



TO: Members of the Legislative Commission on Pensions and Retirement
FROM: Lawrence A. Martin, Executive Director [Signature]
RE: Supplemental Information: Statewide Retirement Plan Financial Sustainability Legislation; Actuarial Cost Estimates for Legislative Recommendations
DATE: February 25, 2010

Reason for Supplemental Information Memorandum

The primary Commission staff issue memorandum on the financial sustainability legislation was prepared prior to the receipt of the actuarial cost estimates from the three statewide retirement system administrations. The Minnesota State Retirement System (MSRS) actuarial cost estimates were not received until mid-afternoon on February 24, 2010. The Teachers Retirement Association (TRA) actuarial cost estimates were not received until mid-morning on February 25, 2010. The Public Employees Retirement Association (PERA) actuarial cost estimates were not received until mid-day on February 25, 2010.

Contents of the Supplemental Information: Actuarial Cost Estimates

Summaries of the actuarial cost estimates prepared by Mercer on behalf of the three retirement systems are set forth in attachments to this memorandum, in the following order:

MSRS General State Employees Retirement Plan (MSRS-General) ..... page 3
MSRS Correctional Employees Retirement Plan (MSRS-Correctional) ..... page 4
State Patrol Retirement Plan ..... page 5
Judges Retirement Plan ..... page 6
PERA General Employee Retirement Plan (PERA-General) ..... page 7
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PERA Local Government Correctional Service Retirement Plan (PERA-Correctional) ..... page 9
Teachers Retirement Association (TRA) ..... page 10

The actuarial summary sheets contain a summary of the 2009 actuarial valuation results, the amount of any proposed contribution increases (fully implemented in phased in), the actuarial cost changes related to deferred annuity augmentation, vesting changes, refund interest, post-retirement adjustments, reemployed annuitant earnings limitation deferral account interest, and early retirement age reductions as available, the total actuarial impact of the various recommended changes, and a restatement of the 2009 actuarial valuation results based on the estimates.

Caveats About the Actuarial Cost Estimates

- 1. Noncompliance with Actuarial Standards. The summarized actuarial cost estimates were prepared by an approved actuary under Minnesota Statutes, Section 356.215, but lack any indication that they were prepared under Minnesota Statutes, Section 356.215, and as required by the Commission's Standards for Actuarial Work.
2. Omitted Proposals. No actuarial cost estimate appears to have been forwarded to the Commission with respect to the proposed elimination of the reemployed annuitant earnings limitation deferral account interest or of the proposed re-imposition of a minimum waiting period for the receipt of the initial post-retirement adjustment.
3. Different Valuation Years; Different Proposals. All of the actuarial cost estimates were prepared based on the July 1, 2009, actuarial valuation results except for the post-retirement adjustment actuarial cost estimate for MSRS-General, where the estimate is based on the July 1, 2008, actuarial valuation.

be a reliable estimate of that proposed change. A note to that effect also appears on the MSRS-General summary.

