

**ALASKA
TEACHERS RETIREMENT
SYSTEM**



**ACTUARIAL VALUATION
AS OF
JUNE 30, 1974**

MARSH & McLENNAN

MARSH & McLENNAN

October 20, 1975

Mr. Andrew S. Warwick
Commissioner of Administration
State of Alaska
Pouch CR
Juneau, Alaska 99811

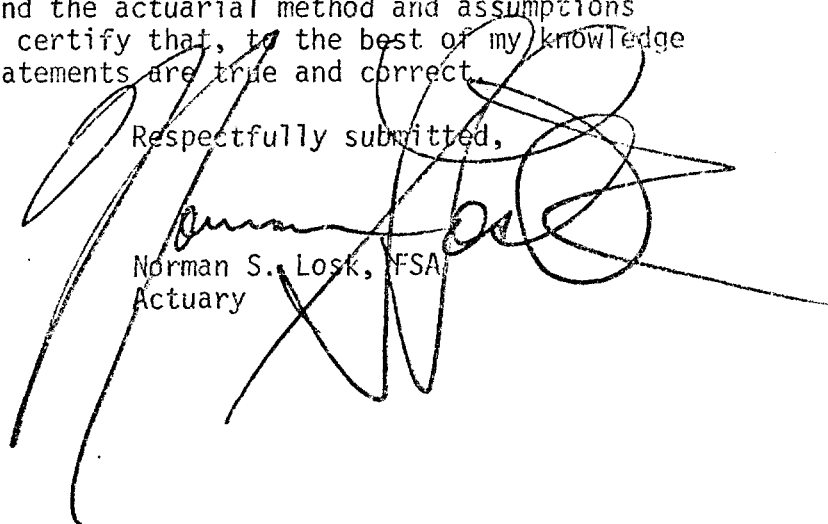
Dear Commissioner Warwick:

At your request, we have completed an actuarial valuation of the Alaska Teachers' Retirement System as of June 30, 1974, in order to examine the financial status of the System and to determine the Employer-State contribution rates for the 1976-77 year.

The results of our valuation are included in this report, based upon employee data and financial information supplied by your department.

On the basis of this data and the actuarial method and assumptions described in this report, I certify that, to the best of my knowledge and belief, the attached statements are true and correct.

Respectfully submitted,


Norman S. Losk, FSA
Actuary

NSL:rs
Attachments

T A B L E O F C O N T E N T S

	<u>Page</u>
SECTION I INTRODUCTION	1
SECTION II ANALYSIS OF THE VALUATION	3
SECTION III SUMMARY AND CONCLUSIONS	9
APPENDIX 1 ACTUARIAL METHOD	10
APPENDIX 2 ACTUARIAL ASSUMPTIONS	12
APPENDIX 3 PARTICIPANT DATA	18
APPENDIX 4 ACTUARIAL DETERMINATIONS	19
APPENDIX 5 SUMMARY OF THE PROVISIONS OF THE SYSTEM AS OF JUNE 30, 1975	22

SECTION I
INTRODUCTION

In accordance with your request, we have completed a valuation of the Alaska Teachers' Retirement System as of June 30, 1974. The purpose of this valuation is to examine the status of funding of the System and to establish the pension cost as a percentage of payroll for the year beginning July 1, 1976.

Three changes have been made in the System by the Legislature since the previous valuation which have significant impact on this valuation.

These are as follows:

- (1) Normal retirement age has been reduced to the earlier of:
 - (a) The attainment of age 55 and completion of 15 years of creditable service or eight years of membership service;
 - (b) The completion of 25 years of creditable service at any age; and
 - (c) The completion of 20 years of membership service at any age.
- (2) For those who retired prior to July 1, 1975, the minimum benefit has been increased to \$20 per month per year of creditable service.
- (3) The System now provides medical insurance for retirees. The cost of such insurance is paid directly from the fund.

MARSH & McLENNAN

The significant results of this valuation are as follows:

- (1) Pension Cost - Without consideration of the cost of retiree medical insurance.

