

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	2011	2010	2009	2008	2007*	2007**	2006
Membership							
Active Members	47,955	48,494	48,989	48,823	48,379	48,379	48,000
Service Retirees	24,900	23,337	22,457	21,736	20,880	20,880	19,903
Disabilitants	1,723	1,684	1,656	1,620	1,547	1,547	1,508
Survivors	3,541	3,414	3,230	3,090	2,919	2,919	2,793
Deferred Retirees	15,422	15,388	15,210	14,951	14,751	14,751	14,217
Nonvested Former Members	<u>6,117</u>	<u>6,537</u>	<u>6,912</u>	<u>6,865</u>	<u>7,007</u>	<u>7,007</u>	<u>6,828</u>
Total Membership	99,658	98,854	98,454	97,085	95,483	95,483	93,249
Funded Status							
Accrued Liability	\$10,576,481,000	\$10,264,071,000	\$10,512,760,000	\$9,994,602,000	\$9,627,304,704	\$9,627,304,704	\$8,819,160,917
Current Assets	<u>\$9,130,011,000</u>	<u>\$8,960,391,000</u>	<u>\$9,030,401,000</u>	<u>\$9,013,456,000</u>	<u>\$8,904,516,772</u>	<u>\$9,171,066,094</u>	<u>\$8,486,756,016</u>
Unfunded Accrued Liability	\$1,446,470,000	\$1,303,680,000	\$1,482,359,000	\$981,146,000	\$722,787,932	\$456,238,610	\$332,404,901
Funding Ratio	86.32%	87.30%	85.90%	90.18%	92.49%	95.26%	96.23%
Financing Requirements							
Covered Payroll	\$2,459,441,000	\$2,483,519,000	\$2,493,948,000	\$2,378,816,000	\$2,241,738,286	\$2,241,738,286	\$2,157,579,057
Benefits Payable	\$505,573,000	\$473,447,000	\$445,792,000	\$418,757,000	\$392,058,387	\$392,058,387	\$366,797,030
Normal Cost	7.14% \$175,488,000	7.77% \$193,027,000	7.86% \$196,091,000	7.78% \$185,140,000	8.40% \$188,716,922	8.40% \$188,716,922	8.52% \$183,605,603
Administrative Expenses	<u>0.19%</u> <u>\$4,673,000</u>	<u>0.23%</u> <u>\$5,712,000</u>	<u>0.22%</u> <u>\$5,419,000</u>	<u>0.23%</u> <u>\$5,471,000</u>	<u>0.23%</u> <u>\$5,155,998</u>	<u>0.23%</u> <u>\$5,155,998</u>	<u>0.21%</u> <u>\$4,530,916</u>
Normal Cost & Expense	7.33% \$180,161,000	8.00% \$198,739,000	8.08% \$201,510,000	8.01% \$190,611,000	8.63% \$193,872,920	8.63% \$193,872,920	8.73% \$188,136,519
Normal Cost & Expense	7.33% \$180,161,000	8.00% \$198,739,000	8.08% \$201,510,000	8.01% \$190,611,000	8.63% \$193,872,920	8.63% \$193,872,920	8.73% \$188,136,519
Amortization	<u>3.70%</u> <u>\$90,999,000</u>	<u>2.99%</u> <u>\$74,200,000</u>	<u>6.77%</u> <u>\$168,840,000</u>	<u>4.38%</u> <u>\$104,192,000</u>	<u>3.13%</u> <u>\$70,166,408</u>	<u>1.98%</u> <u>\$44,386,418</u>	<u>1.38%</u> <u>\$29,774,591</u>
Total Requirements	11.03% \$271,160,000	10.99% \$272,939,000	14.85% \$370,350,000	12.39% \$294,803,000	11.76% \$264,039,328	10.61% \$238,259,338	10.11% \$217,911,110
Employee Contributions	5.00% \$122,972,000	5.00% \$124,176,000	4.75% \$118,462,000	4.50% \$107,047,000	4.25% \$95,273,877	4.25% \$95,273,877	4.00% \$86,303,162
Employer Contributions	5.00% \$122,972,000	5.00% \$124,176,000	4.75% \$118,462,000	4.50% \$107,047,000	4.25% \$95,273,877	4.25% \$95,273,877	4.00% \$86,303,162
Employer Add'l Cont.	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Direct State Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Other Govt. Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Administrative Assessment	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>
Total Contributions	10.00% \$245,944,000	10.00% \$248,352,000	9.50% \$236,924,000	9.00% \$214,094,000	8.50% \$190,547,754	8.50% \$190,547,754	8.00% \$172,606,324
Total Requirements	11.03% \$271,160,000	10.99% \$272,939,000	14.85% \$370,350,000	12.39% \$294,803,000	11.76% \$264,039,328	10.61% \$238,259,338	10.11% \$217,911,110
Total Contributions	<u>10.00%</u> <u>\$245,944,000</u>	<u>10.00%</u> <u>\$248,352,000</u>	<u>9.50%</u> <u>\$236,924,000</u>	<u>9.00%</u> <u>\$214,094,000</u>	<u>8.50%</u> <u>\$190,547,754</u>	<u>8.50%</u> <u>\$190,547,754</u>	<u>8.00%</u> <u>\$172,606,324</u>
