefits at this time. The 1977 amendments to the Social Security Act radically changed the method by which benefits are calculated under Social Security. A new formula could be designed specifically to coordinate with the new Social Security benefits, including the automatic adjustments (indexing) for cost of living increases. One such formula is a modernized version of the old-fashioned career average formula which is indexed to reflect changes in the cost of living. Such a formula, incidentally, not only has the advantage of providing an accurate complement to Social Security, but also provides a more equitable benefit for persons who have substantial changes in salary from time to time, particularly during the last few years of employment.

To further illustrate the new system concept as briefly described above, let us take a look at the new Social Security primary pension formula:

<u>SOCIAL SECURITY PRIMARY PENSION FORMULA</u>
90% OF THE FIRST $180 OF AIME, PLUS
32% OF AIME BETWEEN $180* AND $1085*, PLUS
15% OF AIME IN EXCESS OF $1085*.

*INDEXED TO COST OF LIVING
AIME means Average Indexed Monthly Earnings

The new system VSRS pension formula would be designed to mesh or dovetail closely with the above formula. This would mean having salary step rate change points corresponding to those seen above. Also, it would mean indexing the earnings base in the VSRS pension formula in a manner similar to indexing of the Social Security formula. The percentage factors in the VSRS pension formula would be designed so that, together with the percentage factors in the Social Security primary pension formula, the total would closely relate to the total pension objective as described in House Joint Resolution 145 i.e. "VSRS benefits when combined with the Social Security benefit should provide a career employee at normal retirement with a retirement benefit of economic income generally equivalent to and not significantly in excess of such retired employee's economic income while employed immediately prior to retirement."

The design of a new system is a major undertaking for which adequate time should be allowed to make the proper studies in connection with developing the formula that will properly coordinate with Social Security to achieve the desired benefit objective. We believe the Commission should anticipate a year-long study for proper completion of this project.

Section IV
OTHER CONSIDERATIONS

Our studies during the past 3 months covered a number of other considerations, as requested by the Commission, in addition to the matters covered in Sections I, II & III of this report. These other considerations are:

(a) A Review of VSRS Actuarial Procedures and Assumptions

We have reviewed the actuarial procedures and assumptions presently used with respect to the Virginia Supplemental Retirement System. Our discussion of these with the Commission included an analysis of the recent report of George B. Buck, Consulting Actuaries, Inc., on their study of the System. Buck's conclusions appear reasonable to us. Their only disagreement with the present actuarial procedures is regarding the method of amortizing the accrued liability of the System. Buck prefers a different method, one which would result in an increase in the annual employer contribution.

We agree the contribution rates should increase, but our reasons are somewhat different. We believe the accruing commitment to provide cost-of-living benefits after retirement should be fully reflected in current employer contributions.

We asked the System's actuaries to estimate employer contribution rates using the method we prefer. These rates are shown in the table below, along with rates calculated on the present basis. Both sets of rates are what would have been payable starting July 1, 1976 if assumptions then adopted had been effected immediately, rather than phased in over four years.

	State Employees	Teachers
Present basis:		
Base cost	4.35%	6.00%
Current year's cost-of-living payments	.70	1.68
Total	5.05%	7.68%
Our recommended alternate basis:	7.68%	9.85%

The rates shown are employer contribution rates as a percentage of payroll. "Present basis" rates will rise with increases in cost-of-living payments. Ultimately, "present basis" costs will be substantially larger than those of the alternate basis we recommend.

(b) The Question on Opting Out of Social Security

In our report entitled "Compendium of Consultants' Reports, 1970-1978," we expanded upon a 1976 report by Martin E. Segal Company, Incorporated, regarding the question of opting out of Social Security. In our discussion, we presented both the advantages and disadvantages of opting out. We would not recommend opting out for VSRS. We believe the increased likelihood that Congress will mandate Social Security coverage for all employees is a compelling argument to preserve the status quo. Another strong argument involves the social issue--Social Security is designed for all employees in the country, and opting out runs counter to the worthwhile purpose which Social Security is designed to accomplish.

(c) Comment on VSRS Investment Return

The 1978 report of the System gives the following summary of the investments:

	Percent of Total	Rate of Return* Fiscal 1978	Fiscal 1977
Cash/short term	8.6%	5.37%	5.97%
Bonds	58.1	7.14	7.08
Stocks	28.4	3.85	3.54
Special investments	4.9	9.51	7.12
	100.0%	6.17%	5.98%

* Excluding capital gains and losses.

We have made no attempt to review the investment procedures in any depth, nor are we qualified to give analysis of the individual securities held. Based on the figures given in the table above, however, we can indicate that the earnings of the System and the distribution of the assets appear to be in line when compared with other large systems around the country with which we are familar.

(d) Comment on the Judicial and State Police Systems

The general benefit structure of the two small systems is parallel to that of VSRS. However, there are also significant benefit differences. For the Judicial System, each year of membership service is weighted by a factor of 3-1/2 before the benefit is calculated. For the State Police System, the benefit is calculated as in VSRS, but the normal age of retirement is age 60 rather than age 65, and a supplemental retirement allowance of $250 per month is provided until age 65.

