

STATE OF ALASKA
JUDICIAL RETIREMENT SYSTEM

Actuarial Valuation

as of

June 30, 1988

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HIGHLIGHTS

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

- (1) present the results of a valuation of the Alaska Judicial Retirement System as of June 30, 1988;
- (2) review experience under the Plan for the period July 1, 1986 to June 30, 1988;
- (3) determine the contribution rate for the Judicial Retirement System for fiscal years 1991 and 1992;
- (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 1986-1988 plan years, the current annual costs, and reporting and disclosure information.

The principle results are as follows:

Funding Status as of June 30:

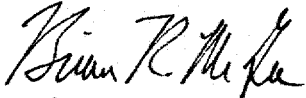
	<u>1986</u>	<u>1988</u>
(a) Valuation Assets	\$15,005,269	\$20,427,073
(b) Present Value of Accrued Benefits	28,407,780	31,714,820
(c) Accrued Benefit Funding Ratio, (a) / (b)	52.8%	64.4%

Recommended Contribution Rates:

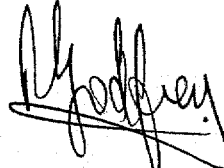
	<u>FY89-FY90</u>	<u>FY91-FY92</u>
(a) Normal Cost Rate	24.27%	24.83%
(b) Past Service Cost Rate	30.81%	26.38%
(c) Total Annual Cost Rate	55.08%	51.21%

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions, in conjunction with employee data and financial information provided to us by your office, to determine a sound value for the System's 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,



Brian R. McGee, FSA
Principal



Peter L. Godfrey, FIA, ASA
Consulting Actuary

PLG/BRM/js

June 6, 1989

ANALYSIS OF VALUATION

Actuarial Method and Assumptions

The actuarial method and assumptions are the same as those used in the June 30, 1986 valuation.

Salary Increases

Salaries remained unchanged for those active participants at June 30, 1988 who were active participants at June 30, 1986. However, new participants since 1986 and the effect of terminations and retirements caused the average annual salary to increase from \$75,245 at June 30, 1986 to \$75,404 at June 30, 1988. Since we assumed an average annual salary increase of 6% in the valuation as of June 30, 1986, there resulted an actuarial gain due to salary experience which increased the funding ratio and reduced the total contribution rate.

Investment Performance

The rate of return on investments during fiscal year 1987 was 5.00% and the rate of return during fiscal year 1988 was 4.30%. Our actuarial calculations are based upon the assumption that the System's assets will earn 9% per year. The net result during the two years was an actuarial loss from investment performance.

Membership Statistics

The average age increased 1.48 years and the average past service increased .93 years. This had very little effect on the funding ratio and the total contribution rate of the system. It should be noted that one vested terminated employee was included in the valuation, after having been omitted from the membership data provided to us for the June 30, 1986 valuation.

Conclusions

The net effect of the actuarial gains and losses was an increase in the funding ratio of 11.6% to 64.4% and a reduction in the total contribution rate of 3.87% to 51.21%. Thus, the funding of the System is progressing in a satisfactory manner.

SECTION 1

BASIS OF VALUATION

In this section, the basis of the valuation is presented and described. This information -- the provisions of the System 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 the System's provisions is provided in Section 1.1 and participant census information is shown in Section 1.2 to Section 1.4.

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 System in a reasonable and acceptable manner, are described in Section 1.5.

SECTION 1.1

SUMMARY OF PLAN PROVISIONS

(1) Employees Included

All Judges and Justices of the Supreme, Superior, District and Appellate Courts and the administrative director of the Alaska Court System.

(2) Employee Contributions

(a) Mandatory Employee Contributions: 7% of salary for each year of service up to 15 years, if appointed after June 30, 1978.

(b) Interest Credited: 4-1/2% compounded semiannually on June 30 and December 31.

(c) Refund at Termination (no vesting): Return of contributions with interest.

(d) Refund at Death: If no widow's pension payable, return of contributions with interest.

(3) Normal Retirement Benefit

(a) Eligibility: Age 60 with five or more years of service.

(b) Type: Life only, with a 50% Survivor Benefit if married.

(c) Amount: (For each year of service up to 15 years) 5% of the monthly salary authorized for the appropriate court, at the time each payment is made.

(4) Early Retirement Benefit

(a) Eligibility: Age 55 or 20 or more years of service.

(b) Type: Life only, with a 50% Survivor Benefit if married.

(c) Amount: Actuarial equivalent of Normal Retirement Benefit based on service to Early Retirement Date.

(5) Deferred Vested Benefit

(a) Eligibility: Five or more years of service.

(b) Type: Normal or Early Retirement Benefit.

(c) Amount: Monthly benefit begins on employee's date of retirement. Amount determined in the same manner as Normal or Early Retirement Benefit.