Deficiency (Surplus)	1.03% \$25,216,000	0.99% \$24,587,000	5.35% \$133,426,000	3.39% \$80,709,000	3.26% \$73,491,574	2.11% \$47,711,584	2.11% \$45,304,786
Amortization Target Date	2040	2040	2020	2020	2020	2020	2020
Actuary	Mercer	Mercer	Mercer	Mercer	Segal	Segal	Segal

* Reflects 2007 Asset Valuation Method change ** Current Assets/Amortization do not reflect 2007 asset va

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	2005		2004		2003		2002		2001		2000		1999	
Membership														
Active Members		47,125		46,899		48,136		49,099		49,229		47,920		47,168
Service Retirees		19,202		18,672		17,774		17,279		16,766		16,276		15,670
Disabilitants		1,434		1,397		1,275		1,218		1,127		1,070		1,007
Survivors		2,731		2,585		2,405		2,308		2,085		1,955		1,811
Deferred Retirees		13,592		13,784		12,679		11,939		11,452		11,125		10,663
Nonvested Former Members		<u>7,702</u>		<u>12,741</u>		<u>8,626</u>		<u>8,224</u>		<u>8,111</u>		<u>7,772</u>		<u>8,220</u>
Total Membership		91,786		96,078		90,895		90,067		88,770		86,118		84,539
Funded Status														
Accrued Liability		\$8,455,335,998		\$7,878,362,792		\$7,830,671,000		\$7,340,397,000		\$6,573,193,000		\$6,105,703,000		\$5,464,207,000
Current Assets		<u>\$8,081,736,374</u>		<u>\$7,884,984,028</u>		<u>\$7,757,292,000</u>		<u>\$7,673,028,000</u>		<u>\$7,366,673,000</u>		<u>\$6,744,165,000</u>		<u>\$5,968,692,000</u>
Unfunded Accrued Liability		\$373,599,624		(\$6,621,236)		\$73,379,000		(\$332,631,000)		(\$793,480,000)		(\$638,462,000)		(\$504,485,000)
Funding Ratio	95.58%		100.08%		99.06%		104.53%		112.07%		110.46%		109.23%	
Financing Requirements														
Covered Payroll		\$2,084,561,802		\$2,066,680,651		\$2,138,858,000		\$2,040,390,000		\$1,967,814,000		\$1,900,124,000		\$1,757,716,000
Benefits Payable		\$347,959,178		\$328,545,403		\$311,472,000		\$296,687,000		\$270,558,000		\$237,825,000		\$207,962,000
Normal Cost	8.79%	\$183,131,914	9.13%	\$188,614,832	9.03%	\$193,153,000	9.02%	\$183,888,000	8.76%	\$172,402,000	8.72%	\$165,591,000	7.52%	\$131,986,000
Administrative Expenses	<u>0.21%</u>	<u>\$4,377,580</u>	<u>0.22%</u>	<u>\$4,546,697</u>	<u>0.21%</u>	<u>\$4,492,000</u>	<u>0.20%</u>	<u>\$4,081,000</u>	<u>0.20%</u>	<u>\$3,936,000</u>	<u>0.21%</u>	<u>\$3,990,000</u>	<u>0.15%</u>	<u>\$2,637,000</u>
Normal Cost & Expense	9.00%	\$187,509,494	9.35%	\$193,161,529	9.24%	\$197,645,000	9.22%	\$187,969,000	8.96%	\$176,338,000	8.93%	\$169,581,000	7.67%	\$134,623,000
Normal Cost & Expense	9.00%	\$187,509,494	9.35%	\$193,161,529	9.24%	\$197,645,000	9.22%	\$187,969,000	8.96%	\$176,338,000	8.93%	\$169,581,000	7.67%	\$134,623,000
Amortization	<u>1.55%</u>	<u>\$32,310,708</u>	<u>(0.02%)</u>	<u>(\$413,336)</u>	<u>0.19%</u>	<u>\$4,064,000</u>	<u>(0.88%)</u>	<u>(\$17,955,000)</u>	<u>(2.17%)</u>	<u>(\$42,702,000)</u>	<u>(1.81%)</u>	<u>(\$34,392,000)</u>	0.00%	\$0
Total Requirements	10.55%	\$219,820,202	9.33%	\$192,748,193	9.43%	\$201,709,000	8.34%	\$170,014,000	6.79%	\$133,636,000	7.12%	\$135,189,000	7.67%	\$134,623,000
Employee Contributions	4.00%	\$83,382,472	4.00%	\$82,667,226	4.00%	\$85,554,000	4.00%	\$81,616,000	4.00%	\$78,712,000	4.00%	\$76,005,000	4.00%	\$70,309,000
Employer Contributions	4.00%	\$83,382,472	4.00%	\$82,667,226	4.00%	\$85,554,000	4.00%	\$81,616,000	4.00%	\$78,712,000	4.00%	\$76,005,000	4.00%	\$70,309,000
Employer Add'l Cont.	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Direct State Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Other Govt. Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Administrative Assessment	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
Total Contributions	8.00%	\$166,764,944	8.00%	\$165,334,452	8.00%	\$171,108,000	8.00%	\$163,232,000	8.00%	\$157,424,000	8.00%	\$152,010,000	8.00%	\$140,618,000
