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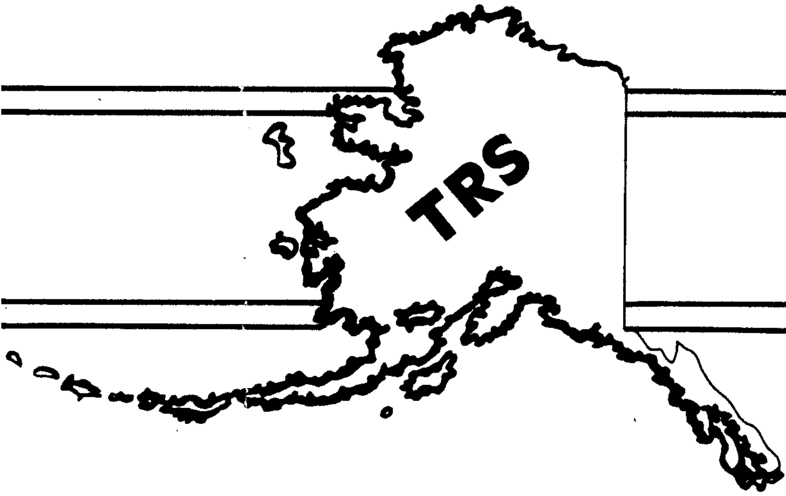

STATE OF ALASKA
TEACHERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION REPORT
AS OF JUNE 30, 1987

Prepared by
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WILLIAM M.
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INCORPORATED

CONTENTS OF REPORT

HIGHLIGHTS

This report has been prepared by William M. Mercer-Meidinger-Hansen, Incorporated to:

(1) present the results of a valuation of the Alaska Teachers' Retirement System as of June 30, 1987;

(2) review experience under the plan for the year ended June 30, 1987;

(3) determine the contribution rates for the State and for each school district in the system;

(4) provide reporting and disclosure information for financial statements, governmental agencies, and other interested parties.

The report is divided into two sections. Section 1 describes the basis of the valuation. It summarizes the plan provisions, provides information relating to the plan participants, and describes the funding methods and actuarial assumptions used in determining liabilities and costs.

Section 2 contains the results of the valuation. It includes the experience of the plan during the 1986-87 plan year, the current annual costs, and reporting and disclosure information.

The principle results are as follows:

Funding Status as of June 30:	1986	1987
(a) Valuation Assets*	$1,040,173	$1,225,009
(b) Present Value of Accrued Benefits*	1,115,773	1,210,909
(c) Accrued Benefit Funding Ratio, (a)/(b)	93.2%	101.2%

Contributions for Fiscal Year	1989	1990
(a) Normal Cost	9.36%	9.14%
(b) Past Service Rate	1.80%	(0.95)%
(c) Total Contribution Rate	11.16%	~~8.19%~~

11.16% + PRPA adopted by ~~PERS~~ TRS Bd at 11/3/88 bd meeting

11.64%

* In thousands.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data provided to us by the plan sponsor and financial information provided by the audited report from Peat, Marwick, Main and Company, to determine a sound value for the plan liabilities. We believe that this value, and the method suggested for funding it, are in full compliance with the Governmental Accounting Standards Board, the Internal Revenue Code, and all applicable regulations.

Respectfully submitted,

Robert F. Richardson

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Principal

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Consultant

RFR/GTS/NLP/caj

March 29, 1988

ANALYSIS OF THE VALUATION

The Highlights Section shows an improvement in the accrued benefit funding ratio and a substantial reduction in the total contribution rate from the 1986 valuation. The reasons for the improvements, the Retirement Incentive Program (RIP), and the estimated effect of the stock market crash on October 19, 1987 are discussed below.

Funding Status

The valuation assets have increased by 17.8% since the 1986 valuation while the present value of accrued benefits has increased by only 8.5%. This produced an increase in the accrued benefit funding ratio, from 93.2% to 101.2%, and a decrease in the past service contribution rate, from 1.80% of salary to (.95%). The improvement in funding status is attributable to favorable plan experience since the last valuation which resulted in an actuarial gain to the plan. The sources of this gain are described later in this analysis.

Contribution Rate

The total contribution rate has declined from 11.16% of salary to 8.19%. The normal cost rate has decreased from 9.36% to 9.14% while the past service rate has dropped from 1.80% to (0.95%). The reduction in normal cost rate is due to changes in the active employee group while the decrease in the past service rate is due to the improvement in the funding status.

The assets now exceed the present value of accrued benefits by $14.1 million. This means that accrued benefits are fully funded and the excess assets represent advanced funding of future benefit accruals. The excess assets are amortized over 5 years resulting in a past service rate credit of (0.95%), which is applied to reduce the normal cost rate.

