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SCHOOL EMPLOYEES RETIREMENT SYSTEM
OF OHIO

ACTUARIAL VALUATION
JUNE 30, 1973

HUGGINS
& COMPANY, INC.

CONSULTING ACTUARIES • EMPLOYEE BENEFIT PLAN CONSULTANTS

PHILADELPHIA

PART I - ACTUARIAL BALANCE SHEET

Using the various monetary tables developed in connection with the 1970 Evaluation and the data prepared by the staff and submitted to us, a complete valuation of the system was made as of June 30, 1973 in which the present and prospective assets and liabilities were calculated, based on the contributions and benefits in effect on that date, including the changes made by House Bills 377 and 430. In addition, the assumed rate of future investment earnings has been changed from 4½% to 4-3/4% annually. The results are shown in the actuarial balance sheet on the following page.

It will be noted that the assets in the balance sheet consist of not only the present assets but also future assets represented by prospective contributions. The various fund balances included in the total present assets of \$459,672,421 obtained from the financial reports of the Board are shown in the balance sheet and the physical distribution of the present assets according to cash, investments, accrual items and furniture and equipment is shown in the footnote. The present value of the future employee contributions of the present members and the present value of the future employer contributions is shown in a combined total of \$608,528,258. In Part II we discuss the proper allocation of this total between the normal and deficiency contributions.

On the liability side of the balance sheet the main division of the total liability of \$1,082,233,138 is between the liability for the benefits presently payable on account of present retirants and beneficiaries amounting to \$264,546,124 and the liabilities for present active and inactive members amounting to \$817,528,305. In addition, there is a minor reserve of \$158,709. An analysis of the various liability items and a comparison of liabilities with the corresponding fund balances follow the balance sheet, beginning on page 3.

ACTUARIAL BALANCE SHEET SHOWING PRESENT AND PROSPECTIVE ASSETS AND LIABILITIES
OF THE SCHOOL EMPLOYEES RETIREMENT SYSTEM - JUNE 30, 1973

A S S E T S

L I A B I L I T I E S

Present assets:

Employees' Savings Fund	\$ 146,693,745
Interest Reserve Fund	8,030,946
Annuity and Pension Reserve Fund	175,935,360
Survivors' Benefit Fund	30,654,830
Employers' Trust Fund	98,195,269
Cleveland Custodians' Fund	3,562
General Fixed Assets	158,709
Expense Fund	0
Miscellaneous	0

Total present assets \$ 459,672,421

Future assets

Present value of future state appropria- tions to finance House Bill 284	\$ 14,032,459
Present value of prospective employee and employer contributions	608,528,258
Total future assets	\$ 622,560,717

TOTAL ASSETS \$1,082,233,138

*Distributed as follows:

Cash	\$ (113,450)
Investments (at Book Value)	441,419,294
Accounts Receivable (including \$18,148,024 due from employers)	18,156,861
Furniture and equipment	209,716
	<u>\$459,672,421</u>

Present value of benefits payable on account of pre-retirees and beneficiaries from the -	
Annuity and Pension Reserve Fund:	
Superannuation retirees	\$209,231,410
Beneficiaries under options .	6,923,515
Disability retirees	13,613,707
Medicare equivalent	199,325
Death Benefit	3,045,074
	<u>233,013,031</u>
Total A & PRF	\$233,013,031
Survivors' Benefit Fund	31,533,093
Total retirees and beneficiaries ...	\$ 264,546,124
Present value of benefits payable on account of active and inactive members -	
Superannuation pensions	\$613,970,574
Disability pensions	15,731,266
Survivor benefits	31,022,056
Refunds	120,257,665
Medicare equivalent	30,267,577
Retiree death benefit	6,275,605
Cleveland Custodians' Fund ..	3,562
Total active and inactive members ...	817,528,305
Reserve for contingencies; miscellaneous ..	158,709
TOTAL LIABILITIES	<u>\$1,082,233,138</u>

Liability related to present retirants and beneficiaries \$264,546,124

A breakdown of the \$264,546,124 of liability related to present retirants and beneficiaries according to the type of benefit payment is shown in the following table. The costs of providing the Medicare Equivalent Benefit and the Death Benefit are shown separately.

	<u>Liability for Retirants and Beneficiaries</u>			
	<u>Total Allowance</u>	<u>Medicare Equivalent</u>	<u>Death Benefit</u>	<u>Total</u>
Superannuation retirants .	\$209,231,410	\$191,741	\$2,796,044	\$212,219,195
Beneficiaries receiving optional allowances	6,923,515	5,842	-	6,929,357
Disability retirants	<u>13,613,707</u>	<u>1,742</u>	<u>249,030</u>	<u>13,864,479</u>
Sub-total	\$229,768,632	\$199,325	\$3,045,074	\$233,013,031
Survivors' Benefit Fund beneficiaries	<u>31,531,405</u>	<u>1,688</u>	<u>-</u>	<u>31,533,093</u>
Total Liability	\$261,300,037	\$201,013	\$3,045,074	\$264,546,124

Included in the \$229,768,632 of liability for present retirants and beneficiaries is \$14,032,459 related to House Bill 284 and \$4,498,140 related to past cost-of-living increases. Included in the \$31,531,405 of liability for present survivors is \$2,036,270 related to House Bill 377 and \$577,293 related to past cost-of-living increases.