Total Requirements	10.55%	\$219,820,202	9.33%	\$192,748,193	9.43%	\$201,709,000	8.34%	\$170,014,000	6.79%	\$133,636,000	7.12%	\$135,189,000	7.67%	\$134,623,000
Total Contributions	<u>8.00%</u>	<u>\$166,764,944</u>	<u>8.00%</u>	<u>\$165,334,452</u>	<u>8.00%</u>	<u>\$171,108,000</u>	<u>8.00%</u>	<u>\$163,232,000</u>	<u>8.00%</u>	<u>\$157,424,000</u>	<u>8.00%</u>	<u>\$152,010,000</u>	<u>8.00%</u>	<u>\$140,618,000</u>
Deficiency (Surplus)	2.55%	\$53,055,258	1.33%	\$27,413,741	1.43%	\$30,601,000	0.34%	\$6,782,000	(1.21%)	(\$23,788,000)	(0.88%)	(\$16,821,000)	(0.33%)	(\$5,995,000)
Amortization Target Date	2020		2034		2032		2032		2031		2030		2020	
Actuary	Segal		Segal		Milliman		Milliman		Milliman		Milliman & Robertson		Milliman & Robertson	

valuation method change

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1998		1997		1996		1995		1994		1993		1992	
Membership														
Active Members		46,299		46,289		49,914		49,705		49,365		48,830		49,214
Service Retirees		15,185		14,718		14,368		14,004		13,924		13,171		12,835
Disabilitants		948		905		857		824		800		779		743
Survivors		1,697		1,574		1,447		1,313		1,207		1,117		1,023
Deferred Retirees		9,775		9,775		6,118		5,518		4,818		3,839		2,769
Nonvested Former Members		<u>6,447</u>		<u>6,447</u>		<u>5,744</u>		<u>5,242</u>		<u>4,744</u>		<u>4,492</u>		<u>4,256</u>
Total Membership		80,351		79,708		78,448		76,606		74,858		72,228		70,840
Funded Status														
Accrued Liability		\$5,005,165,000		\$4,519,542,000		\$4,087,273,000		\$3,795,926,000		\$3,876,584,000		\$3,563,492		\$3,125,299,000
Current Assets		<u>\$5,390,526,000</u>		<u>\$4,664,519,000</u>		<u>\$3,975,832,000</u>		<u>\$3,462,098,000</u>		<u>\$3,158,068,000</u>		<u>\$2,905,578</u>		<u>\$2,613,472,000</u>
Unfunded Accrued Liability		(\$385,361,000)		(\$144,977,000)		\$111,441,000		\$333,828,000		\$718,516,000		\$657,914,000		\$511,827,000
Funding Ratio	107.70%		103.21%		97.27%		91.21%		81.47%		81.54%		83.62%	
Financing Requirements														
Covered Payroll		\$1,664,588,000		\$1,612,662,000		\$1,643,049,000		\$1,611,687,000		\$1,789,033,000		\$1,694,520,000		\$1,658,792,000
Benefits Payable		\$182,562,000		\$150,676,000		\$136,522,000		\$126,831,000		\$116,071,000		\$104,362,000		\$95,010,000
Normal Cost	7.58%	\$126,150,000	7.48%	\$120,589,000	6.67%	\$109,591,368	6.69%	\$107,821,860	6.67%	\$119,328,501	6.93%	\$117,430,236	6.58%	\$109,148,514
Administrative Expenses	<u>0.15%</u>	<u>\$2,497,000</u>	<u>0.13%</u>	<u>\$2,096,000</u>	<u>0.12%</u>	<u>\$1,971,659</u>	<u>0.11%</u>	<u>\$1,772,856</u>	<u>0.12%</u>	<u>\$2,146,840</u>	<u>0.11%</u>	<u>\$1,863,972</u>	<u>0.23%</u>	<u>\$3,815,222</u>
Normal Cost & Expense	7.73%	\$128,647,000	7.61%	\$122,685,000	6.79%	\$111,563,027	6.80%	\$109,594,716	6.79%	\$121,475,341	7.04%	\$119,294,208	6.81%	\$112,963,735
Normal Cost & Expense	7.73%	\$128,647,000	7.61%	\$122,685,000	6.79%	\$111,563,027	6.80%	\$109,594,716	6.79%	\$121,475,341	7.04%	\$119,294,208	6.81%	\$112,963,735
Amortization	0.00%	\$0	0.00%	\$0	0.42%	\$6,900,806	1.25%	\$20,146,088	2.36%	\$42,221,179	1.89%	\$32,026,428	1.46%	\$24,218,363
Total Requirements	7.73%	\$128,647,000	7.61%	\$122,685,000	7.21%	\$118,463,833	8.05%	\$129,740,804	9.15%	\$163,696,520	8.93%	\$151,320,636	8.27%	\$137,182,098
Employee Contributions	4.00%	\$66,584,000	4.00%	\$64,506,000	4.07%	\$66,872,094	4.07%	\$65,595,661	4.07%	\$72,813,643	4.07%	\$68,966,964	4.07%	\$67,512,834
Employer Contributions	4.00%	\$66,584,000	4.00%	\$64,506,000	4.20%	\$69,008,058	4.20%	\$67,690,854	4.20%	\$75,139,386	4.20%	\$71,169,840	4.20%	\$69,669,264
