

SOUTH CAROLINA
RETIREMENT SYSTEMS



SC BUDGET AND CONTROL BOARD

Senate Subcommittee Public Hearing – Clemson October 5, 2011

**SC Budget and Control Board
South Carolina Retirement Systems**

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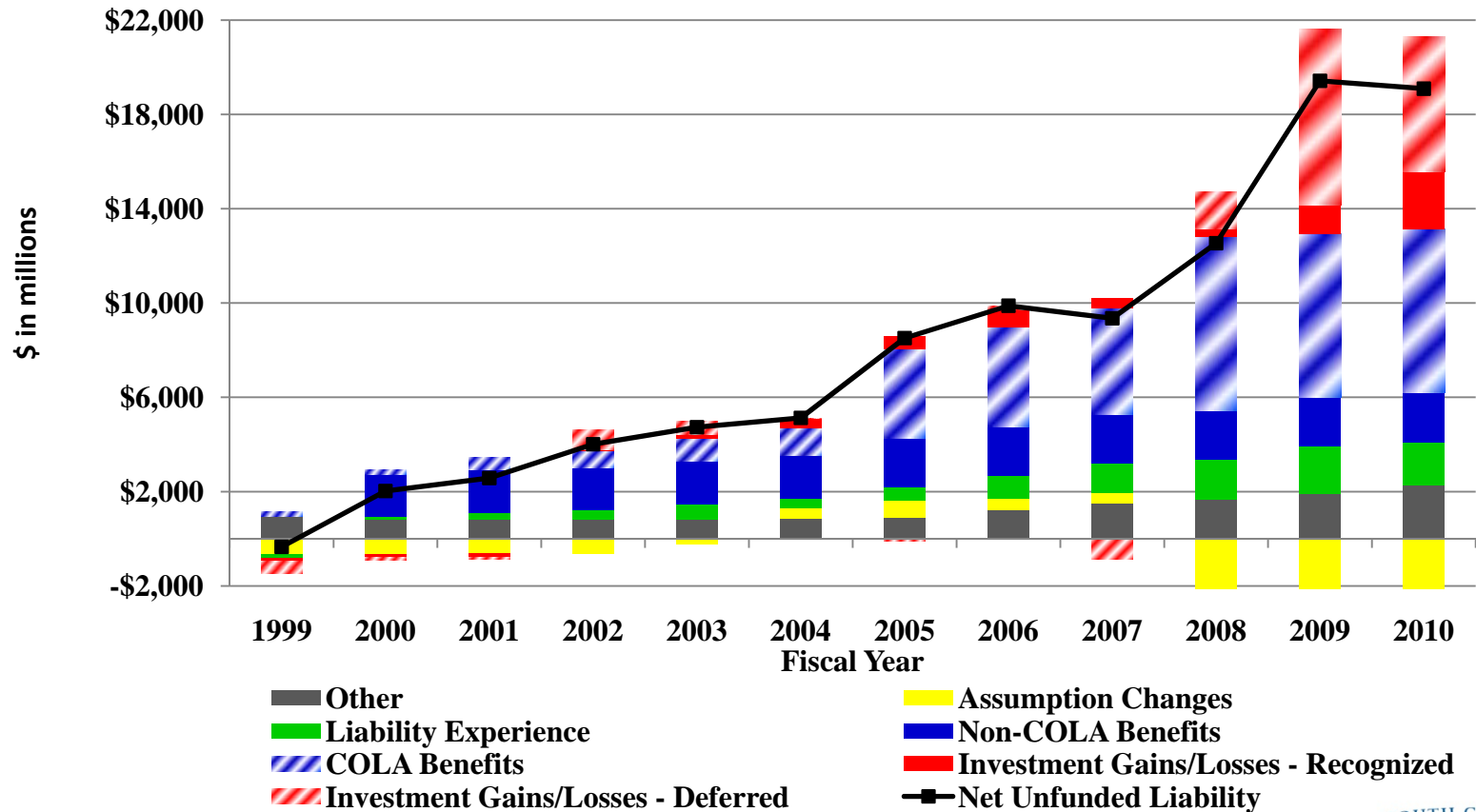
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Where We Are Today


	SCRS	PORS
Statutory Contribution Rates		
Actives	6.50%	6.50%
Employer	*9.68%	*11.995%
Assets		
Market Value	\$19.7B	\$2.9B
Actuarial Value	\$25.4B	\$3.6B
Actuarial Information		
Amortization Period	*37.6 years	*32.8 years
Unfunded Actuarial Liability	\$13.4B	\$1.2B
Liabilities		
Actuarial Accrued Liability	\$38.8B	\$4.9B


*This period reverts to 30 years if the SC Budget and Control Board approves the increased contributions to be made July 1, 2012 of 10.6% (for SCRS) and 12.30% (for PORS).

