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1982

SEVENTY-THIRD
ANNUAL REPORT
OF THE
BOARD OF TRUSTEES

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MINNEAPOLIS TEACHERS' RETIREMENT FUND ASSOCIATION

***Minneapolis Teachers'
Retirement Fund Association***

The Association was incorporated under the Laws of the State of Minnesota, September 17, 1909 and reorganized January 1, 1924. Its principal business is the management and control of funds obtained from contributions by members, public taxes and income from investments. The Association uses these funds to pay annuities and other benefits to members of the Association.



740 Northstar Center
Minneapolis, Minnesota 55402
(612) 338-7865

1982 Financial Highlights

Year ended December 31:

	1982	1981
Total Liabilities	\$ 1,323,216	\$ 1,263,661
Net Assets Available for Plan Benefits	<u>180,651,361</u>	<u>165,824,111</u>
	181,974,577	167,087,772
Total Revenues	33,853,596	31,814,420
Total Expenditures and Provisions for Losses ..	<u>19,026,346</u>	18,538,912
Total Distribution	<u>\$ 14,827,250</u>	<u>\$ 13,275,508</u>



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SEE BLUE SECTION

SEE BROWN SECTION

Report of the Board of Trustees

The Board of Trustees of the Minneapolis Teachers' Retirement Fund Association, in compliance with the Articles of Incorporation, submits its report of the transactions of the Association for the year ended December 31, 1982, together with the Audit report of Main Hurdman and the actuary report of Peat, Marwick, Mitchell & Co., Certified Public Accountants; and a statement showing mean ledger assets, as adjusted, and the amount and rate of interest earned for the years 1924 to 1982, inclusive.

The Minneapolis Teachers' Retirement Fund Association was incorporated on September 17, 1909, under the laws of the State of Minnesota. Revised Articles of Incorporation, effective January 1, 1924, were adopted during the year 1923 and have been amended from time to time. The charter was extended for a period of thirty years on April 29, 1969. Pursuant to the Agreement with the City Council, relative to the removal of the limitation of one mill in the amount levied by taxation for the purposes of the Association, amendments to the Articles of Incorporation were adopted during the year 1929.

The regular annual meeting of the Association was held May 20, 1982. Mr. A. James Heller and Mrs. Marilyn Olson-

Bieger, nominated as trustees for three-year terms, were elected by the members pursuant to Article IX of the By-Laws.

During the year, our Articles were amended to provide for service credit for military service performed prior to becoming a teacher in the City of Minneapolis.

Members deposited \$6,150,499 compared to \$5,788,534 during the previous year. The revenues from taxes were \$10,019,217 for 1982.

Annuity applications totaled 120 which was a decrease of 1 from the previous year. A total of \$15,359,377 was paid to annuitants during the year.

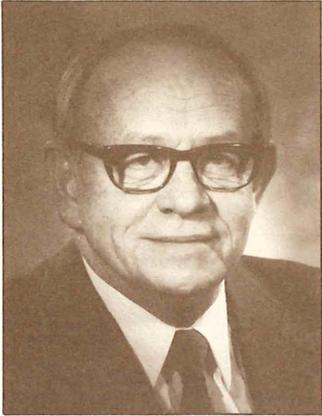
The book value of investments at the close of the year was \$179,419,489 compared to \$164,413,194 for the year before.

Interest and dividends earned amounted to \$11,066,462. Income from rentals totaled \$7,592,718. Members' deposits were credited with 5% interest and interest credited to the Annuity Reserve Fund was computed at 5% on the mean monthly balances.

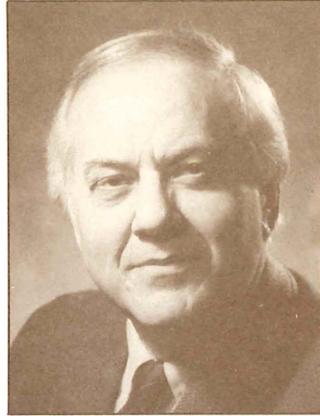
The reserve for investment and other losses amounted to \$41,017,286 as of December 31, 1982.



Geneveve K. Johnston
President



A. James Heller



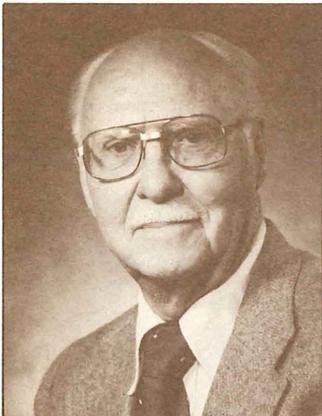
Robert W. Rose



Eleanor L. Matsis



Marilyn Olson-Bieger



E. Dudley Parsons



James Pommerenke

Officers

Geneveve K. Johnston, *President*
 A. James Heller, *Vice President*
 Robert W. Rose, *Secretary*
 Marilyn Olson-Bieger, *Treasurer*

Board of Trustees

A. James Heller, *Instructor, Henry High School*
 Geneveve K. Johnston, *Annuitant*
 Eleanor L. Matsis, *Instructor, North High School*
 Marilyn Olson-Bieger, *Instructor, Loring School*
 E. Dudley Parsons, *Annuitant*
 James W. Pommerenke, *School Board Representative*
 Robert W. Rose, *Instructor, Roosevelt High School*

Standing Committees

Finance

Marilyn Olson-Bieger, *Chairman*
 E. Dudley Parsons
 Geneveve K. Johnston (*Ex officio*)

Membership

Eleanor L. Matsis, *Chairman*
 A. James Heller
 Geneveve K. Johnston (*Ex officio*)

Annuity

E. Dudley Parsons, *Chairman*
 Robert W. Rose
 Geneveve K. Johnston (*Ex officio*)

Administrative Personnel

Newell Gaasedelen, *Executive Secretary and Investment Manager*
 Richard H. Bachelder, *Counsel*
 Peat, Marwick, Mitchell & Co., *Actuary*
 Main Hurdman, *Auditors*

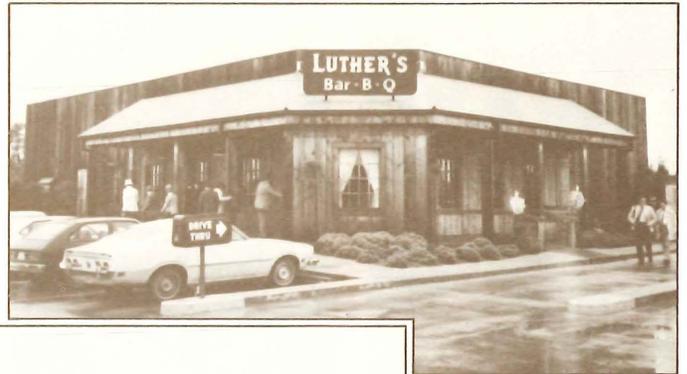
Real Estate Investments

The MTRFA began investing in real estate in the late 1950's but did not assume an aggressive stance in this regard until about 1965. Currently, MTRFA has about 40% of its assets invested in real estate—all in sale/leasebacks, meaning that we finance the construction of a building for a prospective tenant and lease it to him for a 20-year period.

At the present time your Pension Fund owns about 165 properties with an investment value of over \$70 million and located in about one-third of the states. The heaviest concentrations are in Minnesota and the sunbelt states.

This part of the investment portfolio has performed well and your Trustees are optimistic about the future.

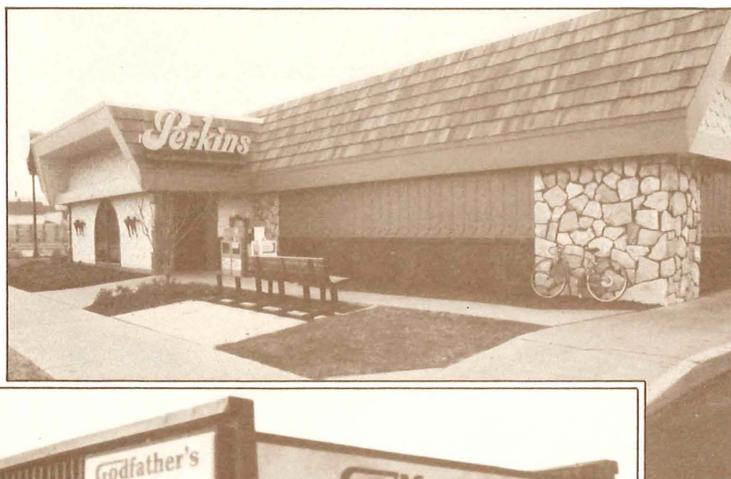
Luther's Bar•B•Q



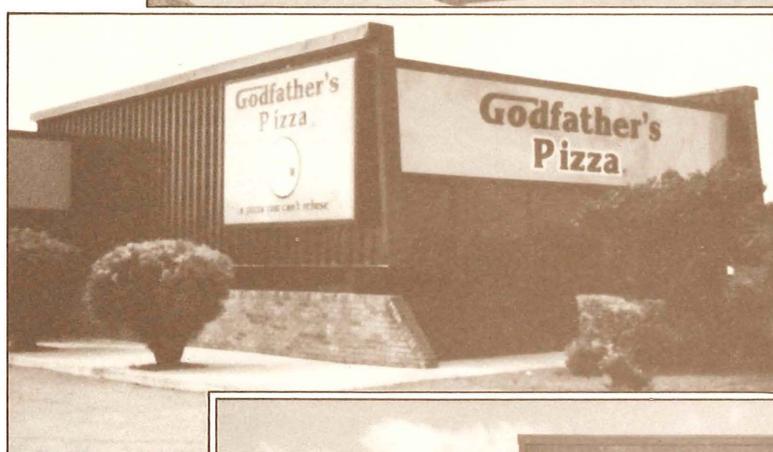
Bonanza



Benjamin's



Perkins



Godfather's Pizza

Harrigan's



Chi-Chi's

Consolidated Statements of Net Assets Available for Plan Benefits

Years ended December 31:

	1982	1981
Consolidated Assets (Cost Basis)		
Cash and savings accounts	\$ 253,377	\$ 299,969
Accounts receivable from governmental units	934,001	845,751
Accounts and notes receivable from lessees	69,345	224,797
Accrued interest receivable	861,888	821,890
Accrued dividends receivable	401,207	442,586
Receivable for investments sold	34,135	38,450
Investments:		
Commercial paper and certificates of deposit	38,627,160	29,551,274
Bonds	22,375,632	26,521,734
Commonstocks	52,216,713	52,482,990
Real estate mortgages	349,167	401,449
Total investments	<u>113,568,672</u>	<u>108,957,447</u>
Rental properties, net of accumulated depreciation	62,149,091	53,216,620
Property held for sale or lease, net	3,701,726	2,239,127
Other	1,135	1,135
Total	<u>\$181,974,577</u>	<u>\$167,087,772</u>
Liabilities and Net Assets Available for Plan Benefits		
Member deposits payable	\$ 86,597	\$ 118,218
Payable for lump sum post-retirement benefit	910,000	835,000
Payable for investment securities purchased	—	149,949
Accounts payable	9,564	1,446
Rents received in advance	38,529	59,519
Security deposits on rental property	120,000	—
Deferred premiums received from outstanding options on common stock	158,526	99,529
Total liabilities	<u>1,323,216</u>	<u>1,263,661</u>
Obligations for plan benefits:		
Annuity reserve fund	55,008,672	50,009,943
Retirement deposit fund	120,689,101	112,465,752
Unfunded accrued plan benefits	260,908,720	241,833,892
Total obligations for plan benefits	436,606,493	404,309,587
Reserve for investment and other losses	41,017,286	34,047,320
Funding deficiency—State of Minnesota	(36,063,698)	(30,698,904)
Actuarial unfunded liability	(260,908,720)	(241,833,892)
Net assets available for plan benefits	<u>180,651,361</u>	<u>165,824,111</u>
Total	<u>\$181,974,577</u>	<u>\$167,087,772</u>

