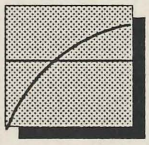
Minneapolis
Fire Department Relief Association



Annual Actuarial Valuation

December 31, 1995

Gabriel, Roeder, Smith & Company
Actuaries and Consultants

Table of Contents

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants

1000 Town Center • Suite 1000 • Southfield, Michigan 48075 • 810-799-9000

May 2, 1996

Board of Trustees
Minneapolis Fire Department Relief Association
Minneapolis, Minnesota

Submitted in this report are the revised results of the December 31, 1995 actuarial valuation of the assets, actuarial values and contribution requirements associated with the benefits provided by the Minneapolis Fire Department Relief Association.

The valuation results contained in Section A provide the actuarial information needed to determine the employer's "minimum obligation" effective January 1, 1997. Section A also contains comments regarding the valuation results.

The valuation was based upon information furnished by the Association concerning benefits, financial transactions, active members, terminated members, retirants and beneficiaries. Data was checked for year to year consistency but was not otherwise audited by us. This information is summarized in Section B.

A description of the actuarial funding method and the risk experience assumptions used is contained in Section C. The economic risk experience assumptions, as well as the actuarial funding method to be used, are established by state law.

Information needed to comply with Statement No. 5 of the Governmental Accounting Standards Board is contained in Section D.

The actuarial valuation was prepared using generally accepted actuarial principles and practices based upon the methods, assumptions, summary of plan provisions and the member and financial data described in this report.

Respectfully submitted,

J. Daniel Petersen Mary Ann Vitale

J. Daniel Petersen Mary Ann Vitale

SECTION A

Valuation Results

Comments

Economic Assumptions and Financing Method

The economic assumptions of 6% annual investment return and 4% annual salary increases are established by state law. State law also specifies that the annual minimum obligation of the municipality shall be determined by adding (i) the employer normal cost percent times covered payroll to (ii) the level dollar amount required to amortize the unfunded actuarial accrued liability by December 31, 2010.

It is worth noting that when the same assumptions and methods are applied to plans which differ in nature, the valuation results may not be comparable. Caution should be exercised when attempting to assess the financial condition of one Association relative to another on the basis of valuation results produced using the assumptions and methods mandated by state law.

CONTRIBUTION RATE TO PROVIDE BENEFITS

Member portion & Employer portion

Effective January 1, 1997

Contributions for	If Paid Equally Throughout Year Normal Cost % of Active Payroll for 1997	+	UAAL Dollars
Normal cost of annuities:			
Age & service: to members	15.84%		
Age & service: to survivors	3.80		
Disability	2.49		
Death before retirement	1.81		
Refunds of member contributions	0.00		
Total Normal Cost	23.94%		
Amortization of unfunded actuarial accrued liabilities (UAAL) (14 year level dollar payment)			
Retired lives			$ 0
Active members			4,155,683
Total			4,155,683
Total Cost of Benefits	23.94%	+	$4,155,683
Member contributions	8.00%		
COMPUTED EMPLOYER RATE:			
(a) If Paid Equally Throughout Year	15.94%	+	$4,155,683
(B) IF PAID AT CALENDAR YEAR END	16.16%	+	$4,212,616

The amounts in (b) were computed to adjust for interest according to the following payment pattern:

1. The state amortization aid is received in 4 equal installments on 3/15, 7/15, 9/15 and 11/15.

2. The balance of the contribution is received as follows:

   a. 16.0% of the balance is received from the State on 10/15.
   b. 35.1% of the balance is received from the City on 7/5 and 12/5.
   c. 2.3% of the balance is received from the City on 7/15, 8/15, 9/15, 10/15, 11/15 and 12/15.

Present Actuarial Condition

The actuarial value of the Association's assets (valuation assets) were in excess of $194.6 million on December 31, 1995 -- a considerable sum of money if unencumbered and allocated among a small group of persons. This is not the case with the Association's assets.

The following schedule puts the $194.6 million into perspective by showing the relationship between valuation assets, actuarial accrued liabilities, and the number of persons with actual and potential claims on the Association's assets.

	Accrued Actuarial Assets	Actuarial Accrued Liabilities	Unfunded Actuarial Accrued Liabilities	Percent Funded
Retirants and Beneficiaries				
Retired Members (399)		$128,105,756		
Surviving Spouses (193)		24,794,024		
Surviving Children (4)		132,360		
Total (596)		$153,032,140		
Deferred Members (1)		117,336		
Active Members (236)		81,236,410		
Total	$194,611,318	$234,385,886	$39,774,568	83.0%

Actuarial accrued liabilities represent the value, computed as of December 31, 1995 of:

(i) retirement allowances likely to be paid the 596 retirants and beneficiaries; and

(ii) the contributions assumed to have been made for the 236 active members from entry into the plan until December 31, 1995.