Employer Add'l Cont.	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Direct State Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Other Govt. Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Administrative Assessment	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
Total Contributions	8.00%	\$133,168,000	8.00%	\$129,012,000	8.27%	\$135,880,152	8.27%	\$133,286,515	8.27%	\$147,953,029	8.27%	\$140,136,804	8.27%	\$137,182,098
Total Requirements	7.73%	\$128,647,000	7.61%	\$122,685,000	7.21%	\$118,463,833	8.05%	\$129,740,804	9.15%	\$163,696,520	8.93%	\$151,320,636	8.27%	\$137,182,098
Total Contributions	<u>8.00%</u>	<u>\$133,168,000</u>	<u>8.00%</u>	<u>\$129,012,000</u>	<u>8.27%</u>	<u>\$135,880,152</u>	<u>8.27%</u>	<u>\$133,286,515</u>	<u>8.27%</u>	<u>\$147,953,029</u>	<u>8.27%</u>	<u>\$140,136,804</u>	<u>8.27%</u>	<u>\$137,182,098</u>
Deficiency (Surplus)	(0.27%)	(\$4,521,000)	(0.39%)	(\$6,327,000)	(1.06%)	(\$17,416,319)	(0.22%)	(\$3,545,711)	0.88%	\$15,743,490	0.66%	\$11,183,832	0.00%	\$0
Amortization Target Date	2020		2020		2020		2020		2020		2020		2020	
Actuary	Milliman & Robertson		Milliman & Robertson		Milliman & Robertson		Milliman & Robertson		Milliman & Robertson		Milliman & Robertson		Milliman & Robertson	

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1991		1990		1989		1988		1987		1986		1985	
Membership														
Active Members	49,718	49,576	48,653	47,040	45,707	45,172	44,399							
Service Retirees	12,335	11,810	11,564	11,455	10,994	10,601	10,155							
Disabilitants	726	676	665	669	676	670	683							
Survivors	946	899	850	753	671	599	529							
Deferred Retirees	2,216	1,824	1,355	1,162	1,014	957	910							
Nonvested Former Members	<u>4,152</u>	<u>4,638</u>	<u>3,924</u>	<u>4,084</u>	<u>4,496</u>	<u>4,402</u>	<u>4,878</u>							
Total Membership	70,093	69,423	67,011	65,163	63,558	62,401	61,554							
Funded Status														
Accrued Liability	\$2,883,603,000	\$2,707,968,000	\$2,456,686,000	\$2,115,476,000	\$1,894,142,000	\$1,656,860,000	\$1,489,214,000							
Current Assets	<u>\$2,304,312,000</u>	<u>\$2,108,210,000</u>	<u>\$1,871,542,000</u>	<u>\$1,644,145,000</u>	<u>\$1,518,483,000</u>	<u>\$1,313,155,000</u>	<u>\$1,109,815,000</u>							
Unfunded Accrued Liability	\$579,291,000	\$599,758,000	\$585,144,000	\$471,331,000	\$375,659,000	\$343,705,000	\$379,399,000							
Funding Ratio	79.91%	77.85%	76.18%	77.72%	80.17%	79.26%	74.52%							
Financing Requirements														
Covered Payroll	\$1,612,238,000	\$1,513,522,000	\$1,418,160,000	\$1,316,671,000	\$1,208,043,000	\$1,135,260,000	\$1,047,928,000							
Benefits Payable	\$85,977,000	\$76,040,000	\$69,604,000	\$63,698,000	\$57,057,000	\$48,325,000	\$43,144,000							
Normal Cost	5.98%	\$96,411,832	6.10%	\$92,324,842	6.10%	\$86,507,760	5.47%	\$72,021,904	5.45%	\$65,838,344	5.15%	\$58,465,890	5.12%	\$53,653,914
Administrative Expenses	<u>0.22%</u>	<u>\$3,546,924</u>	<u>0.29%</u>	<u>\$4,389,214</u>	<u>0.23%</u>	<u>\$3,261,768</u>	<u>0.26%</u>	<u>\$3,423,345</u>	<u>0.27%</u>	<u>\$3,261,716</u>	<u>0.27%</u>	<u>\$3,065,202</u>	<u>0.28%</u>	<u>\$2,934,198</u>
Normal Cost & Expense	6.20%	\$99,958,756	6.39%	\$96,714,056	6.33%	\$89,769,528	5.73%	\$75,445,248	5.72%	\$69,100,060	5.42%	\$61,531,092	5.40%	\$56,588,112
Normal Cost & Expense	6.20%	\$99,958,756	6.39%	\$96,714,056	6.33%	\$89,769,528	5.73%	\$75,445,248	5.72%	\$69,100,060	5.42%	\$61,531,092	5.40%	\$56,588,112
Amortization	1.66%	\$26,763,151	1.78%	\$26,940,692	1.81%	\$25,668,696	1.88%	\$24,753,415	1.58%	\$19,087,079	1.54%	\$17,483,004	1.78%	\$18,653,118
Total Requirements	7.86%	\$126,721,907	8.17%	\$123,654,747	8.14%	\$115,438,224	7.61%	\$100,198,663	7.30%	\$88,187,139	6.96%	\$79,014,096	7.18%	\$75,241,230