Consolidated Statements of Revenues, Expenditures and Provisions for Losses
Years ended December 31:

	1982	1981
Revenues:		
Revenue from governmental units:		
Ad valorem city taxes		\$ 1,043
State contributions	\$ 8,755,388	8,279,942
District contributions	<u>1,263,829</u>	
Total revenue from governmental units	<u>10,019,217</u>	<u>8,280,985</u>
Contributions by members:		
Required	6,132,193	5,768,447
Other	<u>18,306</u>	<u>20,087</u>
Total contributions by members	<u>6,150,499</u>	<u>5,788,534</u>
Investment income:		
Interest	6,563,979	5,802,617
Dividends	4,502,483	4,420,428
(Loss) on sale of investments	(817,106)	(203,783)
Gain (loss) on option trades	(147,017)	136,451
Income from rental properties	7,592,718	6,449,971
Gain (loss) on sale of rental property	<u>(11,177)</u>	<u>1,139,217</u>
Total investment income	<u>17,683,880</u>	<u>17,744,901</u>
Total revenues	<u>33,853,596</u>	<u>31,814,420</u>
Expenditures and provision for losses:		
Retirement, beneficiary and disability annuities	15,359,377	14,910,355
Withdrawals	684,919	997,404
Death benefits	74,126	8,883
Administrative expenses	794,002	710,188
Depreciation on rental properties	1,276,922	1,082,082
Provision for losses on property held for sale or lease	<u>837,000</u>	<u>830,000</u>
Total expenditures and provision for losses	<u>19,026,346</u>	<u>18,538,912</u>
Revenues in excess of expenditures and provision for losses	<u>\$14,827,250</u>	<u>\$13,275,508</u>
Distribution of excess revenues (in accordance with the Articles of Incorporation):		
Annuity reserve fund	\$(1,802,647)	\$(1,672,889)
Retirement deposit fund	15,109,421	13,988,520
Reserve for investment and other losses	6,885,270	8,649,719
Funding deficiency—State of Minnesota	<u>(5,364,794)</u>	<u>(7,689,842)</u>
Total distributions	<u>\$14,827,250</u>	<u>\$13,275,508</u>

Consolidated Statements of Changes in Obligations for Plan Benefits, Reserves and Funding Deficiency

Years ended December 31: 1981 and 1982

	Annuity Reserve Fund	Retirement Deposit Fund	Unfunded plan benefits	Reserve for investment and other losses	Funding deficiency— State of Minnesota
Balance at December 31, 1980	\$45,256,687	\$105,095,760	\$231,640,086	\$25,205,218	\$(23,009,062)
Distribution of excess reserves	(1,672,889)	13,988,520		8,649,719	(7,689,842)
Transfers:					
From retirement deposit fund to annuity reserve fund for purchase of annuities . . .	6,426,145	(6,426,145)			
From retirement deposit fund to reserve for investments and other losses for cancellation of employer contributions . .		(192,383)		192,383	
Increase in actuarially computed prospective plan benefits and administrative expenses over Association net assets			10,193,806		
Balance at December 31, 1981	50,009,943	112,465,752	241,833,892	34,047,320	(30,698,904)
Distribution of excess reserves	(1,802,647)	15,109,421		6,885,270	(5,364,794)
Transfers:					
From retirement deposit fund to annuity reserve fund for purchase of annuities . . .	6,801,376	(6,801,376)			
From retirement deposit fund to reserve for investments and other losses for cancellation of employer contributions . .		(84,696)		84,696	
Increase in actuarially computed prospective plan benefits and administrative expenses over Association net assets			19,074,828		
Balance at December 31, 1982	\$55,008,672	\$120,689,101	\$260,908,720	\$41,017,286	\$(36,063,698)

Notes to Consolidated Financial Statements

(1) Summary of Significant Accounting Policies

Principal business

The principal business of the Association is the management and control of funds obtained from contributions by members, public taxes and income from investments. The Association uses these funds to pay annuities and other benefits to members of the Association.

Effective July 1, 1978, the Association established a plan, coordinated with Social Security, in accordance with Minnesota State Statutes. Teachers who become members of the Association subsequent to June 30, 1978, automatically become members of the coordinated plan. Teachers who were members of the Association prior to July 1, 1978, referred to as basic members, were given an opportunity to elect coverage under the coordinated plan. Members' contributions and benefits under the coordinated plan have been adjusted to reflect contributions to and benefits from Social Security. As described in Note 8, separate actuarial valuations are required for the basic and coordinated plans of the Association.

Basis of accounting

The financial statements reflect a modified accrual basis of accounting in which revenues are recognized as described below under "revenues", and expenditures are recognized when services are rendered or plan benefits and claims are payable. Fixed assets are not capitalized but instead are charged to expenditures in the year purchased.

The Association's financial statements include the consolidated accounts of the Association, MRT Properties, Inc., MinnTex Foods, Inc. and MinnTex Foods Limited. MRT Properties, Inc. is a wholly owned subsidiary of the Association and its principal activity consists of investing in real estate in the State of Minnesota. MinnTex Foods Limited is a limited partnership of which the Association is the sole limited partner, with MinnTex Foods, Inc. (a Texas corporation) as the general partner, and its principal activity consists of investing in real estate in the State of Texas. MinnTex Foods, Inc. and the limited partnership were organized to allow the Association's real estate acquisitions to qualify as tax-exempt transactions in Texas.

The Association is tax-exempt as an organization under Section 501(c)(11) of the Internal Revenue Code and is subject to Federal income tax only on net unrelated business income. The Association had no unrelated business income in 1982 or 1981.

Revenues

Members contribute 8½% of compensation paid if they are Basic Plan members and 4½% of compensation paid if they are Coordinated Plan members. Contributions are recorded as revenues when received.

State contributions are based upon a specific formula applied to teacher compensation used to fund all teachers' retirement plans in the State of Minnesota and are recorded when earned.

District contributions are based on a specific formula applied to teacher compensation funded primarily by Federal grants and are recorded when received from the Minneapolis School District.

Interest income is recorded when earned and dividend income is recorded as of the date of record. Average cost is used in determining net realized gains and losses upon disposal of investment securities.

Income from rental property is recorded when earned.

Investments

Common stocks, bonds and real estate mortgages, commercial paper and certificates of deposit are carried at cost, reduced by provisions for losses on certain securities with apparent permanent declines in the underlying value and earning power of the individual issuers.

Rental Property

Rental properties have been classified as operating leases and are carried at depreciated cost (Note 4). Depreciation has been provided using the straight-line method over the estimated useful lives, approximately 30 to 35 years.

Property held for sale or lease is stated at the lower of depreciated cost or net realizable value.

Annuity Reserve Fund

At the time a member ceases to teach in the public schools of Minneapolis, the accumulation of the member's deposits and, under certain conditions, State deposits, may be applied by the member for the purchase of an annuity from the Association. Funds to the member's credit in the Retirement Deposit Fund are then transferred to the Annuity Reserve Fund from which annuities are paid. Interest is added annually at a rate of 5% to the fund.

Retirement Deposit Fund

All amounts received for deposit by or on behalf of members, plus interest at a rate of 5% annually for basic members only, are held in the Retirement Deposit Fund for providing of benefits until withdrawal, death or retirement.

Reserve for investments and other losses—Amounts included in this reserve represent investment income in excess of amounts credited to the Retirement Deposit Fund, less provisions for losses and other costs related to maintaining the investment portfolio.

The funding deficiency represents the cumulative excess of the actual cost of annuities purchased upon members' retirement, credits to members' accounts as State deposits for such year and administrative expenses in excess of revenues received from the State of Minnesota.

Unfunded accrued plan benefits and actuarial unfunded liability represent the excess of the present value of future benefits over current plan net assets.

(2) Line of Credit

The Association has a line of credit with a bank which provides for borrowings up to \$1,000,000 at an interest rate of ¼% above the prevailing prime rate and requires compensating balances of not less than 10% of the unused line of credit and 10% of the average borrowings. The Association obtained this line of credit to provide for the financing, as needed, of rental property acquisitions. Provisions of the line of credit agreement require that borrowings be repaid within thirty days.

There is no outstanding balance under this line of credit at December 31, 1982, nor did the Association borrow under this line during 1982. In the ordinary course of business, the minimum compensating balance requirement, 10% of the line of credit (\$100,000 at December 31, 1982), is satisfied by the average monthly checking account balance.

Notes to Consolidated Financial Statements (continued)

(3) Investments

Investments at December 31, 1982 and 1981, are summarized as follows:

	Carrying value	Approximate market value	Unrealized appreciation (depreciation)
December 31, 1982:			
Commercial paper and certificates of deposit	\$ 38,627,160	\$ 38,627,160	
Bonds	22,375,632	17,948,072	\$(4,427,560)
Common stocks	52,216,713	82,625,924	30,409,211
Real estate mortgages	349,167	349,167	
	<u>\$113,568,672</u>	<u>\$139,550,323</u>	<u>\$25,981,651</u>
December 31, 1981:			
Commercial paper and certificates of deposit	\$ 29,551,274	\$ 29,551,274	
Bonds	26,521,734	18,650,490	\$(7,871,244)
Common stocks	52,482,990	70,838,704	18,355,714
Real estate mortgages	401,449	401,449	
	<u>\$108,957,447</u>	<u>\$119,441,917</u>	<u>\$10,484,470</u>

Market values for investments are based on published market quotations.

Management of the Association believes that unrealized depreciation of bonds is primarily a function of the rise in interest rates since dates of purchase do not reflect unfavorably on the ability of the underlying issuers to meet principal payments upon maturity.

(4) Description of Leasing Arrangements

The Association is the lessor of real estate (land and buildings) to various franchise operations with lease terms ranging from twenty to twenty-five years. The Association purchases the land and building and leases it back to the franchise operator. The franchise operations are primarily in the fast food and, to a lesser extent, in the minor automotive maintenance industries. The lease obligations are generally guaranteed by individuals and/or corporations.

