ACTUARIAL VALUATION

This annual report has been prepared pursuant to the directives of Chapter 36 which governs the operations of the system. This directive provides, among other things, that the report shall include a valuation balance sheet prepared by the actuary.

In accordance with this authority, the actuary has made a valuation of the liabilities and reserves of the system as of the close of the year under review, and has prepared a valuation balance sheet. The report of the actuary, embodying the results of the valuation, is presented as a part of this annual report.

#### AMENDATORY LEGISLATION

Three bills were enacted at the 1961 session of the General Assembly affecting the Employees' Retirement System. These bills are briefly described.

House Bill 1871. Civilian employees of the army national guard and air national guard of the State, although paid salaries from federal appropriations, were granted the privilege of becoming members of the system by filing an application with the retirement board on or before December 31, 1961, or within six months of entry into service, whichever is later.

\$39,965,561.00

11,495,596.00

\$51,461,157.00

5,325,557.00

\$46,135,600.00

- - / -

Summary of Changes in Investment Account Total investments at July 1, 1960 Add: Purchases

Deduct: Sales or Redemptions Balance, Investments at June 30, 1961

# APPROPRIATIONS

Appropriations by the General Assembly for the fiscal year ending June 30, 1962 were as stated below, with the amounts given for the preceding year for comparison:

State Employees	1962 Fiscal Year	1961 <u>Fiscal Year</u>
5% of assumed payroll of the members for the year	ू2 <b>,</b> 108 <b>,</b> 200 <b>,0</b> 0	\$1,928,200.00

Teachers

Normal Requirements -3-1/2% of assumed payroll of the members1/ \$1.235.590.00 1,261,090.00

1/ The total contribution rate on account of teacher-members from the cities and towns is 7% of payroll. This is shared equally by the State and the Cities and Towns.

No prior service credit is provided. The employer's share or No prior ported to benefits on account of these persons is to be fithe cost of ri. under an agreement between the State and the Secretary of

# Defense.

House Bill 1854. Any teacher who reentered service after July 1, 1949, while over the age of 60 years, was granted membership in the system with credit for service prior to such date, provided he made contributions to the system at the rate of 10% of salary. Credit for prior service is conditioned upon the teacher rendering at least 5 years of service after

July 1, 1949.

House Bill 1653. Upon death of a member of the General Assembly while on retirement, the death benefit payable to his beneficiary or estate shall be the ordinary death benefit provided upon death of a member while in service. This benefit is to be in lieu of the benefit payable upon death after retirement.

No recommendations are made by the Board for changes in the retirement act. In its opinion, the benefit schedule for the system is reasonably adequate and well-balanced. The benefits and qualifying conditions compare very favorably with those in force for State government employees and public school teachers of other States. Such inequities that existed in prior years

have been removed. Federal social security coverage has also been made available to those who chose to accept it. The State of Rhode Island and the cities and towns have assumed an additional cost burden for that purpose.

The unfunded accrued liability of the system at June 30, 1961 amounted to \$66,565,602.00. This liability is constantly increasing due to the deferred aspects of the method of financing the system's obligations. The liability is an actual liability, actuarially determined. The liability will have to be discharged in future years by steadily increasing contributions on the part of the State and the Cities and Towns.

In view of the sizable obligations assumed under the existing benefit schedule, the Board feels impelled to recommend the rejection of any proposals providing for liberalizing changes or special benefits to individual employees creating preferential rights or benefits.

The policies of the Board are directed constantly toward the operation of the system in accordance with principles and standards governing effective retirement planning and administration for public employees in fulfillment of its basic objectives.

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#### REPORT OF THE ACTUARY

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There are presented herewith the results of an actuarial valuation of the assets and liabilities of the Employees' Retirement System of the State of Rhode Island as of June 30, 1961.

Membership has continued its upward trend both as to State employees and teachers. The increase during the year was approximately 4%. It is interesting to note that the number of male teacher members has again shown an increase as a proportion of the total number of teachers participating in the system. The proportion now is 32.0% of the total teacher membership as compared with 30.9% last year and 29.6% two years ago. A similar trend is in evidence in teachers' systems in other States.