Employee Contributions	4.15%	\$66,907,877	4.15%	\$62,811,163	4.34%	\$61,548,144	3.73%	\$49,111,828	3.73%	\$45,060,004	3.73%	\$42,345,198	3.73%	\$39,087,714
Employer Contributions	4.29%	\$69,165,010	4.29%	\$64,930,094	4.51%	\$63,959,016	3.90%	\$51,350,169	3.90%	\$47,113,677	3.90%	\$44,275,140	3.90%	\$40,869,192
Employer Add'l Cont.	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Direct State Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Other Govt. Funding	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0	0.00%	\$0
Administrative Assessment	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
Total Contributions	8.44%	\$136,072,887	8.44%	\$127,741,257	8.85%	\$125,507,160	7.63%	\$100,461,997	7.63%	\$92,173,681	7.63%	\$86,620,338	7.63%	\$79,956,906
Total Requirements	7.86%	\$126,721,907	8.17%	\$123,654,747	8.14%	\$115,438,224	7.61%	\$100,198,663	7.30%	\$88,187,139	6.96%	\$79,014,096	7.18%	\$75,241,230
Total Contributions	<u>8.44%</u>	<u>\$136,072,887</u>	<u>8.44%</u>	<u>\$127,741,257</u>	<u>8.85%</u>	<u>\$125,507,160</u>	<u>7.63%</u>	<u>\$100,461,997</u>	<u>7.63%</u>	<u>\$92,173,681</u>	<u>7.63%</u>	<u>\$86,620,338</u>	<u>7.63%</u>	<u>\$79,956,906</u>
Deficiency (Surplus)	(0.58%)	(\$9,350,980)	(0.27%)	(\$4,086,509)	(0.71%)	(\$10,068,936)	(0.02%)	(\$263,334)	(0.33%)	(\$3,986,542)	(0.67%)	(\$7,606,242)	(0.45%)	(\$4,715,676)
Amortization Target Date	2020	2020	2020	2011	2011	2010	2010							
Actuary	Milliman & Robertson	Wyatt	Wyatt	Wyatt	Wyatt	Wyatt	Wyatt							

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1984	1983	1982	1981	1980	1979	1978
Membership							
Active Members	44,158	43,191	43,627	46,669	46,242	44,602	42,772
Service Retirees	10,843	10,477	9,138	9,642	8,280	8,032	7,198
Disabilitants	0	0	681	647	626	608	436
Survivors	0	0	392	371	321	297	289
Deferred Retirees	852	983	880	793	765	699	580
Nonvested Former Members	5,495	4,881	4,954	4,752	772	706	0
Total Membership	61,348	59,532	59,672	62,874	57,006	54,944	51,275
Funded Status							
Accrued Liability	\$1,267,662,330	\$1,127,574,029	\$1,004,387,821	\$831,782,260	\$737,987,559	\$641,769,751	\$560,718,470
Current Assets	<u>\$955,850,470</u>	<u>\$866,438,610</u>	<u>\$753,249,422</u>	<u>\$648,942,941</u>	<u>\$546,987,559</u>	<u>\$463,869,751</u>	<u>\$382,200,101</u>
Unfunded Accrued Liability	\$311,811,860	\$261,135,419	\$251,138,399	\$182,839,319	\$191,000,000	\$177,900,000	\$178,518,369
Funding Ratio	75.40%	76.84%	75.00%	78.02%	74.12%	72.28%	68.16%
Financing Requirements							
Covered Payroll	\$902,667,264	\$857,061,120	\$798,795,264	\$778,276,657	\$654,775,846	\$622,392,796	\$554,473,178
Benefits Payable	\$35,472,030	\$31,295,880	\$28,023,857	\$23,449,570	\$21,009,667	\$19,548,782	\$16,332,866
Normal Cost	6.13% \$55,333,503	6.96% \$59,651,454	6.84% \$54,637,596	6.73% \$52,378,019	6.82% \$44,655,713	6.53% \$40,642,250	7.06% \$39,145,806
Administrative Expenses	<u>0.18%</u> <u>\$1,624,801</u>	<u>0.18%</u> <u>\$1,542,710</u>	<u>0.18%</u> <u>\$1,437,831</u>	<u>0.18%</u> <u>\$1,400,898</u>	<u>0.18%</u> <u>\$1,178,597</u>	<u>0.14%</u> <u>\$871,350</u>	<u>0.14%</u> <u>\$776,262</u>
Normal Cost & Expense	6.31% \$56,958,304	7.14% \$61,194,164	7.02% \$56,075,428	6.91% \$53,778,917	7.00% \$45,834,309	6.67% \$41,513,599	7.20% \$39,922,069
Normal Cost & Expense	6.31% \$56,958,304	7.14% \$61,194,164	7.02% \$56,075,428	6.91% \$53,778,917	7.00% \$45,834,309	6.67% \$41,513,599	7.20% \$39,922,069
Amortization	1.64% \$14,803,743	2.03% \$17,398,341	2.07% \$16,535,062	1.58% \$12,296,771	1.84% \$12,047,876	1.86% \$11,576,506	2.62% \$14,527,197
Total Requirements	7.95% \$71,762,047	9.17% \$78,592,505	9.09% \$72,610,489	8.49% \$66,075,688	8.84% \$57,882,185	8.53% \$53,090,105	9.82% \$54,449,266