The Association's investment in rental properties under lease consists of the following as of December 31:

	1982	1981
Land	\$21,633,292	\$16,404,772
Buildings	43,736,573	38,842,925
	65,369,865	55,247,697
Less accumulated depreciation	(3,220,774)	(2,031,077)
	<u>\$62,149,091</u>	<u>\$53,216,620</u>

Under the terms of the various lease agreements the Association is entitled to receive minimum lease payments as follows:

Years ending December 31,

1983	\$ 8,089,000
1984	8,071,000
1985	8,071,000
1986	8,071,000
1987	8,071,000
Later years	104,097,000
Total minimum future rentals	<u>\$144,470,000</u>

The Association is also entitled to receive contingent rentals which are determined on the basis of a percentage of sales in excess of contractually stated minimums. Contingent rentals were \$271,312 in 1982 and \$227,925 in 1981.

The Association has reported all real estate leases as operating leases even though such leases meet the criteria for classification as direct financing leases in accordance with the provisions of Financial Accounting Standards Board Statement No. 13. The Association's "revenues in excess of expenditures and provision for losses" and net assets would have been \$650,000 and \$984,000 more in 1982 and \$514,658 and \$944,303 more in 1981, respectively, had the Association reported these leases as direct financing leases.

(5) Property Held For Sale or Lease

The Association holds for sale or subsequent lease property on which the lessee has discontinued operations and defaulted on contractual monthly payments. Property held for sale or lease in 1982 consists of eight properties with an aggregate depreciated cost of \$5,368,726, net of allowance for loss of \$1,667,000.

(6) District Contributions

District contributions relate to teachers' compensation funded primarily by Federal grants and, in accordance with Association policy, are recognized as revenue upon receipt.

The Association received district contributions in 1982 of \$1,263,829, of which \$652,793 relates to 1981.

(7) Lump Sum Post-Retirement Benefits

The lump sum post-retirement benefit, authorized by the Board of Trustees on May 6, 1981, and made retroactive to 1980, is determined by applying 5½% to the Association's total assets at year-end and is recorded when payable to eligible annuitants and benefit recipients. In 1982, the Association paid \$830,388 and recorded a payable of \$910,000 based on total assets at December 31, 1981 and 1982, respectively.

(8) Actuarial Valuations

The laws of Minnesota, 1978, require that actuarial valuations after July 1, 1978, show separately the actuarial valuation of the basic and coordinated plans. Compliance with this statutory requirement necessitates an allocation of Association assets to the two plans. Assets have been allocated for actuarial purposes by adding deposits and investment income on a time-weighted basis to beginning-of-the-year assets. An aggregate interest rate based on total investment income and average ledger assets as determined in accordance with a formula approved by the State Insurance Commissioner is used in the calculation.

Notes to Consolidated Financial Statements (continued)

The allocation of net assets available for plan benefits and the unfunded accrued plan benefits is as follows:

	<u>Basic plan</u>	<u>Coordinated plan</u>	<u>Total</u>
December 31, 1982:			
Net assets available for plan benefits ..	<u>\$179,381,796</u>	<u>\$1,269,565</u>	<u>\$180,651,361</u>
Unfunded accrued plan benefits	<u>\$260,717,473</u>	<u>\$ 191,247</u>	<u>\$260,908,720</u>
December 31, 1981:			
Net assets available for plan benefits ..	<u>\$165,146,013</u>	<u>\$ 678,098</u>	<u>\$165,824,111</u>
Unfunded accrued plan benefits	<u>\$241,694,918</u>	<u>\$ 138,974</u>	<u>\$241,833,892</u>

(9) Commitments

The Association has entered into commitments to purchase and lease back property totaling approximately \$4,843,000 at December 31, 1982. All of these commitments are subject to the seller meeting various terms of the commitments. From January 1, 1983 to the date of this report \$3,993,000 of this property was purchased.



Accountants' Report

The Board of Trustees
Minneapolis Teachers' Retirement Fund Association:

We have examined the consolidated statement of net assets available for plan benefits of Minneapolis Teachers' Retirement Fund Association and subsidiaries as of December 31, 1982, and the related consolidated statements of revenues, expenditures and provision for losses, and changes in obligations for plan benefits, reserves and funding deficiency for the year then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. The consolidated financial statements of Minneapolis Teachers'

Retirement Fund Association and subsidiaries for the year ended December 31, 1981, were examined by other auditors whose report dated March 19, 1982, expressed an unqualified opinion on those statements.

In our opinion, the 1982 consolidated financial statements referred to above present fairly the financial position of Minneapolis Teachers' Retirement Fund Association and subsidiaries as of December 31, 1982, and their revenues, expenditures and provision for losses, and changes in obligations for plan benefits, reserves and funding deficiency for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

MAIN HURDMAN
Certified Public Accountants

Minneapolis, Minnesota
April 15, 1983

Years ended December 31:

Annuity Reserve Fund—Schedule 1

	1982	1981
Balance at beginning of year	\$ 50,009,943	\$ 45,256,687
Add (deduct):		
Interest at 5%	2,532,063	2,280,664
Annuity expenditures	<u>(4,334,710)</u>	<u>(3,953,553)</u>
	<u>(1,802,647)</u>	<u>(1,672,889)</u>
Members' accumulations transferred from retirement deposit fund for purchase of annuities	<u>6,801,376</u>	<u>6,426,145</u>
Balance at end of year	<u>\$ 55,008,672</u>	<u>\$ 50,009,943</u>

Retirement Deposit Fund—Schedule 2

	1982	1981
Balance at beginning of year	\$112,465,752	\$105,095,760
Add:		
Members' contributions:		
Required	6,132,193	5,768,447
Other	<u>18,306</u>	<u>20,087</u>
	6,150,499	5,788,534
Tax revenue credited to members—stipulated state deposits	4,471,212	4,316,193
Interest at 5%	<u>5,246,755</u>	<u>4,890,080</u>
	<u>15,868,466</u>	<u>14,994,807</u>
Deduct:		
Death benefits	74,126	8,883
Withdrawals—members' contribution refundable	684,919	997,404
Transfer to annuity reserve fund for purchase of annuities	6,801,376	6,426,145
Cancellation of employer's contributions in accordance with the Articles of Incorporation	<u>84,696</u>	<u>192,383</u>
	<u>7,645,117</u>	<u>7,624,815</u>
Balance at end of year	<u>\$120,689,101</u>	<u>\$112,465,752</u>

Annuity Expenditures—Schedule 3

	1982	1981
Charged to the annuity reserve fund	\$ 4,334,710	\$ 3,953,553
Charged to the contingent fund:		
In accordance with Articles of Incorporation, Article IX, sections:		
8	1,568	2,178
9	442,143	440,610
11	7,883,531	7,164,598
14	1,444,781	1,395,285
15	117,180	126,768
18	<u>9,889,203</u>	<u>10,725,593</u>
Charged to the reserve for investment and other losses in accordance with Articles of Incorporation, Article IX Section:		
18	905,388	
General annuities	<u>230,076</u>	<u>231,209</u>
	<u>11,024,667</u>	<u>10,956,802</u>
	<u>\$ 15,359,377</u>	<u>\$ 14,910,355</u>

Years ended December 31:

Tax Revenue and District Contributions—Schedule 4

	1982	1981
Tax revenue collected:		
Ad valorem city taxes		\$ 1,043
State contributions	\$ 8,755,388	8,279,942
District contributions	1,263,829	
Total revenue	<u>\$10,019,217</u>	<u>\$ 8,280,985</u>
Application of tax revenue:		
Credited to:		
Contingent fund:		
Payments made to annuitants	\$ 9,889,203	\$10,725,593
Expenses of management	793,520	697,832
General annuities	230,076	231,209
	10,912,799	11,654,634
Retirement deposit fund for stipulated deposits	4,471,212	4,316,193
Funding deficiency—State of Minnesota	(5,364,794)	(7,689,842)
	<u>\$10,019,217</u>	<u>\$ 8,280,985</u>

Note: Amounts charged during the year to the contingent fund are the unfunded portion of annuity expenditures and only those general and administrative expenses incurred by the Association. State contributions in excess of stipulated deposits are credited to the contingent fund. At the end of each year, the remaining deficiency in the contingent fund is added to the funding deficiency—State of Minnesota.

Administrative Expenses—Schedule 5

	1982	1981
Personal service:		
Staff payroll	\$ 193,985	\$ 170,893
Social Security taxes	12,448	11,145
Professional fees	227,002	251,219
	<u>433,435</u>	<u>433,257</u>
Investment and travel:		
Transportation	26,847	27,754
Conference fees, tuition and registration	18,597	10,045
Hotels and meals	42,805	27,523
Investment expense	25,272	29,640
	<u>113,521</u>	<u>94,962</u>
Other expenses:		
Postage and mailing	13,283	12,998
Telephone and electricity	14,212	10,700
Printing, binding and address plates	20,172	17,470
Office supplies	5,117	3,260
Officerent	37,301	35,457
Employees' hospitalization insurance	15,672	11,272
Other insurance	49,583	29,468
Office equipment purchased	23,905	23,762
Collection and exchange		900
Data processing	14,093	13,539
Miscellaneous	53,708	23,143
	<u>247,046</u>	<u>181,969</u>
	<u>\$ 794,002</u>	<u>\$ 710,188</u>



Accountants' Report
On Information Accompanying the Basic Financial Statements

Our examination of the basic consolidated financial statements for the year ended December 31, 1982, presented in the preceding section of this report, was made for the purpose of forming an opinion on such financial statements taken as a whole. The supplementary data included in Schedules 1 through 5 related to the 1982 consolidated financial statements is presented for purposes of additional analysis and is not a required part of the basic consolidated financial statements. Such information has been subjected to the auditing procedures applied in the examination of the basic consolidated financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic consolidated financial statements

for the year ended December 31, 1982, taken as a whole. The basic financial statements of Minneapolis Teachers' Retirement Fund Association and subsidiaries for the year ended December 31, 1981, presented in the preceding section of this report, were examined by other auditors whose report dated March 19, 1982, expressed an unqualified opinion on those financial statements. Their report, as of the same date, on supplementary data included in Schedules 1 through 5 related to the 1981 consolidated financial statements, stated that, in their opinion, such information was fairly presented in all material respects in relation to the basic financial statements for the year ended December 31, 1981, taken as a whole.

MAIN HURDMAN
 Certified Public Accountants

Minneapolis, Minnesota
 April 15, 1983



Membership

Active Members
 Teachers employed by the Board of Education.

Inactive Members
 Teachers who have left the employ of the Board of Education, but retain membership because they are entitled to a present or future benefit.

Annuitants Members who have applied for an annuity.			
Active Members:	Women	Men	Total
January 1, 1982	1883	1227	3110
December 31, 1982	1904	1210	3114
Inactive Members:			
January 1, 1982	345	214	559
December 31, 1982	352	217	569
Annuitants:			
January 1, 1982	1666	468	2134
December 31, 1982	1657	508	2165

Total Membership:	Women	Men	Total
	3913	1935	5848
Annuities paid to beneficiaries in accordance with Article IX, Section 2, Sub-sections (b) and (c):			
January 1, 1982			144
December 31, 1982			151

Deceased:		
Name	Status	Date of Death
Mary Kate Riley	Active	1-25-82
Berniece I. Nash	Active	2-20-82
Ralph R. Pollard	Active	5-14-82
May E. Fraatz	Active	6- 2-82
Garla R. Frierson	Active	7-22-82
Robert J. Treacy	Active	12-4-82

Annuitants

In the calendar year 1982, the following new annuities were granted: 101 Formula Annuities and 19 other Annuities. Annuities paid amounted to \$15,359,377 and annuities in force at the close of the year totaled \$15,034,872.