It is informative to compare the above liabilities with the corresponding fund balances shown in the actuarial balance sheet. The liabilities charged against the Annuity and Pension Reserve Fund result from the allowances payable to superannuation and disability retirants and the optional allowances payable to surviving beneficiaries of deceased retirants. The total of these liabilities is \$229,768,632. In addition, there is a liability of \$199,325 to provide the Medicare Equivalent Benefit and a liability of \$3,045,074 to provide for Death Benefits.

This is a total liability of \$233,013,031 related to benefits to be paid from the Annuity and Pension Reserve Fund, which compares with

\$189,967,819 (the total of the A & PRF balance of \$175,935,360 and the anticipated House Bill 284 state appropriations of \$14,032,459), leading to a deficiency of \$43,045,212. The corresponding deficiency a year earlier was \$33,458,529, so there was an increase in this deficiency during the year of \$9,586,683.

It will also be noted that the Survivors' Benefit Fund had a fund balance of \$30,654,830 as compared with the liability of \$31,533,093 indicating a deficit of \$878,263 in that Fund compared with a deficiency of \$8,637,732 a year earlier.

The total deficiency in these two Funds is \$43,923,475.

The number of retirants and beneficiaries and their annual allowances as of June 30, 1973, corresponding to the liabilities shown on the previous page, are shown in the following table.

CATEGORY	NUMBER RECEIV- ING	ANNUAL ALLOWANCE		
		Basic	HB 284 & 377 Increases	C-0-L Increases
Superannuation retirants	13,699	\$17,968,904	\$1,562,813	\$472,923
Beneficiaries receiving optional allowances	643	603,967	164,496	25,634
Disability retirants	<u>870</u>	<u>1,263,441</u>	<u>80,424</u>	<u>27,861</u>
Sub-Total	15,212	\$19,836,312	\$1,807,733	\$526,418
Survivors' Benefit Fund beneficiaries	<u>1,645</u>	<u>2,422,742</u>	<u>225,864</u>	<u>64,615</u>
Total Allowances on June 30, 1973	<u>16,859</u>	<u>\$22,259,054</u>	<u>\$2,033,597</u>	<u>\$596,033</u>

Age distributions of the retirants and beneficiaries in the various categories are shown in schedules at the end of this report, as follows:

	SCHEDULE
Superannuation retirants - men	A
Superannuation retirants - women	B
Beneficiaries receiving optional allowances ..	C
Disability retirants - men and women	D
Survivor beneficiaries:	
Receiving allowances	E
Entitled to deferred allowances	F

Liability related to present active and inactive members \$817,528,305

The \$817,528,305 of liability related to the active and inactive members of the system compares with \$771,054,193 one year earlier and is based on the data summarized briefly in the table below:

	<u>M e n</u>	<u>W o m e n</u>	<u>T o t a l</u>
Active members:			
Number	29,949	63,697	93,646
Salaries	\$151,742,698	\$173,328,544	\$325,071,242
Present value of 1% of future salaries	12,429,353	15,772,516	28,201,869
Number of inactive members	20,992	33,150	54,142

Age distributions of the members are shown at the end of this report in Schedule G for active members and in Schedule H for inactive members.

Reserve for contingencies; miscellaneous \$ 158,709

This is the Investment in General Fixed Assets.

Total liabilities \$1,082,233,138

The total liability represents the present value of all obligations of the System for all future benefits, both those related to service prior to June 30, 1973 and those that will be related to subsequent service, based on the benefits in effect on that date.

The actuarial assumptions used in this valuation are summarized in Schedule I at the end of this report.

PART II - RATES OF CONTRIBUTIONS

In connection with the 1972 valuation, a New Entrant study was made in order to determine the normal contribution rate. The results of that study, adjusted for changes in benefits and assumed future interest, indicate a total normal rate of 16.23% of salary, excluding Health Care, with the breakdown shown in the table below:

Superannuation retirement benefit	10.10%
Disability retirement benefit48
Survivor benefit	1.16
Refund of contributions	3.62
Medicare equivalent benefit77
Retirant death benefit	<u>.10</u>
 Total normal contribution rate	 <u>16.23%</u>

In order to determine what portion of the future asset item of \$608,528,258 will be funded by the total normal contribution rate of 16.23% of salary, we have determined that the present value of 1% of the present members' future salaries is \$28,201,869. The present value of future normal contributions is, therefore, 16.23 times \$28,201,869, or \$457,716,334. This leaves a deficiency of \$150,811,924 to be funded by the remainder of the future contributions. The corresponding figure a year earlier was \$132,392,701, which means that the total system deficiency increased by \$18,419,223.