Because of these more generous benefit features, substantially greater employer contribution rates are required to maintain the systems, as compared with VSRS. Based on the revised actuarial assumptions adopted as of June 30, 1976, but with the artificially depressed allowance for future inflation (discussed in the Buck report), the required employer contribution rates for the various systems are as follows:

	Percentage of Payroll
VSRS	
State Employees	3.31%
Teachers	5.93
Judicial System	23.91
State Police Officers' System	9.79

Although these benefit and cost relationships between VSRS, Judicial and State Police Systems are comparable to similar groups elsewhere in the country, further study of the benefits provided under the small systems would appear warranted. The benefit accrual rate for the Judicial System (essentially 5.78% of salary for each year of service) is especially generous, in view of the changing characteristics of the judiciary in recent years and the trend towards persons' becoming judges at younger ages, leading to longer careers on the bench. To reflect the longer careers for Judges today, we believe it would be appropriate to reduce the "service multiplier" in the Judicial System from 3-1/2 down to 2.

(e) Contribution and Funding Levels of VSRS Compared to Other Systems

In our report to the Commission on October 26th, we presented tabular information showing how VSRS relates to other systems from the standpoint of funding and contribution levels. Such information is presented in Exhibits 9 and 10 appended to this report.

Exhibit 9 shows the ratio of assets to accrued liability for 25 large state and local public plans, including VSRS. The table shows that the VSRS funding level is about in the middle of the group of 25 large systems on the basis of the 1976 valuation of the system (a funding ratio of 56.1%) -- however, if full salary and cost-of-living increases are assumed, the accrued liability funding ratio decreases to 35.5% putting VSRS in the lower quartile of the group of 25 systems from the accrued liability funding standpoint.

Exhibit 10 appended hereto shows how VSRS compares, from a contribution standpoint, with a sampling of 747 plans in private industry.

APPENDIX

Appended hereto are 11 tables and graphs which are referred to throughout the text of the report. These tables and graphs present statistical information in support of our findings and conclusions on excessive benefits, funding and contribution levels of VSRS in comparison to other Systems, and cost estimates for several suggested modifications to cope with the excessive benefit problem.

