Report of
AN ACTUARIAL VALUATION
December 31, 1985 of the
Red Wing Fire Department
Relief Association
Red Wing, Minnesota

GABRIEL, ROEDER, SMITH & COMPANY

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GABRIEL, ROEDER, SMITH & COMPANY
ACTUARIES & CONSULTANTS
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April 2, 1986

Board of Trustees
Red Wing Fire Department Relief Association
Red Wing, Minnesota

Submitted in this report are the results of the December 31, 1985 actuarial valuation of the assets, actuarial values and contribution requirements associated with the benefits provided by the Red Wing 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, 1987. 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.

Section C contains a description of the actuarial funding method and the risk experience assumptions used. 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 of Financial Accounting Standards No. 35 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,

Ronald J. W. Smith

Ronald J. W. Smith

Gary W. Findlay

Gary W. Findlay

SECTION A

RESULTS OF THE VALUATION

COMMENTS

Economic Assumptions and Financing Method

The economic assumptions of 5% annual investment return and 3-1/2% 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 (for example, it is currently not valid to compare valuation results for a plan having full escalation to valuation results for a plan having a 3-1/2% cap on escalation). 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.

Red Wing Fire Department Relief Association

Full-Time Members

CONTRIBUTION RATE TO PROVIDE BENEFITS

Member portion & Employer portion

Effective January 1, 1987

Contributions for	If Paid Equally Throughout Year: Normal Cost % of Active Payroll for 1987	+	UAAL Dollars
Normal cost of annuities:			
Age & service: to members	19.08%		
Age & service: to survivors	4.01		
Disability	2.77		
Death before retirement	2.41		
Refunds of member contributions	0.20		
Total Normal Cost	28.47		
Amortization of unfunded actuarial accrued liabilities (UAAL) (24 year level dollar payment)			
Retired lives			$ 0
Active members			118,385
Total			118,385
Total Cost of Benefits	28.47%	+	$118,385
Member contributions	8.00%		
COMPUTED EMPLOYER RATE:			
(a) If Paid Equally Throughout Year	20.47%	+	$118,385
(b) IF PAID AT CALENDAR YEAR END	20.98%	+	$121,309

Red Wing Fire Department Relief Association

Full-Time Members

Present Actuarial Condition

The Association's accrued actuarial assets were in excess of $2.5 million on December 31, 1985 -- 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 $2.5 million into perspective by showing the relationship between accrued 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	% Funded
Retirants and Beneficiaries				
Retired Members (7)	$	$1,184,821	$	
Surviving Spouses (3)		208,164		
Surviving Children (3)		43,104		
Total (13)	1,436,089	1,436,089	0	100.0%
Deferred Members (0)	0	0	0	
Active Members (17)	1,123,577	2,797,635	1,674,058	40.2
Total	$2,559,666	$4,233,724	$1,674,058	60.5%

Actuarial accrued liabilities represent the value, computed as of December 31, 1985 of:

(i) retirement allowances likely to be paid the 13 retirants and beneficiaries; and

(ii) the contributions assumed to have been made for the 17 active members from their entry into the plan until December 31, 1985.

To illustrate, the value of retirement allowances likely to be paid the 13 retirants and beneficiaries, discounted for investment earnings and mortality, was computed to be $1,436,089 as of December 31, 1985. This means that if the 13 retirants and beneficiaries live and die according to the assumed mortality and if the $1,436,089 can be invested to yield an average annual return of 5.0 percent over the remaining lifetimes of the 13 retirants and beneficiaries, then the $1,436,089 together with investment earnings thereon will just be sufficient to pay the 13 retirants and beneficiaries their allowances for their remaining lifetimes.

With respect to active members, the actuarial accrued liability of $2,797,635 represents the amount that would have been accumulated by December 31, 1985 if the normal cost (which is expressed as a level percentage of pay) had been contributed from the date of hire until December 31, 1985 for each of the 17 actives, if these amounts had earned 5.0% interest and if the members in the past had lived, died, withdrawn, retired and received salary increases according to the actuarial assumptions shown in this report.