	<u>Combined Employer-State Cost</u>	
	<u>Dollar Cost</u>	<u>% of Payroll</u>
(a) Previous Valuation (6-30-73) Plan prior to 1975 legislation	\$ 9,265,177	12.04%
(b) Current Valuation Plan prior to 1975 legislation	\$10,081,459	12.45%
(c) Current Valuation Plan including 1975 legislation	\$11,704,790	13.47%*

- (2) Funding Status - Accrued benefit basis

	(1) <u>Present Value of Accrued Benefits</u>	(2) <u>Assets</u>	(3) <u>Funding Ratio (2)/(1)</u>
Previous Valuation (6-30-73) Plan prior to 1975 legislation	\$129,298,303	\$73,445,709	57%
Current Valuation Plan prior to 1975 legislation	\$162,463,929	\$86,656,008	53%
Current Valuation Plan including 1975 legislation	\$173,855,399	\$86,656,008	50%

*It should be noted that the cost of retiree medical insurance increases the contribution rate by .62% to 14.09% of covered pay.

SECTION II
ANALYSIS OF THE VALUATION

A. Actuarial Assumptions

The actuarial assumptions used in this valuation, which are described in Appendix 2, are identical to those used in the prior valuation of the System with one exception. In prior years, we have assumed that the retirement age of each individual was the earliest age at which he could retire on a normal retirement. In reviewing data on retirees, past experience past has shown actual retirement ages to be later, on the average, than those ages assumed. Thus, in this valuation we have assumed that the retirement age will be at the mid-point between the earliest normal retirement age and age 60. This change tends to reduce liabilities and contribution requirements.

Two additional changes in actuarial technique which have impact on the contribution requirement are as follows:

(1) Spreading Factor

The spreading factor used to convert unfunded liabilities into annual contributions in the past was based on a spreading of these liabilities over 16 years. In addition, this factor had never taken into account future increases in salaries. The factor has been changed to:

- (a) spread liabilities over 14 years rather than 16 years, reflecting new average retirement ages.
- (b) reflect future salary increases.

(2) Asset Values

In the past, the asset values used in the valuation of the System have been based strictly on book values. The possibility of changing to an asset valuation method which recognizes market values has been discussed on numerous occasions. It is generally agreed that it is desirable to adopt an asset valuation method which recognizes the market values of assets while not subjecting actuarial results to the violent short-term market swings. We have used an asset valuation method in this valuation which will utilize a three-year running average relationship between book and market values. The purpose of such a method is to recognize market values while smoothing the progression of these values from year to year using the averaging technique.

We intend to phase into this method gradually over the next three years. As a result, we have used a three-year average reflecting the June 30, 1974 relationship between book and market and two additional years assuming book and market to be equal.

MARSH & McLENNAN

We have felt for some time that the incidence of turnover in the System is significantly greater than the levels assumed in our actuarial valuations. Turnover studies for the System have not been performed in the past because the member data which has been provided has not been of sufficient quality to support such studies. With the implementation of the new recordkeeping system, we expect to be in a position to perform such a study concurrent with future actuarial valuations of the System. It is intended that a new turnover table will be developed for future valuations when the statistics indicate that a new table would be applicable. We anticipate that such new table will tend to reduce liabilities and contribution requirements. We have not been in a position to perform such a study concurrent with this valuation.

In addition, we feel that the salary increase assumption currently being used may not adequately project future pay levels and that the assumed rate of investment return may not be adequate. Thus, we intend to review these assumptions for future actuarial valuations.

An increase in the salary-increase assumption will tend to increase liabilities and contribution requirements, while an increase in the investment return assumption will tend to reduce liabilities and contribution requirements.

B. Member Data

As indicated above, significant work is being done to correct the records of members in the System. The data used in this valuation was of significantly better quality than that used in the prior valuation. Although some work remains to be done, the bulk of the data provided us as of June 30, 1974 is complete and adequate. You will recall that the data provided last year included only 4,846 records of active members which had been corrected at that valuation date. From collateral information we know that there were between 5,300 and 5,400 active members in the System as of that valuation date. The data provided this year contained 5,341 records of active members.