The value of retirement allowances likely to be paid the 596 retirants and beneficiaries, discounted for investment earnings and mortality, was computed to be $153,032,140 as of December 31, 1995. To put this amount in perspective, the $153,032,140, together with investment earnings, will just be sufficient to pay the 596 retirants and beneficiaries their allowances for their remaining lifetimes. This assumes the 596 retirants and beneficiaries live and die according to the assumed mortality and the $153,032,140 is invested to yield an average annual return of 6.0% over the remaining lifetimes of the retirants and beneficiaries and the benefit payments increase according to the actuarial assumptions and benefit provisions shown in this report.

With respect to the active members, the actuarial accrued liability of $81,236,410 represents the amount that would have been accumulated by December 31, 1995. This assumes the normal cost (which is expressed as a level percentage of pay) had been contributed from the date of hire until December 31, 1995 for the 236 actives, and that these amounts had earned 6.0% interest. It also assumes that the members in the past have lived, died, withdrawn, retired and received salary increases according to the actuarial assumptions shown in this report.

Historical Funding Ratio Schedule
($ in thousands)

Valuation Date December 31	Actuarial Accrued Liabilities	Accrued Actuarial Assets	Percent Funded
1986 *	$186,650	$67,315	36.1%
1987	193,023	80,911	41.9
1988 *#	188,014	93,601	49.8
1989	192,264	110,092	57.3
1990 #	196,491	119,652	60.9
1991	201,461	139,891	69.4
1992 #	211,558	156,279	73.9
1993 #	223,357	177,529	79.5
1994	228,567	178,003	77.9
1995	234,386	194,611	83.0

 # After change in actuarial assumptions.
** After change in benefit provisions.*

Computed Contributions - Comparative Schedule

Year Ended December 31		Total Normal Cost as a Percent of Valuation Payroll*	Contribution For Unfunded Actuarial Accrued Liabilities
Valuation	Fiscal		
1986	1988 **	27.23%	$8,633,067
1987	1989	27.19	8,311,114
1988	1990 **#	23.37	7,793,970
1989	1991	23.33	6,957,374
1990	1992 #	23.95	6,687,685
1991	1993	23.85	5,538,556
1992	1994 #	23.90	5,123,898
1993	1995 #	23.98	4,403,949
1994	1996	23.99	5,056,000
1995	1997	23.94	4,155,683

* *Includes employee contributions.*

** *After change in actuarial assumptions.*

\# *After change in benefit provisions.*

Contribution for Calendar Year Effective January 1, 1997

For any period of time the percent-of-payroll contribution rate is converted to dollars. The amount of dollars for any calendar year depends upon the results of the last actuarial valuation, and the timing of contributions within the year. The later the contribution date, the greater the dollar amount will be.

The municipality's dollar contribution for the year may be determined as follows:

(1)	Estimated covered payroll for 1997		$_____	
(2)	Employer normal cost % from page A-2		15.94	
(3)	Employer normal cost (Line 1 times line 2)			$_____
(4)	Amortization payment on UAAL from page A-2			4,155,683
(5)	Total contributions required (Line 3 plus line 4)			_____
(6)	(a) State amortization aid based on 12/31/78 UAAL of $98,227,435	$705,696		
	(b) State amortization aid based on 1984 legislation	210,424		
	(c) Total State amortization aid		916,120	
(7)	Estimated insurance premium aid		_____	
(8)	Estimated total contributions from other sources (Line 6 plus line 7)			_____
(9)	Employer's Minimum Obligation if payment is made in equal installments throughout the year (Line 5 minus line 8)			$_____
(10)	EMPLOYER'S MINIMUM OBLIGATION IF PAYMENT IS MADE AT YEAR END (LINE 9 TIMES 1.0137)			$_____

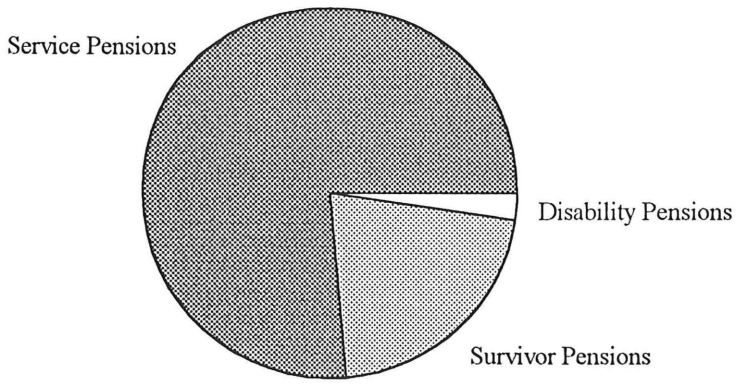
* State amortization aid reduced by Police Relief Association pro-rata share of $1,520,000 reduction in amortization aid called for by the 13th check legislation. The potential additional reduction which would result from "excess" investment income during 1996 was not considered.