Historical Funding Ratio Schedule
Full-Time Members

($ in thousands)

Valuation Date December 31	Actuarial Accrued Liabilities	Accrued Assets	Percent Funded
1978	$1,702	$ 566	33.3%
1979	N/A	N/A	N/A
1980	2,716	824	30.3
1981	2,976	1,035	34.8
1982	3,277	1,327	40.5
1983	3,523	1,649	46.8
1983*	3,756	1,649	43.9
1984	3,983	2,091	52.5
1985	4,234	2,560	60.5

* After change in assumptions.

Red Wing Fire Department Relief Association

Full-Time Members

Computed Contributions - Comparative Schedule

Year Ended December 31		Total Normal Cost as a Percent of Valuation Payroll*	Contribution For Unfunded Actuarial Accrued Liabilities - $ or %
Valuation	Fiscal		
1978	1980	26.71%	$ 71,087
1979	1981	N/A	N/A
1980	1982	27.06	121,907
1981	1983	26.98	127,088
1982	1984	26.83	129,982
1983	1985	26.83	127,182
1983	1985**	29.02	142,997
1984	1985	28.82	130,964
1985	1987	28.47	118,385

* Includes employee contributions.

** After change in assumptions.

Red Wing Fire Department Relief Association

Full-Time Members

CONTRIBUTION FOR CALENDAR YEAR EFFECTIVE JANUARY 1, 1987

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 upon 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 1987		$_____	
(2)	Total normal cost % from page A-2		28.47%	
(3)	Total normal cost (Line 1 times line 2)			$_____
(4)	Amortization payment on UAAL from page A-2			118,385
(5)	Total contributions required (Line 3 plus line 4)			_____
(6)	Employee contributions (Line 1 times 8%)		$_____	
(7)	(a) State amortization aid based on 12/31/78 UAAL of $1,135,939	$17,096		
	(b) State amortization aid based on 1984 legislation	_____		
	(c) Total state amortization aid		_____	
(8)	Estimated insurance premium aid	_____		
(9)	Estimated total contributions from other sources (Line 6 plus line 7 plus line 8)			_____
(10)	Employer's Minimum Obligation if payment is made in equal installments throughout the year. (Line 5 minus line 9)			$_____
(11)	EMPLOYER'S MINIMUM OBLIGATION IF PAYMENT IS MADE AT YEAR END (Line 10 times 1.0247)			$_____

Red Wing Fire Department Relief Association

Volunteer Members

CONTRIBUTION RATE TO PROVIDE BENEFITS

Member portion & Employer portion

Effective January 1, 1987

Contributions for	If Paid Equally Throughout Year
Normal cost of annuities:	
Age & service: to members	$ 932
Death after retirement	151
Disability	0
Death before retirement	79
Refunds of member contributions	14
Total Normal Cost	1,176
Amortization of unfunded actuarial accrued liabilities (UAAL) (24 year level dollar payment)	
Retired lives	$1,805
Active members	471
Total	2,276
Total Cost of Benefits	$3,452
Member contributions	576
COMPUTED EMPLOYER RATE:	
(a) If Paid Equally Throughout Year	$2,876
(b) IF PAID AT CALENDAR YEAR END	$2,947

Red Wing Fire Department Relief Association

Volunteer Members

Present Actuarial Condition

The Association's accrued actuarial assets were in excess of $29 thousand on December 31, 1985 -- 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 $29 thousand into perspective by showing the relationship between accrued 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	% Funded
Retirants and Beneficiaries				
Retired Members (18)	$	$44,049	$	%
Surviving Spouses (0)		0		
Surviving Children (0)		0		
Total (18)	22,179	44,049	21,870	50.4
Deferred Members (3)	3,710	7,368	3,658	50.4
Active Members (30)	3,695	10,352	6,657	35.7
Total	$29,584	$61,769	$32,185	47.9%

Actuarial accrued liabilities represent the value, computed as of December 31, 1985 of:

(i) retirement allowances likely to be paid the 18 retirants and beneficiaries; and

(ii) the contributions assumed to have been made for the 30 active members from their entry into the plan until December 31, 1985.