Name	Date Effective	Name	Date Effective	Name	Date Effective	Name	Date Effective
Fred M. Mohr	9-1-81	Doris U. Barbuto	7-1-82	John K. Hodgdon	7-1-82	Geraldine Strom	7-1-82
Richard A. Burnham	1-1-82	Werner Bauer	7-1-82	Hope B. Holmes	7-1-82	Florence Timmerman	7-1-82
Richard W. Faunce	1-1-82	Bradley A. Bentson	7-1-82	Joyce H. T. Jackson	7-1-82	Cornelius Tucker	7-1-82
June A. Hanson	1-1-82	Donald D. Bevis	7-1-82	Marvin B. Johnson	7-1-82	Violet B. Tupper	7-1-82
Mabel R. Hokanson	1-1-82	Marvin Bjorlin	7-1-82	Edward B. Jorgenson	7-1-82	Newman L. Tuttle	7-1-82
Hilda V. T. Kahle	1-1-82	Betty J. Brathol	7-1-82	Ivan Kalman	7-1-82	Betty J. Wefring	7-1-82
Barbarba V. Knudten	1-1-82	Ann Brinley	7-1-82	Ruth Kezele	7-1-82	Mildred M. Wiste	7-1-82
Zada S. Koblas	1-1-82	Irwin C. Brown	7-1-82	S. Luther Kleven	7-1-82	Geraldiine C. Wold	7-1-82
John B. Peyla	1-1-82	Werner E. Brown	7-1-82	Hugh E. Kurtzman	7-1-82	Genevieve J. Wolfe	7-1-82
Alice D. Thomas	1-1-82	Richard William Bylund	7-1-82	William L. Land	7-1-82	William H. Goetz	8-1-82
Clara M. Anderson	2-1-82	Mary Josephine Coyle	7-1-82	Pearl J. Larson	7-1-82	Shirley Mahowald	8-1-82
Patricia A. Barlau	2-1-82	Douglas C. Davis	7-1-82	William F. LeBeau	7-1-82	Donna M. Tramm	8-1-82
Frank Farrell	2-1-82	George A. Decker, Jr.	7-1-82	Virgil M. Linderoth	7-1-82	Morris B. Vogel	8-1-82
Thomas L. Jackson	2-1-82	Evelyn R. Driemen	7-1-82	Delbert James Marcus	7-1-82	Lillian A. Barnes	9-1-82
Beatrice A. Sather	2-1-82	Julia F. Dunsworth	7-1-82	Harold J. Martens	7-1-82	Phyllis B. Gulde	9-1-82
Jean W. Martin Boyum	3-1-82	Douglas G. Farrell	7-1-82	Bart J. McDonough	7-1-82	Walter J. Hartmann	9-1-82
Mildred Miller	3-1-82	Solveig Farseth	7-1-82	Shirley Kerr Moore	7-1-82	Merton L. Haynes	9-1-82
Marilyn B. Wallin	4-1-82	Edward Fitzpatrick	7-1-82	Walter Nalepka	7-1-82	Joseph B. Jurkovich	9-1-82
Grace Wiggen	4-1-82	Arthur J. Frederickson	7-1-82	Dorothy Evelyn Neumann	7-1-82	Lorrayne J. Piens	9-1-82
John H. Berryhill	5-1-82	Lucille Gilbertstadt	7-1-82	Donald R. Ostrum	7-1-82	Richard Reichow	9-1-82
Marcine Degendorfer	5-1-82	John A. Gilbertson	7-1-82	Evelyn Ostrum	7-1-82	Seymour Yesner	9-1-82
Bernice Vlahakos	5-1-82	Robert C. Goldstrand	7-1-82	Jean S. Pelto	7-1-82	Margaret Ruth Anderson	10-1-82
Robert M. Bergen	6-1-82	Melvin M. Grimstad	7-1-82	George L. Patten	7-1-82	Frenchie R. Rogers	10-1-82
Richard J. Fuller	6-1-82	Alyce M. Gross	7-1-82	Margaret Pavlik	7-1-82	Jeannette H. Anderson	11-1-82
La Vonne Shelton	6-1-82	Warren G. Hamerston	7-1-82	Edward W. Ralph	7-1-82	Ruth Bonstrom	11-1-82
Floyd James Amundson, Jr.	7-1-82	Leona Hansen	7-1-82	Robert J. Rutt	7-1-82		
Jermaine Arendt	7-1-82	Lucille Hanson	7-1-82	Melvin F. Salo	7-1-82		
Phyllis Asmussen	7-1-82	Jeanne R. Harrison	7-1-82	Marian Segerstrom	7-1-82		
Ruth C. Backer	7-1-82	Harley H. Hatch	7-1-82	LeRoy Snider	7-1-82		
Albert C. Banks	7-1-82	Dorothy R. Haugee	7-1-82	Donald K. Sovell	7-1-82		
Stanley Baraga	7-1-82	Marion H. Heathcote	7-1-82	Maximilian Sporer, Jr.	7-1-82		
		Robert H. Hermanson	7-1-82				

The following death benefit annuity was granted:

Mary K. Riley 2-1-82

Deceased

Vivian Hanbury	9-5-81	Mabel F. Cochran	1-22-82	Jane D. Lewis	5-14-82	*Alva C. Wahl	9-4-82
Ida M. Bach	10-5-81	Sophie Albinson	1-27-82	Augusta Bjeldanes	5-20-82	Anne Lane Douglas	9-7-82
Nona O. Rheinhardt	11-4-81	Ruth Thompson	1-27-82	Mabel Andersen	5-22-82	Lillian A. Hastings	9-8-82
John F. Robohm, Jr.	11-17-81	*Eugene C. Wylie	1-28-82	Ruth H. Ferguson	5-26-82	Jean Robertson	9-9-82
*Agnes Ulrich	11-25-81	Arthur Christenson	1-31-82	*Mabel H. Anderson	6-8-82	Lillian Finnberg Johnson	9-11-82
Selma E. Neumann	11-28-81	Mary A. Carr	2-4-82	*C. Dale Davidson	6-13-82	Ruth Dennis	9-20-82
*Dorice C. Steen	12-3-81	F. Mae Martin	2-14-82	Jane Cochran	6-14-82	Idaline Fontaine	9-22-82
*Oren A. Henning	12-8-81	Margaret M. Barry	2-17-82	*Joseph G. Nudell	6-23-82	*Harold J. Gregory	9-23-82
Helen Neuharth	12-9-81	*Albert D. Nelson	2-26-82	Mary I. Wiberg	6-27-82	*Ross W. Sheldon	10-4-82
Helen F. Lenhart	12-12-81	*Vernon E. Indehar	2-27-82	Esther Romness Cunningham	6-28-82	Ruth B. Hendrickson	10-21-82
Marie L. Kelly	12-15-81	Evalyn F. Barrington	3-5-82	Lilly A. Anderson	7-13-82	Blanche Coyne	11-8-82
*Shirley M. Price	12-16-81	M. Audrey Schoffman	3-6-82	Ronald E. Barnes	7-14-82	*Charles J. Lobdell	11-11-82
*Warren A. Peterson	12-20-81	Inga M. Pettersen	3-8-82	Marguerite E. Dyr Dahl	7-14-82	Ruth Marie Nordquist	11-12-82
Florence J. Brezinski	12-21-81	*Violet H. Stafford	3-11-82	Marjorie M. Stebbins	7-16-82	Alma Louise Grabow	11-14-82
*Milton A. Grein	12-21-81	Henrietta L. Simpson	3-13-82	*Wm. Edward Haynes	7-17-82	George A. Jensen	11-27-82
Helen S. Loenholdt	12-29-81	Aldeane Muehlbach	3-20-82	Grace M. Holtz		Oretta Steenerson	11-30-82
Jeannette H. Henderson	12-30-81	Josine A. Coonan	3-21-82	Myrtle R. Neubauer	8-11-82		
Hulda T. Erickson	1-5-82	Gordan B. Sanders	3-25-82	*Oliver W. Rhodes	8-14-82		
Stella R. Stadhem	1-9-82	*Wilma E. Leach Ericson	3-29-82	Gladys B. Blair	8-18-82		
Lulu H. Hopkins	1-10-82	Agnes A. Toensing	4-5-82	Margaret R. Carr	8-20-82		
Judith N. Smith	1-10-82	Ruth L. Sperling	4-6-82	*Alice E. Logeland	8-24-82		
Evelyn A. Johnson	1-14-82	*Patricia Barlau	4-9-82	Hazel I. Moore	8-28-82		
Mary W. Laird	1-14-82	Leota W. Goodson	4-12-82	Hazel F. Perry	9-1-82		

*Annuity continued to beneficiary according to Article IX, Section (2), Subsections (b) and (c).

Statement showing mean ledger assets, as adjusted and amount and rate of interest for the years 1924 to 1982 inclusive

Year ended December 31	Mean Ledger Assets, as adjusted	Interest Earned Amount	Rate
1982	\$ 163,539,313.00	\$ 17,382,258.00	10.629%
1981	149,966,838.00	15,590,934.00	10.396
1980	137,369,213.00	12,110,211.00	8.809
1979	127,441,400.00	9,555,212.00	7.498
1978	119,002,976.00	8,244,038.00	6.928
1977	109,690,047.00	7,080,484.00	6.455
1976	102,482,504.00	6,031,834.00	5.886
1975	96,021,440.00	5,356,739.00	5.579
1974	89,803,630.00	4,748,985.00	5.288
1973	82,860,227.00	4,248,383.00	5.127
1972	73,156,501.00	3,507,766.00	4.794
1971	63,956,260.00	3,082,911.00	4.820
1970	57,281,444.00	2,680,399.00	4.679
1969	50,987,871.61	2,291,990.27	4.495
1968	46,162,651.99	2,111,541.20	4.575
1967	42,365,970.56	1,884,841.39	4.448
1966	39,281,614.43	1,756,422.58	4.471
1965	37,449,239.33	1,611,580.12	4.303
1964	35,391,079.71	1,517,775.56	4.288
1963	33,647,847.97	1,349,232.98	4.009
1962	31,899,302.87	1,247,245.82	3.909
1961	30,437,359.43	1,164,795.25	3.826
1960	29,080,638.95	1,142,686.48	3.929
1959	27,846,792.94	1,126,328.62	4.045
1958	26,560,860.62	991,336.08	3.732
1957	25,230,130.36	912,070.82	3.615
1956	23,958,498.11	810,268.45	3.381
1955	22,627,156.81	751,597.06	3.321
1954	21,429,372.66	703,029.44	3.281
1953	20,370,891.76	658,579.25	3.233
1952	19,457,766.21	607,935.49	3.124
1951	18,559,601.68	566,824.11	3.054
1950	17,550,340.60	520,238.90	2.964
1949	16,547,387.66	472,841.11	2.858
1948	15,695,815.67	415,271.39	2.646
1947	14,536,784.39	373,731.25	2.571
1946	13,384,728.20	391,046.39	2.921
1945	12,714,006.41	379,850.01	2.987
1944	12,240,130.42	354,096.35	2.892
1943	11,752,470.13	349,777.19	2.976
1942	11,303,712.07	344,634.06	3.049
1941	10,817,852.83	325,629.10	3.010
1940	10,196,598.63	333,087.48	3.267
1939	9,524,180.18	329,502.33	3.460
1938	8,836,807.22	318,229.50	3.601
1937	8,154,626.79	301,951.16	3.703
1936	7,452,624.01	283,542.42	3.805
1935	6,741,092.30	275,790.07	4.091
1934	6,036,087.19	256,574.71	4.251
1933	5,395,507.11	227,254.57	4.212
1932	4,810,177.70	207,277.66	4.309
1931	4,173,207.88	182,277.63	4.368
1930	3,513,913.19	156,459.89	4.453
1929	2,895,964.01	129,892.32	4.485
1928	2,364,529.38	106,684.96	4.512
1927	1,897,742.32	86,296.42	4.547
1926	1,448,643.89	64,792.71	4.473
1925	1,006,594.73	43,241.84	4.296
1924	587,050.08	22,420.03	3.819

