DRAFT
MAY 15 1990

MEMORANDUM

TO: Legislative Commission on Pensions and Retirement

FROM: Robert E. Perkins and Michael C. Gunvalson

DATE: May 15, 1990

SUBJECT: Recommendations of Commission Actuary

Our 1989 actuarial valuation reports show that the three First Class City Teachers Funds have reported contribution deficiencies for five consecutive years. A deficiency occurs when the actuarially determined required contribution exceeds the statutory contribution.

We strongly recommend that effort be focused on strengthening the funding of the Minneapolis Teachers Fund. Our projection (see attached graph) shows that the Fund will be depleted by the year 2012.

The second priority should be to resolve the deficiency of the St. Paul Teachers Retirement Fund. Our asset projection shows that the fund grows until the year 2006 and then diminishes in size in the following years.

The purpose of this memorandum is to describe the current situation and provide reasons for adopting the recommendations. Attached to this memorandum is a graph showing the projection to the year 2020 of current assets (i.e., market plus 1/3 of the difference between cost and market) for the three First Class City Teacher Funds. In addition, there are three tables displaying the results of our actuarial valuations for the past four years.

Although the Duluth Teachers Retirement Fund shows a deficiency, we believe the Commission's attention should be focused on the Minneapolis and St. Paul Funds because of their much larger deficiencies.

Current Situation

1. Statutory Contributions

Each of these funds provide basic and coordinated benefits or, in the case of Duluth Teachers, old plan and new plan benefits. In the Minneapolis and St. Paul Funds, the statutory contribution level is much higher for the basic plan members than for the coordinated plan members.

The attached tables show the statutory contributions over the past five years based on the combination of basic and coordinated member contributions. These statutory contributions decrease each year, except for Duluth Teachers, because of the shift in the membership population from basic plan

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to coordinated plan. This shift is taking place because the basic benefit is restricted to a closed group, and the coordinated benefit is provided to all new members.

2. Required Contributions

The required contribution is calculated by the Commission actuary in accordance with Chapter 356 of Minnesota Statutes. This required contribution is the sum of the normal cost, the supplemental contribution and a contribution to cover expenses.

During the period 1985 through 1989, the required contribution has been affected by the following events:

- The shift in emphasis from basic to coordinated benefits.
- Benefit changes, such as the 1989 pension legislation.
- Actuarial gains and losses, especially those arising from investments.
- Adoption of the statewide Teachers mortality table.
- Increase in assumed interest rate from 8.0% to 8.5%.
- Extension of the amortization period to the year 2020.

3. Contribution Deficiency

A contribution deficiency is produced each year that the required contribution exceeds the statutory contribution.

Minneapolis Teachers has had five consecutive years of deficiencies in excess of 10% of payroll with an average annual deficiency of $12.2 million. The 1989 deficiency is 12.07% of payroll, or $14.3 million.

The St. Paul Teachers has also had five years of deficiencies; however, at a much lower level. The 1989 deficiency is 3.77% of payroll, which equates to $3.9 million.

The Duluth Teachers Retirement Fund has also had five years of contribution deficiencies. However, we believe these deficiencies are less critical because of the high funding ratio maintained by the Duluth plan.

4. Funding Ratio

After achieving higher funding ratios for five years, the Minneapolis Teachers funding ratio for 1989 dropped to under 50%, or back to the 1985 level.

The St. Paul Teachers has the second highest deficiency in contribution, and also the second lowest funding ratio at 59.9%.

As noted earlier, the Duluth Teachers Retirement Fund has a funding ratio which has exceeded 80% over four of the past five years.

Discussion

1. We believe the seriousness of the Minneapolis Teachers contribution deficiency and low funded ratio can best be demonstrated by an asset projection. The attached graph shows a projection comparing Minneapolis Teachers to St. Paul Teachers and Duluth Teachers. The projection shows increasing asset values until the year 2001, at which time assets begin to diminish in value and quickly reduce to zero by the year 2012.

2. The Minneapolis Teachers Plan adopted a provision in 1987 which permits an increase in permanent benefits based on investment returns in excess of 8%. To the extent those investment gains are used to provide additional benefits, those gains will not be available to help reduce the unfunded actuarial accrued liability at that time.