The characteristics of this data differ from that used in the prior valuation in the following significant respects:

(1) Active Members

The data used in the prior valuation contained only 4,846 records of active members. The current data includes 5,341 records of active members. The major differences between the data used last year and that used this year are:

- (a) the increase in the number of active members, a 10% increase.
- (b) the increase in average age of .74 years (from 37.29 to 37.93).

(c) the increase in average salaries of 2.5%. This is less than that assumed and tends to reduce liabilities and costs.

These combined factors tend to reduce liabilities and costs. This tendency, however, is more than offset by an increase in retired lives and benefit pay-outs.

(2) Retirees

For the second year in a row there is a tremendous increase in liabilities for retirees. In the prior valuation there was an increase in average benefits of 28% and in number of retirees of 38%. In this valuation there is an increase in retirees from 382 to 544, an increase of 42%. There is, in addition, an increase in average monthly benefit from \$561 to \$676, an increase of 20%. Thus, the total annualized benefits have gone from \$2,572,508 to \$4,412,928, an increase of 72%. This has generated a significant increase in liabilities for retirees and beneficiaries from nearly \$30,000,000 to over \$50,000,000. This has more than offset the gains from the active life portion of the valuation.

C. Results of the Valuation

The contribution requirement developed in this valuation is slightly higher than the prior valuation. The increase from 12.04% of

MARSH & McLENNAN

covered pay to 12.45% of covered pay on a comparable basis is directly attributable to the differences in the data discussed in Subsection B, above. An additional increase of 1.64% of covered pay to 14.09% is attributable to changes legislated in 1975.

SECTION III

SUMMARY AND CONCLUSIONS

The results of this valuation indicate that an Employer-State contribution rate of 14.09% for 1976-77 will be adequate to support the benefits of the System.

The member data on which this valuation is based is of significantly higher quality than that used in the prior valuation. However, this data was not such that it could be related to data in prior years. Thus, we were not able to generate a new turnover assumption. We will continue to accumulate data until we are in a position to suggest changes in the turnover assumption, the salary increase assumption, and the investment return assumption.

The results of this valuation reflect three changes in actuarial technique:

- (1) The use of an average retirement age equal to the mid-age between the earliest normal retirement age and age 60.
- (2) The use of a spreading factor in calculating contribution rates which reflect a 14-year amortization period and future estimated salary increases.
- (3) The use of an asset valuation method which recognizes market values.

APPENDICES

APPENDIX 1

ACTUARIAL METHOD

ACTUARIAL METHOD

The actuarial method used in this valuation is known as the Aggregate Method. Under this method, the Employer-State cost is determined as follows:

- (1) The present value of all benefits accrued and expected to be earned in the future are calculated, taking into account expected levels of mortality, turnover, disability and investment performance.
- (2) Such present value of benefits is reduced by the sum of:
 - (a) The assets of the fund, and
 - (b) The present value of future employee contributions (including arrearage contributions), taking into account the same items as enumerated in (1), above.

The remainder is the portion of the present value of future benefits to be funded by Employer-State contributions and is called the "Present Value of Future Contributions from the Employer and the State."

- (3) The Estimated Contribution from the Employer and the State is determined by multiplying the Present Value of Future Contributions for the Employer and the State by a factor which spreads that present value of contributions over 14 years.
- (4) The Contribution by the Employer and the State expressed as a percentage of salaries is then determined by dividing the Estimated Contribution by the total Member Salaries used in the valuation.

This method effectively spreads the portion of the total projected present value of benefits to be financed by future Employer-State contributions over 14 years. It has the advantage that the effect of actuarial gains and losses (which arise from actual experience that deviates from the actuarial assumptions used) is automatically spread over this period.