4. Summaries Use Actuarial Value of Assets. The actuarial cost estimates summarized in this supplemental information memorandum presents results utilizing the actuarial value of assets, not the market value of assets, which is currently a smaller value. The actuarial cost estimates also do not include the estimated impact in actuarial assumptions for MSRS-General, PERA-General, and TRA arising out of the 2004-2008 experience studies which are currently being reviewed by the consulting actuary retained by the Commission and which have not yet been approved (demographic assumptions) or recommended (economic assumptions) by the Commission.
5. Understatement From Unchanged Actuarial Assumptions. The actuarial cost estimates summarized in this supplemental information appear to include the actuarial impact of plan participant behavior changes associated with some recommended benefit changes, which would be reflected in consequent actuarial assumption modifications. The reduction or elimination of deferred annuities augmentation can be expected to result in greater use of the Combined Service Annuity portability provision, requiring an increase in the Combined Service Annuity liability load assumption. Reductions in or suspensions of the post-retirement adjustment rates in the near-term or intermediate-term may cause plan participants approaching retirement eligibility age to postpone their retirements. Changes in the early retirement reduction rates applied to current plan participants can be expected to cause postponements of retirements also. Some consequential actuarial assumption changes will reduce projected actuarial cost reductions while others will increase projected actuarial cost reductions.
6. Estimates Omit Financial Stability Trigger. The various post-retirement adjustment actuarial cost estimates included no indication of a potential date for financial stability to be restored and the full current 2.5 percent post-retirement adjustment provision to again be applicable, suggesting that the actuarial cost estimates for the post-retirement reduction percentage reductions are assumed to be permanent for this set of retired and active plan participants. Since some retirement plans are not as poorly funded on an actuarial value of assets or market value of assets basis as other plans, this would mean that the actuarial cost estimates of this feature is likely overstated for those plans.
7. Estimates Not Reviewed by Commission-Retained Actuary. The actuarial cost estimates summarized in this supplemental information memorandum were not provided to the Commission staff in time to permit them to be reviewed by the consulting actuary retained by the Commission, with the last set of estimates submitted less than 24 hours before the start of this Commission hearing. Optimally, actuarial cost estimates of this importance would be reviewed by the Commission's retained actuary before presentation to the Commission.

**MSRS-General**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

	2009 Valuation	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
		Full Set of Contrib. Increases	Deferred Annuity Augmentation	Vesting & Refund Interest	Post-Retirement Adjustments *	Earnings Limitation Acct. Interest Changes	Impact of Proposed Changes	Condition of the Plan		
<b>Membership</b>										
Active Members	48,989								48,989	
Service Retirees	22,457								22,457	
Disabilitants	1,656	<i>Not applicable</i>							1,656	
Survivors	3,230								3,230	
Deferred Retirees	15,210								15,210	
Nonvested Former Members	<u>6,912</u>			<i>No actuarial estimate available</i>		<i>No actuarial cost estimate available</i>			<u>6,912</u>	
Total Membership	98,454								98,454	
<b>Funded Status</b>										
Accrued Liability	\$10,512,760,000		(\$109,483,000)		(\$369,200,000)		(\$478,683,000)		\$10,034,077,000	
Current Assets	<u>\$9,030,401,000</u>		--		--		--		<u>\$9,030,401,000</u>	
Unfunded Accrued Liability	\$1,482,359,000		(\$109,483,000)		(\$369,200,000)		(\$478,683,000)		\$1,003,676,000	
Funding Ratio	85.90%								90.00%	
<b>Financing Requirements</b>										
Covered Payroll	\$2,493,948,000								\$2,493,948,000	
Benefits Payable	\$445,792,000								\$445,792,000	
Normal Cost	7.86%	\$196,091,000	(0.20%)	(\$4,988,000)	(0.28%)	(\$6,983,000)	(0.48%)	(\$11,971,000)	7.38%	\$184,120,000
Administrative Expenses	0.22%	\$5,419,000	--	--	--	--	--	--	0.22%	\$5,419,000
Amortization	<u>6.77%</u>	<u>\$168,840,000</u>	<u>(0.50%)</u>	<u>(\$12,470,000)</u>	<u>(1.64%)</u>	<u>(\$40,901,000)</u>	<u>(2.14%)</u>	<u>(\$53,371,000)</u>	<u>4.63%</u>	<u>\$115,469,000</u>
Total Requirements	14.85%	\$370,350,000	(0.70%)	(\$17,458,000)	(1.92%)	(\$47,884,000)	(2.62%)	(\$65,342,000)	12.23%	\$305,008,000
Employee Contributions	4.75%	\$118,462,000							4.75%	\$118,462,000
Employer Contributions	4.75%	\$118,462,000							4.75%	\$118,462,000
Direct State Funding	0.00%	\$0							0.00%	\$0
Other Govt. Funding	<u>0.00%</u>	<u>\$0</u>							<u>0.00%</u>	<u>\$0</u>
Total Contributions	9.50%	\$236,924,000							9.50%	\$236,924,000
Total Requirements	14.85%	\$370,350,000							12.23%	\$305,008,000
Total Contributions	<u>9.50%</u>	<u>\$236,924,000</u>							<u>9.50%</u>	<u>\$236,924,000</u>
Deficiency (Surplus)	5.35%	\$133,426,000							2.73%	\$68,084,000