SECTION B

Valuation Data and
Summary of Benefit Provisions

Retirants and Beneficiaries December 31, 1995
By Type of Annuity Being Paid

Type of Annuity Being Paid	No.	Monthly Amounts	Computed Actuarial Accrued Liabilities
Retirants receiving:			
Age & service	387	$ 854,829.28	$121,763,628
Disability	12	26,365.93	6,342,128
		881,195.21	128,105,756
Totals	399		
Beneficiaries receiving:			
Spouse	193	235,188.49	24,794,024
Child	4	1,772.50	132,360
Totals	197	236,960.99	24,926,384
Totals	596	$1,118,156.20	$153,032,140



Monthly Amount Paid by Benefit

Inactive Members Eligible For Deferred Benefits

December 31, 1995

No.	Monthly Amount	Computed Actuarial Accrued Liabilities
1	$858.55	$117,336

Retirants and Beneficiaries December 31, 1995
By Attained Ages

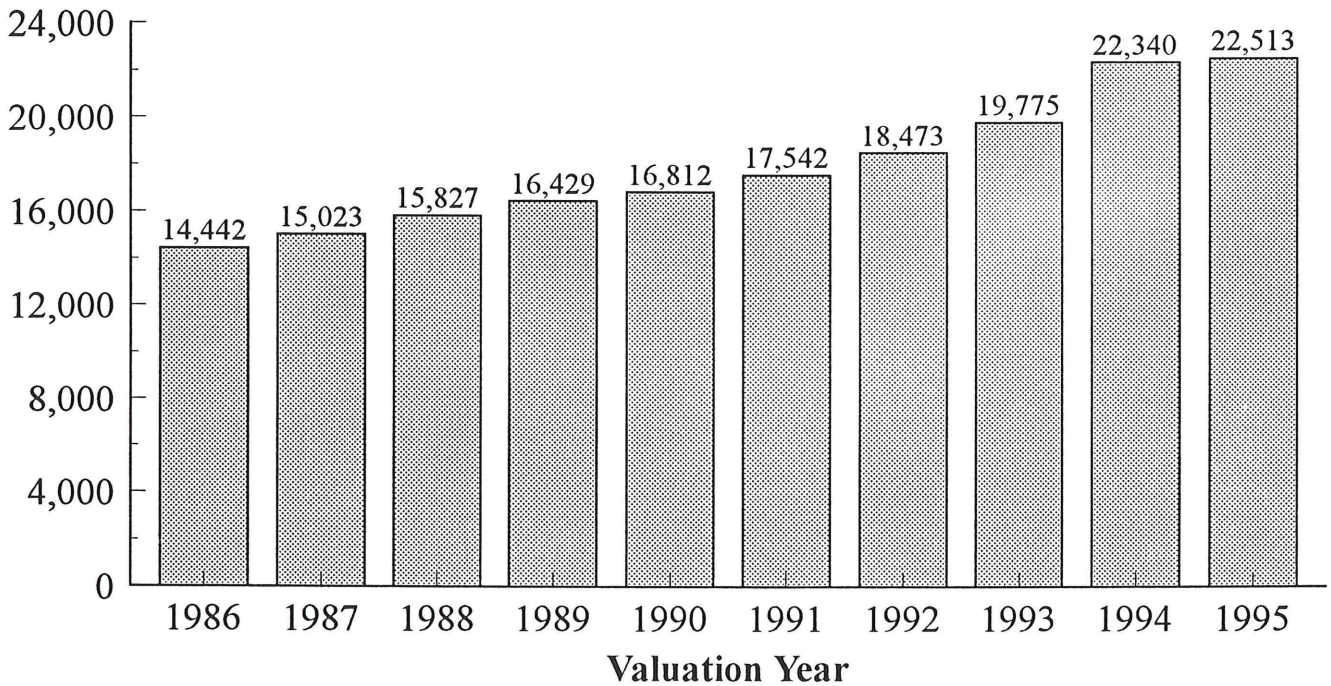
Attained Ages	Number		
	Age & Service	Disability	Death Before Retirement
Under 20			4
20-24			
40-44			1
45-49	1	8	2
50-54	29	5	3
55-59	29		6
60-64	87	1	4
65-69	99	1	3
70-74	78	3	3
75-79	65	10	2
80-84	77	12	8
85-89	32	7	1
90-94	9	4	1
95-99	1		
Totals	507	51	38