Employee Data

Section 1.2 shows the statistical data for active, retired and other terminated employees. The number of active employees decreased from 8,824 at June 30, 1986 to 7,797 this year. Their average age and average service have each increased by more than half a year, while their average salary has remained virtually unchanged.

The number of retirees and beneficiaries has increased from 2,098 to 2,376. Their average age has decreased from 63.18 to 62.83 while their average monthly benefit has increased from $1,542 to $1,659. Of note is the decrease in the average age at retirement of new service retirees from 56.06 to 53.83 as shown in Section 1.2(c). This is a result of the RIP.

There has also been a large increase in the number of terminated vested employees from, 481 to 777, as well as an increase in the number of non-vested terminations with account balances from 869 to 1,529.

Retirement Incentive Program

The Retirement Incentive Program (RIP) was established on May 15, 1986 under a House Bill 382. The program was designed to encourage employees who were eligible for the program to retire voluntarily with earlier retirement eligibility or increased benefits. The cost of the program is more than offset by the savings of salary and other benefits provided to an active employee.

To be eligible for the program, an employee must be vested, included in an organizational unit approved for participation, and meet the minimum age and service requirements. Eligible employees must have applied to participate in the program by June 30, 1987 except for University of Alaska TRS employees who had until September 30, 1987. Participating employees have until October 1, 1987 to retire except for University of Alaska employees who have until January 1, 1988.

The RIP gives each eligible employee participating in the program three years of incentive credit. The incentive credit is applied in the following order:

(1) to reduce the age or service requirement for normal or early retirement
(2) to reduce the actuarial adjustment for early retirement
(3) to increase the amount of TRS service used to determine the employee's benefit amount.

The cost of the program is shared between TRS and the employee. The cost to the employee is 21% of the employee's annual salary in the year of termination. This may be paid in a lump sum or as indebtedness which will result in an actuarial reduction in the benefit.

The full impact of the RIP will not be reflected in the actuarial valuation until June 30, 1988 when all those employees participating in the program have retired. However, the effect of the program can already be seen by the reduction in the number of active employees and the increase in the number of retired employees shown in Section 1.2(a).

Actuarial Experience for the Plan Year Ending June 30, 1987

The plan experienced significant actuarial gains from investment performance, employee turnover, and the small increase in average salary.

For the third straight year, the investment return on plan assets has been greater than the long term rate assumed for the valuation. The rate of return was 14.20% based on valuation assets. This produced a large actuarial gain from investments which caused the contribution rate to drop slightly more than 2%. Net actuarial gains from other sources resulted in the improved funding status of the plan and the overall drop in contribution rate of 2.97%.

The bull market of the 1980's has played an important role in reaching full funding. On October 19, 1987, the market experienced an unprecedented drop. The full funding status of the plan presented in this valuation does not reflect that drop. Generally speaking, the stock market lost the gains it had made since the beginning of 1987. Not all of the plans assets were subject to this drop. On June 30, 1987, about 42% of the plan assets were in U.S. and foreign equities and 58% of the assets were composed of the book value of government and corporate bonds, cash and receivables, or other investments.

If the impact of the crash were fully reflected in the valuation assets (without the 3 year smoothing technique), the funding status would have declined from 101.2% to about 91% and the contribution rate would have increased from 8.19% to about 11.18%. The three year average smoothes losses and helps stabilize the contribution rate which otherwise would tend to fluctuate excessively. Of course, fluctuation between valuation dates does not effect contribution rates in any manner.

In addition to asset gains, there were gains from retirement and turnover. When an employee retires early, the plan will experience some gains as benefits due to expected future salary increases will not be paid.

Section 1.2(a) shows a large increase in both the number of vested terminations and the non-vested terminations with account balances. Turnover for the plan year ending June 30, 1987 also contributed to the net actuarial gain for the year. Partially offsetting these gains was the upward pressure on cost due to the increase in average age.

<u>Summary</u>

The plan year ending June 30, 1987 was a good year financially for the TRS. The plan became fully funded for accrued benefits and experienced a substantial drop in the total contribution rate. This was due to actuarial gains for the year, primarily in the area of investment return.

The RIP was a significant event during the plan year. Based on the decrease in active participants and the increase in retired participants, the program appears to be accomplishing its goal.

The effect of the stock market crash on October 19, 1987 is not reflected in this actuarial valuation at all, but will first be recognized in the June 30, 1988 valuation. Since equity appreciation or depreciation is averaged over a three year period for determining valuation assets, the impact of the crash on the plan will be recognized over the next 3 years. This will help smooth the contribution rate and give the market a chance to recover.

