

South Carolina Retirement System (SCRS)
SCRS Exhibit 5b. - Alternative 1. Expanded to 30 Years
Projection Based on July 1, 2016 Actuarial Valuation

Investment Return Assumption is 7.50% for 2016, 7.25% for 2017 Through 2018, and 7.00% for 2019 and Thereafter

Assumes Emerging Investment Experience is 4.00% Per Year for FY 2017 - 2021 and 7.00% Each Year Thereafter

2.00% Increase in the Employer Contribution Rate at July 1, 2017, and 1.00% Increase at each July 1, 2018 through 2022 (Member Rate Capped at 9.00%)

(\$ in Millions)

July 1, (1)	Maintain 2.90% Difference Subject to a 9.00% Maximum Member Rate		Unfunded Liability (4)	Funded Ratio AVA / AAL (5)	Funding Period (years) (6)	Interest on Unfunded Liability Column 4 x Int Rate (7)	Amortization Payment (8)	Positive/(Negative) Interest Payment Column 8 - Column 7 (9)
	Employer (2)	Member (3)						
2016	11.56%	8.66%	\$ 18,566	60%	23	\$ 1,392	\$ 1,111	\$ (281)
2017	13.56%	9.00%	21,372	56%	25	1,549	1,357	(193)
2018	14.56%	9.00%	22,976	53%	24	1,666	1,438	(228)
2019	15.56%	9.00%	26,105	49%	26	1,827	1,540	(288)
2020	16.56%	9.00%	27,441	48%	24	1,921	1,701	(220)
2021	17.56%	9.00%	28,417	48%	22	1,989	1,869	(121)
2022	18.56%	9.00%	29,116	48%	21	2,038	2,045	7
2023	18.56%	9.00%	29,617	48%	21	2,073	2,100	26
2024	18.56%	9.00%	29,782	49%	20	2,085	2,154	69
2025	18.56%	9.00%	29,737	50%	19	2,082	2,211	129
2026	18.56%	9.00%	29,475	52%	18	2,063	2,269	205
2027	18.56%	9.00%	29,129	53%	17	2,039	2,339	300
2028	18.56%	9.00%	28,683	55%	16	2,008	2,410	403
2029	18.56%	9.00%	28,128	57%	15	1,969	2,486	517
2030	18.56%	9.00%	27,454	59%	14	1,922	2,562	641
2031	18.56%	9.00%	26,650	61%	13	1,865	2,643	778
2032	18.56%	9.00%	25,704	63%	12	1,799	2,726	926
2033	18.56%	9.00%	24,603	65%	11	1,722	2,811	1,089
2034	18.56%	9.00%	23,334	67%	10	1,633	2,901	1,268
2035	18.56%	9.00%	21,881	70%	9	1,532	2,994	1,462
2036	18.56%	9.00%	20,229	73%	8	1,416	3,091	1,675
2037	18.56%	9.00%	18,357	76%	7	1,285	3,194	1,909
2038	18.56%	9.00%	16,248	79%	5	1,137	3,300	2,163
2039	18.56%	9.00%	13,879	82%	4	972	3,410	2,439
2040	18.56%	9.00%	11,229	86%	3	786	3,526	2,740
2041	18.56%	9.00%	8,273	90%	2	579	3,649	3,069
2042	18.56%	9.00%	4,984	94%	1	349	3,775	3,426
2043	18.56%	9.00%	1,332	98%	1	93	3,906	3,813
2044	18.56%	9.00%	(2,711)	103%	N/A	N/A	N/A	N/A
2045	17.06%	7.50%	(7,180)	108%	N/A	N/A	N/A	N/A
2046	15.56%	6.00%	(11,420)	113%	N/A	N/A	N/A	N/A

Projection based on the July 1, 2016 actuarial valuation. This information is provided for stakeholders to understand the financial impact based on the illustrated assumptions and emerging investment experience for decision making purposes.