Retirants and Beneficiaries Added to and Removed from Rolls

Comparative Statement

Valuation Date December 31	No. Added to Rolls	No. Removed from Rolls	Rolls End of Year		Discounted Value of Total Allowances
			No.	Annual Allowances	
1986	25	21	559	$8,072,888	$108,457,752
1987	25	29	555	8,337,959	110,331,396
1988	32	25	562	8,894,721	111,904,800
1989	18	25	555	9,118,089	113,227,692
1990	24	22	557	9,364,461	115,174,188
1991	19	22	554	9,717,991	117,998,856
1992	34	24	564	10,418,854	125,708,460
1993	32	22	574	11,350,689	135,712,458
1994	32	31	575	12,845,678	143,862,253
1995	39	18	596	13,417,874	153,032,140

Average Annual Allowances



Active Members December 31, 1995
By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	No.	Valuation Payroll
35-39				5				5	$ 250,820
40-44				20	7			27	1,354,428
45-49				25	62	3		90	4,514,760
50-54				4	30	27		61	3,060,004
55-59					4	29	5	38	1,906,232
60						3	1	4	200,656
61							4	4	200,656
63							2	2	100,328
64							2	2	100,328
65							3	3	150,492
Totals				**54**	**103**	**62**	**17**	**236**	**$11,838,704**

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

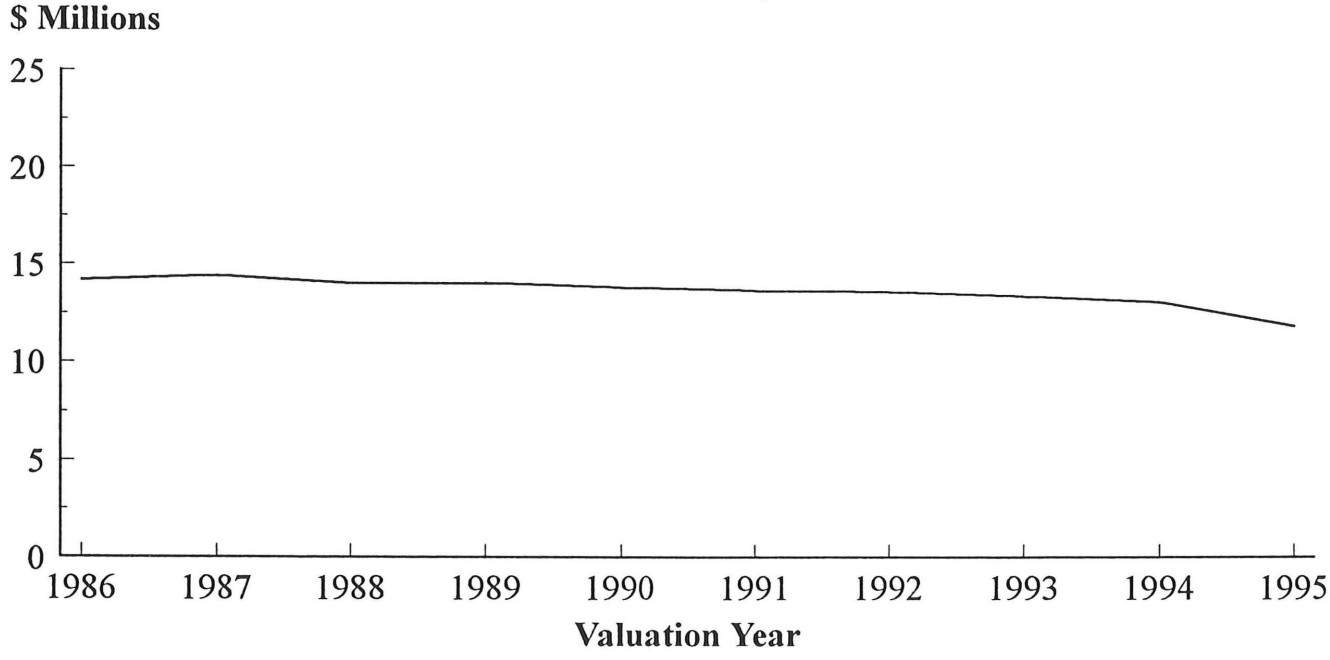
Group Averages:

Age: 50.3 years
Service: 23.5 years
Annual Pay: $50,164

Comparative Schedule
Of Active Members

Valuation Date December 31	Active Members	Valuation Payroll	Average Age	Average Service	Average Pay	Average % Incr.
1986	401	$14,190,588	45.8 yrs.	18.3 yrs.	$35,388	3.5%
1987	389	14,431,511	46.5	19.0	37,099	4.8
1988	364	14,045,668	46.7	19.4	38,587	4.0
1989	351	14,067,027	47.4	20.0	40,077	3.9
1990	337	13,854,744	48.0	20.8	41,112	2.6
1991	321	13,664,649	48.6	21.5	42,569	3.5
1992	309	13,614,231	49.2	22.2	44,059	3.5
1993	285	13,395,285	49.5	22.6	47,001	6.7
1994	267	13,073,121	50.2	23.2	48,963	4.2
1995	236	11,838,704	50.3	23.5	50,164	2.5

Valuation Payroll



Brief Summary (12/31/95) of Benefit Provisions Evaluated and/or Considered

Age & Service Retirement

Eligibility. 5 years of service and 50 years of age.