Section 1
BASIS OF THE VALUATION

In this section, the basis of the valuation is presented and described. This information--the provisions of the plan and the census of participants--is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

A summary of plan provisions is provided in Section 1.1 and participant census information is shown in Section 1.2.

The valuation is based upon the premise that the plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will retire, die, terminate their services, their ages at such termination and their expected benefits.

The actuarial assumptions and the actuarial cost method, or funding method, which have been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, are described in Section 1.3.

Section 1.1
SUMMARY OF THE ALASKA TEACHERS' RETIREMENT 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, as amended through June 30, 1987.

(3) Administration of Plan

The Commissioner of Administration appoints the administrator of the System; the Alaska Teachers' Retirement 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 each certificated elementary or secondary teacher, certificated school nurse, and other certificated personnel who are employed on a full-time or part-time basis in positions which require teaching certificates as a condition of employment in the public schools of Alaska, the Commissioner of Education, supervisors within the Department of Education, and all full-time or part-time teachers of the University of Alaska and administrative personnel occupying full-time positions at the University of Alaska which require academic standings and are approved by the Administrator. Certain State legislators may also elect to be eligible for membership.

(5) Credited Service

A year of membership service is defined to be the same as a school term which is currently a minimum of 172 days, and fractional service credit is on a daily rate basis. Credit is granted for all Alaskan public school service. Credit is granted for accrued, unused sick leave as reflected by the records of the last employer once a member has been on retirement an equal amount of time, meets eligibility requirements and has completed an application for the credit.

(6) Contributions by Teachers

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

(7) Voluntary Supplemental Contributions

If a teacher who first joined the system before July 1, 1982 wishes to make his or her spouse or minor children eligible for a spouse's pension and/or survivor's allowance, the teacher may elect to make supplemental contributions of an additional 1% of base salary commencing not later than 90 days after marriage, or the birth or adoption of a child, or upon re-entry into the system provided there was at least a twelve (12) month break in service.

(8) Arrearage Contributions

Up to ten years of public or non-public teaching service, or service by a certificated person in a position requiring certification, in an accredited school not covered under the Teachers' Retirement System, or service in an institution of higher learning not under the control of the Board of Regents of the University of Alaska, may be credited for retirement purposes. For teachers first hired after July 1, 1978, the full actuarial cost of providing benefits for the service will be borne by the teacher. No fractional credit is granted for outside service.

Service as a teacher, a certificated person employed in a full-time position requiring a teaching certificate, or a professional educator, in an Alaska B.I.A. school or school system may be credited for retirement purposes. Contributions are required for service which is claimed. There is no limit on the amount of Alaska B.I.A. service that may be claimed. Fractional credit is granted for Alaska B.I.A. service and military service.

A maximum of five years of military service may be credited for retirement purposes; however, the maximum outside and military service credit may not exceed ten years, unless entry into the military is immediately preceded by TRS service and following discharge is continued by TRS service within one year. Contributions are required for service which is claimed. Fractional credit is granted for military service.

(9) Retroactive Contributions

If a teacher was not subject to the provisions of the Retirement Act and, at a later date became subject to them due to legislative changes to the eligibility requirements, the teacher may elect to receive credit for creditable service prior to membership by submitting to the Retirement Fund an amount equal to the contributions that would have been made if the teacher 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 July 1, 1955.

(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 June 30, 1974, the interest rate was increased to 4-1/2%.

(12) Withdrawal of Mandatory Contributions

If a member terminates teaching services in Alaska, mandatory contributions may be withdrawn. Upon request, a terminated teacher will receive a refund of the balance of the member contribution account.

(13) Reinstatement of Contributions

If Mandatory Contributions are withdrawn and a member subsequently resumes teaching in Alaska, the member will be indebted to the Teachers' Retirement Fund in the amount of the total refund. 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) Normal Retirement Eligibility

Meeting the requirement of either (a) or (b) below:

(a) Upon attaining age 55 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or
(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (after July 1, 1975 a new member needs eight years of fully-paid membership service); or
(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service;

or;

(b) At any age after meeting one of the following service requirements:

(1) 25 years of fully-paid creditable service, the last five of which are membership service; or
(2) 20 years of fully-paid membership service; or
(3) 20 years of fully-paid combined membership service and Alaska B.I.A. service, the last five of which are membership service.
(4) 20 part-time years of fully-paid membership service (at least one-half year each).

A retired teacher who has been receiving a disability retirement benefit shall be eligible for a service retirement benefit upon satisfying normal retirement eligibility.