Employee Contributions	3.73% \$33,669,489	3.73% \$31,968,380	3.46% \$27,638,316	4.00% \$31,131,066	4.00% \$26,191,034	4.00% \$24,895,712	4.00% \$22,178,927
Employer Contributions	3.90% \$35,204,023	3.73% \$31,968,380	3.46% \$27,638,316	4.00% \$31,131,066	4.00% \$26,191,034	4.00% \$24,895,712	4.00% \$22,178,927
Employer Add'l Cont.	0.00% \$0	1.87% \$16,027,043	1.58% \$12,620,965	2.00% \$15,565,533	2.00% \$13,095,517	2.00% \$12,447,856	2.00% \$11,089,464
Direct State Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Other Govt. Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Administrative Assessment	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>
Total Contributions	7.63% \$68,873,512	9.33% \$79,963,802	8.50% \$67,897,597	10.00% \$77,827,666	10.00% \$65,477,585	10.00% \$62,239,280	10.00% \$55,447,318
Total Requirements	7.95% \$71,762,047	9.17% \$78,592,505	9.09% \$72,610,489	8.49% \$66,075,688	8.84% \$57,882,185	8.53% \$53,090,105	9.82% \$54,449,266
Total Contributions	<u>7.63%</u> <u>\$68,873,512</u>	<u>9.33%</u> <u>\$79,963,802</u>	<u>8.50%</u> <u>\$67,897,597</u>	<u>10.00%</u> <u>\$77,827,666</u>	<u>10.00%</u> <u>\$65,477,585</u>	<u>10.00%</u> <u>\$62,239,280</u>	<u>10.00%</u> <u>\$55,447,318</u>
Deficiency (Surplus)	0.32% \$2,888,535	(0.16%) (\$1,371,298)	0.59% \$4,712,892	(1.51%) (\$11,751,978)	(1.16%) (\$7,595,400)	(1.47%) (\$9,149,174)	(0.18%) (\$998,052)
Amortization Target Date	2010	2010	2010	2009	2009	2009	1997
Actuary	Touche Ross	Touche Ross	Touche Ross	Touche Ross	Wyatt	Wyatt	TPF&C

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1977	1976	1975	1974	1973	1972	1971
<u>Membership</u>							
Active Members	40,462	40,186	38,966	37,945	36,792	36,962	37,129
Service Retirees	6,836	6,464	5,109	4,693	4,164	3,993	3,741
Disabilitants	401	348	289	273	237	222	198
Survivors	272	250	239	225	202	181	167
Deferred Retirees	519	461	729	715	652	590	565
Nonvested Former Members	0	0	0	0	0	0	0
Total Membership	48,490	47,709	45,332	43,851	42,047	41,948	41,800
<u>Funded Status</u>							
Accrued Liability	\$487,086,044	\$443,695,318	\$420,764,087	\$382,018,823	\$353,134,691	\$198,455,169	\$179,812,104
Current Assets	<u>\$331,023,536</u>	<u>\$274,936,153</u>	<u>\$246,896,093</u>	<u>\$229,812,734</u>	<u>\$201,394,410</u>	<u>\$179,503,926</u>	<u>\$158,713,858</u>
Unfunded Accrued Liability	\$156,062,508	\$168,759,165	\$173,867,994	\$152,206,089	\$151,740,281	\$18,951,243	\$21,098,246
Funding Ratio	67.96%	61.97%	58.68%	60.16%	57.03%	90.45%	88.30%
<u>Financing Requirements</u>							
Covered Payroll	\$470,814,459	\$441,481,073	\$383,302,933	\$336,978,084	\$297,239,366	\$286,119,678	\$258,358,553
Benefits Payable	\$14,661,839	\$12,563,632	\$10,899,407	\$9,377,935	\$5,853,020	\$5,335,860	\$4,779,729
Normal Cost	7.09% \$33,380,745	7.30% \$32,228,118	6.91% \$26,486,233	7.00% \$23,588,466	6.85% \$20,360,897	5.77% \$16,509,105	5.77% \$14,907,289
Administrative Expenses	<u>0.14%</u> <u>\$659,140</u>	<u>0.14%</u> <u>\$618,074</u>	<u>0.14%</u> <u>\$536,624</u>	<u>0.14%</u> <u>\$471,769</u>	<u>0.19%</u> <u>\$564,755</u>	<u>0.19%</u> <u>\$543,627</u>	<u>0.19%</u> <u>\$490,881</u>
Normal Cost & Expense	7.23% \$34,039,885	7.44% \$32,846,192	7.05% \$27,022,857	7.14% \$24,060,235	7.04% \$20,925,651	5.96% \$17,052,733	5.96% \$15,398,170
Normal Cost & Expense	7.23% \$34,039,885	7.44% \$32,846,192	7.05% \$27,022,857	7.14% \$24,060,235	7.04% \$20,925,651	5.96% \$17,052,733	5.96% \$15,398,170
Amortization	2.53% \$11,911,606	2.79% \$12,317,322	3.11% \$11,920,721	3.05% \$10,277,832	3.32% \$9,868,347	0.39% \$1,115,867	0.47% \$1,214,285
Total Requirements	9.76% \$45,951,491	10.23% \$45,163,514	10.16% \$38,943,578	10.19% \$34,338,067	10.36% \$30,793,998	6.35% \$18,168,600	6.43% \$16,612,455