EXHIBIT 1

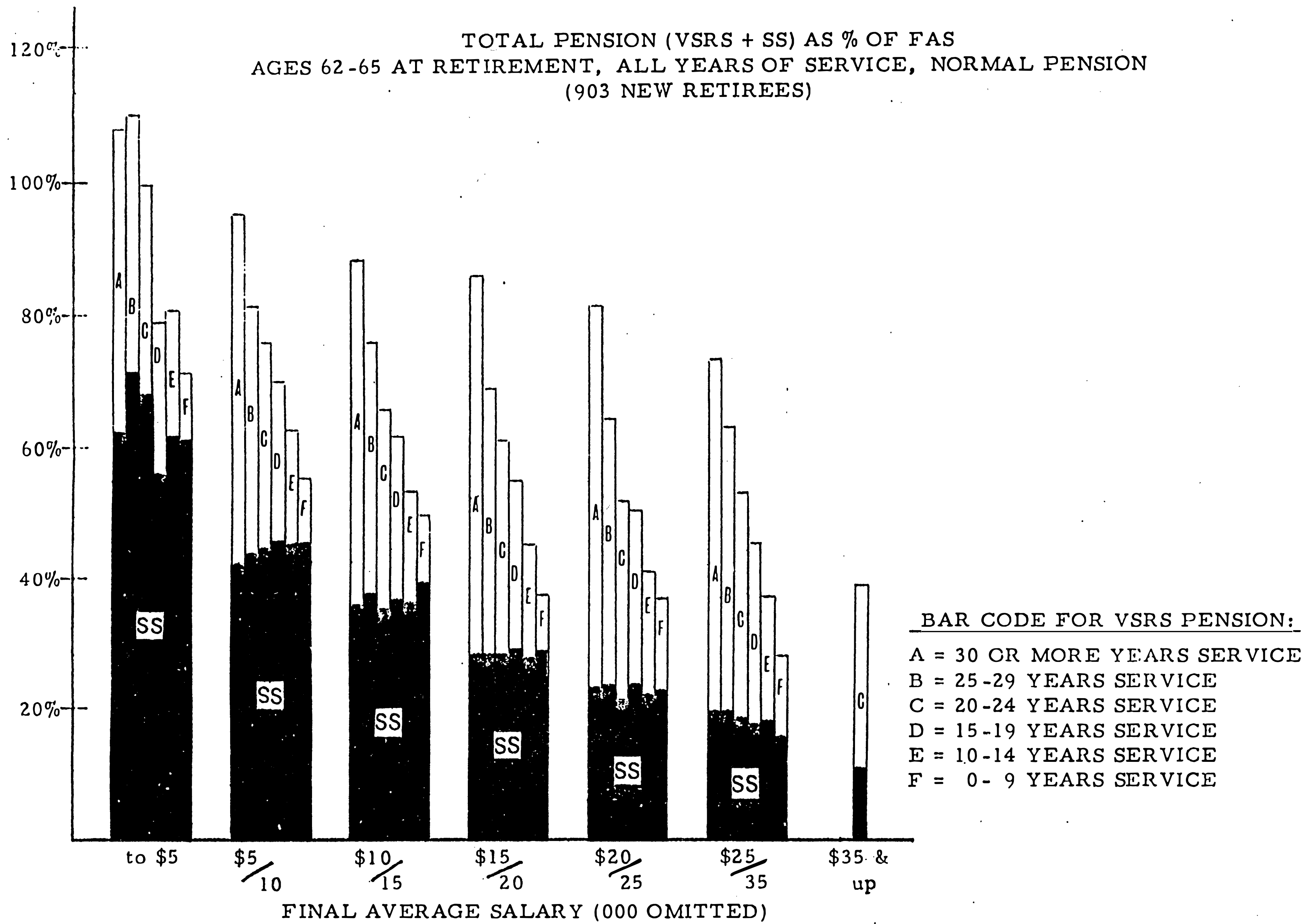

TOTAL PENSION (VSRS + SS) AS % OF FAS
AGES 62-65 AT RETIREMENT, ALL YEARS OF SERVICE, NORMAL PENSION
(903 NEW RETIREES)
120%
100%
80%
60%
40%
20%
A
B
C
D
E
F
SS
to $5
$5/10
$10/15
$15/20
$20/25
$25/35
$35 & up
FINAL AVERAGE SALARY (000 OMITTED)
BAR CODE FOR VSRS PENSION:
A = 30 OR MORE YEARS SERVICE
B = 25-29 YEARS SERVICE
C = 20-24 YEARS SERVICE
D = 15-19 YEARS SERVICE
E = 10-14 YEARS SERVICE
F = 0- 9 YEARS SERVICE

EXHIBIT 2

DISTRIBUTION OF NEW RETIREES BY TOTAL PENSION (VSRS + SS) AS % OF FINAL AVERAGE SALARY

AGE 62 - 65 AT RETIREMENT, ALL YEARS OF SERVICE, NORMAL FORM OF PENSION

TOTAL PENSION AS % OF FAS	$0 UP TO $5,000	$5,000 UP TO $10,000	$10,000 UP TO $15,000	$15,000 UP TO $20,000	$20,000 UP TO $25,000	$25,000 UP TO $35,000	$35,000 AND OVER	NUMBER OF RETIREES
100% & OVER	6	7	9	1	0	0	0	23
90% - 99.9%	10	22	32	10	2	0	0	76
80% - 89.9%	6	53	59	14	2	1	0	135
70% - 79.9%	7	86	61	18	3	1	0	176
60% - 69.9%	7	92	67	18	4	4	0	192
50% - 59.9%	2	80	73	17	8	4	0	184
40% - 49.9%	0	40	38	11	7	4	0	100
39.9% & LESS	0	0	2	8	4	2	1	17
TOTAL	38	380	341	97	30	16	1	903

*284 RETIREES (OR 31%) HAVE PENSIONS EXCEEDING THE AVERAGE ECONOMIC INCOME LINE

THIS IS PAGE 24 FROM OCTOBER 3RD STUDY OF NEW RETIREES WITH AVERAGE ECONOMIC INCOME LINE ADDED.

EXHIBIT 3

TOTAL PENSION (VSRS + SS) AS % OF FAS
AGE 65 AT RETIREMENT, ALL YEARS OF SERVICE, NORMAL PENSION
(395 NEW RETIREES)