(15) Early Retirement Eligibility

Upon attaining age 50 and meeting one of the following service requirements:

(1) Eight years of fully-paid membership service, or
(2) 15 years of fully-paid creditable service, the last five of which have been membership service; (after July 1, 1975 a new member needs eight years of fully-paid membership service); or
(3) Five years of fully-paid membership service and three years of fully-paid Alaska B.I.A. service during which the teacher received compensation for at least two-thirds of each school year.

(16) Computation of Average Base Salary

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

(17) Normal Retirement Benefit

The normal retirement benefit is 2% of the teacher's Average Base Salary multiplied by the total number of years of creditable service.

(18) Early Retirement Benefit

A teacher who meets the service requirements for normal retirement, but not the age requirements, may elect to have reduced payments commence as early as age 50. The reduced Early Retirement Benefit is equal to the actuarial equivalent of the normal retirement benefit.

(19) Indebtedness Owing At Retirement

If on the date of appointment to retirement, a teacher has not paid the full amount of his indebtedness including interest to the Retirement Fund, the retirement benefit will be reduced for life by an amount equal to the actuarial equivalent of the outstanding indebtedness at the time of retirement.

(20) Re-employment of a Retired Teacher

If a retired teacher is reemployed in a position covered under the System, the retirement benefit will be suspended during the period of reemployment.

During such period of reemployment, retirement contributions are mandatory.

(21) Disability Retirement Benefits

A disability retirement benefit may be paid if a teacher has become permanently disabled before 55 and has at least five years of fully-paid 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 40%.

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

(22) Cost-of-Living Allowance

An eligible retired teacher who remains in Alaska is entitled to receive an additional cost-of-living allowance equal to 10% of the base retirement benefit.

(23) Post-Retirement Pension Adjustment

When the administrator determines that the cost of living has increased and that the financial condition of the retirement fund permits, all retirement benefits may be increased. The amount of the increase shall be not more than 4% compounded for each year of retirement, or the cost-of-living increase since the date of retirement, reduced by prior Post-Retirement Pension Adjustments.

(24) Lump Sum Non-Occupational and Occupational Death Benefit

Upon a non-occupational death of a member who has made no supplemental contributions or who made supplemental contributions for less than one year and has completed less than one year of membership service, a lump-sum benefit shall be paid to the designated beneficiary. The lump-sum benefit is the teacher's accumulated member contribution account. If the teacher is in active service at the time of death after completing at least one year of membership service but before becoming a vested member, an additional death benefit equal to $1,000 plus $100 for each year of membership service (the total not to exceed $3,000), plus $500 if the teacher is survived by one or more minor children is also payable.

Upon an occupational death of a member who has not made the required supplemental contributions, a monthly survivor's pension equal to 40% of the base salary at the time of death or disability, if earlier, may be payable. At the member's Normal Retirement Date, the benefit converts to a Normal Retirement benefit based on pay at date of disability or death and credited service, including period from date of disability or death to Normal Retirement Date.

If the teacher had received a retirement benefit prior to his death, payment shall be his accumulated contributions, plus interest, minus all benefits paid. However, if the teacher elected one of the joint and survivor options (50%, 66-2/3% or 75%) at retirement, an eligible spouse would receive a continuing monthly benefit for the rest of his or her life.

(25) Survivor's Allowance

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, and is survived by one or more minor children, his surviving spouse and/or minor children are 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 40%. The survivor's allowance commences the month following the member's death. When there is no longer an eligible minor child, this allowance ceases and a Spouse's Pension becomes payable.

(26) Spouse's Pension

If a teacher has made supplemental contributions for at least one year and dies while in membership service, or while receiving a disability benefit, or if a teacher has made supplemental contributions for at least five years and dies while on retirement or in deferred retirement status, the surviving spouse is entitled to receive the Spouse's Pension. The amount of the benefit is 50% of the service retirement benefit that the deceased teacher was receiving or would have received. The Spouse's Pension commences the month following the member's death. The payment ceases when the spouse dies.