In order to analyze the deficiency funding, let us start with the present total contribution rate of 19.75% of payroll, excluding Health Care, of which the member pays 8.00% and the State 11.75%. If we deduct the normal contribution rate of 16.23%, we are left with a balance of 3.52% available for funding the deficiency. The question to be answered is over how long a period will this rate of 3.52% be required in order to fund the deficiency of \$150,811,924.

Before making this calculation, we should be aware of the consistently large increases in total payroll of the members in recent years, which have been as shown on the next page.

<u>Year Ending June 30</u>	<u>Total Payroll of Members</u>	<u>Percentage Increase</u>
1964	124,121,000	6.7%
1965	133,134,000	7.3
1966	149,160,000	12.0
1967	176,442,000	18.3
1968	199,733,000	13.2
1969	220,278,000	10.3
1970	247,774,000	12.5
1971	276,782,000	11.7
1972	305,167,000	10.3
1973	323,600,000	6.0

While we would not want to project future increases at these rates, which have averaged almost 11% annually during the past ten years, we have made our calculations on three different bases, in this report, as follows:

1. Assuming that payrolls will continue at the 1972-1973 level of approximately \$324,000,000.
2. Assuming that payrolls will increase in the future at the rate of 3% per annum, compounded annually.
3. Assuming that payrolls will increase in the future at the rate of 5% per annum, compounded annually.

Our calculations indicate that, for the present total contribution rate of 19.75% of payroll, of which 16.23% is on account of the normal cost and 3.52% is on account of the deficiency, the funding periods on the three different assumptions as to future payrolls are as follows:

	<u>Assumptions as to Future Payrolls</u>		
	<u>No Increase</u>	<u>3% Annual Increase</u>	<u>5% Annual Increase</u>
Period of deficiency funding ..	21.4 years	15.6 years	13.7 years

These calculations indicate that the total employer rate of 19.75% of payroll, along with a member contribution rate of 8.0%, will fund the normal cost each year and complete the funding of the deficiency in periods varying from 13.7 years to 21.4 years, depending on those three assumptions as to future payroll increases. These periods are slightly less than the corresponding periods determined in the valuation as of June 30, 1972.

PART III - SUMMARY

This valuation reveals a substantial expansion of the retirement system due to the continued increases in membership and payroll. In addition, the benefits were liberalized and the contribution rate paid by members increased from 7.9% of salary to 8%.

The increases in liabilities and costs were minimized by a change in the assumed rate of investment earnings from 4½% to 4-3/4% annually.

Using the results for the deficiency funding period based on assumed 3% annual increases in total payroll of covered members in the future, we find that the funding period for the deficiency decreased from 17.0 years to 15.6 years going from 1972 to 1973.

The balance in the Employers' Trust Fund has increased in the past year from \$78,612,802, to \$98,195,269 and is approximately two-thirds of the balance of \$146,693,745 in the Employees' Savings Fund. This means that, on the average, the System has a reserve of only \$664 in addition to the employees' personal account, for each of the 147,788 active and inactive members. It is important, therefore, to continue to build up this reserve.