(6) Disability Benefit

- (a) Eligibility: Two or more years of service.
- (b) Type: Monthly benefit payable until death or recovery.
- (c) Amount: Same as Normal Retirement Benefit except payments commence immediately.

(7) Death Benefit Before Retirement

If not married, accrued contributions with interest are returned. If married, an income benefit is available at death after two years of service. The benefit is 50% of the accrued Normal Retirement Benefit, but at least 30% of the authorized salary. Under certain conditions, survivor benefits are payable to minor dependents.

(8) Medical Benefits

Each retiree is provided with major medical benefits.

SECTION 1.2

CHANGES IN SYSTEM PARTICIPATION FROM 6-30-86 TO 6-30-88

Active Participants

Total, 6-30-86	54
New Entrants	3
Returned From Non-Vested Status	0
Returned From Vested Status	0
Non-Vested Terminations	(1)
Vested Terminations	(1)
Retirements	(2)
Deaths	<u>(0)</u>
Total, 6-30-88	53

Vested Terminations

Total, 6-30-86	9
New Vested Terminations	1
Retirements	(2)
Returned to Active Status	0
Omitted from Previous Valuation	1
Deaths	<u>0</u>
Total, 6-30-88	9

Retirees and Survivors

Total, 6-30-86	30
New Retirements	4
New Survivors	2
Deaths	<u>(2)</u>
Total, 6-30-88	34

SECTION 1.3

MISCELLANEOUS INFORMATION AS OF JUNE 30

	<u>1982</u>	<u>1984</u>	<u>1986</u>	<u>1988</u>
<u>Active Members</u>				
(1) Number	48	47	54	53
(2) Average Age	46.24	47.53	46.51	47.99
(3) Average Service	7.88	8.42	8.01	8.94
(4) Average Annual Base Pay	\$67,893	\$71,621	\$75,245	\$75,404
<u>Vested Terminated Members</u>				
(1) Number	7	9	9	9
(2) Average Age	41.91	46.39	47.58	47.98
(3) Average Service	8.98	9.01	7.91	6.72
(4) Average Monthly Benefit	\$ 2,389	\$ 2,350	\$ 2,137	\$ 2,001
<u>Retirees and Beneficiaries</u>				
(1) Number	24	27	30	34
(2) Average Age	64.92	65.80	67.11	67.53
(3) Average Monthly Benefit	\$ 2,862	\$ 3,069	\$ 3,173	\$ 3,154

SECTION 1.4

DISTRIBUTIONS OF ACTIVE PARTICIPANTS

STATE OF ALASKA - JUDICIAL RETIREMENT SYSTEM - ACTIVES

VALUATION DATE 6/30/1988

ANNUAL EARNINGS BY AGE				ANNUAL EARNINGS BY SERVICE			
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	0	0.	0.
20-24	1	77304.	77304.	1	3	221424.	73808.
25-29	0	0.	0.	2	1	77304.	77304.
30-34	0	0.	0.	3	6	442848.	73808.
35-39	7	499176.	71311.	4	5	355056.	71011.
40-44	12	864720.	72060.	0- 4	15	1096632.	73109.
45-49	11	862764.	78433.	5- 9	14	1040928.	74352.
50-54	11	846216.	76929.	10-14	17	1302240.	76602.
55-59	6	461760.	76960.	15-19	5	404052.	80810.
60-64	3	229848.	76616.	20-24	1	66816.	66816.
65-69	2	154608.	77304.	25-29	1	85728.	85728.
70-74	0	0.	0.	30-34	0	0.	0.
75-79	0	0.	0.	35-39	0	0.	0.
80+	0	0.	0.	40+	0	0.	0.
TOTAL	53	3996396.	75404.	TOTAL	53	3996396.	75404.

SERVICE GROUPS BY AGE GROUPS

AGE	S E R V I C E G R O U P									
	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	1	0	0	0	0	0	0	0	0	1
25-29	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
35-39	5	1	1	0	0	0	0	0	0	7
40-44	5	5	2	0	0	0	0	0	0	12
45-49	2	2	5	2	0	0	0	0	0	11
50-54	1	2	5	2	1	0	0	0	0	11
55-59	0	4	2	0	0	0	0	0	0	6
60-64	1	0	1	0	0	1	0	0	0	3
65-69	0	0	1	1	0	0	0	0	0	2
70-74	0	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0	0
80+	0	0	0	0	0	0	0	0	0	0
TOTAL	15	14	17	5	1	1	0	0	0	53

SECTION 1.5

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. Actuarial Assumptions -

- | | |
|-----------------|---|
| 1. Interest | 9% per year, compounded annually, net of investment expenses. |
| 2. Mortality | 1984 Unisex Pension Mortality Table. |
| 3. Salary Scale | 6% per year, compounded annually. |

- | | |
|----------------------------------|--|
| 4. Health Cost Inflation | 9% per year. |
| 5. Turnover and Early Retirement | Annual turnover and early retirement at each age and service is the <u>greatest</u> of the following amounts:
<ul style="list-style-type: none">(a) 0%(b) 3% if service is greater than 15 years.(c) 6% if vested <u>and</u> immediately eligible for full benefits based on retirement provision.(d) 10% if vested <u>and</u> age is greater than 64. |
| 6. Disability | In accordance with Table 1. |
| 7. Maximum Retirement Age | Age 70. |

Valuation of Assets

Based upon asset data as furnished by the Division of Retirement and Benefits.