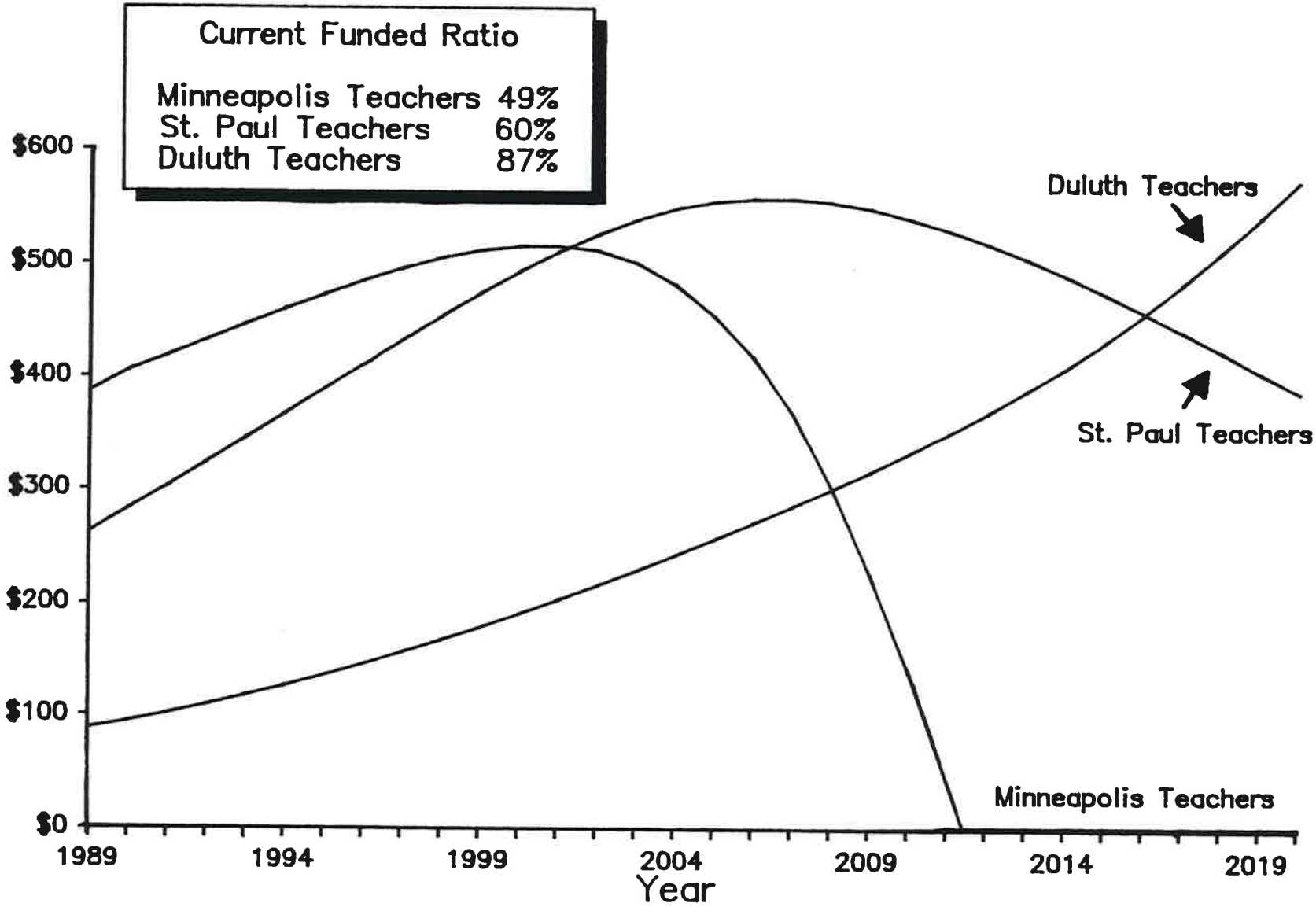
   St. Paul Teachers and Duluth Teachers are entitled to pay out up to 1% of excess earnings if their fund's investment returns exceed 6%. Our valuations assume the full 1% is paid out each year. To the extent a smaller amount is paid, any excess investment gains can be used to reduce the then unfunded actuarial accrued liability.