Section 1.2(a)
MISCELLANEOUS INFORMATION AS OF JUNE 30

		1983	1984	1985	1986	1987
				Active Members		
(1)	Number	7,899	8,259	8,684	8,824	7,797
(2)	Number Vested				4,233	4,196
(3)	Average Age	39.47	39.76	40.04	40.48	41.09
(4)	Average Credited Service	9.51	9.53	9.54	9.81	10.45
(5)	Average Annual Salary	$37,323	$39,416	$41,238	$44,440	$44,710
				Retirees and Beneficiaries		
(1)	Number	1,712	1,764	2,022	2,098	2,376
(2)	Average Age	62.60	63.17	62.75	63.18	62.83
(3)	Average Monthly Benefit Base	$ 1,041	$ 1,060	$ 1,176	$ 1,205	$1,304
	C.O.L.A.	$ 68	$ 68	$ 79	$ 79	$ 87
	P.R.P.A.	$ 197	$ 188	$ 279	$ 258	$ 268
	Total	$ 1,306	$ 1,316	$ 1,534	$ 1,542	$1,659
				Vested Terminations		
(1)	Number	430	509	335	481	777
(2)	Average Age	47.50	46.75	45.49	47.74	47.92
(3)	Average Monthly Benefit	$ 908	$ 944	$ 850	$ 1,178	$1,391
				Not Vested Terminations With Account Balances		
(1)	Number	1,037	914	1,093	869	1,529
(2)	Average Account Balance	$ 5,360	$ 5,573	$ 6,649	$ 8,356	$ 9,421

Section 1.2(b)
DISTRIBUTIONS OF ACTIVE PARTICIPANTS

STATE OF ALASKA - TRS ACTIVES

VALUATION DATE 6/30/1987

------ ANNUAL EARNINGS BY AGE------

AGE GROUP	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0-19	0	0.	0.
20-24	18	561552.	31197.
25-29	462	15137610.	32765.
30-34	1133	43083084.	38026.
35-39	2004	85794456.	42812.
40-44	1991	93453320.	46938.
45-49	1284	63410452.	49385.
50-54	586	30400174.	51877.
55-59	228	11688180.	51264.
60-64	73	4084033.	55946.
65-69	16	898299.	56144.
70-74	1	46460.	46460.
75-79	1	48362.	48362.
80+	0	0.	0.
TOTAL	7797	348605984.	44710.

---- ANNUAL EARNINGS BY SERVICE----

SERVICE GROUP	NUMBER OF PEOPLE	TOTAL ANNUAL EARNINGS	AVERAGE ANNUAL EARNINGS
0	761	30339614.	39868.
1	719	29716546.	41330.
2	946	38595304.	40798.
3	893	37393712.	41874.
4	578	25188066.	43578.
0- 4	3897	161233616.	41374.
5- 9	2159	99209312.	45952.
10-14	1112	54919276.	49388.
15-19	535	27934630.	52214.
20-24	85	4766835.	56080.
25-29	7	419537.	59934.
30-34	2	123016.	61508.
35-39	0	0.	0.
40+	0	0.	0.
TOTAL	7797	348606240.	44710.

SERVICE GROUPS BY AGE GROUPS

S E R V I C E   G R O U P

AGE	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	18	0	0	0	0	0	0	0	0	18
25-29	422	40	0	0	0	0	0	0	0	462
30-34	762	338	33	0	0	0	0	0	0	1133
35-39	1080	608	279	37	0	0	0	0	0	2004
40-44	833	577	367	210	4	0	0	0	0	1991
45-49	465	347	257	168	46	1	0	0	0	1284
50-54	199	165	106	90	24	2	0	0	0	586
55-59	86	61	50	19	8	3	1	0	0	228
60-64	26	18	14	10	3	1	1	0	0	73
65-69	6	5	4	1	0	0	0	0	0	16
70-74	0	0	1	0	0	0	0	0	0	1
75-79	0	0	1	0	0	0	0	0	0	1
80+	0	0	0	0	0	0	0	0	0	0
TOTAL	3897	2159	1112	535	85	7	2	0	0	7797

Section 1.2(c)
STATISTICS ON NEW RETIREES DURING THE YEAR ENDING JUNE 30

	1983	1984	1985	1986	1987
Service					
Number	242	179	279	179	285
Average Age At Retirement	54.54	54.66	54.95	56.06	53.83
Average Benefit	$ 1,680	$ 1,770	$ 2,011	$ 1,968	$ 2,124
Disability					
Number	7	5	6	7	13
Average Age At Retirement	45.03	52.60	48.57	43.48	45.14
Average Benefit	$ 2,333	$ 2,749	$ 2,500	$ 2,648	$ 2,321
Survivor					
Number	3	8	4	3	3
Average Age At Retirement	43.36	53.65	46.78	45.47	46.43
Average Benefit	$ 1,727	$ 1,330	$ 2,452	$ 1,942	$ 1,208
Total					
Number	252	192	289	189	301
Average Age At Retirement	54.14	54.53	54.70	55.43	53.38
Average Benefit	$ 1,699	$ 1,777	$ 2,027	$ 1,992	$ 2,123