Amortization Target Date 2020

\*Note: Retirement plan did not have actuarial cost estimate prepared for the recommended post-retirement adjument reduction proposed in SF2573/HF2952, but costed out a suspension of the post-retirement adjustments based on the July 1, 2008, actuarial valuation and suggests that 1/5th of that estimate is a valid estimate of the recommendation. That 1/5th of the suspended post-retirement adjustment actuarial cost estimate number is presented.

**MSRS-Correctional**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

	2009 Valuation	Actuarial Impact of:						Total Actuarial		Resulting Actuarial		
		Full Set of Contrib. Increases	Deferred Annuity Aug. & Refund Interest	Early Retirement Reduction Factor	Post-Retirement Adjustments	Earnings Limitation Acct. Interest Changes	Impact of Proposed Changes	Condition of the Plan				
<b>Membership</b>												
Active Members	4,403									4,403		
Service Retirees	1,381									1,381		
Disabilitants	194	<i>Not Applicable</i>								194		
Survivors	134									134		
Deferred Retirees	949									949		
Nonvested Former Members	626									626		
Total Membership	7,687									7,687		
<b>Funded Status</b>												
Accrued Liability	\$821,250,000		(\$3,585,000)	(\$7,186,000)	(\$32,313,000)			(\$43,084,000)		\$778,166,000		
Current Assets	\$590,339,000		--	--	--			--		\$590,339,000		
Unfunded Accrued Liability	\$230,911,000		(\$3,585,000)	(\$7,186,000)	(\$32,313,000)			(\$43,084,000)		\$187,827,000		
Funding Ratio	71.88%							3.98%		75.86%		
<b>Financing Requirements</b>												
Covered Payroll	\$208,388,000		--	--	--					\$208,388,000		
Benefits Payable	\$33,239,000		--	--	--					\$33,239,000		
Normal Cost	18.22%	\$37,970,000	(0.20%)	(\$417,000)	(0.20%)	(\$417,000)	(0.80%)	(\$1,667,000)	(1.20%)	(\$2,501,000)	16.02%	\$35,469,000
Administrative Expenses	0.20%	\$417,000	--	--	--	--	--	--	--	--	0.20%	\$417,000
Amortization	6.43%	\$13,399,000	(0.10%)	(\$208,000)	(0.20%)	(\$417,000)	(0.90%)	(\$1,875,000)	(1.20%)	(\$2,501,000)	5.23%	\$10,998,000
Total Requirements	24.85%	\$51,786,000	(0.30%)	(\$625,000)	(0.40%)	(\$834,000)	(1.70%)	(\$3,542,000)	(2.40%)	(\$5,002,000)	21.45%	\$46,884,000
Employee Contributions	7.70%	\$16,046,000									7.70%	\$16,046,000
Employer Contributions	11.10%	\$23,131,000									11.10%	\$23,131,000
Direct State Funding	0.00%	\$0									0.00%	\$0
Other Govt. Funding	0.00%	\$0									0.00%	\$0
Total Contributions	18.80%	\$39,177,000									18.80%	\$39,177,000
Total Requirements	24.85%	\$51,786,000									21.45%	\$46,884,000
Total Contributions	18.80%	\$39,177,000									18.80%	\$39,177,000
Deficiency (Surplus)	6.05%	\$12,609,000									2.65%	\$7,707,000