Amount. 1.6/80 of base pay for each of the first 19 years of service and 2.6/80 is added for the 20th year of service. For service in excess of 20 years, an additional 1.6/80 is provided for each year to a maximum of 41/80 of base pay for 25 or more years of service.

Pay Used For Plan Purposes. "Base pay" means the maximum monthly salary of a first grade firefighter.

Disability Retirement

Eligibility.

First Class Disability. Disabled to the extent that no longer able to perform the duties of a firefighter or any manual labor.

Second Class Disability. Disabled to the extent that no longer able to perform duties of a firefighter but able to perform light manual labor or office work.

Third Class Disability. Disable to extent that no longer able to perform duties of a firefighter but able to perform other manual labor.

Amount.

First Class Disability. 41/80 of base pay.

Second Class Disability. 33/80 of base pay.

Third Class Disability. 25/80 of base pay.

Member's Death While Active, Or In Deferred Status, Or Retired

Eligibility.

Spouse. Married to member at separation from service and residing with member at time of death payable for life. (For service or deferred retirement, must have been married at least one year before separation from service.)

Child. Younger than age 18, or if full-time student, younger than age 22.

Amount.

Spouse. 22/80 of base pay.

Child. 8/80 of base pay per child. Children's maximum is 19/80 if spouse is receiving or 41/80 if no spouse is receiving.

VESTED DEFERRED. 5 years of service. Payment beginning is deferred to attainment of age 50.

POST-RETIREMENT ADJUSTMENTS ("ESCALATOR"). Each time base pay is changed, payments to all benefit recipients are changed simultaneously by the same percent that base pay is changed.

MEMBER CONTRIBUTIONS. 8% of base pay. After 25 years of service, member contributions are paid to a separate health insurance account. Member contributions are non-refundable.

Derivation of Valuation Assets

Valuation Date December 31	(a) Market Value	(b) Book Value	(c) Market-Book
1993	$179,028,194	$141,174,449	$ 37,853,745
1994	167,779,494	146,039,831	21,739,663
1995	206,201,131	160,541,565	45,659,566
(d) Average Unrealized Gain			$ 35,084,325
(e) Excess Investment Income*			1,014,572
(f) Assets 12/31/94 (Book Value 12/31/95 + (d) - (e)			$194,611,318 #

* *Excess investment income was reported by Minneapolis Fire Department Relief Association.*

\# *Does not include contributions made by members who have 25 or more years of service.*

SECTION C

Valuation Methods and Assumptions

Valuation Methods and Assumptions

The Entry Age Normal Cost method was used to determine the normal cost of all benefits. The rate of investment return (interest) as required by state law used in making the valuation was 6.0 percent per annum, compounded annually. Age & service retirement was assumed to occur at age 57, attained age if older. It was further assumed that 85% of the members would have eligible beneficiaries.

Mortality Table*

Sample Ages	Single Life Values: Present Value of $1 Monthly — Level For Life		Increasing 3.5% Yearly		Future Life Expectancy (Years)	
	Men	Women	Men	Women	Men	Women
45	$159.22	$168.84	$261.90	$291.24	29.50	34.00
50	147.95	159.22	231.75	261.90	25.20	29.50
55	135.09	147.95	201.37	231.75	21.16	25.20
60	120.76	135.09	171.29	201.37	17.42	21.16
65	105.49	120.76	142.51	171.29	14.05	17.42
70	89.88	105.49	115.81	142.51	11.09	14.05
75	74.14	89.88	91.34	115.81	8.52	11.09
80	59.37	74.14	70.19	91.34	6.39	8.52

* *UP-1984 Table set forward 2 years for males and set back 3 years for females.*

Sample Rates of Separating from Active Employment Before Retirement, Death or Disability

Sample Ages	% of Active Members Separating within Next Year
20	6.00%
25	5.00
30	4.00
35	3.00
40	2.00
45	1.00
50+	0.00

Pay Adjustment Factor Used To Project Current Pays

Sample Ages	Present Pay Resulting in Pay of $1,000 at Age 60	Present Increase in Pay During Next Year
20	$ 208	4.0%
25	253	4.0
30	308	4.0
35	375	4.0
40	456	4.0
45	555	4.0
50	676	4.0
55	822	4.0
60	1,000	4.0

Use of the pay adjustment factor illustrated above is required by state law.