SCRS Net Unfunded Liability on a Market Value Basis



SCRS
Net Unfunded Liability on a Market Value Basis
Detailed Legend Explanation

-  **Other** - Outstanding UAAL balance at FY1999 of \$1 billion
- Annual amortization payments
- Annual interest on UAL

 **Liability Experience** – Represents gains and losses resulting from actual liability experience being different from the actuary's assumptions of expected behavior which include:


- Rates of annual salary increases
- Rates of retirement, mortality, disability and withdrawal
- Payroll growth
- Subsidies of service purchases because calculated at fixed rate versus actuarial cost

 **COLA Benefits**

- Ad hoc COLA's granted
 - o FY1999 – 2.7% effective 7/1/2000
 - o FY2000 – N/A (change in actuarial recognition of COLA's)
 - o FY2001 – 3.4% effective 7/2/2001
 - o FY2002 – 1.3% effective 7/1/2002
 - o FY2003 – 2.4% effective 7/1/2003
 - o FY2004 – 1.6% effective 7/1/2004
 - o FY2005 – 2.4% ad hoc (plus 1% automatic) effective 7/1/2005 – 3.4% total
 - o FY2006 – 2.5% ad hoc (plus 1% automatic) effective 7/1/2006 – 3.5% total
 - o FY2007 – 1.4% ad hoc (plus 1% automatic) effective 7/1/2007 – 2.4% total
 - o FY2008 – additional 1% necessary to fund 2% automatic
 - o FY2009 – 0% COLA resulted in actuarial gain since 2% COLA was assumed
- Automatic COLA's enacted - FY2005 – 1% automatic COLA
FY2008 – additional 1% automatic COLA (2% total)

 **Non-COLA Benefits**

- FY2000 – TERI and 28 year retirement
- FY2005 – impact of S618 (increased employee, employer & RTW contribution rates; removed retiree earnings limit; eliminated A/L payout during TERI; changed interest credited on member accounts from 6% to 4%)



Assumption Changes

- FY2003 changed assumptions from experience study
 - o Inflation rate; payroll; actuarial asset method; rates of disability, mortality, termination, retirement
- FY2004 changed to standard entry age normal cost method; TERI correction; and mathematical adjustments from parallel valuation
- FY2005 refined cost method for TERI and adjusted liability calculation for inactive accounts
- FY2006 adjusted assumption for rate of TERI participation
- FY2007 modified smoothing method for returns on TERI accounts
- FY2008 changed assumptions from experience study
 - o increased Investment Rate of Return from 7.25% to 8%
 - o rates of retirement/TERI, mortality, disability



Investment Gains/Losses – Deferred

- Investment experience that is different from the 8.0% investment return assumption (i.e. investment gains and losses) and have not yet been recognized in the calculation of the actuarial value of assets and the unfunded actuarial accrued liability.
- The net deferred investment losses for FY2010 is \$5.7 billion



Investment Gains/Losses – Recognized

- Based on an 8% assumed investment rate of return (3% inflation & 5% real)
- Investment gains/losses incurred prior to FY2008 are recognized at the rate of 20% per year.
- Investment gains/losses incurred in FY 2008 and thereafter are recognized at the rate of 10% per year.