The current financial condition has improved steadily. This is evidenced by the increase in reserves, particularly the contingent reserves. This is clearly illustrated in the following statement:

		June 3	Oth
	1961	1960	Increase
Contribution credi	ts:		
State employees	\$11,545,438.00	\$10 <b>,</b> 364 <b>,</b> 646.00	J1,180,842.00
Teachers	11,493,402.00	9,846,782.00	1,646,620.00
Contingent reserve	s:		
State employees	\$16,827,133.00	\$14,672,183.00	\$2,154,950.00
Teachers	6,999,594.00	6,043,168.00	956,426.00

Retirement Board, Employees! Retirement System of the State of Rhode Island,

RAYMOND H. HAWKSLEY, Chairman JOSEPH M. BOISVERT PRIMO IACOBUCCI JOHN J. WRENN T. MORTON CURRY JUDGE HAROLD C. ARCARO MICHAEL F. WALSH JAMES E. CONLON CHARLES W. HILL

RALPH CINQUEGRANA Secretary



The provisions of the retirement plan as presently constituted compare most favorably with those in effect in other States for State employees and teachers. A large obligation has already been imposed on the State and the cities and towns under the present retirement plan and for social security coverage as a supplement to the plan. Further liberalizing changes may prove damaging to the maintenance of the system. The pension policy should reflect conformance with reasonable standards with a benefit schedule which is within the financial ability of the State and the cities and towns to meet its cost.

The Valuation Balance Sheet accompanying this report illustrates the obligations of the system and its true financial condition. The unfunded accrued liability is separated as between the State of Rhode Island and the Cities and Towns. The obligations of the respective units of government are clearly indicated.

# BASIS OF VALUATION

The benefit and contribution provisions forming the basis of this report are summarized in the appendix. The valuation was made according to the rates of mortality and separation established by our previous survey of the operating experience of the system completed as of June 30, 1958. The rate of interest



assumed in this valuation was 3,5 per annum. This represents a conservative rate according to the investment experience of the system and the established investment authority.

#### STATISTICAL DATA

Statistics required for this report were compiled by the office staff under the direction of Ralph P. Cinquegrana, Secretary, and supplied to us in excellent form. Detailed tables reflecting these statistics are presented in the appendix. A summary of these statistics is as follows:

	State employees	
	Male	Female
Number of members	5,781	3,841
Proportion of total	60.1%	39.9%
Annual Salaries	26,552,719.00	974 <b>,</b> 446.00
Average salary	4,593.00	<i></i> ;3,899.00
Average age	46.2	43•5
Average total service	,7•7,	7•3
	Teacher members	
Number of members	2,148	4,566
Proportion of total	32.0%	68.0%
Annual salaries	\$11,874,461.00	\$24,661,007 <b>.0</b> 0
Average salary	<i>\$5,52</i> 8,00 €	\$5,401 <b>.</b> 00 41 <b>.</b> 7
Average age	39.5	
Average total service	9•7	13.6

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7/

Members with Prior Service1/		
		te Employees
	Male	Female
a	347	182
Number of members Proportion of total	65.6%	34.4%
Annual salaries	2,370,380.00	\$991,865.00
Annual salaries Average salary	€ <b>,</b> 831.00	\$5,450.00
Average years of prior service	6.4	5.6
	Teache	r Members
Number of members	632	1,839
Proportion of total	25.6%	74.4%
Annual salaries	\$4,329,338.00	\$11 <b>,</b> 418,275.00
Average salary	<b>6,850.00</b>	\$6 <b>,209.</b> 00
Average years of prior service	12.5	17•4

1/ Service prior to July 1, 1936 in the case of State employees, and July 1, 1949 in the case of teachers.

### ACTUARIAL VALUATION

An actuarial valuation is undertaken for the purpose of establishing the true financial condition of the system. The liabilities for the accrued and prospective benefit obligations are computed by actuarial formulas and procedure. In the calculation of these liabilities, the principles applied are similar to those that govern life insurance practice. A determination is made of the reserves required for the obligations as they mature. The factors of mortality and interest are basic in such a determination.

The valuation of a retirement system, however, involves additional factors such as turnover in employment, ages at retirement, rates of salary at the time the benefits become payable and rates of disability. It is the function of the actuary to properly appraise and evaluate the effect of these factors in the operation of the system. With the use of certain techniques, actuarial functions reflecting these factors are established based generally upon past experience, and used in forecasting the course of future operations. A forecast of the future, therefore, is fundamental to an evaluation of the financial condition of a retirement system.

The rates developed in our actuarial survey as of June 30, 1958, with appropriate modifications to reflect the operating experience for the year under review, were used in measuring mortality among the active members and retirants, and the turnover experience among the members. Separate rates were used for the State employees and the teacher members, with a further separation between male and female individuals to give effect to physiological conditions and employment factors. Any variations in future experience from the assumed standards are adjusted currently by a revision of the basic factors. Since the financial condition of the system is reappraised each year through the annual actuarial valuation, actuarial balance sheets give effect to these revisions and changes.

It must be considered, however, that because of the long-term character of pension obligations, a forecast of future trends must be based upon operating experience for an extended period of time. Short term fluctuations and transitory factors in operations cannot be permitted to influence the basic assumptions or conclusions.