Amortization Target Date 2038

**State Patrol Retirement Plan**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

	2009 Valuation	Actuarial Impact of:						Total Actuarial		Resulting Actuarial		
		Full Set of Contrib. Increases		Deferred Annuity Augmentation	Vesting & Early Ret. Reduction Factor	Post-Retirement Adjustments	Earnings Limitation Acct. Interest Changes	Impact of Proposed Changes		Condition of the Plan		
<b>Membership</b>												
Active Members	876										876	
Service Retirees	673										673	
Disabilitants	44										44	
Survivors	191										191	
Deferred Retirees	41										41	
Nonvested Former Members	11										11	
Total Membership	1,836										1,836	
<b>Funded Status</b>												
Accrued Liability	\$725,334,000			(\$1,108,000)	(\$2,233,000)		(\$31,226,000)		(\$34,567,000)		\$690,767,000	
Current Assets	\$584,501,000			--	--		--		--		\$584,501,000	
Unfunded Accrued Liability	\$140,833,000			(\$1,108,000)	(\$2,233,000)		(\$31,226,000)		(\$34,567,000)		\$106,266,000	
Funding Ratio	80.58%								4.04%		84.62%	
<b>Financing Requirements</b>												
Covered Payroll	\$67,421,000										\$67,421,000	
Benefits Payable	\$44,480,000										\$44,480,000	
Normal Cost	25.37%	\$17,103,000	--	--	(0.30%)	(\$202,000)	(1.30%)	(\$877,000)	(1.60%)	(\$1,079,000)	23.77%	\$16,024,000
Administrative Expenses	0.16%	\$108,000	--	--	--	--	--	--	--	--	0.16%	\$108,000
Amortization	12.63%	\$8,515,000	(0.10%)	(\$67,000)	(0.20%)	(\$135,000)	(2.80%)	(\$1,888,000)	(3.10%)	(\$2,090,000)	9.53%	\$6,425,000
Total Requirements	38.16%	\$25,726,000	(0.10%)	(\$67,000)	(0.50%)	(\$337,000)	(4.10%)	(\$2,765,000)	(4.70%)	(\$3,169,000)	33.46%	\$22,557,000
Employee Contributions	10.40%	\$7,012,000	0.80%	\$539,000					0.80%	\$539,000	11.20%	\$7,551,000
Employer Contributions	15.60%	\$10,518,000	11.20%	\$7,551,000					11.20%	\$7,551,000	26.80%	\$18,069,000
Direct State Funding	0.00%	\$0	--	--					--	--	--	--
Other Govt. Funding	0.00%	\$0	--	--					--	--	--	--
Total Contributions	26.00%	\$17,530,000	12.00%	\$8,090,000					12.00%	\$8,090,000	38.00%	\$25,620,000
Total Requirements	38.16%	\$25,726,000									33.46%	\$22,557,000
Total Contributions	26.00%	\$17,530,000									38.00%	\$25,620,000
Deficiency (Surplus)	12.16%	\$8,196,000									(4.54%)	(\$3,063,000)

Amortization Target Date 2036

**Judges Retirement Plan**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

	2009 Valuation	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
		Full Set of Contrib. Increases	Deferred Annuity Augmentation	Refund Interest	Post-Retirement Adjustments	Earnings Limitation Acct. Interest Changes	Impact of Proposed Changes	Condition of the Plan		
<b>Membership</b>										
Active Members	287								287	
Service Retirees	162								162	
Disabilitants	27	<i>Not Applicable</i>	<i>Not Applicable</i>	<i>No actuarial cost estimate available</i>		<i>Not Applicable</i>			27	
Survivors	96								96	
Deferred Retirees	45								45	
Nonvested Former Members	0		<i>Judges Plan has no deferred annuities augmentation</i>			<i>Judges Plan has no reemployed annuitant earnings limitation</i>			0	
Total Membership	617								617	
<b>Funded Status</b>										
Accrued Liability	\$241,815,000				(\$7,476,000)		(\$7,476,000)		\$234,339,000	
Current Assets	\$147,120,000				--		--		\$147,120,000	
Unfunded Accrued Liability	\$94,695,000				(\$7,476,000)		(\$7,476,000)		\$87,219,000	
Funding Ratio	60.84%				(1.94%)		(1.94%)		62.78%	
<b>Financing Requirements</b>										
Covered Payroll	\$41,644,000								\$41,644,000	
Benefits Payable	\$16,261,000								\$16,261,000	
Normal Cost	17.52%	\$7,295,000			(0.60%)	(\$250,000)	(0.60%)	(\$250,000)	16.92%	\$7,045,000
Administrative Expenses	0.08%	\$33,000			--	--	--	--	0.08%	\$33,000
Amortization	13.93%	\$5,801,000			(1.10%)	(\$458,000)	(1.10%)	(\$458,000)	12.83%	\$5,343,000
Total Requirements	31.53%	\$13,129,000			(1.70%)	(\$708,000)	(1.70%)	(\$708,000)	29.83%	\$12,421,000
Employee Contributions	7.30%	\$3,039,000							7.30%	\$3,039,000
Employer Contributions	20.50%	\$8,537,000							20.50%	\$8,537,000
Direct State Funding	0.00%	\$0							0.00%	\$0
Other Govt. Funding	0.00%	\$0							0.00%	\$0
Total Contributions	27.80%	\$11,576,000							27.80%	\$11,576,000
Total Requirements	31.53%	\$13,129,000			(1.70%)	(\$708,000)	(1.70%)	(\$708,000)	29.83%	\$12,421,000
Total Contributions	27.80%	\$11,576,000			--	--	--	--	27.80%	\$11,576,000
Deficiency (Surplus)	3.73%	\$1,553,000			(1.70%)	(\$708,000)	(1.70%)	(\$708,000)	2.03%	\$845,000