APPENDIX 2

ACTUARIAL ASSUMPTIONS

MARSH & McLENNAN

ACTUARIAL ASSUMPTIONS

1. Investment Yield - 5% per annum.
2. Mortality - According to 1951 Group Annuity Mortality Table rates projected to 1965 by projection "C". (Female mortality same as male mortality with ages set back 5 years.)
3. Rates of Separation from Service - See Page 10.
4. Rates of Disability - See Page 11.
5. Rate of Mortality after Disability - According to the 1956 Railway Retirement Board Tables.
6. Rates of Salary Increase - See Page 12.
7. Normal Retirement Age - Average of:
 - (1) age 60, and
 - (2) age 55 with 15 years of Credited Service or 8 years of Membership Service; 25 years of Credited Service at any age; or 20 years of Membership Service.
8. Asset Valuation - Adjusted market basis using running three-year average relationship between book and market values.

MARSH & McLENNAN

TEACHERS' RETIREMENT SYSTEM
STATE OF ALASKA

SEPARATION RATES

ANNUAL RATES PER 1,000 EMPLOYEES

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	165.0	40	100.0
21	162.0	41	95.0
22	160.0	42	90.0
23	158.0	43	85.0
24	155.0	44	80.0
25	152.0	45	75.0
26	149.5	46	70.0
27	146.0	47	65.0
28	142.5	48	60.0
29	140.0	49	55.0
30	137.0	50	45.0
31	132.5	51	35.0
32	130.0	52	25.0
33	127.5	53	15.0
34	125.0	54	5.0
35	120.0		
36	116.0		
37	112.0		
38	108.0		
39	104.0		

MARSH & McLENNAN

TEACHERS' RETIREMENT SYSTEM
STATE OF ALASKA

DISABILITY RATES

ANNUAL RATES PER 1,000 EMPLOYEES

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.70	45	1.62
21	.71	46	1.76
22	.72	47	1.91
23	.73	48	2.07
24	.74	49	2.23
25	.75	50	2.40
26	.76	51	2.60
27	.78	52	2.86
28	.80	53	3.18
29	.82	54	3.56
30	.84	54	4.00
31	.86	56	4.59
32	.88	57	5.34
33	.90	58	6.10
34	.93	59	7.20
35	.96	60	8.43
36	.99	61	9.75
37	1.03	62	11.30
38	1.07	63	13.05
39	1.11	64	14.90
40	1.15		
41	1.20		
42	1.27		
43	1.36		
44	1.48		

MARSH & McLENNAN

TEACHERS' RETIREMENT SYSTEM
STATE OF ALASKA

SALARY INCREASE SCALE

<u>Age</u>	<u>Scale</u>	<u>Age</u>	<u>Scale</u>
20	.3225	45	.7801
21	.3354	46	.7957
22	.3488	47	.8116
23	.3627	48	.8279
24	.3773	49	.8444
25	.3923	50	.8613
26	.4080	51	.8700
27	.4244	52	.8787
28	.4413	53	.8874
29	.4590	54	.8963
30	.4774	55	.9053
31	.4964	56	.9143
32	.5163	57	.9235
33	.5370	58	.9327
34	.5584	59	.9420
35	.5808	60	.9515
36	.6040	61	.9610
37	.6282	62	.9706
38	.6533	63	.9803
39	.6794	64	.9901
40	.7066	65	1.0000
41	.7207		
42	.7351		
43	.7498		
44	.7648		