#### ACCRUED LIABILITY

The accrued liability consists of pension credits earned by the members in service, and those who have left service with vested rights. The amount of this liability is 271,123,009.00. Of this amount, the members are obligated for  $\pm 13,748,026.00$ and the State and Cities and Towns in the amount of \$57,374,983.00.

A matured liability exists on account of members who are on retirement. The amount of this liability, which includes present and prospective beneficiaries, is \$33,017,346.00. The liability for future refunds to those members who may leave

service before acquiring vested rights was established at \$9,290,864.00.

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The sum of these three liability items, amounted to \$113,431,219.00 and constitutes the total accrued liability. To meet this liability, the system has accumulated assets totalling 046,865,617.00. The difference between the total accrued liability and the total present assets is \$66,565,602.00, which represents the unfunded accrued liability.

#### FUTURE SERVICE LIABILITY

The liability for retirement annuities on account of service to be rendered by the members after June 30, 1961, to the dates when these annuities will probably mature, has been established at (44,152,941.00. This is the present value of such future service pension credits at date of maturity.

In the computation of this liability, assumptions were made as to the probable periods of future service, the credits to be released by deaths and separations from service, future salary rates and the ages at which the credits may mature. These assumptions were based upon past experience, current operating factors and our estimate of probable future trends.

To meet the foregoing liability, the members will contribute to the system during their future service, assuming the present

Employees' Retirement System of the State of Rhode Island

VALUATION BALANCE SHEET - JUNE 30, 1961

Statement of Assets, Liabilities and Reserves

#### ASSETS

PRESENT	ASSETS:
Cash	

Investments Bonds (at par value)	\$31,312,500.00
Stocks (at cost)	14,823,100,00

# DEFERRED ASSETS:

Future service pension credits on account of service subsequent to July 1, 1961

State employees -\$ 7,432,669.00 Members 14,016,504.00 State of Rhode Island

Teachers -8,433,372.00 Members 7,135,198.00 State of Rhode Island 44,152,941.00 7.135.198.00 Cities and Towns

UNFUNDED ACCRUED LIABILITY:

Due from employers for unfunded accrued pension credits -

\$45,199,002.00 State of Rhode Island

Cities and Towns (see foot-66,565,602,00 21.366,600.00 note) \$157, 584, 160.00

TOTAL ASSETS

Under the law governing the system, the cities and towns Note: of the State assume one-half of the cost of teachers! pensions.

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rates of contribution maintain and the foregoing factors prevail according to assumptions, the amount of \$15,866,041.00, leaving a remainder to be provided from employer contributions (the State and the Cities and Towns) of (28,286,900.00. These constitute discounted amounts being the present value, as of June 30, 1961, of such future contributions for the assumed periods of service.

# VALUATION BALANCE SHEET

A retirement system is considered to be financially sound from an actuarial standpoint when it has assets equal to the difference between (1) the total of all accrued and prospective liabilities, and (2) the present value of future contributions to be received by the system. This is known as the actuarial reserve. The actuarial reserve may also be defined to mean actual assets on hand equal to all accrued liabilities at the balance sheet date.

The Valuation Balance Sheet showing the results of the valuation made as of June 30, 1961 is presented in the following pages.

\$ 730.017.00

46,135,600.00

Employees' Retirement System of the State of Rhode Island VALUATION BALANCE SHEET - JUNE 30, 1961 Statement of Assets, Liabilities and Reserves CURRENT LIABILITIES: None RESERVE REQUIREMENTS: RESERVE FOR MEMBER CONTRIBUTIONS -State Employees -For service retirement and 5,306,110.00 disability annuities \$ 11,545,488.00 6,239,378.00 For future refunds Teacher Members -For service retirement and 8,441,916.00 disability annuities 11.493.402.00 3.051.486.00 For future refunds RESERVE FOR EMPLOYER CONTRIBUTIONS -For service retirement and disability annuities on active 20,869,818.00 members -State Employees 36, 505, 165.00 Teacher Members RETIREMENT AND BENEFITS RESERVE -Actuarial Value of Service retirement, disability and beneficiary annuities in force -State Employees -\$ 9,670,964.00 Service retirement 477,049.00 Disability 10,444,668.00 Other 296.655.00 Teacher Members -Service retirement \$21.645.183.00 Disability 888,565.00 22,572,678.00 Other 38,930.00 FUTURE SERVICE LIABILITY: Present value of future service pension credits -State employees Teachers \$21,449,173.00 44,152,941.0 22,703,768.00 TOTAL LIABILITIES AND RESERVES

CERTIFICATION

The accompanying Valuation Balance Sheet exhibits all assets, accrued liabilities and reserves of the system as of June 30, 1961. Present assets embodied in this statement were taken from the report of the Bureau of Audits, Department of Administration, State of Rhode Island, dated September 7, 1961, on an examination of the financial reports of the system,

In our opinion, the accompanying Valuation Balance Sheet correctly presents the condition of the Employees' Retirement System of the State of Rhode Island at June 30, 1961, giving effect to all accrued liabilities and actuarial reserve requirements for the several annuities and benefits under the applicable law as the same was in effect at such date.