Net Unfunded Liability -

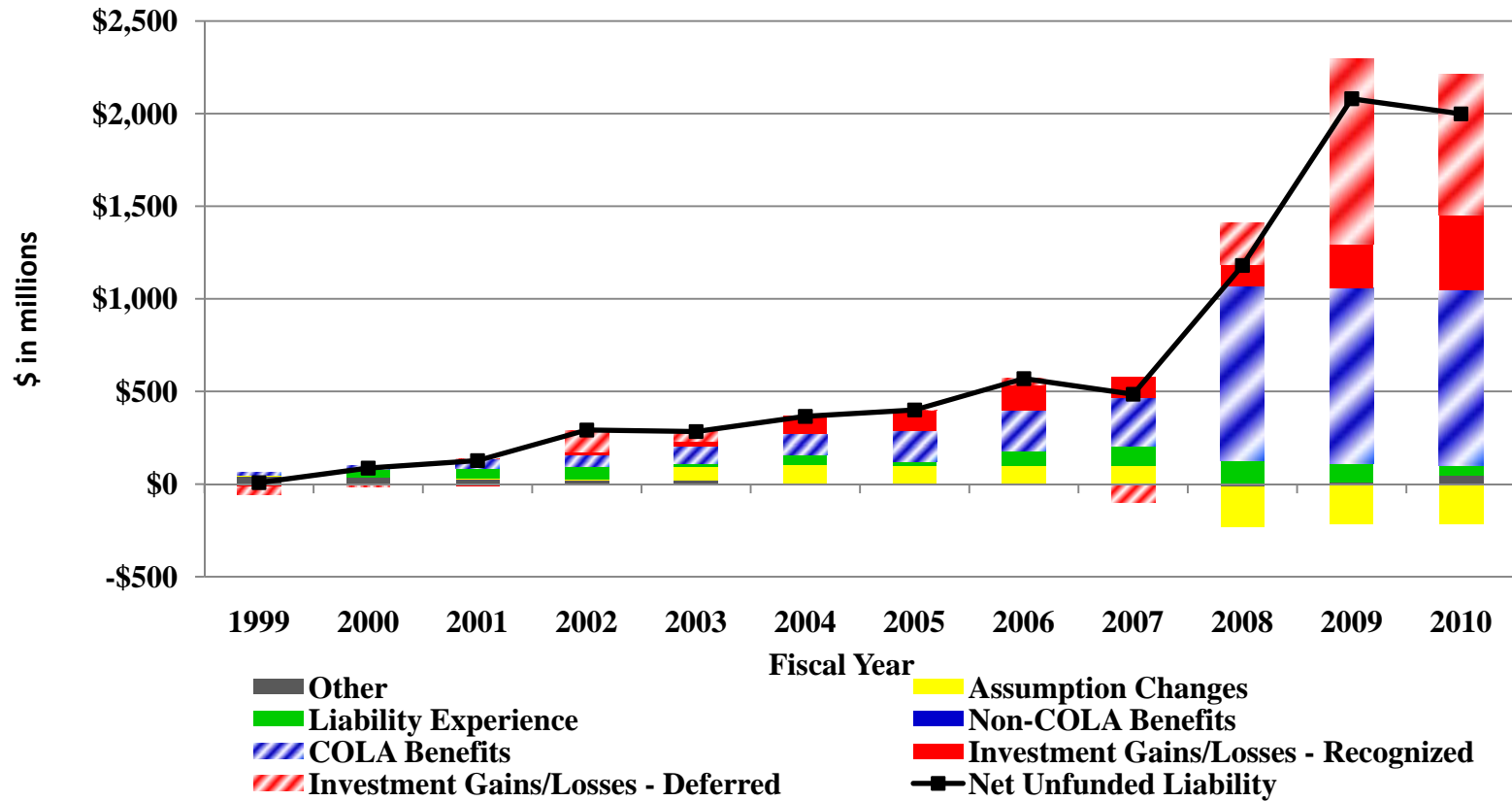
- Calculated as total actuarial accrued liability (\$38.774 billion at FYE2010) less market value of assets (\$19.681 billion at FYE2010) = \$19.093 billion

SCRS Net Unfunded Liability on a Market Value Basis

Annual Change in UAAL by Source												
Fiscal Year Ended June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Non-COLA Benefits	\$ -	\$ 1,810	\$ -	\$ -	\$ -	\$ -	\$ 257	\$ -	\$ -	\$ -	\$ -	\$ -
COLA Improvements	182	-	353	149	278	209	2,632	457	267	2,842	(412)	-
Investment Gain/Loss - Recognized	(130)	(30)	25	215	120	228	107	190	(296)	(63)	854	1,213
Liability Experience	(192)	281	194	115	273	(274)	177	372	287	462	324	(176)
Assumption Changes	(638)	-	-	-	399	690	239	(176)	(48)	(2,663)	-	-
Other	(50)	(110)	(26)	(6)	(17)	61	65	290	290	161	237	370
Annual Change in UAAL	\$ (828)	\$ 1,951	\$ 546	\$ 473	\$ 1,053	\$ 914	\$ 3,477	\$ 1,133	\$ 500	\$ 739	\$ 1,003	\$ 1,407