Section 1.2(d)
STATISTICS ON ALL RETIREES AS OF JUNE 30

	1983	1984	1985	1986	1987
Normal Retirement					
Number, Prior Year	1,361	1,579	1,627	1,855	1,922
Net Change During Year	218	48	228	67	272
Number, This Year	1,579	1,627	1,855	1,922	2,194
Average Age At Retirement	57.01	56.96	56.57	56.47	56.06
Average Age Now	63.44	64.13	63.49	64.01	63.52
Average Monthly Benefit	$1,305.08	$1,316.92	$1,537.09	$1,549.08	$1,672.08
Surviving Spouse's Benefits					
Number, Prior Year	36	52	40	64	69
Net Change During Year	6	(2)	24	5	1
Number, This Year	42	40	64	69	70
Average Age At Retirement	59.13	57.87	57.29	54.52	53.93
Average Age Now	66.22	64.87	66.20	63.98	63.49
Average Monthly Benefit	$ 812.92	$ 592.92	$ 952.64	$ 833.25	$749.50
Survivor's Benefits					
Number, Prior Year	31	35	37	38	34
Net Change During Year	4	2	1	(4)	(2)
Number, This Year	35	37	38	34	32
Average Age At Retirement	37.83	35.47	36.23	35.29	39.04
Average Age Now	43.09	41.09	41.84	43.08	46.77
Average Monthly Benefit	$1,264.17	$1,247.17	$1,501.30	$1,583.58	$1,745.50
Disabilities					
Number, Prior Year	57	56	60	65	73
Net Change During Year	(1)	4	5	8	7
Number, This Year	56	60	65	73	80
Average Age At Retirement	43.32	44.11	44.46	44.55	44.00
Average Age Now	48.36	49.64	50.30	50.64	49.93
Average Monthly Benefit	$1,738.50	$1,816.75	$2,025.77	$2,002.75	$2,075.33

Section 1.2(e)
DISTRIBUTIONS OF ANNUAL BENEFITS OF RETIRED PARTICIPANTS

STATE OF ALASKA - TRS BENEFIT RECIPIENTS

VALUATION DATE 6/30/1987

------ ANNUAL BENEFIT BY AGE------			
AGE GROUP	NUMBER OF PEOPLE	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
0-19	0	0.	0.
20-24	2	10309.	5154.
25-29	0	0.	0.
30-34	3	95914.	31971.
35-39	6	145701.	24284.
40-44	38	905149.	23820.
45-49	152	3651211.	24021.
50-54	340	8022916.	23597.
55-59	455	9964593.	21900.
60-64	427	8283327.	19399.
65-69	405	7299016.	18022.
70-74	244	4171632.	17097.
75-79	164	2510092.	15305.
80+	140	2255112.	16108.
TOTAL	2376	47314972.	19914.

---- ANNUAL BENEFIT BY YEARS ----			
YEARS RECEIVING BENEFIT	NUMBER OF PEOPLE	TOTAL ANNUAL BENEFIT	AVERAGE ANNUAL BENEFIT
0	18	280606.	15589.
1	24	595523.	24813.
2	25	560731.	22429.
3	57	1114576.	19554.
4	34	704523.	20721.
0- 4	158	3255959.	20607.
5- 9	246	4803273.	19526.
10-14	1094	19552228.	17872.
15-19	382	8276975.	21667.
20-24	287	6578033.	22920.
25-29	119	2780279.	23364.
30-34	52	1263406.	24296.
35-39	25	515539.	20622.
40+	13	289267.	22251.
TOTAL	2376	47314960.	19914.

NUMBER OF YEARS RECEIVING BENEFITS

AGE	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	0	1	1	0	0	0	0	0	0	2
25-29	0	0	0	0	0	0	0	0	0	0
30-34	2	1	0	0	0	0	0	0	0	3
35-39	3	2	1	0	0	0	0	0	0	6
40-44	14	7	7	6	4	0	0	0	0	38
45-49	28	28	26	35	35	0	0	0	0	152
50-54	38	44	118	64	57	18	1	0	0	340
55-59	38	61	151	96	66	32	10	1	0	455
60-64	18	62	186	76	45	22	15	3	0	427
65-69	13	29	198	64	45	31	12	10	3	405
70-74	3	7	163	27	18	8	11	5	2	244
75-79	0	3	139	6	5	2	2	3	4	164
80+	1	1	104	8	12	6	1	3	4	140
TOTAL	158	246	1094	382	287	119	52	25	13	2376

Section 1.3
ACTUARIAL BASIS

Valuation of Liabilities

A. Actuarial Method - Projected Unit Credit. Liabilities and contributions shown in the report are computed using the Projected Unit Credit method of funding. The unfunded accrued benefit liability is amortized over 25 years. Actuarial funding surpluses are amortized over five years.