Employee Contributions	4.00% \$18,832,578	4.00% \$17,659,243	4.00% \$15,332,117	4.00% \$13,479,123	4.00% \$11,889,575	3.00% \$8,583,590	3.00% \$7,750,757
Employer Contributions	4.00% \$18,832,578	4.00% \$17,659,243	4.00% \$15,332,117	4.00% \$13,479,123	4.00% \$11,889,575	3.00% \$8,583,590	3.00% \$7,750,757
Employer Add'l Cont.	2.00% \$9,416,289	2.00% \$8,829,621	2.00% \$7,666,059	2.00% \$6,739,562	2.00% \$5,944,787	1.00% \$2,861,197	1.00% \$2,583,586
Direct State Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Other Govt. Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0
Administrative Assessment	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>
Total Contributions	10.00% \$47,081,446	10.00% \$44,148,107	10.00% \$38,330,293	10.00% \$33,697,808	10.00% \$29,723,937	7.00% \$20,028,377	7.00% \$18,085,099
Total Requirements	9.76% \$45,951,491	10.23% \$45,163,514	10.16% \$38,943,578	10.19% \$34,338,067	10.36% \$30,793,998	6.35% \$18,168,600	6.43% \$16,612,455
Total Contributions	<u>10.00%</u> <u>\$47,081,446</u>	<u>10.00%</u> <u>\$44,148,107</u>	<u>10.00%</u> <u>\$38,330,293</u>	<u>10.00%</u> <u>\$33,697,808</u>	<u>10.00%</u> <u>\$29,723,937</u>	<u>7.00%</u> <u>\$20,028,377</u>	<u>7.00%</u> <u>\$18,085,099</u>
Deficiency (Surplus)	(0.24%) (\$1,129,955)	0.23% \$1,015,406	0.16% \$613,285	0.19% \$640,258	0.36% \$1,070,062	(0.65%) (\$1,859,778)	(0.57%) (\$1,472,644)
Amortization Target Date	1997	1997	1997	1997	1997	1997	1997
Actuary	TPF&C	TPF&C	Little Church	Coates & Crawford	Coates & Crawford	Coates & Crawford	Coates, Herfurth & England

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1969	1968	1967	1966	1965	1964	1963
Membership							
Active Members	36,406	34,591	34,278	33,006	31,396	29,553	28,187
Service Retirees	3,469	3,303	3,029	3,461	3,359	3,130	2,853
Disabilitants	174	167	146	130	0	0	79
Survivors	159	154	149	41	0	0	169
Deferred Retirees	503	475	443	0	0	0	9
Nonvested Former Members	0	0	0	0	0	0	0
Total Membership	40,711	38,690	38,045	36,638	34,755	32,683	31,297
Funded Status							
Accrued Liability	\$154,685,076	\$141,584,064	\$134,199,924	\$123,283,950	\$116,543,308	\$98,004,185	\$75,725,186
Current Assets	<u>\$132,750,343</u>	<u>\$119,304,370</u>	<u>\$106,167,069</u>	<u>\$94,514,491</u>	<u>\$85,579,255</u>	<u>\$77,232,036</u>	<u>\$55,019,467</u>
Unfunded Accrued Liability	\$21,934,733	\$22,279,694	\$28,032,855	\$28,769,459	\$30,964,053	\$20,772,149	\$20,705,719
Funding Ratio	85.80%	84.26%	79.11%	76.66%	73.43%	78.80%	72.65%
Financing Requirements							
Covered Payroll	\$201,375,595	\$181,058,514	\$165,053,984	\$137,700,000	\$129,000,000	\$126,132,775	\$118,435,930
Benefits Payable	\$4,347,736	\$3,961,131	\$3,544,562	\$3,700,000	\$3,200,000	\$3,189,340	
Normal Cost	5.59% \$11,256,896	5.44% \$9,849,583	5.44% \$8,978,937	5.11% \$7,036,470	5.11% \$6,591,900	5.12% \$6,457,998	6.58% \$7,793,084
Administrative Expenses	<u>0.19%</u> <u>\$382,614</u>	<u>0.19%</u> <u>\$344,011</u>	<u>0.19%</u> <u>\$313,603</u>	<u>0.19%</u> <u>\$261,630</u>	<u>0.19%</u> <u>\$245,100</u>	<u>0.19%</u> <u>\$239,652</u>	<u>\$0</u>
Normal Cost & Expense	5.78% \$11,639,509	5.63% \$10,193,594	5.63% \$9,292,539	5.30% \$7,298,100	5.30% \$6,837,000	5.31% \$6,697,650	\$7,793,084
Normal Cost & Expense	5.78% \$11,639,509	5.63% \$10,193,594	5.63% \$9,292,539	5.30% \$7,298,100	5.30% \$6,837,000	5.31% \$6,697,650	\$7,793,084
Amortization	0.49% \$986,740	0.53% \$959,610	0.67% \$1,105,862	1.00% \$1,377,000	1.16% \$1,496,400	0.90% \$1,135,195	\$0
Total Requirements	6.27% \$12,626,250	6.16% \$11,153,204	6.30% \$10,398,401	6.30% \$8,675,100	6.46% \$8,333,400	6.21% \$7,832,845	\$7,793,084
Employee Contributions	3.00% \$6,041,268	3.00% \$5,431,755	3.00% \$4,951,620	3.00% \$4,131,000	3.00% \$3,870,000	3.00% \$3,783,983	\$0