SUPERANNUATION RETIRANTS - JUNE 30, 1973 - MEN

Age	Straight Life		Options		Total	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
55	1	\$ 1,335	3	\$ 18,640	4	\$ 19,975
56			11	25,918	11	25,918
57	5	10,601	4	7,093	9	17,694
58	3	4,178	6	10,934	9	15,112
59	7	17,265	8	43,594	15	60,859
60	15	26,485	17	36,449	32	62,934
61	44	66,850	48	92,937	92	159,787
62	45	65,049	75	149,271	120	214,320
63	95	136,816	92	121,324	187	258,140
64	117	184,246	93	156,512	210	340,758
65	131	177,022	120	260,141	251	437,163
66	169	243,001	153	252,729	322	495,730
67	219	359,410	174	297,045	393	656,455
68	196	309,109	165	290,583	361	599,692
69	208	312,779	141	253,089	349	565,868
70	254	370,998	151	306,275	405	677,273
71	190	286,892	157	285,663	347	572,555
72	174	236,401	120	212,874	294	449,275
73	176	276,875	118	230,018	294	506,893
74	185	292,132	126	220,640	311	512,772
75	186	287,761	94	163,408	280	451,169
76	175	306,868	93	168,857	268	475,725
77	155	241,363	67	118,286	222	359,649
78	145	257,228	85	141,717	230	398,945
79	153	245,410	54	91,570	207	336,980
80	154	229,981	32	52,012	186	281,993
81	141	232,104	40	50,187	181	282,291
82	103	168,197	36	56,603	139	224,800
83	90	149,683	31	47,816	121	197,499
84	74	115,214	25	48,658	99	163,872
85	60	100,729	29	43,206	89	143,935
86	53	73,751	20	28,002	73	101,753
87	43	67,342	22	30,549	65	97,891
88	31	42,943	5	5,560	36	48,503
89	27	42,133	11	14,124	38	56,257
90	20	32,018	6	8,559	26	40,577
91	21	27,910	2	2,561	23	30,471
92	7	11,030	2	2,048	9	13,078
93	5	9,222			5	9,222
94	9	14,131	1	1,204	10	15,335
95	4	3,960			4	3,960
96	3	6,484			3	6,484
97						
98	1	1,190	1	1,002	2	2,192
99			1	1,001	1	1,001
100	2	2,442			2	2,442
101	1	2,486			1	2,486
102	-	-	1	4,517	1	4,517
107	-	-	1	1,966	1	1,966
Total	<u>3,897</u>	<u>\$6,049,024</u>	<u>2,441</u>	<u>\$4,355,142</u>	<u>6,338</u>	<u>\$10,404,166</u>

SCHEDULE A

SUPERANNUATION RETIRANTS - JUNE 30, 1973 - WOMEN

Age	Straight Life		Options		Total	
	Number	Annual Allowance	Number	Annual Allowance	Number	Annual Allowance
55	1	\$ 8,454	1	\$ 2,726	2	\$ 11,180
56	4	16,269	2	6,375	6	22,644
57	5	21,164	5	21,683	10	42,847
58	8	24,834			8	24,834
59	7	13,889	4	6,512	11	20,401
60	60	73,460	20	22,690	80	96,150
61	153	186,868	61	53,885	214	240,753
62	197	235,900	72	72,807	269	308,707
63	308	360,781	97	106,209	405	466,990
64	321	344,099	80	81,343	401	425,442
65	359	429,494	70	87,207	429	516,701
66	383	473,705	66	72,223	449	545,928
67	419	520,897	49	83,810	468	604,707
68	382	510,579	29	37,286	411	547,865
69	352	452,035	32	55,646	384	507,681
70	360	447,718	26	33,708	386	481,426
71	363	466,164	27	54,024	390	520,188
72	287	384,595	24	35,133	311	419,728
73	305	412,058	22	30,980	327	443,038
74	250	347,473	12	16,801	262	364,274
75	281	384,474	7	13,565	288	398,039
76	238	333,865	11	15,647	249	349,512
77	220	321,831	7	10,874	227	332,705
78	217	277,870	8	9,274	225	287,144
79	206	261,196	3	3,861	209	265,057
80	174	237,635	3	3,754	177	241,389
81	140	197,286	8	9,959	148	207,245
82	136	196,670	5	6,844	141	203,514
83	88	133,746	2	2,125	90	135,871
84	84	118,754	5	5,807	89	124,561
85	73	102,164	4	7,670	77	109,834
86	50	80,054	1	988	51	81,042
87	49	78,279	1	2,409	50	80,688
88	34	54,188	1	889	35	55,077
89	23	37,585	1	954	24	38,539
90	16	20,313			16	20,313
91	16	20,926			16	20,926
92	10	15,782			10	15,782
93	5	8,536			5	8,536
94	5	5,039			5	5,039
95	2	3,812			2	3,812
96	1	1,667			1	1,667
97						
98	1	853			1	853
99						
100			1	846	1	846
101	1	999			1	999
Total	<u>6,594</u>	<u>\$8,623,960</u>	<u>767</u>	<u>\$976,514</u>	<u>7,361</u>	<u>\$9,600,474</u>