The objective under this method is to fund each participant's benefits under the plan as they accrue. Thus, each participant's total pension projected to retirement with salary scale is broken down into units, each associated with a year of past or future service. The principle underlying the method is that each unit is funded in the year for which it is credited. Typically, when the method is introduced there will be an initial liability for benefits credited for service prior to that date, and to the extent that this liability is not covered by Assets of the Plan there is an Unfunded Liability to be funded over a chosen period in accordance with an amortization schedule.

An Accrued Liability is calculated at the valuation date as the present value of benefits credited with respect to service to that date.

The Unfunded Liability at the valuation date is the excess of the Accrued Liability over the Assets of the Plan. The level annual payment to be made over a stipulated number of years to amortize the Unfunded Liability is the Past Service Cost.

The Normal Cost is the present value of those benefits which are expected to be credited with respect to service during the year beginning on the valuation date.

Under this method, differences between the actual experience and that assumed in the determination of costs and liabilities will emerge as adjustments in the Unfunded Liability, subject to amortization.

B. Method for Accumulated Plan Benefit Values - The actuarial present value of accumulated plan benefits (the term used for Financial Accounting Standards Board purposes) and present value of vested accumulated benefits are a measure of plan benefits which have been earned to date. These are not only a valuation of retirement benefits, but also of deferred vested, death benefits, and other ancillary benefits. Earnings and service for benefit purposes which are expected to be earned after the valuation date are excluded from these values.

The actuarial assumptions used to determine these values are identical to those used for the funding purposes.

In estimating accumulated benefits, final average compensation is based on compensation data in the possession of the actuary.

C. Actuarial Assumptions -

1.	Interest	9% per year, compounded annually, net of expenses.
2.	Salary Scale	6.5% per year for the first five years of employment and 5.5% per year thereafter.
3.	Health Inflation	9% per year.
4.	Mortality	1984 Unisex Pension Mortality Table set back 1-1/2 years.
5.	Turnover	Based upon the 1981-85 actual total turnover experience. (See Table 1).
6.	Disability	Incidence rates in accordance with Table 2. Post-disability mortality in accordance with rates published by the Pension Benefit Guaranty Corporation to reflect mortality of those receiving disability benefits under Social Security.
7.	Retirement Age	Retirement rates based on actual experience in accordance with Table 3.
8.	Spouse's Age	Wives are assumed to be four years younger than husbands.
9.	Contribution Refunds	100% of those terminating after age 35 with eight or more years of service will leave their contributions in the fund and thereby retain their deferred vested benefit. All others who terminate are assumed to have their contributions refunded.
10.	C.O.L.A.	54% of those receiving retirement benefits will be eligible for C.O.L.A.

11. Sick Leave	4.7 days of unused sick leave for each year of service will be available to be credited once the member is retired.
12. Expenses	Expenses are covered in the interest assumption.

Valuation of Assets

Based upon the three-year average ratio between market and book values of the System's assets, except that fixed income investments are carried at book value. Assets are accounted for on an accrued basis.

Valuation of Medical Benefits

Medical benefits for retirees are provided by the payment of premiums from the fund. A pre-65 cost and lower post-65 cost (due to Medicare) were assumed such that the total rate for all retirees equals the present premium rate. These medical premiums are then increased with the health inflation assumption. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

TABLE 1

ALASKA TRS

TOTAL TURNOVER ASSUMPTIONS

Select Rates of Turnover During the First 10 Years of Employment

Year of Employment	Rate
1	.17
2	.15
3	.12
4	.12
5	.11
6	.09
7	.07
8	.07
9	.07
10	.06

Ultimate Rates of Turnover After the First 10 Years of Employment

Ages	Rate
20-39	.03
40+	.02

TABLE 2
ALASKA TRS - DISABILITY RATES
ANNUAL RATES PER 1,000 EMPLOYEES

Age	Rate
20	.42
21	.43
22	.43
23	.44
24	.44
25	.45
26	.46
27	.47
28	.48
29	.49
30	.50
31	.52
32	.53
33	.54
34	.56
35	.58
36	.59
37	.62
38	.64
39	.67
40	.69
41	.72
42	.76
43	.82
44	.89
45	.97
46	1.06
47	1.15
48	1.24
49	1.34
50	1.44
51	1.56
52	1.72
53	1.91
54	2.13
55	2.40
56	2.75
57	3.20
58	3.66
59	4.32
60	5.06
61	5.85
62	6.78
63	7.83
64	8.94

TABLE 3

ALASKA TRS - RETIREMENT ASSUMPTION

Age at Retirement	Retirement Assumption
50	.063
51	.063
52	.063
53	.063
54	.063
55	.117
56	.117
57	.117
58	.117
59	.117
60	.260
61	.180
62	.210
63	.240
64	.270
65	.540
66	.820
67	1.000

For ages less than 50, teachers are assumed to retire two years after the earliest age they are eligible to retire.