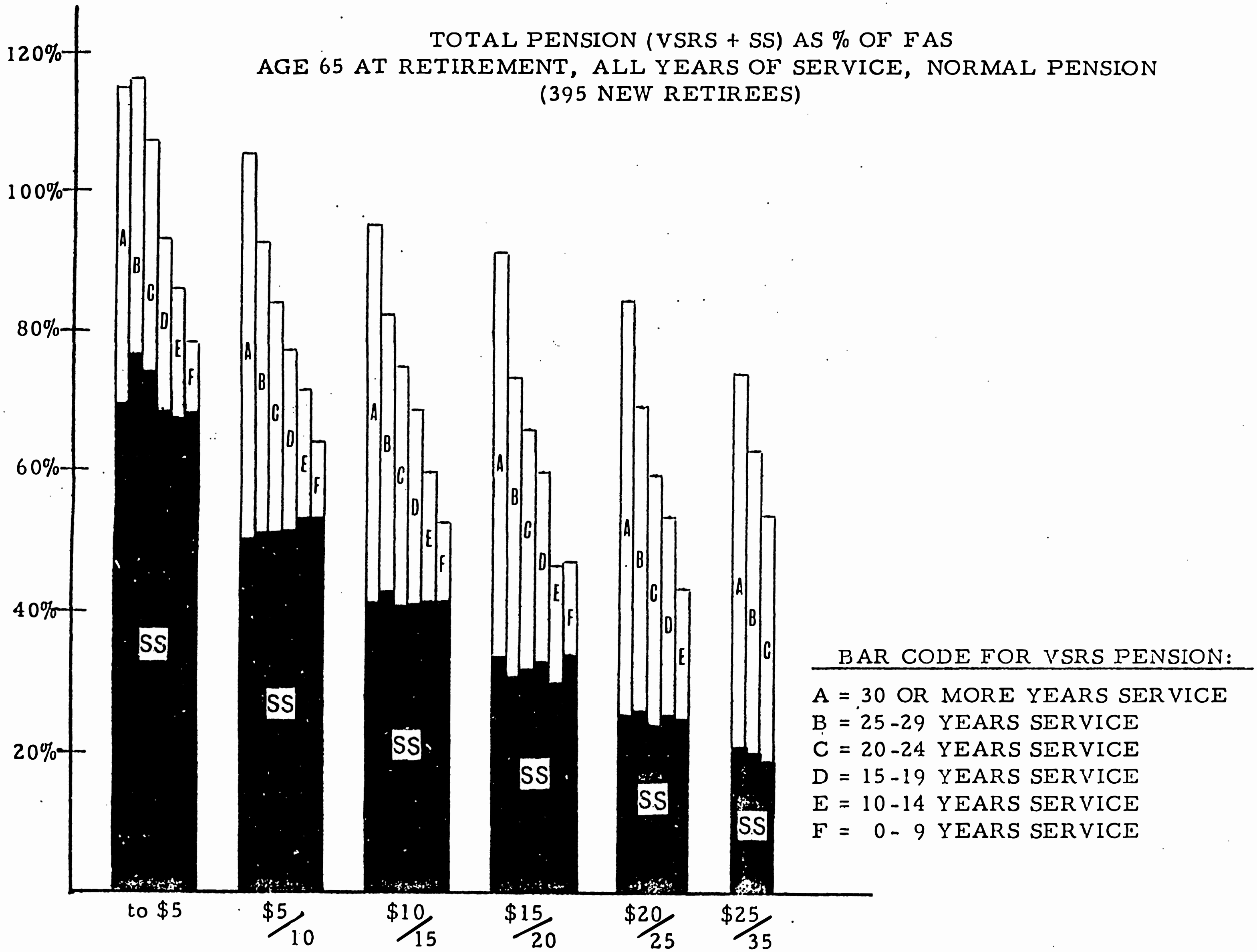


EXHIBIT 4

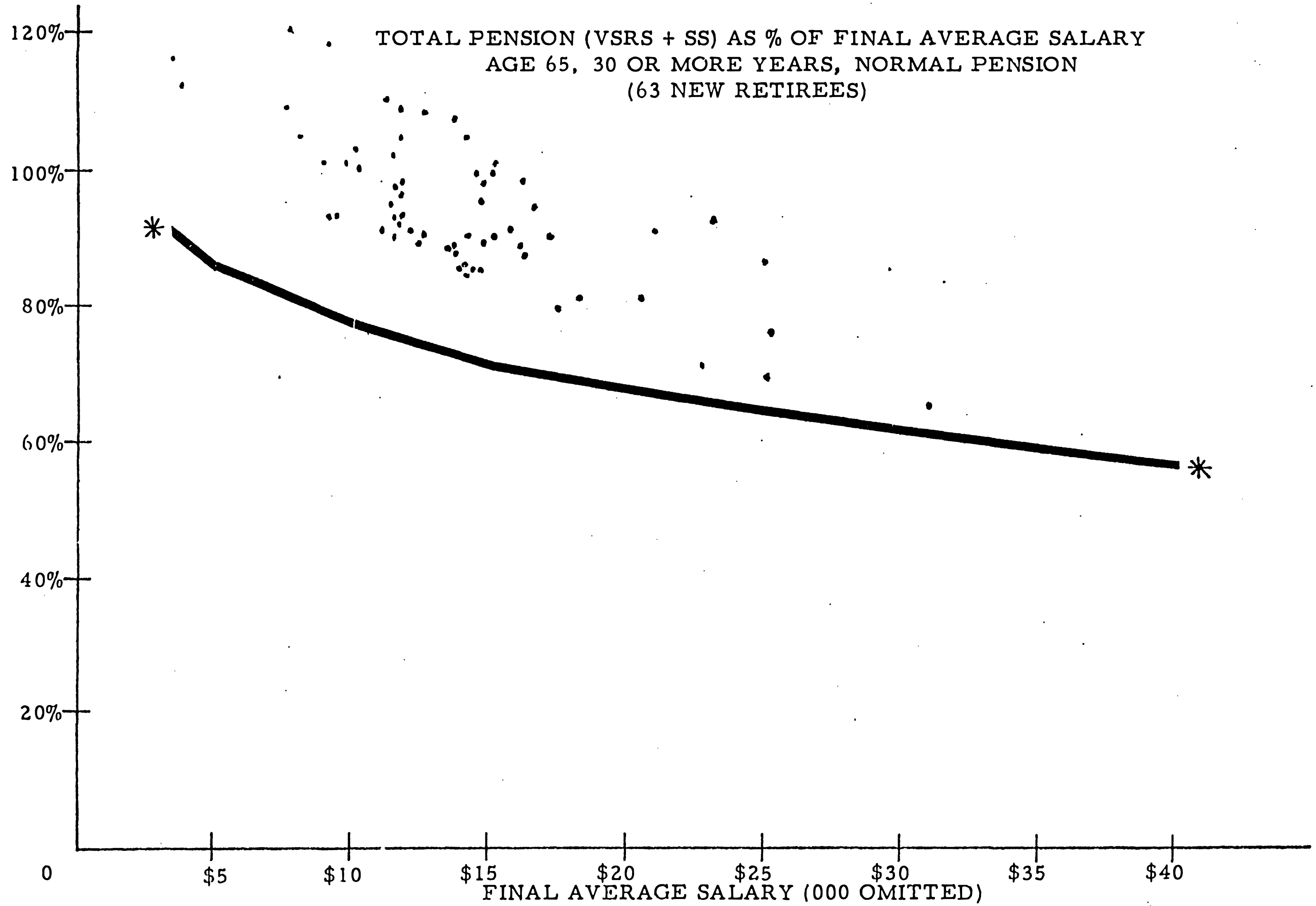
DISTRIBUTION OF NEW RETIREES BY TOTAL PENSION (VSRS + SS) AS % OF FINAL AVERAGE SALARY