To illustrate, the value of retirement allowances likely to be paid the 18 retirants and beneficiaries, discounted for investment earnings and mortality, was computed to be $44,049 as of December 31, 1985. This means that if the 18 retirants and beneficiaries live and die according to the assumed mortality and if the $44,049 can be invested to yield an average annual return of 5.0 percent over the remaining lifetimes of the 18 retirants and beneficiaries, then the $44,049 together with investment earnings thereon will just be sufficient to pay the 18 retirants and beneficiaries their allowances for their remaining lifetimes.

With respect to active members, the actuarial accrued liability of $10,352 represents the amount that would have been accumulated by December 31, 1985 if the normal cost (which is expressed as a level percentage of pay) had been contributed from the date of hire until December 31, 1985 for each of the 30 actives, if these amounts had earned 5.0% interest and if the members in the past had lived, died, withdrawn, retired and received salary increases according to the actuarial assumptions shown in this report.

Historical Funding Ratio Schedule

Volunteer Members

Valuation Date December 31	Actuarial Accrued Liabilities	Accrued Assets	Percent Funded
1978	$55,480	$18,442	33.2%
1979	N/A	N/A	N/A
1980	55,597	19,750	35.5
1981	55,068	20,867	37.9
1982	57,676	23,542	40.8
1983	58,248	26,103	44.8
1983*	60,722	26,103	43.0
1984	59,522	25,423	42.7
1985	61,769	29,584	47.9

* After change in assumptions.

Red Wing Fire Department Relief Association

Volunteer Members

Computed Contributions - Comparative Schedule

Year Ended December 31 Valuation	Year Ended December 31 Fiscal	Normal Cost	Contribution For Unfunded Actuarial Accrued Liabilities - $ or %
1978	1980	$1,096	$1,808
1979	1981	N/A	N/A
1980	1982	1,406	2,310
1981	1983	1,117	2,240
1982	1984	1,343	2,275
1983	1985	1,328	2,182
1983	1985**	1,434	2,350
1984	1986	1,493	2,361
1985	1987	1,176	2,276

* Includes employee contributions.

** After change in assumptions.

Red Wing Fire Department Relief Association

Volunteer Members

CONTRIBUTION FOR CALENDAR YEAR EFFECTIVE JANUARY 1, 1987

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 upon 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)	Total normal cost			$1,176
(2)	Amortization payment on UAAL from page A-7			2,276
(3)	Total contributions required (Line 1 plus line 2)			$3,452
(4)	Employee contributions		$____	
(5)	(a) State amortization aid based on 12/31/78 UAAL of $37,038	$557		
	(b) State amortization aid based on 1984 legislation	____		
	(c) Total state amortization aid		____	
(6)	Estimated insurance premium aid		____	
(7)	Total of line 4 plus line 5 plus line 6			____
(8)	Employer's Minimum Obligation if payment is made in equal installments throughout the year. (Line 3 minus line 7)			$____
(9)	EMPLOYER'S MINIMUM OBLIGATION IF PAYMENT IS MADE AT YEAR END (Line 8 times 1.0247)			$____

SECTION B

VALUATION DATA

AND

SUMMARY OF BENEFIT PROVISIONS

Red Wing Fire Department Relief Association

Retirants and Beneficiaries December 31, 1985

By Type of Annuity Being Paid

Full-Time Members

Type of Annuity Being Paid	No.	Monthly Amounts	Computed Actuarial Accrued Liabilities
Retirants receiving:			
Age & Service	7	$6,011	$1,184,821
Disability	0	0	0
Totals	7	6,011	1,184,821
Beneficiaries receiving:			
Spouse	3	1,281	208,164
Child	3	462	43,104
Totals	6	1,743	251,268
Deferred Annuity	0	0	0
Totals	13	$7,754	$1,436,089

Volunteer Members

Type of Annuity Being Paid	No.	Monthly Amounts	Computed Actuarial Accrued Liabilities
Retirants receiving:			
Age & Service	18	$304	$44,049
Disability	0	0	0
Total	18	304	44,049
Deferred Annuity	3	48	7,368
Totals	21	$352	$51,417