Cumulative Change in UAAL by Source												
Fiscal Year Ended June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
UAAL Beginning Balance June 30, 1998 (MVA)	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006	\$ 1,006
Non-COLA Benefits	-	1,810	1,810	1,810	1,810	1,810	2,067	2,067	2,067	2,067	2,067	2,067
COLA Benefits	182	182	535	684	962	1,171	3,803	4,260	4,527	7,369	6,957	6,957
Investment Gains/Losses - Recognized	(130)	(160)	(135)	80	200	428	535	725	429	366	1,220	2,433
Liability Experience	(192)	89	283	398	671	397	574	946	1,233	1,695	2,019	1,843
Assumption Changes	(638)	(638)	(638)	(638)	(239)	451	690	514	466	(2,197)	(2,197)	(2,197)
Other	(50)	(160)	(186)	(192)	(209)	(148)	(83)	207	497	658	895	1,265
Cumulative Change in UAAL	(828)	1,123	1,669	2,142	3,195	4,109	7,586	8,719	9,219	9,958	10,961	12,368
UAAL Ending Balance June 30 (AVA)	178	2,129	2,675	3,148	4,201	5,115	8,592	9,725	10,225	10,964	11,967	13,374
Investment Gains/Losses - Deferred	(519)	(101)	(99)	859	532	13	(78)	160	(871)	1,576	7,459	5,719
UAAL Ending Balance June 30 (MVA)	\$ (341)	\$ 2,028	\$ 2,576	\$ 4,007	\$ 4,733	\$ 5,128	\$ 8,514	\$ 9,885	\$ 9,354	\$ 12,540	\$ 19,426	\$ 19,093

PORS Net Unfunded Liability on a Market Value Basis



PORS
Net Unfunded Liability on a Market Value Basis
Detailed Legend Explanation

- Other** - UAAL balance at fiscal year ended June 30, 1999 was \$7 million on a Market Value basis
 - Annual amortization payments
 - Annual interest on UAL

Liability Experience – Represents gains and losses resulting from actual liability experience being different from the actuary's assumptions of expected behavior which include:

- Rates of annual salary increases
- Rates of retirement, mortality, disability and withdrawal
- Payroll growth
- Subsidies of service purchases because calculated at fixed rate versus actuarial cost

COLA Benefits

- Ad hoc COLA's granted
 - o FY1999 – 1.6% effective 7/1/1999
 - o FY2000 – 2.7% effective 7/1/2000
 - o FY2001 – 3.4% effective 7/2/2001
 - o FY2002 – 1.3% effective 7/1/2002
 - o FY2003 – 2.4% effective 7/1/2003
 - o FY2004 – 1.6% effective 7/1/2004
 - o FY2005 – 3.4% ad hoc effective 7/1/2005
 - o FY2006 – 3.5% ad hoc effective 7/1/2006
 - o FY2007 – 2.4% ad hoc effective 7/1/2007
 - o FY2008 – amount necessary to pay 2% automatic COLA not previously funded
 - o FY2009 – 0% COLA resulted in actuarial gain since 2% COLA was assumed

Non-COLA Benefits – Not Applicable



Assumption Changes

- FY2003 changed assumptions from experience study- inflation rate; payroll growth; actuarial asset method; rates of disability, mortality, termination, retirement
- FY2004 mathematical adjustments from parallel valuation
- FY2008 increased Investment Rate of Return from 7.25% to 8%



Investment Gains/Losses – Deferred

- Investment experience that is different from the 8.0% investment return assumption (i.e. investment gains and losses) and have not yet been recognized in the calculation of the actuarial value of assets and the unfunded actuarial accrued liability.
- The net deferred investment losses for FY2010 is \$761 million



Investment Gains/Losses – Recognized

- Based on an 8% assumed investment rate of return (3% inflation & 5% real)
- Investment gains/losses incurred prior to FY2008 are recognized at the rate of 20% per year.
- Investment gains/losses incurred in FY 2008 and thereafter are recognized at the rate of 10% per year.