3. Minnesota Statutes require that the unfunded actuarial accrued liability be funded as a level percentage of pay by 2020 in the future. Large contribution deficiencies, such as those experienced by Minneapolis Teachers, are detrimental to the amortization of the unfunded actuarial accrued liability.

   If the unfunded actuarial accrued liability is not reduced in an orderly fashion, the amortization portion of the required contribution (i.e., the supplemental contribution) will become an increasing burden in future years. This supplemental contribution would have increased in 1989 for the fifth consecutive year if the statutory funding date had not been changed to 2020.

REP/MCG/kp
Enclosure

Projection of Current Assets
(In Millions of Dollars)



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Table 1

Minneapolis Teachers' Retirement Fund

	Current Statutory Contribution Basic	Coordinated
Employee	8.50%	4.50%
Employer	13.35	4.50
Total	21.85%	9.00%

	1985	1986	1987	1988	1989
Statutory Contributions					
Employee	7.93%	7.81%	7.60%	7.44%	7.37%
Employer	12.06	11.83	11.36	10.99	10.84
Total	19.99%	19.64%	18.96%	18.43%	18.21%
Required Contributions					
Normal Cost	16.28%	16.22%	13.33%	13.25%	13.75%
Supplemental Contribution	14.22	14.41	14.62	15.28	14.75
Expenses	1.28	1.39	1.39	1.23	1.78
Total	31.78%	32.02%	29.34%	29.76%	30.28%
Sufficiency (Deficiency)					
%	(11.79)%	(12.38)%	(10.38)%	(11.33)%	(12.07)%
Millions of Dollars	$(10.3)M	$(12.1)M	$(11.3)M	$(12.9)M	$(14.3)M
Accrued Liability Funding Ratios					
%	49.3%	50.8%	53.7%	54.1%	49.3%

Table 2

St. Paul Teachers' Retirement Fund

	Current Statutory Contribution	
	Basic	Coordinated
Employee	8.00%	4.50%
Employer	12.63	4.50
Total	20.63%	9.00%

	1985	1986	1987	1988	1989
Statutory Contributions					
Employee	7.12%	6.96%	6.83%	6.71%	6.60%
Employer	10.59	10.22	9.91	9.63	9.38
Total	17.71%	17.18%	16.74%	16.34%	15.98%
Required Contributions					
Normal Cost	11.74%	11.42%	11.56%	11.36%	11.71%
Supplemental Contribution	9.87	8.97	8.37	8.95	7.49
Expenses	0.34	0.38	0.46	0.53	0.55
Total	21.95%	20.77%	20.39%	20.84%	19.75%
Sufficiency (Deficiency)					
%	(4.24)%	(3.59)%	(3.65)%	(4.50)%	(3.77)%
Millions of Dollars	$(3.2)M	$(3.0)M	$(3.3)M	$(4.3)M	$(3.9)M
Accrued Liability Funding Ratios					
%	52.0%	57.1%	61.3%	60.2%	59.9%

Table 3

Duluth Teachers' Retirement Fund

Current Statutory Contribution

	Old	New
Employee	4.50%	4.50%
Employer	5.79	5.79
Total	10.29%	10.29%

	1985	1986	1987	1988	1989
Statutory Contributions					
Employee	4.50%	4.50%	4.50%	4.50%	4.50%
Employer	5.79	5.79	5.79	5.79	5.79
Total	10.29%	10.29%	10.29%	10.29%	10.29%
Required Contributions					
Normal Cost	8.03%	8.14%	8.11%	8.16%	8.69%
Supplemental Contribution	2.81	2.10	1.55	2.13	1.42
Expenses	0.71	0.78	0.73	0.89	1.05
Total	11.55%	11.02%	10.39%	11.18%	11.16%
Sufficiency (Deficiency)					
%	(1.27)%	(0.73)%	(0.10)%	(0.89)%	(0.87)%
Millions of Dollars	$(0.4)M	$(0.2)M	$(0.0)M	$(0.3)M	$(0.4)M
Accrued Liability Funding Ratios					
%	75.7%	82.9%	87.9%	84.1%	86.6%