Red Wing Fire Department Relief Association

Retirants and Beneficiaries December 31, 1985

By Attained Ages

Full Time Members

Attained Ages	Number: Age & Service	Disability	Death Before Retirement
Under 20			3
50-54	1		
55-59	2		
60-64	3		
65-69	1		
70-74	1		
75-79	1		
80-84	1		
Totals	10		3

Volunteer Members

55-59	4
60-64	5
65-69	6
70-74	2
80-84	1
Total	18

Red Wing Fire Department Relief Association

Retirants and Beneficiaries Added to and Removed from Rolls

Comparative Statement

Full-Time Members

Valuation Date December 31	No. Added to Rolls	No. Removed from Rolls	Rolls End of Year No.	Rolls End of Year Annual Allowances	% Incr. in Annual Allowances	Average Allowances	Discounted Value of Allowances Total	Discounted Value of Allowances Average
1978			12	$40,508	- %	$3,376	$ 655,342	$ 54,611
1979			12	56,753	40.1	4,729	839,734	69,978
1980	3	1	14	64,040	12.8	4,574	922,157	65,868
1981		4	10	55,453	(13.4)	5,545	880,048	88,005
1982	4	1	13	75,124	35.5	5,779	1,045,394	80,415
1983			13	77,836	3.6	5,987	1,124,415	86,493
1984	2	2	13	82,960	6.6	6,382	1,228,735	94,518
1985	1	1	13	93,048	12.2	7,158	1,436,089	110,468

Volunteer Members

Valuation Date December 31	No. Added to Rolls	No. Removed from Rolls	Rolls End of Year No.	Rolls End of Year Annual Allowances	% Incr. in Annual Allowances	Average Allowances	Discounted Value of Allowances Total	Discounted Value of Allowances Average
1978			14	$ 2,880	- %	$ 206	$ 43,836	$ 3,131
1979		1	13	2,640	(9.1)	203	33,489	2,576
1980			13	2,640	0.0	203	31,770	2,444
1981	1		14	2,880	9.1	206	34,343	2,453
1982			14	2,880	0.0	206	33,741	2,410
1983			16	3,264	13.3	204	39,829	2,489
1984		1	15	3,072	(5.9)	205	36,884	2,459
1985	3		18	3,648	18.8	203	44,049	2,447

Red Wing Fire Department Relief Association

Full-Time Members

Active Members December 31, 1985

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
40-44			3					3	$ 80,444
45-49			3	1				4	107,332
50-54			1	3	2	3		9	261,816
55-59						1		1	28,212
Totals			7	4	2	4		17	$477,804

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

Age: 49.4 years.

Service: 18.4 years.

Annual Pay: $28,106.

Red Wing Fire Department Relief Association

Volunteer Members

Active Members December 31, 1985

By Attained Age and Years of Service

Attained Age	Years of Service to Valuation Date 0-4	5-9	10-14	15-19	20-24	25-29	30 Plus	Totals
20-24	2							2
25-29	9							9
30-34	1	5						6
35-39	1	4						5
40-44		1	3					4
45-49			1	3				4
Totals	13	10	4	3				30

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

Age: 33.9 years.

Service: 6.4 years.

Red Wing Fire Department Relief Association

Comparative Schedule

Of Active Members

Full-Time Members

Valuation Date December 31	Active Members	Valuation Payroll	Average Age	Average Service	Average Pay	Average % Incr.
1978	21	$319,716	42.6 yrs.	11.7 yrs.	$15,225	- %
1979	21	407,088	43.6	12.7	19,385	27.3
1980	20	430,099	45.2	13.9	21,505	10.9
1981	20	468,791	46.2	14.9	23,440	9.0
1982	19	468,269	46.9	15.9	24,646	5.1
1983	19	485,352	47.9	16.9	25,545	3.6
1984	18	484,258	48.5	17.6	26,903	5.3
1985	17	477,804	49.4	18.4	28,106	4.5

Volunteer Members

1978	27	$ N/A	37.3 yrs.	7.6 yrs.	$ N/A
1979	26	N/A	39.2	9.0	N/A
1980	30	N/A	37.9	8.3	N/A
1981	28	N/A	37.8	8.5	N/A
1982	30	N/A	37.4	8.3	N/A
1983	29	N/A	38.2	8.9	N/A
1984	30	N/A	38.0	8.9	N/A
1985	30	N/A	33.9	6.4	N/A

Red Wing Fire Department Relief Association

Brief Summary (12/31/85) of Benefit Provisions Evaluated and/or Considered

Full Time

Age & Service Retirement

Eligibility. 20 years of service and 50 years of age.