Net Unfunded Liability -

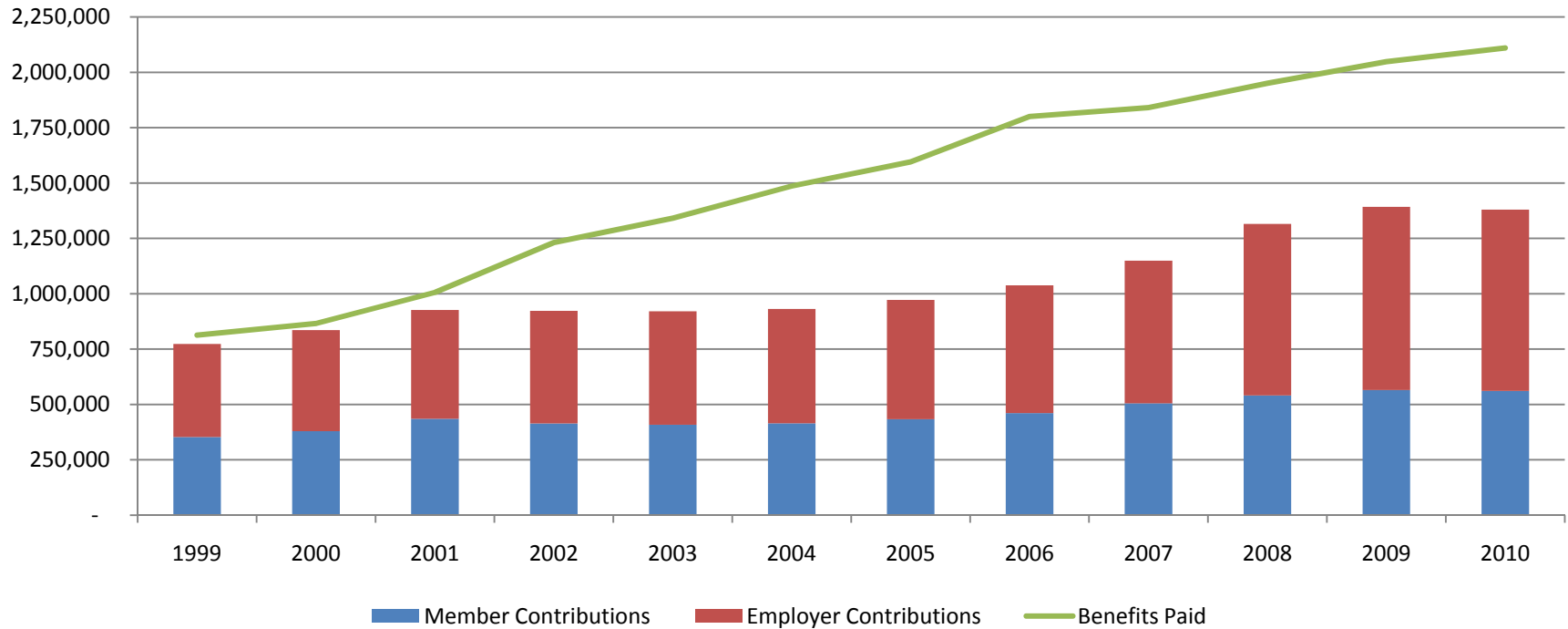
- Calculated as total actuarial accrued liability (\$4.850 billion at FYE2010) less market value of assets (\$2.851 billion at FYE2010) = \$1.999 billion

PORS Net Unfunded Liability on a Market Value Basis

Annual Change in UAAL by Source												
Fiscal Year Ended June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Non-COLA Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
COLA Improvements	21	-	32	13	27	20	49	57	43	684	-	-
Investment Gain/Loss - Recognized	(12)	-	-	29	13	68	15	28	(30)	5	123	167
Liability Experience	(1)	41	15	14	(51)	32	(28)	55	31	16	(23)	(45)
Assumption Changes	4	-	-	-	69	26	-	-	-	(315)	-	-
Other	(8)	(8)	(8)	(5)	(1)	(12)	(5)	(9)	(4)	(4)	26	34
Annual Change in UAAL	\$ 4	\$ 33	\$ 39	\$ 51	\$ 57	\$ 134	\$ 31	\$ 131	\$ 40	\$ 386	\$ 126	\$ 156