Amortization Target Date 2038

**PERA-General**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

Actuarial Impact of:

	2009	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
	Valuation	Full Set of	Deferred Annuity Aug.	Post-Retirement	Earnings Limitation Acct.	Impact of		Condition of the Plan		
		Contribution Increases	& Refund Interest	Adjustments	Interest Changes	Proposed Changes				
<b>Membership</b>										
Active Members	142,097							142,097		
Service Retirees	56,948							56,948		
Disabilitants	2,075							2,075		
Survivors	7,036							7,036		
Deferred Retirees	43,645							43,645		
Nonvested Former Members	<u>122,434</u>							<u>122,434</u>		
Total Membership	374,235							374,235		
<b>Funded Status</b>										
Accrued Liability	\$18,799,416,000		(\$374,569,000)	(\$2,097,562,000)		(\$2,472,131,000)		\$16,327,285,000		
Current Assets	<u>\$13,158,490,000</u>		--	--		--		<u>\$13,158,490,000</u>		
Unfunded Accrued Liability	\$5,640,926,000		(\$374,569,000)	(\$2,097,562,000)		(\$2,472,131,000)		\$3,168,795,000		
Funding Ratio	69.99%					5.65%		75.64%		
<b>Financing Requirements</b>										
Covered Payroll	\$5,130,307,000									
Benefits Payable	\$863,910,000									
Normal Cost	7.82%	\$400,956,000	(0.20%)	(\$10,261,000)	(0.80%)	(\$41,042,000)	(1.00%)	(\$51,303,000)	6.82%	\$349,653,000
Administrative Expenses	0.20%	\$10,261,000	--	--	--	--	--	--	0.20%	\$10,261,000
Amortization	<u>7.53%</u>	<u>\$386,312,000</u>	<u>(0.50%)</u>	<u>(\$25,652,000)</u>	<u>(2.80%)</u>	<u>(\$143,649,000)</u>	<u>(3.30%)</u>	<u>(\$169,301,000)</u>	<u>4.23%</u>	<u>\$217,011,000</u>
Total Requirements	15.55%	\$797,529,000	(0.70%)	(\$35,913,000)	(3.60%)	(\$184,691,000)	(4.30%)	(\$220,604,000)	11.25%	\$576,925,000
Employee Contributions	6.00%	\$307,819,000	0.25%	\$12,826,000			0.25%	\$12,826,000	7.78%	\$399,138,000
Employer Contributions	6.88%	\$352,965,000	0.25%	\$12,826,000			0.25%	\$12,826,000	15.80%	\$810,355,000
Direct State Funding	0.00%	\$0	--	--			--	--	0.00%	\$0
Other Govt. Funding	<u>0.00%</u>	<u>\$0</u>	<u>--</u>	<u>--</u>			<u>--</u>	<u>--</u>	<u>6.00%</u>	<u>\$307,819,000</u>
Total Contributions	12.88%	\$660,784,000	0.50%	\$25,652,000			0.50%	\$25,652,000	29.58%	\$1,517,312,000
Total Requirements	15.55%	\$797,529,000							11.25%	\$576,925,000
Total Contributions	<u>12.88%</u>	<u>\$660,784,000</u>							<u>29.58%</u>	<u>\$1,517,312,000</u>
Deficiency (Surplus)	2.67%	\$136,745,000							(18.33%)	(\$940,387,000)