Amount. For first 20 years of service, 40% of average annual wage. For each year in excess of 20 but less than 25, an additional 2% is added and for each year in excess of 25 an additional 1-1/2% is added. (Of the additional 1-1/2% for years over 25, 1/2% is not subject to the post retirement adjustment provisions.)

Average Annual Wage. Average annual salary for 3 highest paid years.

Disability Retirement

Eligibility. Disabled to the extent that no longer able to perform the duties of a firefighter before being eligible for age & service retirement.

Amount.

Duty Related. 40% of average annual wage plus 2% for each year in excess of 20 to a maximum of 50%.

Non-duty Related. 2% of average annual wage for each year of service. Minimum of 10% and maximum of 40%.

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

Eligibility.

Spouse. Married to member at least one year at separation from service and residing with member at time of death. Benefits terminate upon remarriage.

Child. Younger than age 18.

Amount.

Spouse. 25% of average annual wage.

Child. 8% of average annual wage per child.

Funeral Expenses. Lump sum payment of $1,000 at time of death of active or retired member.

Vested Deferred. 20 years of service and separated before age 50. Payment beginning is deferred to attainment of age 50.

Post Retirement Adjustment ("Escalator"). Benefits are increased January 1 for all benefit recipients in accordance with the increase in the Consumer Price Index during the preceeding year.

Member Contributions. 8% of basic compensation. Total member contributions are refundable, without interest, if no monthly benefit is payable upon separation from service.

Volunteer

Age & Service Retirement

Eligibility. 20 years of service and 55 years of age.

Amount. For 20 years of service, $192 per year. For 25 years of service, $240 per year.

Death Benefit

$1,000 lump sum payment for funeral expenses.

Vesting. 20 years of service and separated before age 55. Payment beginning is deferred to attainment of age 55.

Member Contributions. $19.20 per year. Total member contributions are refundable, without interest, if no monthly benefit is payable upon separation from service.

Red Wing Fire Department Relief Association

Allocation of Plan Assets

	Full-Time	Volunteers	Totals
December, 1983	$1,649,154	$26,103	$1,675,257
Employer Contributions	$ 239,712	$ 3,157	$ 242,869
Employee Contributions	37,651	496	38,147
Investment Income*	184,101	2,914	187,015
Realized Gains (Loss)*	(3,919)	(62)	(3,981)
Total Income	457,545	6,505	464,050
Monthly Benefit Payments	82,493	3,264	85,757
Refunds	0	4,796	4,796
Administrative Expenses*	13,940	221	14,161
Funeral Expenses	2,000	0	2,000
Total Expenses	98,433	8,281	106,714
Adjustment to beginning balance	23,726	376	24,102
December, 1984	$2,031,992	$24,703	$2,056,695
Employer Contributions	$ 223,297	$ 3,158	$ 226,455
Employee Contributions	37,250	554	37,804
Investment Income*	222,682	2,707	225,389
Realized Gains (Loss)*	62,092	755	62,847
Other	0	0	0
Total Income	545,321	7,174	552,495
Monthly Benefit Payments	90,185	3,072	93,257
Refunds	0	48	48
Administrative Expenses*	18,067	220	18,287
Funeral Expenses	0	0	0
Other	257	3	260
Total Expenses	108,509	3,343	111,852
Adjustment to beginning balance	0	0	0
December, 1985	$2,468,804	$28,534	$2,497,338

* Allocated on the basis of beginning assets.