Notes:

- (1) The mean ledger assets, as adjusted, have been computed in accordance with the formula approved by State Insurance Commissioners and represent the average of the net ledger assets at the beginning and end of each year, less one-half of the interest earned. The non-ledger assets excluded from the computation include "Interest due and accrued on investment," and "Taxes due and accrued."
- (2) For the years 1941 to 1945, inclusive, amounts aggregating \$197,284.21 representing the net premiums realized from the sale of securities (principally tax exempt) have been applied against purchases in determining costs for the reason that, in effect, the transactions amount to an exchange. In view of the change in investment policy, profits or losses on security sold or called have been credited to income account, but have been excluded from the interest earned in the above tabulation.

BASIC RETIREMENT PROGRAM

Actuarial Valuation December 31, 1982



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Actuaries' Report

April 15, 1983

Board of Trustees
Minneapolis Teachers Retirement
Fund Association
951 Northwestern Bank Building
Minneapolis, Minnesota 55402

Gentlemen:

We are pleased to submit the final results of our actuarial valuation of the Minneapolis Teachers Retirement Fund as of December 31, 1982. The valuation of basic members was performed on the basis of employee data which was not audited by us and of data and financial information provided by the Executive Secretary of the Fund.

Objectives

The principal objectives of the valuation may be summarized as follows:

1. Prepare information in accordance with Minnesota Statutes, Sections 356.20 to 356.23 (refer to page no. 1 of this report for additional details of methods used).
2. Summarize the actuarial status of the Fund.
3. Analyze the experience of the Fund.

Summary of Findings

The results of our valuation, which were determined under

5% interest and 3½% salary increase assumptions as required by statute, may be summarized as follows:

1. The employer's normal cost for the year is 5.84% of payroll.
2. The necessary contribution to meet normal cost, and prevent the unfunded accrued liability (deficit) from increasing is 26.68% of payroll, compared to 26.04% shown in the December 31, 1981 valuation.
3. Assets of the Fund including unrealized appreciation and depreciation on common stocks and bonds are in excess of the present value of benefits for current retirees.

Based on the above mentioned data and information, our interpretation of plan provisions and the valuation method and assumptions set forth in this report, we hereby certify that the summaries on the following pages represent the results of the valuation.

PEAT, MARWICK, MITCHELL & CO.

Donald G. Brackey, F.S.A.
Enrolled Actuary Number 2765

Dennis M. Polisner, F.S.A.
Enrolled Actuary Number 986



Methods Used in Valuation

General

Actuarial liabilities for retirement and other benefits are shown in Exhibit I. Employer contribution levels are presented in Exhibit II.

Annuities in Force

Annuities in force as of December 31, 1982, were summarized by the Association, showing for each type of annuity, the option chosen, attained at age of annuitant or beneficiary, and the annual amount of annuity payable. The present value of these annuities was determined using a 5% interest rate and the 1971 Group Annuity Mortality Table with projection to 1975. For males, the male mortality rates with an age setback of two years were used. For females, the male rates with an age setback of eight years were used.

Deferred Annuitants

Summaries of all deferred annuitants were prepared by the Association showing, by attained age, the years of service and accumulated deposits for each such annuitant. It was assumed that future benefits would be the amount purchased by 200% of member's deposits plus a life annuity starting at age 63 equal to the greater of:

1. \$4 per month per year of service; or
2. The amount purchased by 200% of the accumulated City/State deposits.

Accrued Liability—Active Teachers (Basic Members)

In the valuation performed as of December 31, 1982, the Entry Age Normal Cost Method was used for valuation of normal retirement benefits as well as ancillary benefits.

For purposes of this valuation, it was assumed that all retirements take place at age 63. At retirement, the plan provides for basic members a life annuity of 2.25% of the highest consecutive 5-year average salary, times years of teaching service to a maximum of 30 years.

Summary of Actuarial Assumptions

December 31, 1982

Interest	5%														
Turnover	2/3 of the 1970 experience, graduated for smoothness:														
	<table border="0"> <tr> <td style="text-align: center;">Attained</td> <td style="text-align: center;">Turnover</td> </tr> <tr> <td style="text-align: center;">Age</td> <td style="text-align: center;">Rate</td> </tr> <tr> <td style="text-align: center;">20</td> <td style="text-align: center;">.200</td> </tr> <tr> <td style="text-align: center;">30</td> <td style="text-align: center;">.133</td> </tr> <tr> <td style="text-align: center;">40</td> <td style="text-align: center;">.028</td> </tr> <tr> <td style="text-align: center;">50</td> <td style="text-align: center;">.017</td> </tr> <tr> <td style="text-align: center;">60</td> <td style="text-align: center;">.002</td> </tr> </table>	Attained	Turnover	Age	Rate	20	.200	30	.133	40	.028	50	.017	60	.002
Attained	Turnover														
Age	Rate														
20	.200														
30	.133														
40	.028														
50	.017														
60	.002														
Retirement Age	The later of age 63 or attained age on the valuation date.														
Salary Scale—															
Annual Increase	3½%														
Mortality	The 1971 Group Annuity Mortality Table with projection to 1975 by Scale D. For males the male rates were used with age setback two years. For females, the														

male rates were used with age setback eight years.

Valuation Assets For valuation purposes assets are valued at cost.

Disablement 1955 UAW rates of disablement (with separate rates for males and females).

Analysis of Actuarial Assumptions

Shown below is the description of the basis for each principal assumption summarized on the previous page.

Interest

In 1982, the Fund's earning rates were as follows:

1. Excluding realized and unrealized capital gains and losses: 10.629%
2. Including realized capital gains and losses: 10.032%

Over the last five years, the averages of the Fund's annual earning rates were as follows:

1. Excluding realized and unrealized capital gains and losses: 8.852%
2. Including realized capital gains and losses: . . 9.188%

Retirement Age

The average retirement age has approximated age 61.70 since 1973, and has approximated age 62.80 since 1965. In 1982, the average age at retirement from the basic and coordinated plan was 59.78. This year's costs are calculated using an assumed retirement age of 63.

Turnover

Turnover rates corresponding to 2/3 of the turnover rates experienced by the Fund in 1970 were used in this year's valuation. During 1982, actual turnover rates were approximately 42% lower than the assumed rates.

Assets

The cost basis of the assets was used for purposes of the actuarial valuation. Unrealized appreciation on the common stocks of the consolidated assets was \$30,409,211 on December 31, 1982. Unrealized depreciation on the bonds of the consolidated assets was \$4,427,560 on December 31, 1982.

Salary Scale

A 3½% annual salary scale assumption was used. At the end of 1982, the overall average salary was \$26,831 compared to \$24,473 at the end of 1981 representing a 9.64% increase. Average salaries have increased approximately 8.72% a year since 1977, and approximately 8.77% a year since 1970.

Mortality

For active and retired lives, the 1971 Group Annuity Mortality Table with projection to 1975 was used. (Male table for males; the mortality rates for females are equal to those for males six years younger.) To account for teacher mortality which is expected to be less than the average group mortality, an additional two year setback was used.



Definition of Terms

Normal Cost

Level cost, to provide for all benefits, expressed as a percentage of payroll, payable from each member's entry age to date of retirement or termination.

Accrued Liability

The accumulation of prior Normal Costs which became due each year (theoretically) for each member since his entry date.

Unfunded Accrued Liability

The portion of the Accrued Liability not covered by assets of the Fund.

Entry Age Normal

A method for funding future benefits, using the Normal Cost and Accrued Liability defined above.

Summary of Costs as of December 31, 1982

	Assumed retirement age is 63, 5% Interest and 2/3 of 1970 Turnover	
	Normal Cost	Accrued Liability
1. Active Members		
Retirement benefits	\$ 6,680,914	\$217,083,528
Disability benefits	762,390	16,239,787
Refunds due to death or withdrawal	2,215,449	15,908,617
2. Deferred Annuitants and Former Members Without Vested Rights	0	10,291,193
3. Annuitants	0	180,576,144
4. Total	\$ 9,658,753	\$440,099,269
5. Member deposits (8½% of compensation for all basic plan participants)	\$ 5,724,236	
6. Employer normal cost	\$ 3,934,517	
7. Valuation assets		\$179,381,796
8. Actual unfunded accrued liability		\$260,717,473
Total Payroll	\$67,343,949	

Summary of Contribution Levels for Two Years

	December 31, 1982	December 31, 1981
Employer normal cost	3,934,517	3,869,877
Percentage of payroll	5.84%	5.97%
Unfunded accrued liability	260,717,473	241,694,918
Employer contribution required to meet normal cost and amortize unfunded accrued liability by December 31, 2009 assuming payment at the beginning of the plan year	20,891,547	19,320,515
Percentage of payroll	31.02%	29.83%

Employer contribution required to meet normal cost and prevent unfunded accrued liability from increasing, assuming payment at the end of the plan year	17,167,117	16,148,117
Percentage of payroll	25.49%	24.93%
Administrative expense	760,453	687,062
Percentage of payroll	1.13%	1.06%
Employer contribution required to meet normal cost and administrative expense and amortize unfunded accrued liability by December 31, 2009 assuming payment at the beginning of the plan year	21,652,000	20,007,577
Percentage of payroll	32.15%	30.89%
Employer contribution required to meet normal cost and administrative expense and prevent unfunded accrued liability from increasing, assuming payment at the end of the plan year	17,965,593*	16,869,532*
Percentage of payroll	26.68%	26.04%

*Includes interest on administrative expense

Comparison of Contributions with Total Income from Governmental Units

Employer contribution as of December 31, 1982, to meet normal cost and administrative expense and prevent unfunded accrued liability from increasing	\$17,965,593
Percentage of payroll on December 31, 1982	26.68%
Total 1982 state tax revenue and district contributions	9,761,148
Percentage of payroll on December 31, 1982	14.49%