The proposed legislation would permit the Board to decrease the employer and member contribution rates in equal amount after the System attains an 85% funded ratio. For illustration purposes, the member and employer contribution rates gradually decrease at the rate of 1.50% per year after the System attains a 100% funded ratio.

Police Officers Retirement System (PORS)
PORS Exhibit 5b. - Alternative 1. Expanded to 30 Years
Projection Based on July 1, 2016 Actuarial Valuation

Investment Return Assumption is 7.50% for 2016, 7.25% for 2017 and 2018, and 7.00% for 2019 and Thereafter

Assumes Emerging Investment Experience is 4.00% Per Year for FY 2017 - 2021 and 7.00% Each Year Thereafter

2.00% Increase in the Employer Contribution Rate at July 1, 2017, and 1.00% Increase at each July 1, 2018 through 2022 (Member Rate Capped at 9.75%)

(\$ in Millions)

July 1, (1)	Maintain 5.00% Difference Subject to a 9.75% Maximum Member Rate		Unfunded Liability	Funded Ratio AVA / AAL	Funding Period (years)	Interest on Unfunded Liability Column 4 x Int Rate	Amortization Payment	Positive/(Negative) Interest Payment Column 8 - Column 7
	Employer (2)	Member (3)						
2016	14.24%	9.24%	\$ 2,213	66%	20	\$ 166	\$ 142	\$ (24)
2017	16.24%	9.75%	2,637	63%	24	191	169	(22)
2018	17.24%	9.75%	2,872	61%	23	208	186	(22)
2019	18.24%	9.75%	3,325	58%	26	233	194	(39)
2020	19.24%	9.75%	3,543	56%	25	248	212	(36)
2021	20.24%	9.75%	3,716	56%	23	260	231	(29)
2022	21.24%	9.75%	3,855	56%	24	270	251	(19)
2023	21.24%	9.75%	3,950	57%	23	277	257	(20)
2024	21.24%	9.75%	4,014	57%	23	281	265	(16)
2025	21.24%	9.75%	4,045	59%	22	283	273	(10)
2026	21.24%	9.75%	4,042	60%	21	283	281	(2)
2027	21.24%	9.75%	4,030	61%	20	282	290	8
2028	21.24%	9.75%	4,008	63%	19	281	298	17
2029	21.24%	9.75%	3,975	64%	18	278	308	30
2030	21.24%	9.75%	3,931	66%	17	275	317	42
2031	21.24%	9.75%	3,874	67%	16	271	327	56
2032	21.24%	9.75%	3,803	69%	15	266	336	70
2033	21.24%	9.75%	3,717	71%	14	260	347	87
2034	21.24%	9.75%	3,614	72%	13	253	357	104
2035	21.24%	9.75%	3,492	74%	12	244	368	124
2036	21.24%	9.75%	3,351	76%	11	235	380	145
2037	21.24%	9.75%	3,188	78%	9	223	392	169
2038	21.24%	9.75%	3,002	79%	8	210	404	194
2039	21.24%	9.75%	2,790	81%	7	195	417	222
2040	21.24%	9.75%	2,549	84%	6	178	430	252
2041	21.24%	9.75%	2,277	86%	5	159	443	284
2042	21.24%	9.75%	1,973	88%	5	138	457	319
2043	21.24%	9.75%	1,634	90%	4	114	471	357
2044	21.24%	9.75%	1,256	93%	3	88	486	398
2045	21.24%	9.75%	837	95%	2	59	500	441
2046	21.24%	9.75%	373	98%	1	26	515	489

Projection based on the July 1, 2016 actuarial valuation. This information is provided for stakeholders to understand the financial impact based on the illustrated assumptions and emerging investment experience for decision making purposes.

The proposed legislation would permit the Board to decrease the employer and member contribution rates in equal amount after the System attains an 85% funded ratio. For illustration purposes, the member and employer contribution rates do not decrease until the plan attains a 100% funded ratio. It is assumed the employer and member will each decrease by 1.00% each year after the plan attains a 100% funded ratio.