Employer Contributions	3.00% \$6,041,268	3.00% \$5,431,755	3.00% \$4,951,620	3.00% \$4,131,000	3.00% \$3,870,000	3.00% \$3,783,983	\$0
Employer Add'l Cont.	1.00% \$2,013,756	2.00% \$3,621,170	2.00% \$3,301,080	2.00% \$2,754,000	2.00% \$2,580,000	2.00% \$2,522,656	\$0
Direct State Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	\$0
Other Govt. Funding	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	0.00% \$0	\$0
Administrative Assessment	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>0.00%</u> <u>\$0</u>	<u>\$0</u>
Total Contributions	7.00% \$14,096,292	8.00% \$14,484,681	8.00% \$13,204,319	8.00% \$11,016,000	8.00% \$10,320,000	8.00% \$10,090,622	\$0
Total Requirements	6.27% \$12,626,250	6.16% \$11,153,204	6.30% \$10,398,401	6.30% \$8,675,100	6.46% \$8,333,400	6.21% \$7,832,845	\$7,793,084
Total Contributions	<u>7.00%</u> <u>\$14,096,292</u>	<u>8.00%</u> <u>\$14,484,681</u>	<u>8.00%</u> <u>\$13,204,319</u>	<u>8.00%</u> <u>\$11,016,000</u>	<u>8.00%</u> <u>\$10,320,000</u>	<u>8.00%</u> <u>\$10,090,622</u>	<u>\$0</u>
Deficiency (Surplus)	(0.73%) (\$1,470,042)	(1.84%) (\$3,331,477)	(1.70%) (\$2,805,918)	(1.70%) (\$2,340,900)	(1.54%) (\$1,986,600)	(1.79%) (\$2,257,777)	\$7,793,084
Amortization Target Date	1997	1997	1997	1997	1997	1997	1997
Actuary	Coates, Herfurth & England	Coates, Herfurth & England	Coates, Herfurth & England	Coates, Herfurth & England	Coates, Herfurth & England	Coates, Herfurth & England	A.A. Weinberg

Actuarial Valuation Data

State Employees Retirement Fund

(MSRS)

	1962	1959	1958	1957	1954		
<u>Membership</u>							
Active Members	27,363	27,025	27,069	27,968	26,663		
Service Retirees	2,662	2,102	1,956	1,984	1,185		
Disabilitants	64	40	36	0	0		
Survivors	43	57	61	0	0		
Deferred Retirees	10	13	17	511	0		
Nonvested Former Members	0	0	0	0	0		
Total Membership	30,142	29,237	29,139	30,463	27,848		
<u>Funded Status</u>							
Accrued Liability	\$82,526,201	\$72,350,420	\$69,378,239	\$69,000,000	\$56,100,000		
Current Assets	<u>\$64,478,811</u>	<u>\$48,704,693</u>	<u>\$44,250,440</u>	<u>\$42,300,000</u>	<u>\$26,400,000</u>		
Unfunded Accrued Liability	\$18,047,390	\$23,645,727	\$25,127,799	\$26,700,000	\$29,700,000		
Funding Ratio	78.13%	67.32%	63.78%	61.30%	47.06%		
<u>Financing Requirements</u>							
Covered Payroll	\$109,988,801	\$95,643,820	\$88,528,372	\$84,100,000	\$74,700,000		
Benefits Payable				\$2,200,000	\$1,200,000		
Normal Cost	\$0	\$0	\$0	6.29%	\$5,289,890	15.26%	\$11,399,220
Administrative Expenses	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
Normal Cost & Expense	\$0	\$0	\$0	6.29%	\$5,289,890	15.26%	\$11,399,220
Normal Cost & Expense	\$0	\$0	\$0	6.29%	\$5,289,890	15.26%	\$11,399,220
Amortization	\$0	\$0	\$0	1.37%	\$1,152,170	1.74%	\$1,299,780
Total Requirements	\$0	\$0	\$0	7.66%	\$6,442,060	17.00%	\$12,699,000
Employee Contributions	\$0	\$0	\$0	3.00%	\$2,523,000	6.00%	\$4,482,000
Employer Contributions	\$0	\$0	\$0	3.00%	\$2,523,000	0.00%	\$0
Employer Add'l Cont.	\$0	\$0	\$0	2.00%	\$1,682,000	0.00%	\$0
Direct State Funding	\$0	\$0	\$0	0.00%	\$0	0.00%	\$0
Other Govt. Funding	\$0	\$0	\$0	0.00%	\$0	0.00%	\$0
Administrative Assessment	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>	<u>0.00%</u>	<u>\$0</u>
Total Contributions	\$0	\$0	\$0	8.00%	\$6,728,000	6.00%	\$4,482,000
Total Requirements	\$0	\$0	\$0	7.66%	\$6,442,060	17.00%	\$12,699,000
Total Contributions	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>8.00%</u>	<u>\$6,728,000</u>	<u>6.00%</u>	<u>\$4,482,000</u>
Deficiency (Surplus)	\$0	\$0	\$0	(0.34%)	(\$285,940)	11.00%	\$8,217,000
Amortization Target Date	1997	1997	1997	1997	1994		
Actuary	A.A. Weinberg	A.A. Weinberg	A.A. Weinberg	A.A. Weinberg	A.A. Weinberg		