Amortization Target Date 2031

**PERA-Police/Fire**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

Actuarial Impact of:

	2009	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
	Valuation	Full Set of	Deferred Annuity Aug.	Post-Retirement	Earnings Limitation Acct.	Impact of	Condition of the Plan			
		Contribution Increases	& Refund Interest	Adjustments	Interest Changes	Proposed Changes				
<b>Membership</b>										
Active Members	11,035								11,035	
Service Retirees	5,213								5,213	
Disabilitants	838								838	
Survivors	1,380								1,380	
Deferred Retirees	1,280								1,280	
Nonvested Former Members	911								911	
Total Membership	20,657								20,657	
<b>Funded Status</b>										
Accrued Liability	\$6,296,274,000		(\$27,127,000)	(\$718,751,000)		(\$745,878,000)			\$5,550,396,000	
Current Assets	\$5,239,855,000		--	--		--			\$5,239,855,000	
Unfunded Accrued Liability	\$1,056,419,000		(\$27,127,000)	(\$718,751,000)		(\$745,878,000)			\$310,541,000	
Funding Ratio	83.22%					11.19%		94.41%		
<b>Financing Requirements</b>										
Covered Payroll	\$786,887,000								\$786,887,000	
Benefits Payable	\$310,099,000								\$310,099,000	
Normal Cost	22.07%	\$173,703,000	(0.30%)	(\$2,361,000)	(3.10%)	(\$24,393,000)	(3.40%)	(\$26,754,000)	18.67%	\$146,949,000
Administrative Expenses	0.13%	\$1,023,000	--	--	--	--	--	--	0.13%	\$1,023,000
Amortization	7.79%	\$61,298,000	(0.20%)	(\$1,574,000)	(5.30%)	(\$41,705,000)	(5.50%)	(\$43,279,000)	2.29%	\$18,019,000
Total Requirements	29.99%	\$236,024,000	(0.50%)	(\$3,935,000)	(8.40%)	(\$66,098,000)	(8.90%)	(\$70,033,000)	21.09%	\$165,991,000
Employee Contributions	9.40%	\$73,967,000	0.20%	\$1,574,000			0.20%	\$1,574,000	9.60%	\$75,541,000
Employer Contributions	14.10%	\$110,951,000	0.30%	\$2,361,000			0.30%	\$2,361,000	14.40%	\$113,312,000
Direct State Funding	0.00%	\$0	--	--			--	--	0.00%	\$0
Other Govt. Funding	0.00%	\$0	--	--			--	--	0.00%	\$0
Total Contributions	23.50%	\$184,918,000	0.50%	\$3,935,000			0.50%	\$3,935,000	24.00%	\$188,853,000
Total Requirements	29.99%	\$236,024,000							21.09%	\$165,991,000
Total Contributions	23.50%	\$184,918,000							24.00%	\$188,853,000
Deficiency (Surplus)	6.49%	\$51,106,000							(2.91%)	(\$22,862,000)

Amortization Target Date 2038



**PERA-Correctional**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

Actuarial Impact of:

	2009	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
	Valuation	Full Set of	Deferred Annuity Aug.	Post-Retirement	Earnings Limitation Acct.	Impact of		Condition of the Plan		
		Contribution Increases	& Refund Interest	Adjustments	Interest Changes	Proposed Changes				
<b>Membership</b>										
Active Members	3,715								3,715	
Service Retirees	267								267	
Disabilitants	101	<i>Not Applicable</i>							101	
Survivors	18								18	
Deferred Retirees	1,683								1,683	
Nonvested Former Members	<u>1,525</u>								<u>1,525</u>	
Total Membership	7,309								7,309	
<b>Funded Status</b>										
Accrued Liability	\$229,383,000		(\$3,683,000)	(\$22,068,000)			(\$25,751,000)		\$203,632,000	
Current Assets	<u>\$217,577,000</u>		--	--			--		<u>\$217,577,000</u>	
Unfunded Accrued Liability	\$11,806,000		(\$3,683,000)	(\$22,068,000)			(\$25,751,000)		(\$13,945,000)	
Funding Ratio	94.85%					12.00%		106.85%		
<b>Financing Requirements</b>										
Covered Payroll	\$172,770,000								\$172,770,000	
Benefits Payable	\$2,836,000								\$2,836,000	
Normal Cost	13.26%	\$22,904,000	(0.50%)	(\$864,000)	(1.60%)	(\$2,764,000)	(2.10%)	(\$3,628,000)	11.16%	\$19,276,000
Administrative Expenses	0.13%	\$227,000	--	--	--	--	--	--	0.13%	\$227,000
Amortization	<u>0.64%</u>	<u>\$1,109,000</u>	<u>(0.20%)</u>	<u>(\$346,000)</u>	<u>(1.20%)</u>	<u>(\$2,073,000)</u>	<u>(1.40%)</u>	<u>(\$2,419,000)</u>	<u>(0.76%)</u>	<u>(\$1,310,000)</u>
Total Requirements	14.03%	\$24,240,000	(0.70%)	(\$1,210,000)	(2.80%)	(\$4,837,000)	(3.50%)	(\$6,047,000)	10.53%	\$18,193,000
Employee Contributions	5.83%	\$10,073,000					0.00%	\$0	5.83%	\$10,073,000
Employer Contributions	8.75%	\$15,117,000					0.00%	\$0	8.75%	\$15,117,000
Direct State Funding	0.00%	\$0					0.00%	\$0	0.00%	\$0
Other Govt. Funding	<u>0.00%</u>	<u>\$0</u>					--	--	<u>0.00%</u>	<u>\$0</u>
Total Contributions	14.58%	\$25,190,000					0.00%	\$0	14.58%	\$25,190,000
Total Requirements	14.03%	\$24,240,000							10.53%	\$18,193,000
Total Contributions	<u>14.58%</u>	<u>\$25,190,000</u>							<u>14.58%</u>	<u>\$25,190,000</u>
Deficiency (Surplus)	(0.55%)	(\$950,000)							(4.05%)	(\$6,997,000)

Amortization Target Date      2023

**TRA**  
**Actuarial Cost Estimate of Financial Sustainability Recommendations**

Actuarial Impact of:

	2009	Actuarial Impact of:				Total Actuarial		Resulting Actuarial		
	Valuation	Full Set of	Deferred Annuity Aug.	Post-Retirement	Earnings Limitation Acct.	Impact of		Condition of the Plan		
		Contribution Increases	& Refund Interest	Adjustments	Interest Changes	Proposed Changes				
<b>Membership</b>										
Active Members	77,786									
Service Retirees	46,108									
Disabilitants	624									
Survivors	3,476									
Deferred Retirees	12,490									
Nonvested Former Members	<u>23,073</u>									
Total Membership	163,557									
<b>Funded Status</b>										
Accrued Liability	\$23,114,802,000		(\$136,616,000)	(\$1,434,477,000)		(\$1,571,093,000)		\$21,543,709,000		
Current Assets	<u>\$17,882,408,000</u>		---	---		---		<u>\$17,882,408,000</u>		
Unfunded Accrued Liability	\$5,232,394,000		(\$136,616,000)	(\$1,434,477,000)		(\$1,571,093,000)		\$3,661,301,000		
Funding Ratio	77.36%					5.65%		83.01%		
<b>Financing Requirements</b>										
Covered Payroll	\$4,049,217,000									
Benefits Payable	\$1,381,366,000									
Normal Cost	8.88%	\$359,579,000	(0.20%)	(\$8,098,000)	(0.50%)	(\$20,246,000)	(0.70%)	(\$28,344,000)	8.18%	\$331,235,000
Administrative Expenses	0.28%	\$11,338,000	--	--	--	--	--	--	0.28%	\$11,338,000
Amortization	<u>7.66%</u>	<u>\$310,170,000</u>	<u>(0.20%)</u>	<u>(\$8,098,000)</u>	<u>(2.10%)</u>	<u>(\$85,034,000)</u>	<u>(2.30%)</u>	<u>(\$93,132,000)</u>	<u>5.36%</u>	<u>\$217,038,000</u>
Total Requirements	16.82%	\$681,087,000	(0.40%)	(\$16,196,000)	(2.60%)	(\$105,280,000)	(3.00%)	(\$121,476,000)	13.82%	\$559,611,000
Employee Contributions	5.50%	\$222,860,000	2.00%	\$80,984,000			2.00%	\$80,984,000	7.50%	\$303,844,000
Employer Contributions	5.69%	\$230,325,000	2.00%	\$80,984,000			2.00%	\$80,984,000	7.69%	\$311,309,000
Direct State Funding	0.44%	\$17,948,000	--	--			--	--	0.44%	\$17,948,000
Other Govt. Funding	<u>0.06%</u>	<u>\$2,500,000</u>	---	---			---	---	<u>0.06%</u>	<u>\$2,500,000</u>
Total Contributions	11.70%	\$473,633,000	4.00%	\$161,968,000			4.00%	\$161,968,000	15.70%	\$635,601,000
Total Requirements	16.82%	\$681,087,000							13.82%	\$559,611,000
Total Contributions	<u>11.70%</u>	<u>\$473,633,000</u>							<u>15.70%</u>	<u>\$635,601,000</u>
Deficiency (Surplus)	5.12%	\$207,454,000							(1.88%)	(\$75,990,000)

Amortization Target Date 2037

### FY09 Refund Information by Plan

	Member Refunds	Contributions	Interest at 6%	Interest at 4%	Savings
General Plan	1,739	\$6,961,836.37	\$3,945,195.46	\$2,629,867	\$1,315,328
State Patrol Plan	1	\$114.89	\$1.21	\$0.81	\$0.40
Correctional Plan	168	\$787,534.41	\$227,989.64	\$151,977	\$76,012
<b>TOTALS</b>	<b>1,908</b>	<b>\$7,749,485.67</b>	<b>\$4,173,186.31</b>	<b>\$2,781,844.81</b>	<b>\$1,391,340.40</b>

### Reemployed Annuitants- Eliminate Interest

	Total Retirees Impacted	Total Assets in Abeyance	Interest at 6%
General Plan	59	\$925,036.60	\$55,502.19
Correctional Plan	20	\$315,304.11	\$18,918.25
Unclassified Plan	2	\$6,289.92	\$377.40
<b>ALL PLANS</b>	<b>66</b>	<b>\$1,246,630.60</b>	<b>\$74,797.84</b>

### Savings Associated with Delaying the Initial Post Retirement Increase

The Chart below shows the savings of each of the four largest defined benefit plans administered by MSRS.

To calculate the savings, we took the number of people who retired, became disabled or began to draw survivor benefits in Fiscal Year 2009 and multiplied it by the average benefit for the plan. We assumed the initial increase would be 1% less than under current law and calculated the actuarial value of the savings. To determine the present value, I used the average retirement age for each plan and applied the appropriate factor. To determine the % of payroll, I took the present value and divided it by the value of a 1% contribution is for each plan.

The savings estimate was prepared by MSRS staff and not verified by the actuary. Actual savings will vary based on the number of new benefit recipients each year.

Plan	Benefit Starts in FY 2009	1% savings	Present value	% of payroll
General Plan	1,514	\$245,842	\$2,827,183	.11%
Correctional Plan	116	\$19,018	\$27,234	.12%
State Patrol Plan	28	\$14,665	\$194,311	.29%
Judges Plan	7	\$4,147	\$41,097	.10%