Section 2
VALUATION RESULTS

This section sets forth the results of the actuarial valuation.

Section 2.1(a) shows the distribution of the assets as of June 30, 1987.

Section 2.1(b) shows the transactions of the plan's fund during the Fiscal Year 1987.

Section 2.1(c) develops the valuation assets.

Section 2.2 shows the actuarial present values as of June 30, 1987.

Section 2.3 calculates the total contribution rate for Fiscal Year 1990.

2.1(a)
ASSETS AS OF JUNE 30, 1987 (in thousands)

	Book Value	Actuarial Value*
Cash	$ 4,017	$ 4,017
Short-Term Investments	2,800	2,800
U.S. Government Bonds	410,899	410,899
Corporate Bonds	115,206	115,206
Common Stock	339,111	392,601
Foreign Stocks	71,900	134,420
Real Estate Equity Fund	71,032	75,598
Loans & Mortgages	112,421	112,421
Financial Futures	0	0
Accrued Receivables and Expenses	19,197	19,197
Total Assets	$1,146,583	$1,267,159

* The actuarial value of all assets is based upon the fair market value provided in the audited financial statements, except for U.S. Government bonds, corporate bonds, and mortgages which are valued at book value.

Section 2.1(b)
CHANGES IN NET MARKET VALUE OF ASSETS DURING FISCAL YEAR 1987
(in thousands)

Net Assets, June 30, 1986		$ 1,141,650
Additions:		
Employee Contributions	$ 34,159	
Employer and State Matching Contributions	58,177	
Dividend Income	8,734	
Interest Income	138,652	
Realized and Unrealized Gain (Loss) on Investments	(19,371)	220,351
Deductions:		
Medical Benefits	$ 4,613	
Retirement Benefits	46,183	
Refunds of Contributions	4,239	
Administrative Expenses	3,502	58,537
Net Assets, June 30, 1987		$1,303,464
Approximate Investment Return Rate During the Year:		
Based on Market Values		11.05%
Based on Book Values		10.52%
Based on Valuation Assets		14.20%

Section 2.1(c)
DEVELOPMENT OF VALUATION ASSETS AS OF JUNE 30, 1987 (in thousands)

		Actuarial Values	Book Values	Ratio (A/B)
(1)	June 30, 1987	$1,267,159	$1,146,583	1.1052
(2)	June 30, 1986	$1,077,878	$1,005,289	1.0722
(3)	June 30, 1985	$ 856,845	$ 833,617	1.0279
(4)	Average Ratio			1.0684
(5)	Cost Value at June 30, 1987			$1,146,583
(6)	Valuation Assets at June 30, 1987 (4) x (5) but not outside the range of book and market values			$1,225,009

Section 2.2
ACTUARIAL PRESENT VALUES AS OF JUNE 30, 1987 (in thousands)

	Normal Cost	Present Value of Accrued Benefits
Active Members		
Retirement Benefits	$ 38,661	$ 481,392
Termination Benefits	1,239	9,917
Return of Contributions	1,727	10,619
Disability Benefits	306	6,526
Death Benefits	1,152	13,720
Health Benefits	15,013	141,012
Indebtedness	0	(26,086)
Retirement Incentive Program Indebtedness		(4,659)
Subtotal	$ 58,098	$ 632,441
Inactive Members		
Not Vested		$ 14,405
Vested Terminations		115,215
Retirees & Beneficiaries		448,848
Subtotal		$ 578,468
Totals		$1,210,909

Section 2.3
CALCULATION OF TOTAL CONTRIBUTION RATE

Normal Cost Rate

(1)	Total Normal Cost*	$ 58,098
(2)	Total Salaries*	348,606
(3)	Normal Cost Rate (1) / (2)	16.67%
(4)	Average Member Contribution Rate	7.53%
(5)	Consolidated Employer Normal Cost Rate, (3) - (4)	9.14%

Past Service Rate

(1)	Present Value of Accrued Benefits*	$1,210,909
(2)	Valuation Assets*	1,225,009
(3)	Total Unfunded Liability*, (1) - (2)	(14,100)
(4)	Amortization Factor (5 year)	4.239720
(5)	Past Service Payment, (3) / (4)	(3,326)
(6)	Total Salaries*	348,606
(7)	Past Service Rate, (5) / (6)	(0.95%)

Total Employer Contribution Rate	8.19%

* In thousands.

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