AGE 65 AT RETIREMENT, ALL YEARS OF SERVICE, NORMAL FORM OF PENSION

TOTAL PENSION AS % OF FAS	$0 UP TO $5,000	$5,000 UP TO $10,000	$10,000 UP TO $15,000	$15,000 UP TO $20,000	$20,000 UP TO $25,000	$25,000 UP TO $35,000	$35,000 AND OVER	NUMBER OF RETIREES
100% & OVER	6	6	10	1	0	0	0	23
90% - 99.9% *	6	14	15	6	2	0	0	43
80% - 89.9%	5	39	32	3	1	1	0	81
70% - 79.9%	3	59	27	9	2	1	0	101
60% - 69.9%	1	44	31	9	3	2	0 *	90
50% - 59.9%	0	6	26	5	6	3	0	46
40% - 49.9%	0	0	5	4	1	0	0	10
39.9% & LESS	0	0	0	0	1	0	0	1
TOTAL	21	168	146	37	16	7	0	395

* 169 Retirees (or 43%) have pensions exceeding the Average Economic Income line.

EXHIBIT 5



*63 Retirees (or 100%) have pensions exceeding the Average Economic Income line.

EXHIBIT 6

ACTIVE MEMBERS AGES 55 TO 59 RETIRING 6 TO 10 YEARS FROM NOW AT AGE 65

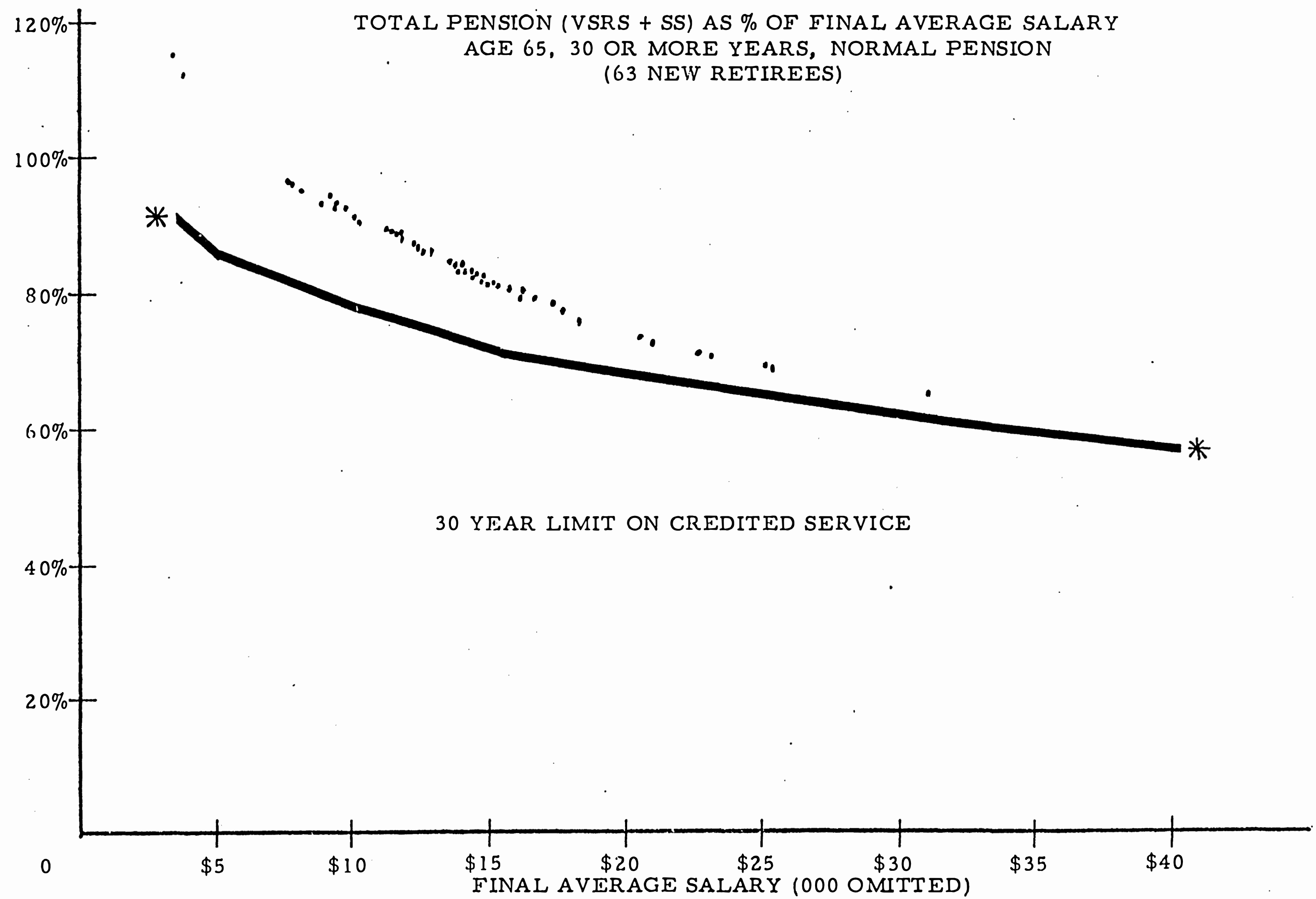
DISTRIBUTED BY TOTAL PROJECTED* PENSION (VSRS + SS) AS % OF FINAL AVERAGE SALARY

TOTAL PENSION AS % OF FAS	$0 UP TO $10,000	$10,000 UP TO $20,000	$20,000 UP TO $30,000	$30,000 UP TO $40,000	$40,000 UP TO $50,000	$50,000 UP TO $60,000	$60,000 AND OVER	TOTAL NO. OF MEMBERS
100% & OVER	491	260	0	0	0	0	0	751
90% - 99.9% **	153	866	385	0	0	0	0	1,404
80% - 89.9%	481	1,530	619	168	32	0	0	2,830
70% - 79.9%	742	1,919	453	157	40	11	9	3,331
60% - 69.9%	454	2,151	547	104	30	18	6	3,310
50% - 59.9%	0	666	419	162	22	18	9	1,296
40% - 49.9%	0	0	119	93	47	16	22	297
39.9% & LESS	0	0	17	27	33	25	16	118
TOTAL	2,321	7,392	2,559	711	204	88	62	13,337