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) are assumed such that the total rate for all retirees equals the current premium rate, increased with 9% annual inflation. The actuarial cost method used for funding retirement benefits is also used to fund health benefits.

For FY89 the pre-65 monthly premium is \$267.43 and the post-65 premium is \$76.37, based on a total blended premium of \$211.22.

TABLE 1
STATE OF ALASKA
JUDICIAL RETIREMENT SYSTEM

Disability Rates

Annual Rates Per 1,000 Employees

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	.17	45	.41
21	.17	46	.44
22	.18	47	.48
23	.18	48	.52
24	.18	49	.56
25	.19	50	.60
26	.19	51	.65
27	.19	52	.72
28	.20	53	.80
29	.20	54	.89
30	.21	55	1.00
31	.21	56	1.15
32	.22	57	1.34
33	.22	58	1.53
34	.23	59	1.80
35	.24	60	2.11
36	.25	61	2.44
37	.26	62	2.83
38	.27	63	3.26
39	.28	64	3.73
40	.29		
41	.30		
42	.32		
43	.34		
44	.37		

SECTION 2

VALUATION RESULTS

This section sets forth the results of the actuarial valuation.

Section 2.1 shows the transactions of the System's fund during FY87 and FY88.

Section 2.2 shows the actuarial present values as of June 30, 1988.

Section 2.3 develops the total contribution rate.

SECTION 2.1

DEVELOPMENT OF VALUATION ASSETS AS OF JUNE 30

	<u>FY87</u>	<u>FY88</u>
Net Assets Available for Benefits, Beginning of Year	<u>\$15,005,269</u>	<u>\$17,801,780</u>
Additions:		
Employee Contributions	\$ 158,893	\$ 187,674
Employer Contributions	3,033,219	2,992,216
Indebtedness Interest	471	203
Investment Income	<u>799,406</u>	<u>804,143</u>
	<u>\$ 3,991,989</u>	<u>\$ 3,984,236</u>
Deductions:		
Retirement Benefits	\$ 1,098,038	\$ 1,272,436
Medical Benefits	64,300	58,700
Employee Refunds	11,140	290
Administrative Expenses	<u>22,000</u>	<u>27,517</u>
	<u>\$ 1,195,478</u>	<u>\$ 1,358,943</u>
Net Assets Available for Benefits, End of Year	<u>\$17,801,780</u> =====	<u>\$20,427,073</u> =====

SECTION 2.2

BREAKDOWN OF PRESENT VALUE OF BENEFITS

	<u>Normal Cost</u>	<u>Present Value of Accrued Benefits</u>
<u>Active Participants</u>		
Retirement Benefits	\$ 594,283	\$ 6,084,841
Disability Benefits	23,955	207,575
Death Benefits	123,530	1,150,726
Deferred Benefits	387,670	3,954,029
Health Benefits	<u>34,082</u>	<u>965,360</u>
Subtotal	\$1,163,520	\$12,362,531
 <u>Retirees and Survivors</u>		
Retired Members' Benefits		\$16,177,753
Health Benefits		<u>676,345</u>
Subtotal		\$16,854,098
 <u>Vested Terminations</u>		
Deferred Retirement Benefits		\$ 2,245,562
Health Benefits		<u>252,629</u>
Subtotal		\$ 2,498,191
 Total		 \$31,714,820

SECTION 2.3

CALCULATION OF TOTAL CONTRIBUTION RATE

(1) Total Normal Cost	\$1,163,520
(2) Total Salaries	3,996,396
(3) Total Normal Cost Rate, (1) / (2)	29.11%
(4) Average Employee Contribution Rate	4.28%
(5) Employer Normal Cost Rate, (3) - (4)	24.83%
(6) Present Value of Accrued Benefits	\$31,714,820
(7) Assets	20,427,073
(8) Total Unfunded Liability, (6) - (7)	11,287,747
(9) Amortization Factor	10.706612
(10) Past Service Payment, (8) / (9)	1,054,278
(11) Past Service Rate, (10) / (2)	26.38%
(12) Total Contribution Rate, (5) + (11)	51.21%