Anticipated Disability Retirements

Sample Ages	% of Active Members Becoming Disabled within Next Year
20	0.08%
25	0.08
30	0.08
35	0.08
40	0.20
45	0.26
50	0.49
55	0.89

SECTION D

The Pension Benefit Obligation and Certain Other Disclosures Required by Statement No. 5 of The Governmental Accounting Standards Board

Pension Benefit Obligation

The amount shown below as the "pension benefit obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to (i) help users assess the plan's funding status on a going-concern basis, (ii) assess progress being made in accumulating sufficient assets to pay benefits when due, and (iii) allow for comparisons among public employee retirement plans. The measure is independent of the actuarial funding method used to determine contributions to the plan.

The pension benefit obligation was determined as part of an actuarial valuation of the plan as of December 31, 1995. Significant actuarial assumptions used in determining the pension benefit obligation include (a) a rate of return on the investment of present and future assets of 6.0% per year compounded annually, (b) projected salary increases of 4.0% per year compounded annually, attributable to inflation, and (c) the assumption that benefits will increase 4.0% per year after retirement.

At December 31, 1995, the unfunded pension benefit obligation was $70,266,370 determined as follows:

Pension Benefit Obligation:	
Retirants and beneficiaries currently receiving benefits and terminated employees not yet receiving benefits	$153,149,476
Current employees --	
Accumulated employee contributions including allocated investment income	0
Employer financed	77,658,459
Total Pension Benefit Obligation	$230,807,935
Net assets available for benefits, at cost (market value was $206,201,131)	160,541,565
Unfunded Pension Benefit Obligation	$70,266,370

The total pension benefit obligation as of January 1, 1995 was $226,772,290. During the year, the plan experienced a net change of $4,035,645 in the pension benefit obligation.

Contributions Required and Contributions Made

The Association's funding policy provides for periodic employer contributions at actuarially determined rates that, expressed as percentages of annual covered payroll, are designed to accumulate sufficient assets to pay benefits when due. The normal cost and actuarial accrued liability are determined using an entry age actuarial funding method. Unfunded actuarial accrued liabilities are being amortized as a level dollar amount over a period of 14 years.

During the year ended December 31, 1995, contributions totaling $8,583,320 -- $7,405,980 employer and $1,177,340 employee -- were made in accordance with contribution requirements determined by an actuarial valuation of the plan as of December 31, 1993. The employer contributions consisted of $2,140,567 for normal cost and $5,265,413 for amortization of the unfunded actuarial accrued liability. Employer contributions represented 55.29% of covered payroll.

Significant actuarial assumptions used to compute contribution requirements were the same as those used to compute the standardized measure of the pension benefit obligation.

Computed Contribution Comparative Schedule

Fiscal Year December 31	Valuation Date December 31	Contribution Rates		Valuation Payroll	Dollar Contribution For Fiscal Year	
		Normal Cost % of Valuation Payroll	UAAL Dollars		Computed	Actual
1988	1986	19.23%	$8,633,067	$14,190,588	$11,361,917	$11,470,785
1989	1987	19.19	8,311,114	14,431,511	11,080,521	11,147,809
1990 *#	1988	15.37	7,793,970	14,045,668	9,952,789	9,198,097
1991	1989	15.33	6,957,374	14,067,027	9,113,849	8,349,157
1992 #	1990	15.95	6,687,685	13,854,744	8,897,517	7,667,121
1993	1991	15.85	5,522,371	13,664,649	7,688,218	6,871,984
1994 #	1992	15.90	5,123,898	13,614,231	7,288,561	6,878,398
1995 #	1993	15.98	4,403,949	13,395,285	6,544,516	7,405,980
1996	1994	15.99	5,056,000	13,073,121	7,146,392	
1997	1995	15.94	4,155,683	11,838,704	6,042,772	

 # After changes in benefit provisions.
** After changes in actuarial assumptions.*

Required Supplementary Information

Analysis of Funding Progress

Valuation Date Dec. 31	(1) Net Assets Available for Benefits	(2) Pension Benefit Obligation (PBO)	(3) Percent Funded (1)/(2)	(4) Unfunded PBO (2)-(1)	(5) Annual Covered Payroll	(5) Unfunded PBO as a Percentage of Covered Payroll (4)/(5)
1988	$87,328,260	$183,297,021	47.6%	$95,968,761	$14,045,668	683.3%
1989	99,749,893	187,552,009	53.2	87,802,116	14,067,027	624.2
1990	106,411,204	191,172,481	55.7	84,761,277	13,854,744	611.8
1991	117,533,086	196,039,886	60.0	78,506,800	13,664,649	574.5
1992	127,742,804	206,012,833	62.0	78,270,026	13,614,231	574.9
1993	141,174,449	219,150,771	64.4	77,976,322	13,395,285	582.1
1994	146,039,831	226,772,290	64.6	80,732,459	13,073,121	617.5
1995	160,541,565	230,807,935	69.6	70,266,370	11,838,704	593.5

Analysis of the dollar amounts of net assets available for benefits, pension benefit obligation, and unfunded pension benefit obligation in isolation can be misleading. Expressing the net assets available for benefits as a percentage of the pension benefit obligation provides one indication of the plan's funded status on a going-concern basis. Analysis of this percentage over time indicates whether the system is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the plan. The unfunded pension benefit obligation and annual covered payroll are both affected by inflation. Expressing the unfunded pension benefit obligation as a percentage of annual covered payroll approximately adjusts for the effects of inflation and aids analysis of the progress being made in accumulating sufficient assets to pay benefits when due. Generally, the smaller this percentage, the stronger the plan.