SECTION C

VALUATION METHODS AND ASSUMPTIONS

Red Wing Fire Department Relief Association

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) used in making the valuation was 5.0 percent per annum, compounded annually. State law requires use of this assumption.

The mortality table used was the UP-1984 Table set forward 2 years for males and set back 3 years for females.

Sample Ages	Single Life Values: Present Value of $1 Monthly — Level For Life: Men	Level For Life: Women	Increasing 3.5% Yearly: Men	Increasing 3.5% Yearly: Women	Future Life Expectancy (Years): Men	Future Life Expectancy (Years): Women
45	$177.21	$189.58	$280.82	$314.75	29.50	34.00
50	163.12	177.21	246.55	280.82	25.20	29.50
55	147.50	163.12	212.60	246.55	21.16	25.20
60	130.52	147.50	179.49	212.60	17.42	21.16
65	112.87	130.52	148.28	179.49	14.05	17.42
70	95.20	112.87	119.70	148.28	11.09	14.05
75	77.77	95.20	93.83	119.70	8.52	11.09
80	61.71	77.77	71.69	93.83	6.39	8.52

Age & service retirement was assumed to occur at age 58, or attained age if older.

Sample Rates of Separation From Active Employment Before Retirement, Death or Disability

Sample Ages	% of Active Members Separating within Next Year
20	1.50%
25	1.25
30	1.00
35	0.75
40	0.50
45	0.25
50+	0.00

Pay Adjustment Factor used to Project Current Pays

Sample Ages	Present Pay Resulting in Pay of $1,000 at Age 60	Percent Increase in Pay During Next Year
20	$ 253	3.5%
25	300	3.5
30	356	3.5
35	423	3.5
40	503	3.5
45	597	3.5
50	709	3.5
55	842	3.5
60	1,000	3.5

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

Disability retirements were assumed to occur as indicated below:

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

ACCUMULATED PLAN BENEFITS

Red Wing Fire Department Relief Association
Statement of the Present Value of Accumulated Plan Benefits
December 31, 1985

	Full-Time	Volunteers
Actuarial Present Value of Accumulated Plan Benefits		
Vested Benefits:		
Participants currently receiving payments	$1,423,238	$35,439
Other participants	972,261	5,626
Total Vested Benefits	2,395,499	41,065
Non-Vested Benefits	930,124	4,953
Total Actuarial Present Value of Accumulated Plan Benefits	$3,325,623	$46,018

The actuarial present value of accumulated plan benefits for Full-Time Members as of January 1, 1985, was $3,008,701. During the year, the plan experienced a net increase of $316,922 in the actuarial present value of accumulated plan benefits due to general plan experience.

The actuarial present value of accumulated plan benefits for Volunteer Members as of January 1, 1985, was $44,767. During the year, the plan experienced a net decrease of $1,251 in the actuarial present value of accumulated plan benefits due to general plan experience.

The accompanying notes are an integral part of the Statement of the Present Value of Accumulated Plan Benefits.

1. The actuarial present value of accumulated plan benefits presented in this statement was determined using the following assumptions:
   a. Future salary increases prior to retirement were not considered for active members.
   b. Future service was considered only to the extent that it would permit active plan participants to become eligible for benefits attributable to service rendered prior to the date of determination.
   c. Regular valuation assumptions were used as to mortality, withdrawal, retirement ages and disability.
   d. Investment return was assumed to be at the rate of 8% compounded annually.
   e. Salary increase related post-retirement benefit adjustments were assumed to be at the rate of 6-1/2% compounded annually unless a lower rate is specified by law.
2. The calculation of the actuarial present value of accumulated plan benefits was made because of the requirements of the Financial Accounting Standards Board. Comparison of this value with plan assets is not indicative of the future ability of the plan to pay benefits when due or of their security in a termination situation.

   Calculation of contribution requirements and related benefit value information in a "going concern" environment according to the principles of level cost financing is made by the annual actuarial valuations. The results of the contribution rate calculations cannot be simply replaced by the accumulated plan benefit results. To do so will mislead.

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.