APPENDIX 3

PARTICIPANT DATA

ANNUAL EARNINGS BY AGE AND SERVICE GROUPS

6/30/74

AGE GROUP	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS	SERVICE GROUP	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0.	0.	0	57	482913.	8472.
20-24	189	2037749.	10782.	1	577	7121800.	12343.
25-29	1060	13741783.	12964.	2	581	8190252.	14097.
30-34	1279	19697233.	15400.	3	487	7037223.	14450.
35-39	904	15458825.	17100.	4	631	9906408.	15700.
40-44	651	11866498.	18228.	0-4	2333	32738501.	14033.
45-49	499	9517852.	19074.	5-9	1784	30043202.	16840.
50-54	392	7635498.	19478.	10-14	719	13832588.	19239.
55-59	243	4670984.	19222.	15-19	352	6991630.	19863.
60-64	107	1996227.	18656.	20-24	122	2594007.	21262.
65-69	15	239188.	15946.	25-29	27	609548.	22576.
70-74	1	13200.	13200.	30-34	4	87231.	21808.
75-79	0	0.	0.	35-39	0	0.	0.
80+	1	21784.	21784.	40+	0	0.	0.
TOTAL	5341	86896816.	16270.	TOTAL	5341	86896704.	16270.

SERVICE GROUPS BY AGE GROUPS

AGE GROUP	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 +	TOTAL
0-19	0	0	0	0	0	0	0	0	0	0
20-24	189	0	0	0	0	0	0	0	0	189
25-29	846	214	0	0	0	0	0	0	0	1060
30-34	621	604	53	1	0	0	0	0	0	1279
35-39	272	417	192	22	1	0	0	0	0	904
40-44	175	224	168	78	6	0	0	0	0	651
45-49	107	151	124	87	30	0	0	0	0	499
50-54	77	91	98	80	36	10	0	0	0	392
55-59	35	59	60	47	31	10	1	0	0	243
60-64	9	22	18	32	16	7	3	0	0	107
65-69	1	2	5	5	2	0	0	0	0	15
70-74	1	0	0	0	0	0	0	0	0	1
75-79	0	0	0	0	0	0	0	0	0	0
80+	0	0	1	0	0	0	0	0	0	1
TOTAL	0	0	0	0	10	0	0	0	0	0
	2333	1784	719	352	122	27	4	0	0	5341

EXHIBIT 1

STATE OF ALASKA TRS - RETIRED LIVES

VALUATION DATE 7/ 1/74

AGE GROUP	ANNUAL NUMBER OF PEOPLE	ANNUAL EARNINGS BY AGE TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0.	0.
20-24	0	0.	0.
25-29	1	11862.	11862.
30-34	1	11802.	11802.
35-39	2	24109.	12055.
40-44	3	40295.	13432.
45-49	13	138729.	10671.
50-54	22	237431.	10792.
55-59	74	649452.	8776.
60-64	134	1092300.	8151.
65-69	180	1445685.	8032.
70-74	82	567698.	6923.
75-79	21	126692.	6033.
80+	11	64562.	5869.
TOTAL	544	4410617.	8108.

EXHIBIT 2

MARSH & McLENNAN

EXHIBIT 3
MISCELLANEOUS INFORMATION

MEMBERS OF THE
ALASKA TEACHERS' RETIREMENT SYSTEM

Active Members

	Information as of	
	<u>June 30, 1973</u>	<u>June 30, 1974</u>
(1) Number with complete information	4,846	5,341
(2) Average Age	37.29 years	37.93 years
(3) Average Service to date	8.88 years	9.31 years
(4) Average Annual Salary	\$15,881	\$16,270

Retirees and Beneficiaries

(1) Number of Retirees and Beneficiaries	382	544
(2) Average Age	66.25 years	64.84 years
(3) Average Monthly Benefit	\$561	\$676