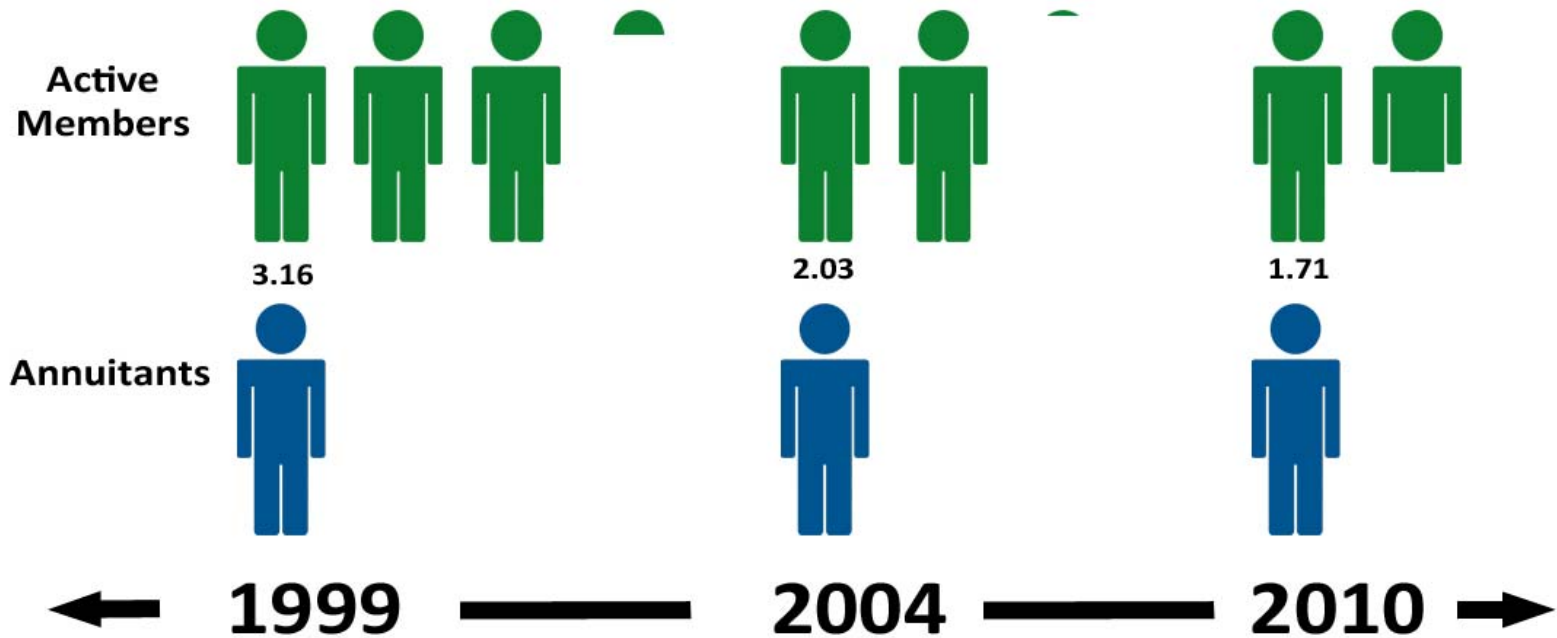
Cumulative Change in UAAL by Source												
Fiscal Year Ended June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
UAAL Beginning Balance June 30, 1998 (MVA)	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49	\$ 49
Non-COLA Benefits	-	-	-	-	-	-	-	-	-	-	-	-
COLA Benefits	21	21	53	66	93	113	162	219	262	946	946	946
Investment Gains/Losses - Recognized	(12)	(12)	(12)	17	30	98	113	141	111	116	239	406
Liability Experience	(1)	40	55	69	18	50	22	77	108	124	101	56
Assumption Changes	4	4	4	4	73	99	99	99	99	(216)	(216)	(216)
Other	(8)	(16)	(24)	(29)	(30)	(42)	(47)	(56)	(60)	(64)	(38)	(4)
Cumulative Change in UAAL	4	37	76	127	184	318	349	480	520	906	1,032	1,188
UAAL Ending Balance June 30 (AVA)	53	86	125	176	233	367	398	529	569	955	1,081	1,237
Investment Gains/Losses - Deferred	(46)	(1)	0	115	50	(2)	1	39	(85)	225	999	761
UAAL Ending Balance June 30 (MVA)	\$ 7	\$ 85	\$ 125	\$ 291	\$ 283	\$ 365	\$ 399	\$ 568	\$ 484	\$ 1,180	\$ 2,080	\$ 1,998