* 5% SALARY SCALE AND COST OF LIVING ASSUMPTIONS

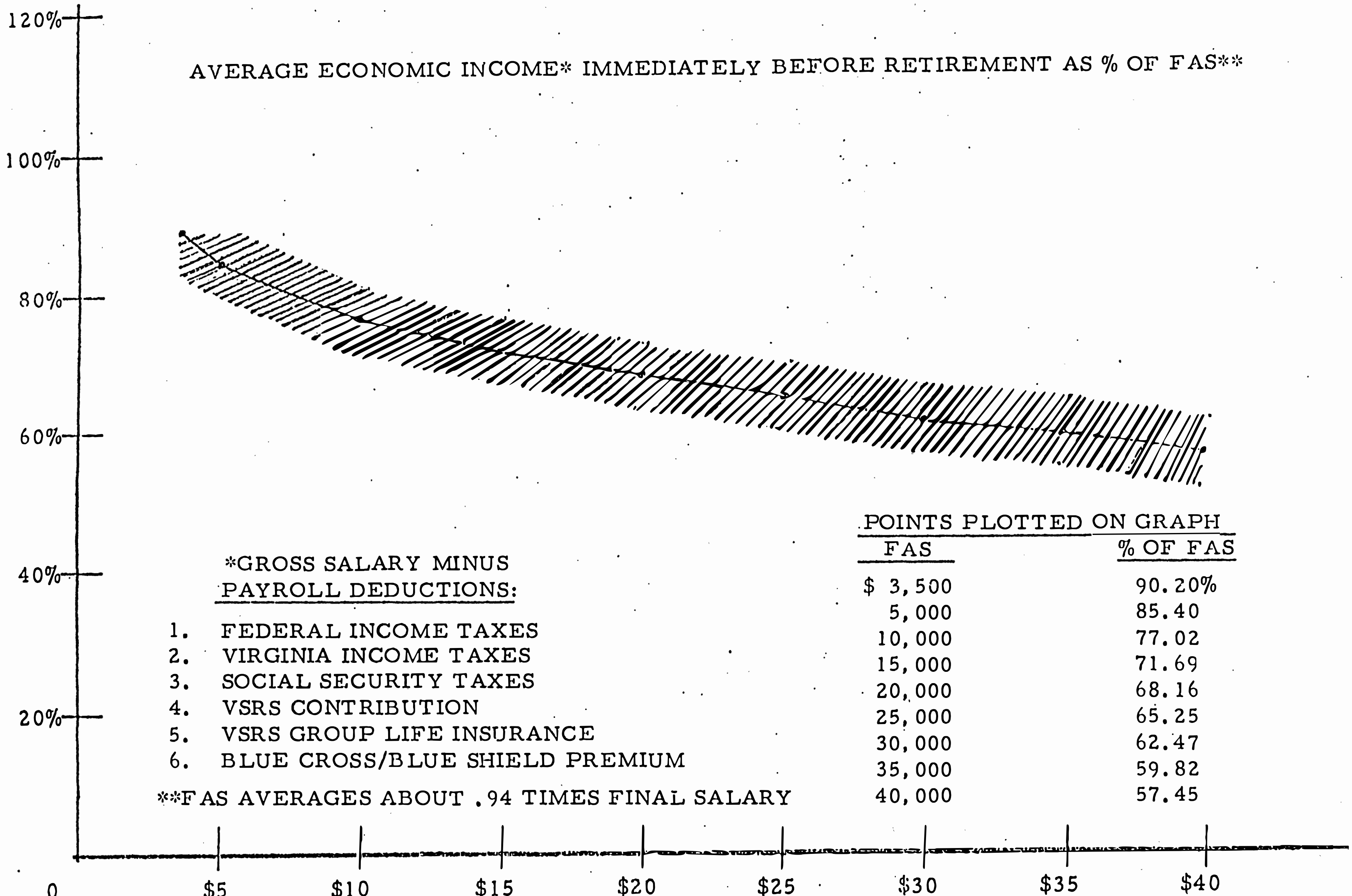
** 6,872 Retirees (or 52%) have pensions exceeding the Average Economic Income line.

EXHIBIT 7



*63 Retirees (or 100%) have pensions exceeding the Average Economic Income line.

Exhibit 8



*GROSS SALARY MINUS
PAYROLL DEDUCTIONS:

1. FEDERAL INCOME TAXES
2. VIRGINIA INCOME TAXES
3. SOCIAL SECURITY TAXES
4. VSRS CONTRIBUTION
5. VSRS GROUP LIFE INSURANCE
6. BLUE CROSS/BLUE SHIELD PREMIUM

**FAS AVERAGES ABOUT .94 TIMES FINAL SALARY

POINTS PLOTTED ON GRAPH

FAS	% OF FAS
$ 3,500	90.20%
5,000	85.40
10,000	77.02
15,000	71.69
20,000	68.16
25,000	65.25
30,000	62.47
35,000	59.82
40,000	57.45

Exhibit 9

Ratio of Assets to "Accrued Liability"

Largest 25 State & Local Plans

1975

	Number of Plans
21 - 30%	2
31 - 40 **	2
41 - 50	2
51 - 60 *	9 <
61 - 70	4
71 80	4
81 - 90	1
91 & Up	1
	25

< Median group
* VSRS - State & Teachers; 1976 Valuation Basis: 56.1%
** VSRS - State & Teachers; If full salary and cost-of-living increases assumed: 35.5%

Source: Table G7, Pension Task Force Report on Public Employee Retirement Systems, Committee on Education and Labor, U. S. House of Representatives

Exhibit 10

Pension Costs of Representative Private Employers

1977

Percent of Payroll	All Companies Surveyed (748)	All Nonmanufacturing Companies Surveyed (309)	All Public Utilities Surveyed (110)
0%	8%	8%	
0.1 - 1.9%	7	5	1%
2.0 - 3.9	20	16	4
4.0 - 5.9 *	19 <	15	10
6.0 7.9	16	16 <	18
8.0 - 9.9 **	13	17	30 <
10.0 11.9	9	12	17
12.0 - 13.9	4	5	10
14.0% & Over	4	6	10
	100%	100%	100%
Average Payroll Percentages:			
All in this category	5.9%	6.9%	9.5%
All in this category having pension plans	6.5	7.5	9.5

< Median group
* VSRS - State & Teachers; 1976 Valuation Basis: 4.7%
** VSRS - State & Local Teachers; If full salary and cost-of-living increases assumed: 8.4%

Source: Table 11, Employee Benefits 1977, The Chamber of Commerce of the United States

Exhibit 11
(2 pages)

The second page of this Exhibit summarizes the cost effects associated with various changes in benefits and financing methods for the Virginia Supplemental Retirement System. Separate rates are shown for state employees and teachers. A "total" column is presented for comparison purposes, although separate rates will be maintained for state employees and teachers. The "total" column shows weighted averages of the state and local rates, based upon salaries in effect as of the June 30, 1976 valuation.