SCHEDULE B

BENEFICIARIES RECEIVING OPTIONAL ALLOWANCES - JUNE 30, 1973

Age	Optional Life Pensions				Optional Term Certain Pensions		
	Men		Women		Year of Expiry	Number	Annual Allowance
	Number	Annual Allowance	Number	Annual Allowance			
42	1	\$ 704	-	\$ -	73	7	\$ 6,875
43	-	-	1	868			
49	-	-	2	1,324			
50	-	-	1	970			
51	-	-	3	4,143			
52	-	-	-	-	74	17	37,298
53	-	-	-	-			
54	-	-	2	1,317			
55	-	-	1	1,318			
56	-	-	2	1,926			
57	-	-	4	3,414	75	5	7,041
58	-	-	4	5,357			
59	-	-	-	-			
60	1	353	5	5,116			
61	-	-	7	5,323			
62	1	733	13	18,968	76	6	7,547
63	-	-	6	6,472			
64	-	-	9	9,088			
65	1	1,248	12	17,007			
66	-	-	12	13,641			
67	-	-	19	21,165	77	5	6,790
68	1	899	20	20,793			
69	-	-	22	25,500			
70	1	1,416	28	33,563			
71	1	767	26	30,792			
72	1	671	30	39,428	78	5	4,735
73	1	664	24	35,617			
74	1	901	19	25,334			
75	-	-	28	39,598			
76	1	843	27	30,121			
77	1	2,010	24	34,867	79	6	12,865
78	1	1,684	30	35,955			
79	-	-	16	16,747			
80	-	-	25	28,152			
81	1	1,760	26	28,653			
82	-	-	22	23,674	80	1	766
83	2	2,152	14	16,309			
84	-	-	15	16,103			
85	-	-	14	15,940			
86	-	-	16	18,951			
87	-	-	13	15,292	81	1	1,029
88	-	-	12	13,022			
89	-	-	4	3,257			
90	-	-	1	1,448			
91	-	-	4	4,554			
92	-	-	4	4,846	84	1	2,115
93	-	-	3	9,972			
94	-	-	1	1,167			
97	-	-	1	3,159			
Total	<u>16</u>	<u>\$16,805</u>	<u>572</u>	<u>\$690,231</u>		<u>54</u>	<u>\$87,061</u>

DISABILITY RETIRANTS - JUNE 30, 1973

<u>Age</u>	<u>M E N</u>		<u>W O M E N</u>	
	<u>Number</u>	<u>Annual Allowance</u>	<u>Number</u>	<u>Annual Allowance</u>
30	1	\$ 880	-	\$ -
32	1	1,978	-	-
35	1	1,556	-	-
36	2	7,160	-	-
37	1	1,335	1	3,074
38	1	3,967	1	1,916
40	-	-	1	1,878
41	1	3,080	-	-
42	1	1,337	1	2,916
43	3	4,733	2	2,890
44	4	11,657	2	5,968
45	3	7,491	3	3,621
46	8	19,174	2	2,961
47	5	14,711	9	14,634
48	7	13,551	4	5,521
49	10	21,102	8	13,505
50	13	32,140	7	9,703
51	13	31,877	12	22,087
52	17	27,694	7	17,902
53	16	28,515	13	18,264
54	20	44,538	9	11,790
55	13	27,430	17	22,051
56	16	26,557	27	38,978
57	32	56,989	28	35,046
58	25	52,442	26	36,256
59	31	46,811	22	29,062
60	26	40,183	36	50,211
61	36	50,641	28	35,294
62	27	36,366	19	22,926
63	21	26,430	17	21,657
64	18	27,504	19	25,548
65	19	32,009	21	24,015
66	12	16,080	10	11,535
67	14	19,892	13	16,097
68	9	13,825	11	14,541
69	8	10,491	8	10,030
70	9	14,515	7	10,017
71	3	3,831	2	2,017
72	3	3,230	-	-
73	3	3,134	3	3,060
74	3	3,898	2	2,463
75	3	5,571	1	931
76	-	-	3	4,490
77	2	3,547	4	10,847
78	-	-	2	3,643
101	1	2,529	-	-
Total	<u>462</u>	<u>\$802,381</u>	<u>408</u>	<u>\$569,345</u>

SCHEDULE D

SURVIVORS' BENEFIT FUND - JUNE 30, 1973

BENEFICIARIES CURRENTLY RECEIVING ALLOWANCES - MEN

<u>Age</u>	<u>OPTION 1 OR DEPENDENT PARENT OR SPOUSE WITH NO ELIGIBLE CHILD</u>		<u>SPOUSE WITH ELIGIBLE CHILDREN</u>	
	<u>Number</u>	<u>Annual Allowance</u>	<u>Number</u>	<u>Annual Allowance</u>
35	-	\$ -	-	\$ -
44	1	2,513	1	1,169
46	-	-	3	4,896
49	-	-	3	5,616
50	-	-	2	3,024
51	1	788	2	3,744
52	-	-	1	972
53	-	-	1	1,152
54	-	-	1	1,872
59	2	1,504	1	1,152
60	1	1,272	-	-
61	4	5,365	-	-
62	-	-	-	-
63	3	2,530	1	1,108
64	1	1,011	-	-
65	2	2,321	-	-
66	8	8,872	-	-
67	9	9,886	1	2,079
68	7	7,559	-	-
69	3	3,672	-	-
70	5	6,718	-	-
71	8	10,712	-	-
72	6	7,974	-	-
73	5	5,784	-	-
74	6	8,441	-	-
75	6	7,635	-	-
76	2	2,999	-	-
77	4	6,012	-	-
78	4	4,753	-	-
79	7	9,863	-	-
80	-	-	-	-
81	2	1,137	-	-
82	2	2,433	-	-
83	4	5,920	-	-
84	-	-	-	-
85	-	-	-	-
86	1	972	-	-
87	-	-	-	-
88	-	-	-	-
89	-	-	-	-
90	1	1,452	-	-
Total	<u>105</u>	<u>\$130,098</u>	<u>17</u>	<u>\$ 26,784</u>