Summary of Actuarial Gains and Losses as of December 31, 1982

(a) Actual unfunded accrued liability as of December 31, 1981 for basic members	\$241,694,918
(b) Normal cost as of December 31, 1981	9,375,785
(c) Interest at 5% on (a) and (b)	12,553,535
(d) Employee contribution during 1982	5,892,301
(e) Employer contribution during 1982	9,761,148
(f) Estimated interest on (d) and (e)	391,336
(g) Expected unfunded accrued liability as of December 31, 1982 = (a) + (b) + (c) - (d) - (e) - (f)	\$247,579,453
(h) Actual unfunded accrued liability as of December 31, 1982	\$260,717,473
(i) Actuarial gain (loss) = (g) - (h)	\$(13,138,020)


Summary of Annuities in Force on December 31, 1981

Option	Annuity Plan	Number of Annuitants	Annual Amount	Reserve	Annual Amount	Reserve	Annual Amount	Reserve
1	Life	1,246	\$1,882,077	\$17,467,995	\$ 4,701,117	\$ 47,872,972	\$ 6,583,194	\$ 65,340,967
2	Life, 3 year guarantee	76	272,688	3,452,158	505,303	7,610,976	777,991	11,063,134
3	Life, 15 year guarantee ...	578	1,223,165	14,476,967	2,524,231	34,229,416	3,747,396	48,706,383
4	Annuities Certain	47	79,549	661,602	191,066	1,808,104	270,615	2,469,706
5	Survivorship (50%)	114	327,385	3,915,124	792,284	10,529,136	1,118,669	14,444,260
6	Survivorship (75%)	87	341,517	4,719,118	790,515	12,296,071	1,132,032	17,015,189
7	Survivorship (100%)	105	322,890	4,710,046	692,856	11,509,397	1,015,746	16,219,443
8	Death Benefit	7	6,724	89,312	24,064	361,289	30,788	450,601
9	Disability	56	70,154	866,135	287,287	4,000,326	357,441	4,866,461
	Totals	2,316	\$4,526,149	\$50,358,457	\$10,508,723	\$130,217,687	\$15,034,872	\$180,576,144

Comparison of Increases in Average Salary
All Active Teachers

Year	Average Salary	% Increase
1982	\$26,831	9.6%
1981	24,473	6.8%
1980	22,915	15.6%
1979	19,816	4.3%
1978	18,997	7.6%
1977	17,661	15.0%
1976	15,361	5.3%
1975	14,590	7.2%
1974	13,612	11.6%
1973	12,193	1.1%
1972	12,064	13.0%
1971	10,674	8.9%
1970	9,779	—

New Annuitants

Year	Average Salary	% Increase
1982	\$25,984	5.6%
1981	24,600	1.8%
1980	24,174	10.0%
1979	21,974	8.9%
1978	20,183	6.3%
1977	18,987	8.7%
1976	17,460	5.9%
1975	16,491	6.0%
1974	15,563	13.0%
1973	13,773	5.6%
1972	13,044	10.8%
1971	11,776	10.6%
1970	10,643	5.0%
1969	10,136	6.2%
1968	9,544	4.8%
1967	9,106	6.5%
1966	8,552	3.0%
1965	8,302	—



**Covered Earnings of Active Participants Included in December 31, 1982, Valuation.
Distribution by Sex and Service Groups***

Annual Earnings by Service Groups

Service Group	MALE			FEMALE			TOTAL		
	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings
0	0	0	0	0	0	0	0	0	0
1	3	41,436	13,812	28	287,576	10,271	31	329,012	10,613
2	5	103,464	20,693	13	206,876	15,914	18	310,340	17,241
3	2	53,284	26,642	19	295,729	15,565	21	349,013	16,620
4	3	70,088	23,363	11	153,573	13,961	14	223,661	15,976
0-4	13	268,272	20,636	71	943,754	13,292	84	1,212,026	14,429
5-9	85	2,079,447	24,464	305	5,826,156	19,102	390	7,905,603	20,271
10-14	256	7,382,058	28,836	580	13,890,425	23,949	836	21,272,483	25,446
15-19	294	9,375,418	31,889	269	7,435,140	27,640	563	16,810,558	29,859
20-24	168	5,747,144	34,209	123	3,475,701	28,258	291	9,222,845	31,694
25-29	167	5,745,011	34,401	82	2,322,322	28,321	249	8,067,333	32,399
30-34	21	777,191	37,009	29	798,396	27,531	50	1,575,587	31,512
35-39	0	0	0	3	98,514	32,838	3	98,514	32,838
40+	0	0	0	0	0	0	0	0	0
Total	1,004	31,374,541	31,250	1,462	34,790,408	23,796	2,466	66,164,949	26,831

*Excludes 131 participants with estimated total annual earnings of \$1,179,000 included in the valuation but for whom data was incomplete, and 4 participants for whom the date of birth or date of hire was incorrect.

**Covered Earnings of Active Participants Included in December 31, 1982, Valuation.
Distribution by Sex and Age Groups***

Annual Earnings by Age Groups

Age Group	MALE			FEMALE			TOTAL		
	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings
0-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	4	74,809	18,702	23	367,743	15,989	27	442,552	16,391
30-34	47	1,102,374	23,455	189	3,327,961	17,608	236	4,430,335	18,773
35-39	178	4,961,752	27,875	369	8,520,164	23,090	547	13,481,916	24,647
40-44	215	6,667,306	31,011	234	5,839,631	24,956	449	12,506,937	27,855
45-49	190	6,234,605	32,814	200	4,984,358	24,922	390	11,218,963	28,767
50-54	207	7,001,901	33,826	200	5,225,328	26,127	407	12,227,229	30,042
55-59	120	3,933,173	32,776	144	3,725,180	25,869	264	7,658,353	29,009
60-64	33	1,070,918	32,452	80	2,141,493	26,769	113	3,212,411	28,428
65-69	9	302,703	33,634	23	658,550	28,633	32	961,253	30,039
70-74	0	0	0	0	0	0	0	0	0
75-79	1	25,000	25,000	0	0	0	1	25,000	25,000
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
Total	1,004	31,374,541	31,250	1,462	34,790,408	23,796	2,466	66,164,949	26,831

*Excludes 131 participants with estimated total annual earnings of \$1,179,000 included in the valuation but for whom data was incomplete, and 4 participants for whom the date of birth or date of hire was incorrect.



Summary of Active Membership and Annuitants

Active Members

	Number	Annual Covered Payroll
As of December 31, 1981	2,599	\$63,605,390
Status changes and other adjustments	25	737,692*
Salary increases	—	6,026,739*
Withdrawal from service	(56)	(1,502,536)*
Retirements (including deceased eligible for death benefits)	(104)	(2,702,336)*
As of December 31, 1982	<u>2,466**</u>	<u>\$66,164,949**</u>

Annuitants

	Number	Annual Amount
As of December 31, 1981	2,278	\$13,870,102
New entrants	120	1,393,237
Terminations	(9)	(54,455)
Deaths	(64)	(242,959)
Net of other increases	(9)	68,947*
As of December 31, 1982	<u>2,316</u>	<u>\$15,034,872</u>

*Approximate figures.

**Excludes 131 participants with estimated total annual earnings of \$1,179,000, included in the valuation, but for whom data was incomplete and also excludes 4 participants for whom the date of birth or date of hire was incorrect.

Approximate Breakdown of the Change in Unfunded Accrued Liability as of December 31, 1982

1. Actual unfunded accrued liability as of December 31, 1982	\$260,717,473
2. Actual unfunded accrued liability as of December 31, 1981	\$241,694,918
3. Increase in actual unfunded accrued liability = (1) - (2)	<u>\$ 19,022,555</u>

Sources of Increase and (Decrease)

Amortization of unfunded accrued liability	\$ 5,884,535*
Experience (gains) and losses	
Interest—excluding	
capital gains	\$ (8,869,273)
Realized capital losses	968,490
Salary change experience	14,773,223
Turnover and status	
change experience	4,123,418
Retirement experience	2,919,972
Mortality experience	(1,341,786)
Disability experience	74,334
Other—unallocated	489,642
Total	<u>\$ 13,138,020</u>
Total	<u>\$ 19,022,555</u>

*The portion of the 1982 contribution applied to amortize the unfunded accrued liability is \$(5,884,535). This is derived from Exhibit VI as of the excess of item (a) over item (g) therein.

Comparison of Average Ages at Retirement

Year	Average Age* at Retirement
1982	59.78
1981	59.25
1980	59.32
1979	59.99
1978	62.20
1977	61.66
1976	63.36
1975	62.85
1974	64.41
1973	64.14
1972	64.69
1971	63.86
1970	64.38
1969	63.33
1968	64.77
1967	63.84
1966	64.28
1965	64.35

*Arithmetic mean.

Summary of the Principal Provisions of the Plan

I. ELIGIBILITY—

Any teacher employed by the Board of Education of the City of Minneapolis shall be eligible for membership in the Association.

II. STATE CONTRIBUTIONS—

The State shall contribute to the Association an employer contribution equal to the amount, expressed as a percent of payroll, that the State is required to pay for all contributing members of the State Teachers Retirement Association. Of the amount so contributed by the State, an amount equal to 6½% of compensation shall be deposited in the Retirement Deposit Fund on behalf of each basic member.

III. MEMBER CONTRIBUTIONS (“Required Deposits”)—

Each basic member shall deposit in the Retirement Deposit Fund 8½% of all compensation.

IV. NORMAL RETIREMENT BENEFITS (“Formula Annuity”) FOR BASIC MEMBERS—

1. **Eligibility**—A member is eligible for the Formula Annuity if he has attained age 60 or has completed 30 years of teaching service regardless of age when he retires. Each member so eligible may elect to relinquish all other benefits from the required and City/State deposits and receive in lieu thereof the Formula Annuity.

2. **Annual Amount**—The annual Formula Annuity benefit is 2.25% (1⅔% for participants who cease to be employed on or before May 1, 1974) of average annual compensation received by the member during any 5 consecutive years of teaching service, multiplied by his years of teaching service (maximum 30 years).

3. **Normal Form of Payment**—single life annuity. Specified optional forms are available.

V. WITHDRAWAL BENEFIT FOR BASIC MEMBERS—

A. Benefit from Member Deposits—

1. **Eligibility**—The member ceases to be employed in teaching in the public schools of Minneapolis.

2. **Amount**—The accumulation from the member's deposits may be withdrawn in a single sum or in installments. However, if the member is not entitled to receive an annuity from City/State deposits, the accumulation from the member's deposits shall be returned. Alternatively, that accumulation may be applied by the member at rates published by the Board of Trustees to purchase an annuity. The annuity shall commence according to the member's election.

3. **Normal Form of Payment**—single life annuity. Optional annuity forms are available.

B. Benefit from City/State Deposits—

1. **Eligibility**—The member ceases to be employed in teaching in the public schools of Minneapolis.