SCRS Ratio of Contributions Received to Benefits Paid

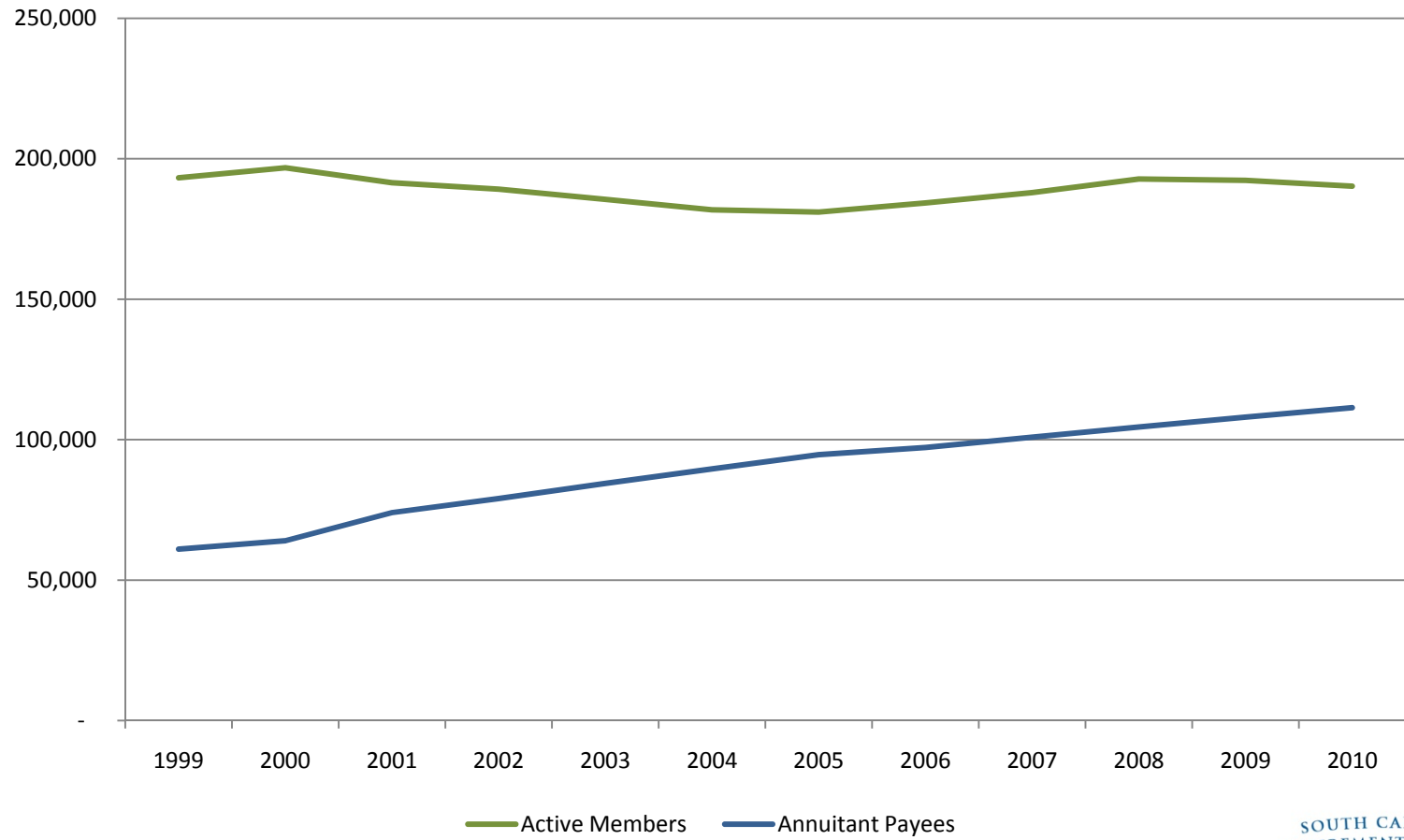


Note: Contributions for TERI participants, working retirees and ORP participants are included in contribution amounts