APPENDIX 4

ACTUARIAL DETERMINATIONS

MARSH & McLENNAN

EXHIBIT 4
DEVELOPMENT OF PENSION COST
FOR 1976-77

	<u>Old Provisions</u>	<u>New Provisions</u>
(1) Present Value of Retirement Benefits	\$258,127,783	\$264,620,867
(2) Value of Assets of the Fund as of June 30, 1974	86,656,008	86,656,008
(3) Present Value of Future Member Contributions	41,710,354	38,030,465
(4) Present Value of Future Supplemental Contributions	2,117,746	1,880,460
(5) Present Value of Future Arrearage Payments	<u>1,194,856</u>	<u>1,194,856</u>
(6) Present Value of Future Contributions from the Employer and the State ((1)-(2)-(3)-(4)-(5))	\$126,448,909	\$136,859,078
(7) Estimated Contribution from the Employer and the State for the 1976-77 year ((6) x .08554)	10,816,440	11,706,926
(8) Member Salaries used in this Valuation	<u>86,895,251</u>	<u>86,595,251</u>
(9) Contribution for Retirement Benefits by the Employer and the State for 1976-77 as a Percentage of Salaries ((7)/(8))	<u>12.45%</u>	<u>13.47%</u>
(10) Contribution for Retiree Medical Insurance	-0-	.62%
(11) Total Employer-State Contribution	<u>12.45%</u>	<u>14.09%</u>

MARSH & McLENNAN

EXHIBIT 5

BREAKDOWN OF PRESENT VALUE
OF BENEFITS

New Provisions

	<u>Present Value of Accrued Benefit</u>	<u>Present Value of Fully Projected Benefit</u>
Retirement Benefit	\$101,551,897	\$166,743,015
Disability Benefit	4,675,623	5,390,279
Death Benefits	2,096,753	3,028,136
Termination Benefits	12,784,564	36,712,875
Contributions plus Interest for Inactive Members	<u>2,644,434</u>	<u>2,644,434</u>
Total Present Value of Benefits for all Non-Retired Members	\$123,753,271	\$214,518,739
Present Value of Benefits for Pensioners	50,102,128	50,102,128
Total Present Value of Benefits	<u>\$173,855,399</u>	<u>\$264,620,867</u>

MARSH & McLENNAN

EXHIBIT 6

BREAKDOWN OF PRESENT VALUE
OF BENEFITS

Old Provisions

	<u>Present Value of Accrued Benefit</u>	<u>Present Value of Fully Projected Benefit</u>
Retirement Benefit	\$ 88,397,492	\$157,140,580
Disability Benefit	5,771,423	6,664,309
Death Benefits	2,627,261	3,969,133
Termination Benefits	12,921,191	37,607,289
Contributions plus Interest for Inactive Members	<u>2,644,434</u>	<u>2,644,434</u>
Total Present Value of Benefits for all Non-Retired Members	\$112,361,801	\$208,025,745
Present Value of Benefits for Pensioners	50,102,128	50,102,128
Total Present Value of Benefits	<u>\$162,463,929</u>	<u>\$258,127,873</u>

APPENDIX 5
SUMMARY OF THE PROVISIONS
OF THE
ALASKA TEACHERS' RETIREMENT SYSTEM
AS OF
JUNE 30, 1975

SUMMARY OF THE SYSTEM

(1) Plan

The Teachers' Retirement System of Alaska is a joint contributory retirement system to provide benefits for teachers of the State.

(2) Effective Date

June 30, 1955.

(3) Administration of Plan

The Commissioner of Administration is the administrator of the System; the Alaska Teachers' Retirement Fund Advisory Board makes recommendations to the Commissioner of Administration; and the Commissioner of Revenue invests the funds.

(4) Membership

Membership in the Alaska Teachers' Retirement System is compulsory for all eligible teachers, school nurses, principals, supervisors and superintendents contracted on a full-time basis in public schools in Alaska.

(5) Eligibility Requirements

A teachers is eligible to participate if he can complete at least 15 years of creditable service, eight of which are in Alaska membership service, by the first of July following his 65th birthday.

(6) Credited Service

A year of service is defined to be the same as a school term which is currently a minimum of 180 days, and fractional service credit is on a daily rate basis. Credit is granted for all Alaskan public school service.

Up to 10 years of public school teaching service outside Alaska or in an institution of higher learning not under control of the Board of Regents of the University of Alaska is credited for retirement purposes. In addition, teaching service in BIA schools may be used to increase total outside and BIA service credit to 15 years. No fractional credit is granted for outside service.

(7) Contributions by Teachers

Effective July 1, 1970 each teacher shall contribute 7% of his base salary accrued from July 1 to the following June 30.