SCHEDULE E(1)

SURVIVORS' BENEFIT FUND - JUNE 30, 1973

BENEFICIARIES CURRENTLY RECEIVING ALLOWANCES - WOMEN

<u>Age</u>	<u>OPTION 1 OR DEPENDENT PARENT OR SPOUSE WITH NO ELIGIBLE CHILD</u>		<u>SPOUSE WITH ELIGIBLE CHILDREN</u>	
	<u>Number</u>	<u>Annual Allowance</u>	<u>Number</u>	<u>Annual Allowance</u>
19	1	\$ 1,187	-	\$ -
25	-	-	-	-
26	-	-	1	2,874
27	-	-	1	1,872
28	-	-	-	-
29	-	-	-	-
30	-	-	-	-
31	-	-	1	2,414
32	-	-	-	-
33	-	-	-	-
34	-	-	1	3,111
35	-	-	1	1,872
36	-	-	3	9,293
37	-	-	2	4,004
38	-	-	2	5,062
39	-	-	2	5,567
40	-	-	6	14,967
41	-	-	6	13,347
42	-	-	5	12,602
43	-	-	8	20,992
44	1	3,867	13	32,150
45	1	377	6	18,983
46	1	1,232	10	27,567
47	-	-	16	39,098
48	-	-	7	16,871
49	-	-	13	35,894
50	2	2,476	13	30,340
51	6	5,579	15	35,151
52	8	13,596	16	39,799
53	5	8,998	15	37,587
54	10	15,158	12	29,916
55	17	30,619	19	42,974
56	12	17,924	4	9,600
57	14	24,306	10	23,783
58	21	37,688	8	18,079
59	27	43,381	11	31,227
60	23	33,697	13	30,426
61	31	49,920	3	6,293
62	31	44,641	2	4,847
63	51	68,746	1	2,372
64	62	99,603	1	2,665

SCHEDULE E(2)

SURVIVORS' BENEFIT FUND - JUNE 30, 1973

BENEFICIARIES CURRENTLY RECEIVING ALLOWANCES - WOMEN
(continued)

<u>Age</u>	<u>OPTION 1 OR DEPENDENT PARENT OR SPOUSE WITH NO ELIGIBLE CHILD</u>		<u>SPOUSE WITH ELIGIBLE CHILDREN</u>	
	<u>Number</u>	<u>Annual Allowance</u>	<u>Number</u>	<u>Annual Allowance</u>
65	66	\$ 92,322	1	\$ 2,832
66	63	90,174	-	-
67	60	88,088	2	4,640
68	57	77,232	2	3,400
69	51	78,342	1	2,533
70	62	99,894	-	-
71	46	77,458	-	-
72	40	56,692	-	-
73	38	57,072	-	-
74	27	51,632	1	2,478
75	39	56,984	-	-
76	34	56,510	-	-
77	29	43,906	-	-
78	25	46,181	-	-
79	24	37,467	-	-
80	14	23,029	-	-
81	17	27,986	-	-
82	18	29,390	-	-
83	11	16,058	1	2,230
84	12	16,151	-	-
85	7	10,297	-	-
86	6	8,586	-	-
87	7	9,839	-	-
88	1	1,256	-	-
89	2	3,349	-	-
90	2	2,787	-	-
Total	<u>1,082</u>	<u>\$1,661,677</u>	<u>255</u>	<u>\$ 631,712</u>

SCHEDULE E(2)
(concluded)

SURVIVORS' BENEFIT FUND - JUNE 30, 1973

BENEFICIARIES CURRENTLY RECEIVING ALLOWANCES - CHILDREN WITH NO ELIGIBLE PARENT

AGE OF YOUNGEST CHILD	NUMBER OF CHILDREN AGE																TOTAL	ANNUAL ALLOWANCE									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			17	18	19	20	21	22	25	36	
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	\$ -
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,152
5	-	-	-	3	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	5,874
6	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	972
7	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,956
8	-	-	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,744
9	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,872
10	-	-	-	-	-	-	-	7	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	11,557
11	-	-	-	-	-	-	-	-	6	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	10,376
12	-	-	-	-	-	-	-	-	10	10	-	-	-	1	1	4	1	-	-	-	-	-	-	-	-	-	21,022
13	-	-	-	-	-	-	-	-	-	-	10	4	4	3	-	-	-	-	-	-	-	-	-	-	-	-	20,710
14	-	-	-	-	-	-	-	-	-	-	6	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	9,784
15	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,180
16	-	-	-	-	-	-	-	-	-	-	-	-	11	-	2	-	-	-	-	-	-	-	-	-	-	-	17,443
17	-	-	-	-	-	-	-	-	-	-	-	-	-	9	1	-	-	-	-	-	-	-	-	-	-	-	13,185
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	9,983
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	10,026
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	5,829
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	3,291
22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1,410
25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1,338
36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,187
Total	-	-	-	1	3	1	1	2	4	7	6	12	10	11	11	16	16	10	9	5	2	1	1	1	1	130	\$158,891