SCRS Ratio of Active Members to Annuitants

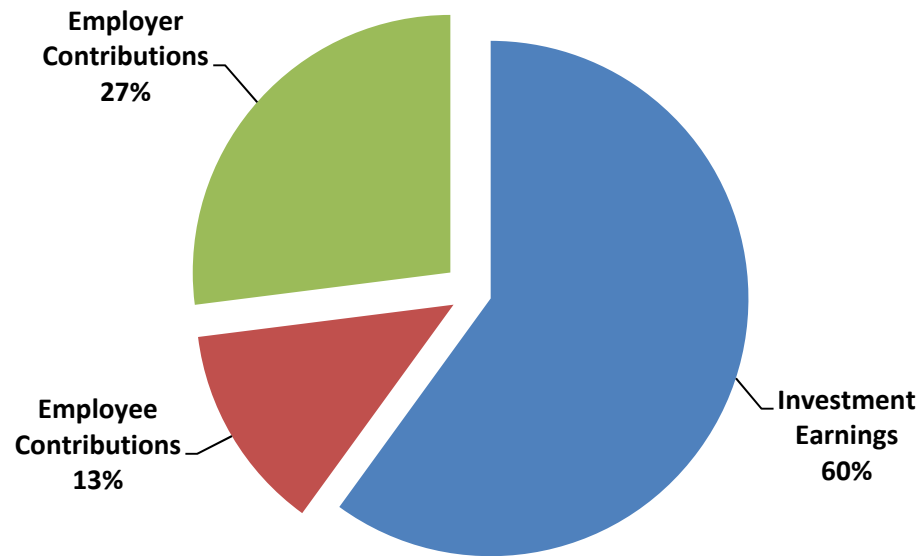


SCRS Ratio of Active Members to Annuitants



Trust Fund Earnings – National Average

- Make up a large share of public pension revenues for mature plans

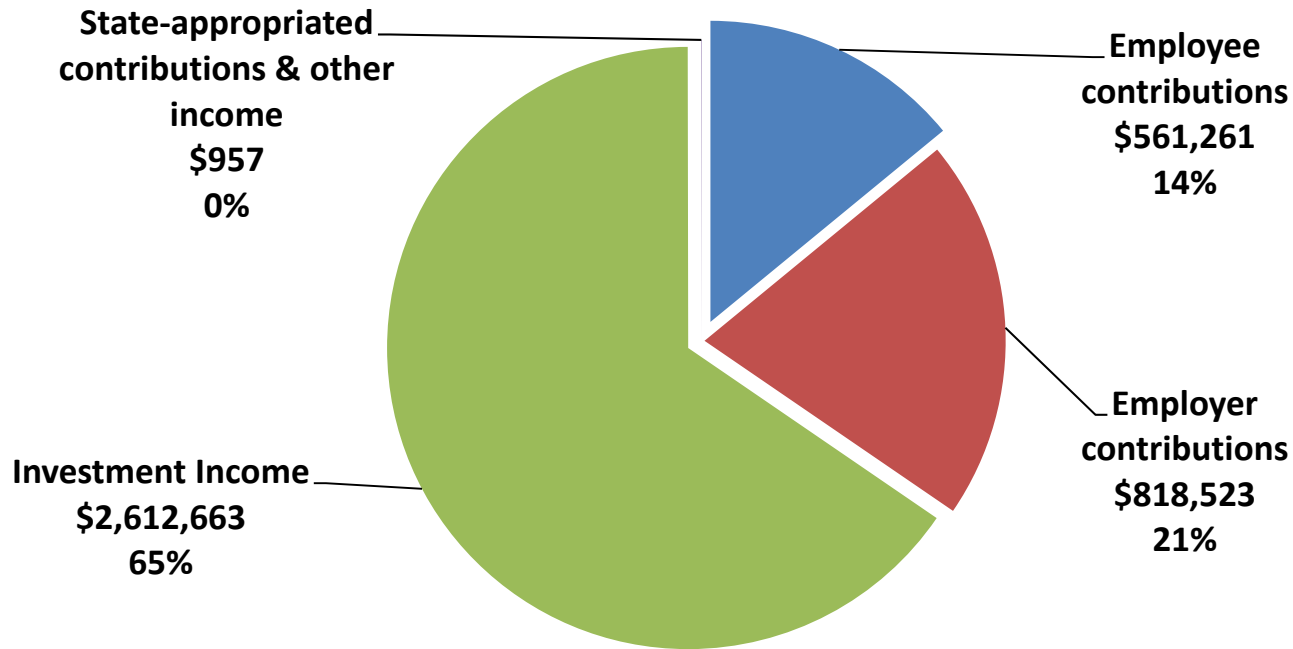


- An average over last 17 years:
 - Investment Earnings – 60 percent
 - Employer contributions – 27 percent
 - Employee contributions – 13 percent

Trust Fund Earnings – South Carolina

SCRS Additions to Pension Trust Funds 2010

Dollar Amounts in Thousands



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