(8) Voluntary Supplemental Contributions

If a teacher wishes to make his spouse or minor children eligible for a spouse's pension and/or survivor's pension allowance he may elect to make supplemental contributions of an additional 1% of his base salary commencing not later than 30 days following the first day after October 1, 1970 on which he is entitled to make the election.

(9) Retroactive Contributions - Arrearage Contributions

If a teacher was not subject to the provisions of the Retirement Act and, at a later date become eligible for membership due to legislative changes of the eligibility requirements, the teacher may elect to receive credit for his creditable service prior to membership by submitting to the Retirement Fund an amount equal to the contributions he would have made if he had been a member of the System for any year's service after June 30, 1955 plus interest thereon. Retroactive contributions are not required for creditable membership service before June 30, 1955.

In addition, if a member wishes to receive credit under the System for service performed outside Alaska, an arrearage indebtedness is established.

(10) Employers' and State's Contributions

The employer and the State each contribute an amount equal to one-half of the amount required in addition to member contributions to finance the benefits of the System.

(11) Rate of Interest

The amount deposited in a member account will be credited with interest at the rate established for a school year at the end of such school year. Effective July 1, 1973 the interest rate was increased to 4½%.

(12) Withdrawal of Contributions

If a member terminates teaching services in Alaska and does not intend to re-enter membership service at a future date, he may withdraw his contributions. A withdrawing teacher will receive his total contributions plus the interest credited to his account.

(13) Reinstatement of Contributions

If Teachers' Retirement Contributions are withdrawn and a member subsequently resumes teaching in Alaska, he is indebted to the Teachers' Retirement Fund in the amount of the previous contributions to the System including any interest paid. The reinstatement indebtedness bears compound interest at the rate prescribed by regulation to the date of repayment or the date of retirement, whichever occurs first.

(14) Eligibility for Service Retirement

A teacher may apply for retirement salary if:

- (1) he has completed eight years of membership service or 15 years of creditable service, the last five of which have been membership service; and
- (2) he has attained the age of 50 years, if he has 25 years of creditable service at any age or if he has 20 years of membership service at any age.

A retired teacher who has been receiving a disability retirement salary shall be eligible for a service retirement salary upon or after attaining age 55.

A teacher who has met all of the above requirements but who has attained the age of 65 years during a school year shall be retired on July 1 following his 65th birthday unless the teacher is retained by request of his employer. (Compulsory retirement does not apply to personnel of the University of Alaska.)

(15) Computation of Average Base Salary

A teacher's average base salary is determined by averaging the teacher's highest base salary which he received for any three out of the last 10 years of membership service.

(16) Normal Retirement Benefit

A teacher is eligible for a normal retirement benefit if he is at least 55 years of age and has completed the service credit requirements or if he has completed either 25 years of creditable service or 20 years of membership service. The normal retirement benefit is 2% of the teacher's highest average base salary during any three of the last 10 years of membership service multiplied by the total number of years of creditable service.

(17) Early Retirement Benefit

A teacher is eligible for early retirement benefits if he has completed 15 years of creditable service or eight years of membership service and has attained the age of 50. If the teacher does not apply for retirement benefits to start prior to his 55th birthday, he is eligible to receive the normal retirement benefit. If the retiring teacher elects to have payments of the benefit begin prior to his 55th birthday, the

annual annuity is equal to his normal retirement benefit based on his salary history and creditable service to his retirement date, reduced by one-half of 1% per month for each month by which his age at retirement is less than 55 years.

(18) Deferred Vested Benefit

A teacher is eligible for a deferred vested benefit if he (1) terminates his membership after completing eight years of membership service, and (2) he does not withdraw his retirement contributions. Payment of this benefit is deferred until the first of the month following the teacher's 60th birthday or the first of the month in which the application for benefit is filed, whichever is later.

(19) Arrearage Payment - Retired Teachers

If on the date of making application for retirement, a teacher has not paid the full amount of his indebtedness including interest to the Retirement Fund, one of the following options may be chosen:

Option 1: The retirement salary can be withheld until the amount withheld is equal to the outstanding indebtedness.