Rates are shown for the present plan on the present financing basis and on the modified financing basis we prefer. Under the modified basis, the cost-of-living benefits would be paid for as they accrue, rather than on the present pay-as-you-go basis. Employer contribution rates on the present basis will increase at a rapid rate over the years, as the payment for current cost-of-living benefits increases, and will stabilize ultimately at a level much higher than the rates for the preferred funding method. The latter rates, on the other hand, can be expected to remain level or decline slightly over an indefinite period of time. Because of this characteristic, the costs of the benefit proposals have been measured on the preferred funding method so as to make the cost comparisons more meaningful.

Two sets of figures are shown on the second page of this Exhibit 11 for each proposal:

- The reduction in the preferred contribution rate for the present plan.

- The total employer contribution rate for the proposal.

In each case the costs shown are what would occur if member contributions were to terminate when the employee completes thirty years of service. If, instead, member contributions were to continue after that point, either at the full 5% level or at some reduced level, there would be a corresponding reduction in the employer contribution rate. The bottom two lines show the additional savings in employer contribution rates (over and above the savings indicated for each proposal) if member contributions were to continue at 2 1/2% after thirty years of service, or at the full 5% level.

(continued)

Exhibit 11

EFFECT ON REQUIRED EMPLOYER CONTRIBUTION RATES OF VARIOUS BENEFIT AND FINANCING CHANGES FOR VSRS

December 5, 1978

	Employer Contribution Rates As Percentages Of Payroll		
	State Employees	Teachers	Totals*
• Present plan			
Present financing basis	5.05%	7.68%	6.46%
Adjustment for current payment of accruing cost-of-living benefits	2.63	2.17	2.38
Total	7.68%	9.85%	8.84%
• Proposal A (present plan, with no further member contributions or benefit accruals after 30 years of service)			
Reduction from present plan	.77	1.19	1.00
Net cost	6.91%	8.66%	7.84%
• Proposal B (like Proposal A, using indexed crossover points)			
Reduction from present plan	1.05	1.53	1.31
Net cost	6.63%	8.32%	7.53%
• Proposal C (like Proposal B, using 1.375% benefit factor instead of 1.5%)			
Reduction from present plan	1.57	2.05	1.83
Net cost	6.11%	7.80%	7.01%
• Additional reduction in employer rate if member contributions continue after 30 years of service at:			
2.5% rate	.28	.40	.34
5.0% rate	.57	.80	.69

* Rates for state employees and teachers, weighted on basis of current salaries

APPENDIX B

HOUSE JOINT RESOLUTION NO.....

Continuing the Virginia Retirement Study Commission; allocation of funds therefor.

WHEREAS, the Virginia Retirement Study Commission was created by House Joint Resolution No. 145 of the 1978 Session to study the retirement systems and to make a thorough examination of the combined benefits payable under Social Security and the respective retirement systems and the alternative methods of achieving a combined benefit structure consistent with the benefit objectives as set forth in House Joint Resolution No. 145 and report their findings and recommendations to the General Assembly by December one, nineteen hundred seventy-eight; and

WHEREAS, the Virginia Retirement Study Commission has spent a year examining the complexity of the issues, gathering detailed statistical data, and considering possible alternatives and modifications to the retirement systems; and

WHEREAS, the background and analysis portion of the study took longer than originally anticipated and the Commission realized that even if its final recommendations had been formulated prior to its December one, nineteen hundred seventy-eight reporting date there would not have been sufficient time to receive comments and hold the necessary public hearings prior to preparing legislation for consideration at the 1979 session; and

WHEREAS, the present Commission has gathered a great deal of expertise in the field and recognizes that a number of additional proposals should be evaluated in more detail, costed, and presented for public comment and consideration; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Virginia Retirement Study Commission is hereby continued with the present members to study the combined benefits structure of the Virginia Supplemental Retirement System, the State Police Officers Retirement System, and the Judicial Retirement System and the alternative methods of achieving a combined benefits structure consistent with the benefit objectives outlined in House Joint Resolution No. 145 of the 1978 Session and report their findings and recommendations to the General Assembly. In the event any present member cannot or refuses to serve, his replacement shall be made in the manner of the original appointment.

All members of the Commission shall receive such compensation as set forth in § 14.1-18 of the Code of Virginia and shall be paid their necessary expenses incurred in the performance of their duties for which there is hereby allocated from the general appropriation to the General Assembly the sum of five thousand dollars.

The staff of the House Committee on Appropriations and the Division of Legislative Services shall provide such assistance as is necessary. In addition, all agencies of the State and the governing bodies and agencies of all political subdivisions of the State shall cooperate with and assist the Commission in its study.

The Commission shall report its findings and recommendations to the Governor and the General Assembly no later than December one, nineteen hundred seventy-nine.