SURVIVORS' BENEFIT FUND - JUNE 30, 1973

BENEFICIARIES NOW ENTITLED TO DEFERRED ALLOWANCE ONLY

Age	DEFERRED TO AGE 65		DEFERRED TO AGE 62		DEFERRED TO AGE 50	
	No.	Annual Allowance	No.	Annual Allowance	No.	Annual Allowance
26	-	\$ -	1	\$ 1,194	-	\$ -
27	-	-	1	1,152	-	-
31	-	-	1	1,188	-	-
32	-	-	1	1,152	-	-
33	-	-	1	1,219	-	-
34	-	-	1	1,539	-	-
35	-	-	1	-	-	-
36	-	-	1	1,279	-	-
43	-	-	1	1,008	-	-
44	-	-	-	-	-	-
45	-	-	3	3,562	-	-
46	-	-	1	1,152	-	-
47	-	-	-	-	-	-
48	-	-	2	2,413	-	-
49	-	-	4	5,216	1	1,272
50	2	2,304	4	4,804	-	-
51	-	-	2	2,304	-	-
52	-	-	2	2,368	-	-
53	1	1,152	2	2,581	-	-
54	-	-	7	8,169	-	-
55	-	-	7	8,142	-	-
56	-	-	6	6,808	-	-
57	1	1,188	3	3,565	-	-
58	1	1,218	5	5,804	-	-
59	1	1,152	7	7,945	1	1,460
60	-	-	5	5,843	-	-
61	-	-	9	10,804	-	-
62	-	-	5	5,511	-	-
63	-	-	1	1,458	-	-
64	-	-	-	-	-	-
65	-	-	-	-	-	-
Total	<u>6</u>	<u>\$7,014</u>	<u>84</u>	<u>\$98,180</u>	<u>2</u>	<u>\$2,732</u>

SCHEDULE F

CONTRIBUTING ACTIVE MEMBERS - JUNE 30, 1973

-CONTINUED-

AGE	MEN		WOMEN	
	<u>NUMBER</u>	<u>SALARIES</u>	<u>NUMBER</u>	<u>SALARIES</u>
60	808	\$ 5,089,552	1,101	\$ 3,604,241
61	796	5,031,147	907	3,052,534
62	677	4,437,972	712	2,440,221
63	629	4,010,112	560	2,026,467
64	538	3,436,769	440	1,556,711
65	457	2,951,201	348	1,179,652
66	342	2,109,914	235	793,319
67	260	1,533,917	178	651,692
68	211	1,137,011	149	433,744
69	173	859,031	112	343,720
70	123	542,978	68	195,080
71	88	361,314	41	112,885
72	47	120,649	22	28,293
73	55	172,765	37	95,367
74	18	66,550	4	2,103
75	25	74,751	5	8,565
76	16	53,609	5	5,317
77	12	21,644	6	10,569
78	7	19,750		
79	5	10,675	1	6,542
80	4	9,376	1	4,550
81	4	9,438		
82	4	8,840		
83	2	6,730	1	384
84	1	711		
85	1	2,894		
TOTAL	<u>29,949</u>	<u>\$151,742,698</u>	<u>63,697</u>	<u>\$173,328,544</u>