2. **Amount**—The accumulation from City/State deposits may be applied by the member at rates published by the Board of Trustees to purchase an annuity to commence not before age 50 provided that:

(a) if the member ceases teaching after the completion of 20 years of service and the attainment of age 55, or if the member attains the age of 62 at the commencement of the annuity payments, such benefit shall not be less than \$2.00 per month for each year of teaching service;

(b) if the member ceases teaching with less than 10 years of teaching service, all City/State deposits credited before he attained age 45 are cancelled; and

(c) if a member hired after July 1, 1967 ceases teaching with less than 7 years of teaching service, all City/State deposits accumulated after July 1, 1967 are cancelled.

3. **Normal Form of Payment**—single life annuity. Optional annuity forms are available.

C. **Additional Benefit**—If an annuity is purchased for the member in accordance with either A or B above, or both, an additional annuity (“Subsection (9) annuity”) equal to the lesser of \$1,800 or the aggregate annual annuity so purchased is also paid.

D. A member who is vested in City/State deposits (see B above) and who terminates after May 1, 1974, prior to attainment of age 60, is entitled to elect to receive a formula annuity at age 60. In such event the member will be entitled to an additional annuity provided by:

(a) the interest accumulated from date of termination to age 60 on the City/State and the member's deposits.

(b) the rate published by the Board of Trustees for the purchase of an additional annuity.

VI. DISABILITY BENEFITS FOR BASIC MEMBERS—

1. **Eligibility**—A member must be totally disabled (which is the presumably permanent inability of the member by reason of physical or mental disability to render further satisfactory service as a teacher) and have completed 3 years of teaching service to be eligible for a disability benefit.

2. **Annual Amount**—The total disability annuity is equal to the annuity which would become available to the member on the valuation date (the date 15 years after the commencement of total disability but not later than June 30 next following the attainment of age 65) under the provisions of Sections (2) and (3) of Article IX (see V above) from the accumulation of City/State and required deposits upon assumed compensation continuing at the rate last received by the member to the valuation date.

Summary of the Principal Provisions of the Plan (continued)

3. **Additional Benefit** (“Subsection (9) annuity”)—An additional annuity equal to the lesser of \$1,800 or the annual benefit otherwise available is also paid.
4. **Normal Form of Payment**—A single life annuity, commencing after the Board of Trustees has determined that the total disability exists, is paid during the continued existence of the disability.

VII. DEATH BENEFITS FOR BASIC MEMBERS—

1. **General**—A member may elect one of the three death benefits as described below. If no election is made, the “C” Death Benefit or, if there is no individual eligible to receive that benefit, the death benefit of greatest value shall be paid to an otherwise eligible beneficiary.
2. **“A” Death Benefit**—The full amount of the accumulation to the credit of the member in the Retirement Deposit Fund may be paid to a beneficiary in a lump sum, in installments or as an annuity. In the last case, an additional annuity (“Subsection (9) annuity”), equal to the lesser of \$1,800 or the annual annuity so provided, is also paid.
3. **“B” Death Benefit**—
 - (a) **Eligibility**—The “B” death benefit is available to a member who dies while in the teaching service, on leave of absence or who is entitled to a deferred benefit and who leaves a dependent survivor.
 - (b) **Amount**—The death benefit shall be computed as the annuity purchased by the “amount” defined below applied as a net single premium at the rates published by the Board of Trustees. The “amount” to be applied shall be determined as the actuarial equivalent of any annuity benefit, including a deferred annuity, which would have been available to the member if he resigned from teaching at the time of death.
 - (c) **Normal Form of Payment**—Life annuity to dependent survivor.
4. **“C” Death Benefit**—
 - (a) **Eligibility**—The “C” death benefit is available to a member who dies while in the teaching service of the City or on leave of absence and who leaves a beneficiary for whom benefits are provided.
 - (b) **Widow’s Benefit**—The dependent widow of the deceased member shall receive \$163.50 per month for each month during which she maintains a child who is under 18 and who is entitled to benefits as described below. The payments cease upon her death or remarriage or if she no longer maintains such a child, and payments are reduced if her earnings exceed \$1,680 for any 12 month period.
 - (c) **Child’s Benefit**—Each dependent child of the deceased member shall receive \$163.50 per month while he is under age 18 and \$163.50 per month while he is a full-time student between the ages of 18 and 22.
 - (d) **Maximum Benefit**—The maximum total “C” Death Benefit paid to all beneficiaries is \$434.40 per month. Such maximum may be amended from time to time.

VIII. ANNUAL AUTOMATIC ANNUITY INCREASE—

1. **Eligibility**—Every member entitled to receive an annuity is entitled to an Annual Automatic Annuity Increase in his annuity. All beneficiaries (except “C” Death Benefit beneficiaries) shall be entitled to the same Annual Automatic Annuity Increase as the member would have been entitled to receive if living and according to the age the member would have attained if living.
2. **Amount**—The amount of the Annual Automatic Annuity Increase in any year shall be equal to 1½% of the benefit the member was receiving as of the end of the preceding year, which increase shall first become payable on the July 1 of the calendar year in which the member becomes 65. If a member is entitled to a Total Disability Annuity, the Annual Automatic Annuity Increase of 1½% shall commence upon the earlier of attainment of age 60 or 9 years after the member becomes entitled to such annuity.

COORDINATED RETIREMENT PROGRAM
Actuarial Valuation December 31, 1982



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***Actuaries' Report***

April 15, 1983

Board of Trustees
Minneapolis Teachers Retirement
Fund Association
951 Northwestern Bank Building
Minneapolis, Minnesota 55402

Gentlemen:

We are pleased to submit the final results of our actuarial valuation of the Minneapolis Teachers Retirement Fund as of December 31, 1982. The valuation of coordinated members was performed on the basis of employee data which was not audited by us and on data and financial information provided by the Executive Secretary of the Fund.

Objectives

The principal objectives of the valuation may be summarized as follows:

1. Prepare information in accordance with Minnesota Statutes, Sections 356.20 to 356.23 (refer to page no. 1 of the report for additional detail of methods used).
2. Summarize the actuarial status of the Fund.

Summary of Findings

The results of our valuation, which were determined under 5% interest and 3½% salary increase assumptions as required by statute, may be summarized as follows:

1. The employer's normal cost for coordinated members for the year is 4.12% of coordinated members payroll.
2. The necessary contribution to meet normal cost, and prevent the unfunded accrued liability (deficit) from increasing is 5.16% of payroll.

Based on the above mentioned data and information, our interpretation of plan provisions and the valuation method and assumptions set forth in this report, we hereby certify that the summaries on the following pages represent the results of the valuation.

PEAT, MARWICK, MITCHELL & CO.

Donald G. Brackey, F.S.A.
Enrolled Actuary Number 2765

Dennis M. Polisner, F.S.A.
Enrolled Actuary Number 986



Methods Used in Valuation

General

Actuarial liabilities for retirement and other benefits are shown in Exhibit I. Employer contribution levels are presented in Exhibit II.

Accrued Liability—Active Teachers (Coordinated Members)

In the valuation performed as of December 31, 1982, the Entry Age Normal Cost Method was used for valuation of normal retirement benefits as well as ancillary benefits.

For purposes of this valuation, it was assumed that all retirements take place at age 63. At retirement, the plan provides a life annuity of 1% of the highest consecutive 5-year average salary, times years of teaching service during the first 10 years and 1.5% per year for each year of teaching service thereafter.

Summary of Actuarial Assumptions

	December 31, 1982	
Interest	5%	
Turnover	2/3 of the 1970 experience, graduated for smoothness:	
	Attained Age	Turnover Rate
	20	.200
	30	.133
	40	.028
	50	.017
	60	.002
Retirement Age	The later of age 63 or attained age on the valuation date.	
Salary Scale— Annual Increase	3½%	
Mortality	The 1971 Group Annuity Mortality Table with projection to 1975 by Scale D. For males the male rates were used with age setback two years. For females, the male rates were used with age setback eight years.	
Valuation Assets	For valuation purposes assets are valued at cost.	
Disablement	1955 UAW rates of disablement (with separate rates for males and females).	

Analysis of Actuarial Assumptions

Shown below is the description of the basis for each principal assumption summarized on the previous page.

Interest

In 1982, the Fund's earning rates were as follows:

1. Excluding realized and unrealized capital gains and losses 10.629%
2. Including realized capital gains and losses 10.032%

Over the last five years, the averages of the Fund's annual earning rates were as follows:

1. Excluding realized and unrealized capital gains and losses 8.852%
2. Including realized capital gains and losses 9.188%

Retirement Age

The average retirement age has approximated age 61.70 since 1973, and has approximated age 62.80 since 1965. In 1982, the average age at retirement from the basic and coordinated plan was 59.78. This year's costs are calculated using an assumed retirement age of 63.

Turnover

Turnover rates corresponding to 2/3 of the turnover rates experienced by the Fund in 1970 were used in this year's valuation. During 1982, actual turnover rates were approximately 95% higher than the assumed rates.

Assets

The cost basis of the assets was used for purposes of the actuarial valuation. Unrealized appreciation on the common stocks of the consolidated assets was \$30,409,211 on December 31, 1982. Unrealized depreciation on the bonds of the consolidated assets was \$4,427,560 on December 31, 1982.

Salary Scale

A 3½% annual salary scale assumption was used. At the end of 1982, the overall average salary was \$12,682 compared to \$11,262 at the end of 1981 representing a 12.6% increase.

Mortality

For active and retired lives, the 1971 Group Annuity Mortality Table with projection to 1975 was used. (Male table for males; the mortality rates for females are equal to those for males six years younger.) To account for teacher mortality which is expected to be less than the average group mortality, an additional two year setback was used.



COORDINATED RETIREMENT PROGRAM

Definition of Terms

Normal Cost

Level cost, to provide for all benefits, expressed as a percentage of payroll, payable from each member's entry age to date of retirement or termination.

Accrued Liability

The accumulation or prior Normal Costs which became due each year (theoretically) for each member since his entry date.

Unfunded Accrued Liability

The portion of the Accrued Liability not covered by assets of the Fund.

Entry Age Normal

A method for funding future benefits, using the Normal Cost and Accrued Liability defined above.

Summary of Contribution Levels for Two Years

	Dec. 31, 1982	Dec. 31, 1981
Employer normal cost	\$223,731	\$148,693
Percentage of payroll	4.12%	4.13%
Unfunded accrued liability	191,247	138,974
Employer contribution required to meet normal cost and amortize unfunded accrued liability by December 31, 2009 assuming payment at the beginning of the plan year	236,170	157,577
Percentage of payroll	4.35%	4.38%
Employer contribution required to meet normal cost and prevent unfunded accrued liability from increasing, assuming payment at the end of the plan year	244,480	163,076
Percentage of payroll	4.51%	4.53%
Administrative expense	33,549	23,126
Percentage of payroll62%	.64%
Employer contribution required to meet normal cost and administrative expense and amortize unfunded accrued liability by December 31, 2009 assuming payment at the beginning of the plan year	269,719	180,703
Percentage of payroll	4.97%	5.02%
Employer contribution required to meet normal cost and administrative expense and prevent unfunded accrued liability from increasing, assuming payment at the end of the plan year	279,706*	187,359*
Percentage of payroll	5.16%	5.20%

*Includes interest on administrative expense.