Option 2: A reduced annuity, completed by deducting 10% of the outstanding indebtedness at the time of retirement from the annual retirement salary, can be paid to the teacher.

(20) Re-employment of a Retired Teacher

If a retired teacher is re-employed as a full-time teacher, his retirement salary will be suspended for an entire year or fraction of a year.

Retirement Contributions are made at the option of such teacher and an additional retirement benefit may be accrued.

(21) Disability Retirement Benefits

A disability retirement annuity may be paid if a teacher has become permanently disabled and has at least five years of membership service.

The benefit will be equal to 50% of the disabled teacher's base salary immediately prior to becoming disabled. This benefit will be increased by 10% of the teacher's base salary for each minor child up to a maximum of four minor children until the first day of the month in which the child ceases to be a minor.

When the disabled teacher attains age 55 the disability salary will automatically terminate. A normal retirement salary will be computed as if the teacher had been in membership service during the period of disability, and a service retirement will be granted. The base salary used will be the same used in computing the disability benefit.

(22) Cost-of-Living Allowance

A retired teacher whose permanent residence is in Alaska subsequent to retirement and/or whose absence is of a temporary nature, not to exceed six months, for travel or vacation purposes is entitled to receive a cost-of-living allowance, not to exceed 10% of his annual retirement salary in addition to his retirement benefit.

(23) Post-Retirement Pension Adjustment

This adjustment is promulgated by regulation and payable to a retired teacher when the administrator determines that the cost of living has increased and the financial condition of the fund permits payment of the adjustment. The amount of increase in any year shall not exceed 4%.

(24) Exemption from Taxation and Process

Teachers' retirement salaries are exempt from state and municipal taxes, are not subject to execution, attachment, garnishment or other process, but must be reported to the Internal Revenue Service for federal tax purposes.

(25) Lump Sum Death Benefit

Upon death of a member who has made no supplemental contributions or who made supplemental contributions for less than one year, a lump-sum benefit shall be paid to the designated beneficiary.

Upon death of a teacher who was in membership service at the time of his death, the lump-sum benefit is the teacher's accumulated contributions with interest thereon to his date of death. An additional death benefit equal to \$1,000 plus \$100 for each year of completed service plus \$500 if the teacher is survived by one or more minor children is also payable. In no case shall the additional benefit exceed \$3,000.

If the teacher had received a retirement benefit prior to his death, payment shall be his accumulated contributions, plus interest, minus all benefits paid.

If a member failed to designate a beneficiary, or if no designated beneficiary survives the member, payment shall be made:

- (1) to his surviving spouse or if there is no surviving spouse,
- (2) to his surviving children in equal parts, or if there are none surviving,
- (3) to his surviving parents in equal parts, or, if there are none surviving,
- (4) to his estate.

(26) Survivor's Allowance

If a teacher dies while in service or while receiving retirement salary, is survived by one or more minor children and has

made supplemental contributions for at least one year before his death, his surviving spouse is entitled to the survivor's allowance. The amount of the benefit is 35% of the teacher's base salary immediately prior to his death or becoming disabled for his spouse and 10% for each minor child up to a maximum of four.

(27) Spouse's Pension

If any teacher has made supplemental contributions for at least one year and dies while in service or while receiving a retirement salary or is entitled to a deferred vested benefit, the surviving spouse is entitled to receive the spouse's pension. The amount of the benefit is 50% of the service retirement salary that the deceased teacher was receiving or would have received. The spouse pension commences on the first day of the month coinciding with or next following the spouse's 60th birthday or date of total and permanent disability. The final payment is made the first day of the month in which the spouse dies or remarries.

(28) Medical Benefits

Teachers who are receiving or who are entitled to receive a service retirement salary and who are not or will not be entitled to federal Medicare benefits are guaranteed to be covered by equivalent benefits provided through insurance or the Retirement System.