APPENDICES

Appendix I

Financial Principles and Operational Techniques

Promises Made, and Eventually Paid. As each year is completed, the plan in effect hands an "IOU" to each member then acquiring a year of service credit -- the "IOU" says: "The Pension Plan owes you a portion of your retirement benefits, payments to be made in cash, commencing when you qualify for retirement."

The related key financial questions are: Which generation of taxpayers contributes the money to cover the IOU? The present taxpayers, who receive the benefit of the member's present year of service? Or the future taxpayers, who happen to be in town paying taxes at the later time when the IOU becomes a cash demand?

A sound principle of sound retirement plan financing is to have this year's taxpayers contribute the money to cover the IOUs being handed out this year. By following this principle, THE CONTRIBUTION RATE WILL REMAIN APPROXIMATELY LEVEL FROM GENERATION TO GENERATION -- our children and grandchildren will contribute the same percents of active payroll we contribute now.

A Pension Plan Becomes Closed

The diagram in this appendix shows two important activities which occur after a plan has been closed to employees hired in the future.

Cash benefits paid continue to increase for decades, while active member payroll begins to decrease to zero.

Funding Method. A funding method is the long-term, planned pattern for employer contributions.

For an open plan (a plan covering future employees), the level-percent-of-active-member payroll funding method is the basic funding method.

The level-percent funding method can also be applied to a closed plan. However, the resulting contribution percent usually jumps to a high rate, because the number of covered active members is decreasing.

A preferred funding method for a closed plan consists of: level-percent funding for normal cost (the cost of members' service now being rendered); plus a level dollar contribution for unfunded actuarial accrued liabilities over a limited period of years. The period of years must be limited so that plan assets don't become zero while benefits are still payable.

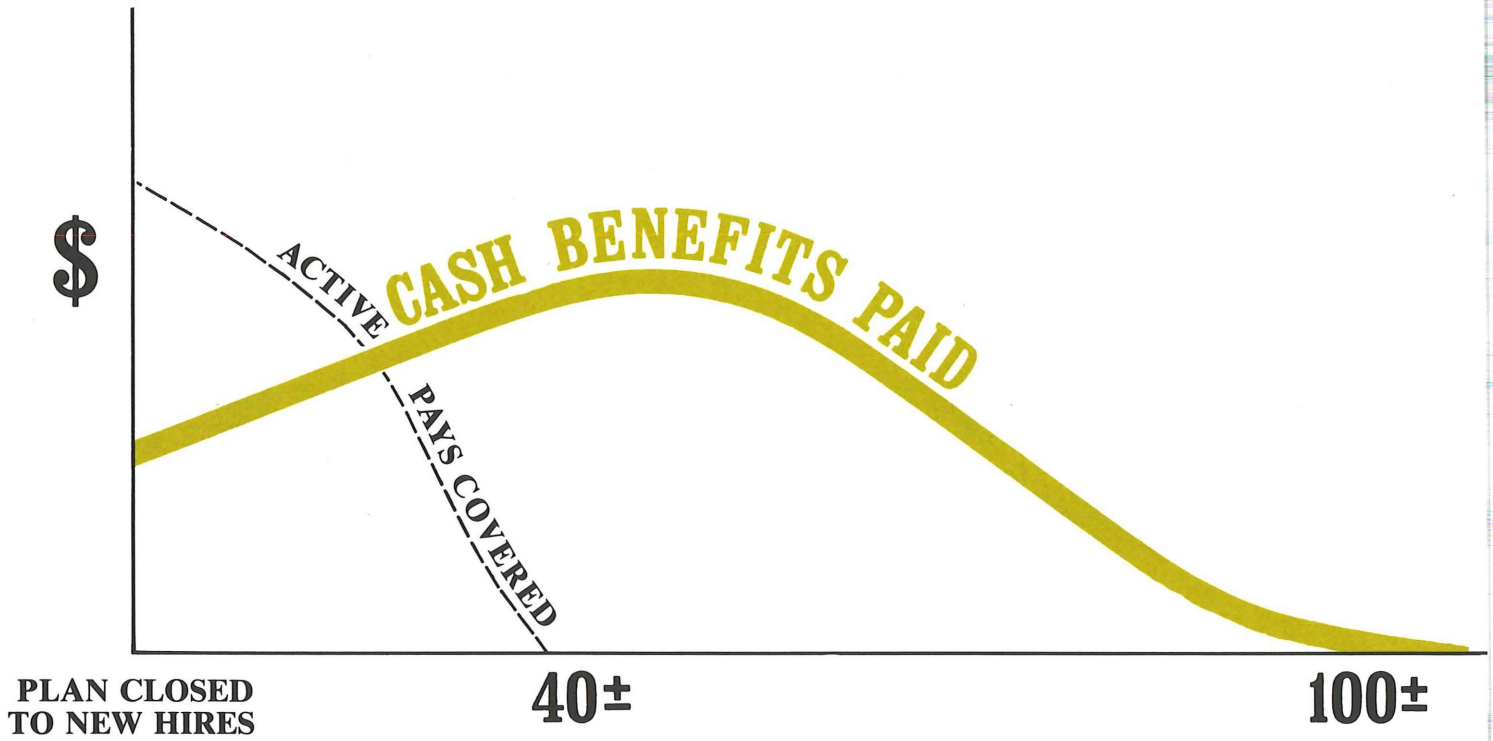
Computing Contributions To Support Plan Benefits. From a given schedule of benefits and from the employee data and asset data furnished him, the actuary determines the contribution rates to support the benefits by means of an actuarial valuation and a funding method.