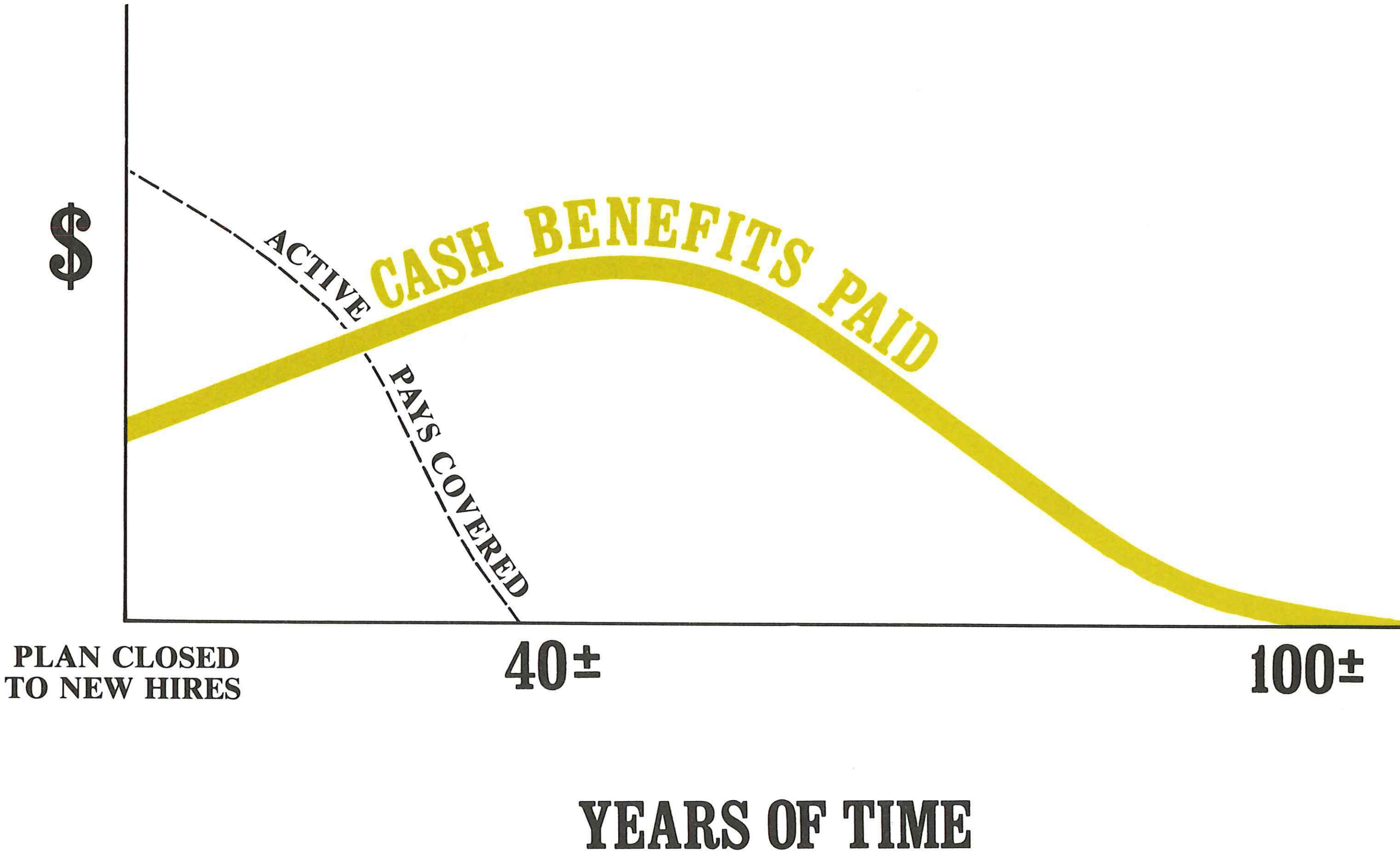
A preferred funding method for a closed plan consists of: level-percent funding for normal cost (the cost of members' service now being rendered); plus a level dollar contribution for unfunded actuarial accrued liabilities over a limited period of years. The period of years must be limited so that plan 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.

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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.

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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.