SCHEDULE G

CONTRIBUTING ACTIVE MEMBERS - JUNE 30, 1973

AGE	MEN		WOMEN	
	NUMBER	SALARIES	NUMBER	SALARIES
18	78	\$ 50,193	88	\$ 59,209
19	229	370,896	354	613,744
20	380	832,760	593	1,203,418
21	477	1,171,854	755	1,480,840
22	568	1,510,931	810	1,681,540
23	625	1,720,492	720	1,653,424
24	570	1,698,851	742	1,994,790
25	588	1,973,092	640	1,628,092
26	633	1,993,909	690	1,776,618
27	524	1,714,194	641	1,495,099
28	408	1,490,754	552	1,249,045
29	472	1,640,087	719	1,475,691
30	499	1,859,568	904	1,781,909
31	523	1,904,016	1,124	2,260,119
32	473	1,862,235	1,230	2,332,638
33	450	1,701,774	1,350	2,650,765
34	489	2,037,687	1,465	2,908,027
35	515	2,189,292	1,620	3,419,769
36	504	2,154,629	1,789	3,880,033
37	489	2,359,178	1,823	3,900,738
38	546	2,500,272	1,956	4,408,083
39	562	2,609,865	1,867	4,396,219
40	566	2,650,201	1,854	4,506,366
41	529	2,595,769	1,906	4,772,361
42	547	2,790,518	1,863	4,740,090
43	662	3,263,651	1,943	5,177,225
44	642	3,400,245	2,010	5,419,732
45	572	3,053,729	2,060	5,663,013
46	707	3,995,072	2,038	5,940,114
47	664	3,634,859	1,991	5,798,946
48	722	4,054,452	1,940	5,686,238
49	748	4,472,557	2,059	6,288,856
50	765	4,801,431	1,972	5,919,285
51	747	4,582,599	2,029	6,535,102
52	770	4,646,768	2,076	6,759,744
53	784	4,979,322	1,850	6,031,855
54	716	4,462,490	1,603	5,260,368
55	775	4,967,058	1,664	5,642,894
56	727	4,561,861	1,490	5,017,964
57	755	4,959,263	1,393	4,567,182
58	817	5,295,102	1,381	4,707,945
59	829	5,149,922	1,210	4,091,498

SCHEDULE G
(concluded)

INACTIVE MEMBERS - JUNE 30, 1973

<u>AGE</u>	<u>MEN</u>	<u>WOMEN</u>	<u>AGE</u>	<u>MEN</u>	<u>WOMEN</u>
15	-	-	55	382	718
16	-	-	56	342	686
17	-	-	57	351	619
18	17	10	58	323	635
19	37	35	59	322	637
20	82	149	60	306	536
21	248	355	61	294	432
22	384	597	62	279	411
23	471	793	63	275	483
24	590	995	64	240	351
25	691	1,106	65	233	362
26	648	1,313	66	184	228
27	588	880	67	223	243
28	483	618	68	251	223
29	469	599	69	169	170
30	519	567	70	143	118
31	509	622	71	133	92
32	486	539	72	97	85
33	461	612	73	122	120
34	489	625	74	61	52
35	453	636	75	33	33
36	434	682	76	34	24
37	479	702	77	17	16
38	459	750	78	23	17
39	450	744	79	13	13
40	445	687	80	9	9
41	477	776	81	14	11
42	459	773	82	12	5
43	501	841	83	7	1
44	502	751	84	6	6
45	485	825	85	10	1
46	485	835	86	4	2
47	448	829	87	1	-
48	481	797	88	-	-
49	437	865	89	1	-
50	440	803	90	-	-
51	383	761	91	-	1
52	375	807	94	-	-
53	371	814	95	1	-
54	340	717	96	1	-
			Totals	<u>20,992</u>	<u>33,150</u>

SCHEDULE H

ACTUARIAL ASSUMPTIONS - JUNE 30, 1973

SUPERANNUATION RETIRANTS, BENEFICIARIES,
AND SURVIVOR BENEFICIARIES

INTEREST: 4-3/4% per annum, compounded annually.

MORTALITY: 1955 American Annuity Table, with ages set back 4 years for Females.

DISABILITY RETIRANTS

INTEREST: 4-3/4% per annum, compounded annually.

MORTALITY: Rates developed in 1970 Evaluation, based on 1965-1970 experience.

ACTIVE AND INACTIVE MEMBERS

INTEREST: 4-3/4% per annum, compounded annually.

WITHDRAWAL, MORTALITY, DISABILITY and SUPERANNUATION RATES and SALARY SCALES: Rates and scales developed in 1970 Evaluation, based on 1965-1970 experience. Values at specimen ages are shown in the table below.

AGE	RATES OF SEPARATION DUE TO:				SALARY SCALE
	Withdrawal	Death	Disability	Superannuation	
<u>MEN</u>					
20	.2381	.0005	-	-	\$ 4,499
30	.1103	.0007	.0001	-	7,644
40	.0685	.0014	.0005	-	11,814
50	.0438	.0044	.0020	-	16,583
55	.0366	.0082	.0044	.0020	18,946
60	.0324	.0120	-	.0594	21,124
65	.0321	.0152	-	.1628	22,981
70	-	.0195	-	.2764	24,394
<u>WOMEN</u>					
20	.1915	.0002	-	-	4,499
30	.1166	.0003	-	-	7,644
40	.0707	.0007	.0001	-	11,814
50	.0440	.0015	.0006	-	16,583
55	.0341	.0028	.0026	.0010	18,946
60	.0313	.0042	-	.0983	21,124
65	.0303	.0056	-	.1639	22,981
70	-	.0070	-	.2889	24,394

SCHEDULE I