In making an actuarial valuation, assumptions must be made regarding anticipated financial experiences for the next year and for decades in the future. Only the subsequent actual experience of the plan can indicate the degree of accuracy of the assumptions.

Reconciling Differences Between Assumed Experience and Actual Experience. Once actual experience has occurred and been observed, it will not coincide exactly with assumed experience, regardless of the wisdom of the assumptions or the skill of the actuary and the millions of calculations he made. The future can be predicted with considerable but not 100% precision, except for inflation which seems to defy reliable prediction.

A well-managed plan copes with these continually changing differences by having periodic actuarial valuations. Each actuarial valuation is a complete recalculation of assumed future experience, taking into account all past differences between assumed and actual experience. The result is continuing adjustment in financial position.

A CLOSED PENSION PLAN



A plan becomes closed when no new hires are admitted to active membership. The persons covered by the plan at the time of closing continue their normal activities and continue to be covered by the plan, until the last survivor dies.

CASH BENEFITS LINE. After a pension plan becomes closed, the usual pattern is for cash benefits to continue to increase for decades of time. Eventually the cash benefits will peak, and then gradually decrease over more decades of time, ultimately to zero. The last cash benefit is likely to occur a century after the time the plan is closed.

The precise amounts of cash benefits cannot be known now, and must be estimated by assumptions of future experiences in a variety of financial risk areas.

Appendix II

Meaning of Unfunded Accrued Liabilities

Almost every pension plan (public or private) has "unfunded accrued liabilities," so whatever they are, they aren't rare. Since the term is not part of everyday conversation, it needs some definition.

"Accrued liabilities" are the present value $ of plan promises to pay benefits in the future based upon service already rendered - - - a liability has been established ("accrued") because the service has been rendered, but the resulting monthly cash benefit may not be payable until years in the future. Accrued liabilities $ are the result of complex mathematical calculations, which are made by the plan's actuary (which is the name given to the specialist who makes such calculations).

If "accrued liabilities" at any time exceed the plan's accrued assets (cash & investments), the difference is "unfunded accrued liabilities." This is the common condition. If the plan's assets equalled the plan's "accrued liabilities," the plan would be termed "fully funded." This is a rare condition.

Each time a plan adds a new benefit which applies to service already rendered, an "accrued liability" is created, which is also an "unfunded accrued liability" because the plan can't print instant cash to cover the accrued liability. Payment for such unfunded accrued liabilities is spread over a period of years, commonly in the 20-40 year range.

Unfunded accrued liabilities can occur in another way: If actual financial experience is less favorable than assumed financial experience, the difference is added to unfunded accrued liabilities. In plans where plan benefits are directly related to an employee's pay near time of retirement (a common plan provision) rather than his average pay throughout his working career, unfunded accrued liabilities have been increasing in recent years because unexpected rates of pay increase have created additional accrued liabilities which could not be matched by reasonable investment results. Some of these unexpected pay increases are the direct result of inflation, which is a very destructive force on financial stability.

The existence of unfunded accrued liabilities is not bad, then (any more than a mortgage on your house is "bad"), but the changes from year to year in amount of unfunded accrued liabilities are important - - - "bad" or "good" or somewhere in between.

Nor are unfunded accrued liabilities a bill payable immediately (your food costs are payable immediately), but it is important that policy-makers prevent the amount from becoming unreasonably high and it is vital that your plan have a sound method for making payments toward them so that they are controlled.

The existence of large amounts of unfunded accrued liabilities indicates that total contributions in past years were less than level - - - an almost certain history if retired life liabilities are not fully funded now.