Summary of Costs as of December 31, 1982

	Assumed retirement age is 63, 5% Interest and 2/3 of 1970 Turnover	
	Normal Cost	Accrued Liability
1. Active Members		
Retirement benefits	\$394,290	\$1,469,451
Disability benefits	11,196	41,271
Refunds due to death or withdrawal	62,340	(53,308)
2. Deferred Annuitants and Former Members Without Vested Rights	0	3,398
3. Annuitants	0	0
4. Total	\$467,826	\$1,460,812
5. Member deposits (4½% of compensation for all coordinated plan participants)	\$244,095	
6. Employer normal cost	\$223,731	
7. Valuation assets		\$1,269,565
8. Actual unfunded accrued liability		\$ 191,247
Total Payroll		\$5,424,323

Comparison of Contributions With Total Income from Governmental Units

Employer contribution as of December 31, 1982, to meet normal cost and administrative expense and prevent unfunded accrued liability from increasing	\$279,706
Percentage of payroll on December 31, 1982	5.16%
Total 1982 state tax revenue	258,069
Percentage of payroll on December 31, 1982	4.76%

Summary of Actuarial Gains and Losses as of December 31, 1982

(a) Actual unfunded accrued liability as of December 31, 1981, for coordinated members	\$ 138,974
(b) Normal cost as of December 31, 1981 ...	310,755
(c) Interest at 5% on (a) and (b)	22,486
(d) Employee contribution during 1982	258,198
(e) Employer contribution during 1982	258,069
(f) Estimated interest on (d) and (e)	12,907
(g) Expected unfunded accrued liability as of December 31, 1982 = (a)+(b)+(c)-(d)-(e)-(f)	\$ (56,959)
(h) Actual unfunded accrued liability as of December 31, 1982	\$ 191,247
(i) Actuarial gain (loss)=(g)-(h)	\$(248,206)



COORDINATED RETIREMENT PROGRAM

Covered Earnings of Active Coordinated Members Included in December 31, 1982, Valuation. Distribution by Sex and Service Groups

Annual Earnings by Service Groups

Service Group	MALE			FEMALE			TOTAL		
	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings
0	0	0	0	0	0	0	0	0	0
1	68	784,045	11,530	125	953,537	7,628	193	1,737,582	9,003
2	39	685,743	17,583	48	619,767	12,912	87	1,305,510	15,006
3	17	334,811	19,695	55	849,055	15,437	72	1,183,866	16,443
4	7	141,226	20,175	24	369,588	15,400	31	510,814	16,478
0-4	131	1,945,825	14,854	252	2,791,947	11,079	383	4,737,772	12,370
5-9	6	108,487	18,081	23	338,304	14,709	29	446,791	15,407
10-14	3	84,584	28,195	7	83,176	11,882	10	167,760	16,776
15-19	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0
40+	0	0	0	0	0	0	0	0	0
Total	140	2,138,896	15,278	282	3,213,427	11,395	422	5,352,323	12,683

Covered Earnings of Active Coordinated Members Included in December 31, 1982, Valuation. Distribution by Sex and Age Groups

Annual Earnings by Age Groups

Age Group	MALE			FEMALE			TOTAL		
	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings	Number of Participants	Total Annual Earnings	Average Annual Earnings
0-19	0	0	0	1	4,779	4,779	1	4,779	4,779
20-24	10	108,103	10,810	32	228,945	7,155	42	337,048	8,025
25-29	29	322,784	11,130	72	732,641	10,176	101	1,055,425	10,450
30-34	43	684,092	15,909	69	888,704	12,880	112	1,572,796	14,043
35-39	20	319,318	15,966	36	473,245	13,146	56	792,563	14,153
40-44	22	456,956	20,771	41	524,245	12,786	63	981,201	15,575
45-49	7	88,184	12,598	12	127,262	10,605	19	215,446	11,339
50-54	4	91,091	22,773	12	126,957	10,580	16	218,048	13,628
55-59	4	55,264	13,816	7	106,649	15,236	11	161,913	14,719
60-64	1	13,104	13,104	0	0	0	1	13,104	13,104
65-69	0	0	0	0	0	0	0	0	0
70-74	0	0	0	0	0	0	0	0	0
75-79	0	0	0	0	0	0	0	0	0
80-84	0	0	0	0	0	0	0	0	0
85+	0	0	0	0	0	0	0	0	0
Total	140	2,138,896	15,278	282	3,213,427	11,395	422	5,352,323	12,683



COORDINATED RETIREMENT PROGRAM

Summary of Active Membership

Active Members

	<u>Number</u>	<u>Annual Covered Payroll</u>
As of December 31, 1981 ..	315	\$3,547,378*
New entrants, status changes and other adjustments	172	2,181,476**
Salary changes	—	447,864**
Withdrawals from service	(65)	(824,395)**
Retirements	<u>0</u>	<u>0</u>
As of December 31, 1982 ..	<u>422***</u>	<u>\$5,352,323***</u>

*Excludes 6 participants with estimated total annual earnings of \$54,000 included in the valuation, but for whom data was incomplete.

**Approximate figures.

***Excludes 9 participants with estimated total annual earnings of \$72,000 included in the valuation, but for whom data was incomplete.

Approximate Breakdown of the Change in Unfunded Accrued Liability as of December 31, 1982

1. Actual unfunded accrued liability as of December 31, 1982	\$ 191,247
2. Actual unfunded accrued liability as of December 31, 1981	\$ 138,974
3. Increase in actual unfunded accrued liability = (1) - (2)	<u>\$ 52,273</u>
Sources of Increase and (Decrease)	
Amortization of unfunded accrued liability	\$(195,933)*
Experience (gains) and losses	
Interest—excluding capital gains	\$ (62,364)
Realized capital losses	6,810
Salary change experience ...	128,252
Turnover and status change experience	(101,288)
Mortality experience	893
Disability experience	0
New entrants	275,903
Total	<u>\$ 248,206</u>
	<u>\$ 52,273</u>

*The portion of the 1982 contribution applied to amortize the unfunded accrued liability is \$195,933. This is derived from Exhibit V as of the excess of item (a) over item (g) therein.



COORDINATED RETIREMENT PROGRAM

Summary of the Principal Provisions of the Plan

I. ESTABLISHMENT OF PROGRAM—

In accordance with the laws of the State of Minnesota, a coordinated program was established within the Association effective July 1, 1978. The coordinated program provides for retirement annuities and certain other benefits specified in the law identical in effect to the corresponding provisions applicable to coordinated members of the statewide Teachers' Retirement Association.

II. ELIGIBILITY—

Teachers who became members in the Association by virtue of service commencing after July 1, 1978, shall automatically become members in the coordinated program within the Association. Teachers who became members in the Association by virtue of service commencing prior to July 1, 1978, referred to as basic members, were afforded an opportunity to elect coverage under the coordinated program. Members participating in the coordinated program are referred to as coordinated members.



Summary of the Principal Provisions of the Plan (continued)

III. STATE CONTRIBUTIONS—

The State shall contribute to the Association an employer contribution equal to the amount, expressed as a percent of payroll, that the State is required to pay for all contributing members of the State Teachers Retirement Association.

IV. MEMBER CONTRIBUTIONS ("Required Deposits")

Each coordinated member shall deposit in the Retirement Deposit Fund 4½% of all compensation.

V. NORMAL RETIREMENT BENEFITS ("Formula Annuity") FOR COORDINATED MEMBERS—

1. **Eligibility**—A member is eligible for the Formula Annuity if he has attained age 55 with not less than 10 years of teaching service, or has completed 30 years of teaching service regardless of age when he retires. Each member so eligible may elect to relinquish all other benefits and receive in lieu thereof the Formula Annuity.

2. **Annual Amount**—The annual Formula Annuity is equal to the member's average salary for the highest 5 consecutive years of formula service multiplied by 1.0% per year for each year of service during the first 10 years and 1.5% per year for each year of service thereafter. The amount of the formula annuity will be reduced by one-half of one percent for each month prior to age 60 except that for any member who has 30 or more years of allowable service credit, such reduction shall be applied only for each month such member is under age 62.

3. **Normal Form of Payment**—Single life annuity. Specified optional forms are available.

VI. WITHDRAWAL BENEFIT FOR COORDINATED MEMBERS—

1. **Eligibility**—The member ceases to be employed in teaching in the public schools of Minneapolis prior to becoming age 65.

2. **Amount**—The member shall receive a refund in an amount equal to his accumulated deductions without interest or a deferred retirement annuity.

VII. DISABILITY BENEFITS FOR COORDINATED MEMBERS—

1. **Eligibility**—A member must be totally and permanently disabled and have completed 10 years of teaching service or after age 50 have completed 5 years of teaching service to be eligible for a disability benefit. Any member whose average salary is less than \$75 per month shall not be entitled to disability benefits.

2. **Annual Amount**—The disability benefit for members eligible for the formula annuity (under Teachers' Retirement Association Law, Section 354.44, Subd.6) shall be the formula annuity without the reduction for each month the member is under age 65 at the time the benefit begins to accrue. The disability benefit for members eligible for the money

purchase annuity shall be an amount equal to double the annuity which could be purchased by the member's accumulated deductions plus interest thereon computed as though the teacher were age 65 at the time the benefit begins to accrue and in accordance with the law in effect when the disability application is received.

3. **Normal Form of Payment**—A single life annuity, commencing after the Board of Trustees has determined that the total disability exists, is paid during the continued existence of the disability.

VIII. DEATH BENEFITS FOR COORDINATED MEMBERS—

If a member dies before retirement and is eligible for the formula annuity, there shall be paid to his surviving dependent spouse or if there is no surviving dependent spouse, to his dependent beneficiary, an amount equal to his accumulated deductions credited to his account as of June 30, 1957, and from July 1, 1957, to the date of death his accumulated deductions plus interest at the rate of three and one-half percent per annum compounded annually.

IX. PRE-RETIREMENT DEATH BENEFIT PAYABLE TO A SURVIVING SPOUSE—

(a) **Eligibility**—A member must elect to provide the coverage and have attained age 55 with 20 years of service or received credit for 30 years of service regardless of age. After meeting the above conditions, the member must have a spouse and the member must die prior to retirement.

(b) **Annual Amount**—The survivor annuity shall be equal to the survivor's portion of an actuarially equivalent benefit. The joint and survivor benefit is actuarially equivalent to the benefit payable in the normal form.

(c) **Normal Form of Payment**—A single life annuity payable to the surviving spouse.

X. ANNUAL AUTOMATIC ANNUITY INCREASE—

(a) **Eligibility**—Every member entitled to receive an annuity is entitled to an Annual Automatic Annuity Increase in his annuity. All beneficiaries shall be entitled to the same Annual Automatic Annuity Increase as the member would have been entitled to receive if living and according to the age the member would have attained if living.

(b) **Amount**—The amount of the Annual Automatic Annuity Increase in any year shall be equal to 1½% of the benefit the member was receiving as of the end of the preceding year, which increase shall first become payable on the July 1 of the calendar year in which the member becomes age 65. If a member is entitled to a Total Disability Annuity, the Annual Automatic Annuity Increase of 1½% shall commence upon the earlier of attainment of age 60 or 9 years after the member becomes entitled to such annuity.