> A. A. Weinberg Actuary

February 28, 1962

\$157,584,160.0

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# FINANCIAL STATEMENTS

Reproduced from the Report on Examination of Financial Records of the Bureau of Audits, Department of Administration, State of Rhode Island, dated December 15, 1961. -29-

Employees! Retirement System of the State of Rhode Island

FINANCIAL BALANCE SHEET - JUNE 30, 1961

Cash

ASSETS

# \$ 730,017.00

\_\_\_\_

Investments -		
Bonds (at par value)	\$31,312,500.00	
Stocks (at cost)	14,823,100.00	46,135,600.00
Total Assets		\$46,865,617.00

## RESERVES

Annuity Savings Reserve:	
State Employees	\$11,545,488.00
Teachers	11,493,402.00
Contingent Reserve:	
State Employees	16,827,133.00
Teachers	6,999,594.00
Total Reserves	\$46,865,617.00

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Employees! Retirement System of th State of Rhode Island	10	Employees' Retirement System of the State of Rhode Island
State of Cash Receipts and Disburs Statement of Cash Receipts and Disburs Fiscal Year Ended June 30, 1961	961 a	INVESTMENTS - JUNE 30, 1961
Cash Balance July 1, 1960	\$ 961,217,72	tion (stooks)
Receipts: Members Contribution - \$1,951,625.83 State Employees 2,129,662.45		Certificate of Doral Bank Industrial National Bank Industrial National Bank Industrial National Bank Industrial National Bank Industrial National Bank Industrial National Bank
State Contribution - State Contribution - State Employees1,939,100.00 1,081,250.00State Employees Teachers1,081,250.00Teachers Teachers1,202,786.60 1,588,020.09Income on Investments Premiums or Discounts - Invest- ments Purchased Investments Matured or Sold Premium or Discount - Invest- ments Sold1,670.42 3,628,565.31Investments Matured or Sold Premium or Discount - Invest- ments Sold Benefits Cancelled Contributions Refunded - Cancelled Total Receipts Total Available90.98	1, , , , <u>13,651,826.89</u> \$14,613,044.61	United States of America:   5   8/15/64   200,000     Treasury Notes   1-1/2   4/1/65   400,000     Treasury Notes   1-1/2   10/1/65   1,000,000     Treasury Notes   2-3/4   4/1/80-75   1,300,000     Treasury Bonds, Series B   2-1/2   11/15/61   300,000     Savings Bonds, Series B   2-1/2   12/15/68-63   1,350,000     Treasury Bonds   2-1/2   3/15/70-65   195,000     Treasury Bonds   2-1/2   3/15/71-66   250,000     Treasury Bonds   2-1/2   9/15/72-67   9,750     Treasury Bonds   2-1/2   12/15/72-67   9,000     Treasury Bonds   3-1/4   6/15/83-78   1,825,000     Treasury Bonds   3-1/2   2/15/90   1,500,000     Treasury Bonds   3-1/2   2/15/90   1,500,000     Treasury Bonds   3-1/2   2/15/90   1,625,000
Disbursements: Refunds of Contribution State Employees Teachers 423,040.52 223,824.04		The Twelve Federal Land Banks: Consolidated Federal Farm Loan 4-1/2 4/20/64 250,000
Teachers223,024.04Benefits Paid - State Employees993,804.58Monthly Retirement Allowances993,804.58Ordinary Death Benefits117,300.88Death Retirement Allowances21,756.68Benefits Paid - Teachers21,756.68		International Bank for Reconstruction and Development:     400,000       Bonds     3-1/2     10/15/71     100,000       Bonds     4-1/4     1/15/79     100,000
Monthly Retirement Allowances2,151,003.03Ordinary Death Benefits61,100.00Death Retirement Allowances15,781.34Purchase of Investments9,798.604,71		TOTAL INTERNATIONAL BANK FOR RE- \$ 500,000 CONSTRUCTION AND DEVELOPMENT
Accrued Interest on Investments Premiums on Investments Commissions, Postage & Insurance - Investments Inter-Fund Transfers Total Disbursements Accrued Interest on Investments 15,464.12 49,657.81 1,154.70 10,535.26	13,883,027.61	State of Rhode Island:   Blackstone Valley Sewer   50,000     District Loan of 1952:   2-1/2   5/1/86   120,000     Series B   2-3/4   8/1/83   100,000     Series D   4   9/1/75   9/1/75
Cash Balance June 30, 1961	\$ 730,016.94	-continued <del>0</del>