Vermont Pension Overview: Preliminary Cost Projections, the Economic Context and Sustainability Issues

July 14, 2009

Office of the State Treasurer

Economic Issues Related to Retirement Funding

- Funding for retirement benefits, including health care, is among the largest fiscal challenges facing many state governments, including Vermont.
- Financial commitments for these programs, especially retiree health insurance, are growing much faster than the rate of revenue growth.
- Revenue declines and pension investment losses tend to be concurrent.
- While investment smoothing will spread the loss, significant additional funding will be needed.
  - Budget constraints may create pressures to reduce or limit full funding.
  - Despite this, we need to fund pensions now to take advantage of any rebound in returns and to avoid exacerbating the situation.
- Mitigating steps must be taken.

Some Actuarial Terms

- Actuarial Accrued Liability (AAL)
  - Present value of projected future benefits
- Actuarial Value of Assets (AVA)
  - Market-related value, with smoothing, designed to minimize volatility
  - State utilized five-year smoothing method
- Unfunded Actuarial Accrued Liability (UAAL)
  - UAAL= AAL- AVA
- Funding Ratio:
  - Current assets expressed as a percentage of the actuarial accrued liability
- Funding of the Annual Required Contribution (ARC) is the method by which the UAL is eventually paid off
- ARC = sum of :
  - Normal Cost (the portion of the cost of projected benefits allocated to the current plan year)
  - Amortization of unfunded accrued liability
    - Not to exceed 30 years
    - As a level $ or level % of pay
- If contribution differs from the ARC, you get a Net Pension Obligation (NPO) or a Net OPEB Obligation (NOO).

Recent Funding History

State Employees

ARC for FY	Based on June 30 valuation of	Normal cost percentage	Active members at beginning of FY	Estimated payroll	Normal cost	Amortization of UAAL	Total Recommended Contribution Excluding Expenses	Expenses	ARC	Avg Compensation	Total retirees
2003	2001	1.23%	7,725	339,611,796	4,177,225	5,867,477	10,044,702	14,670,607	24,715,309	40,611	3,728
2004	2002	2.53%	7,876	359,640,877	9,098,914	2,290,197	11,389,111	17,634,320	29,023,431	41,665	3,833
2005	2003	4.07%	8,079	365,056,890	14,857,815	2,393,256	17,251,071	18,767,995	36,019,066	43,289	4,002
2006	2004	4.49%	8,068	402,927,964	18,091,466	2,500,953	20,592,419	17,622,285	38,214,704	44,560	4,173
2007	2005	5.13%	8,288	364,974,000	18,723,166	2,613,496	21,336,662	18,853,316	40,189,978	46,001	4,399
2008	2006	6.26%	8,411	385,928,461	24,159,122	955,693	25,114,815	17,260,253	42,375,068	47,967	4,555
Change 2003 to 2008		409%	9%	14%	478%	-84%	150%	18%	71%	18%	22%

Teachers

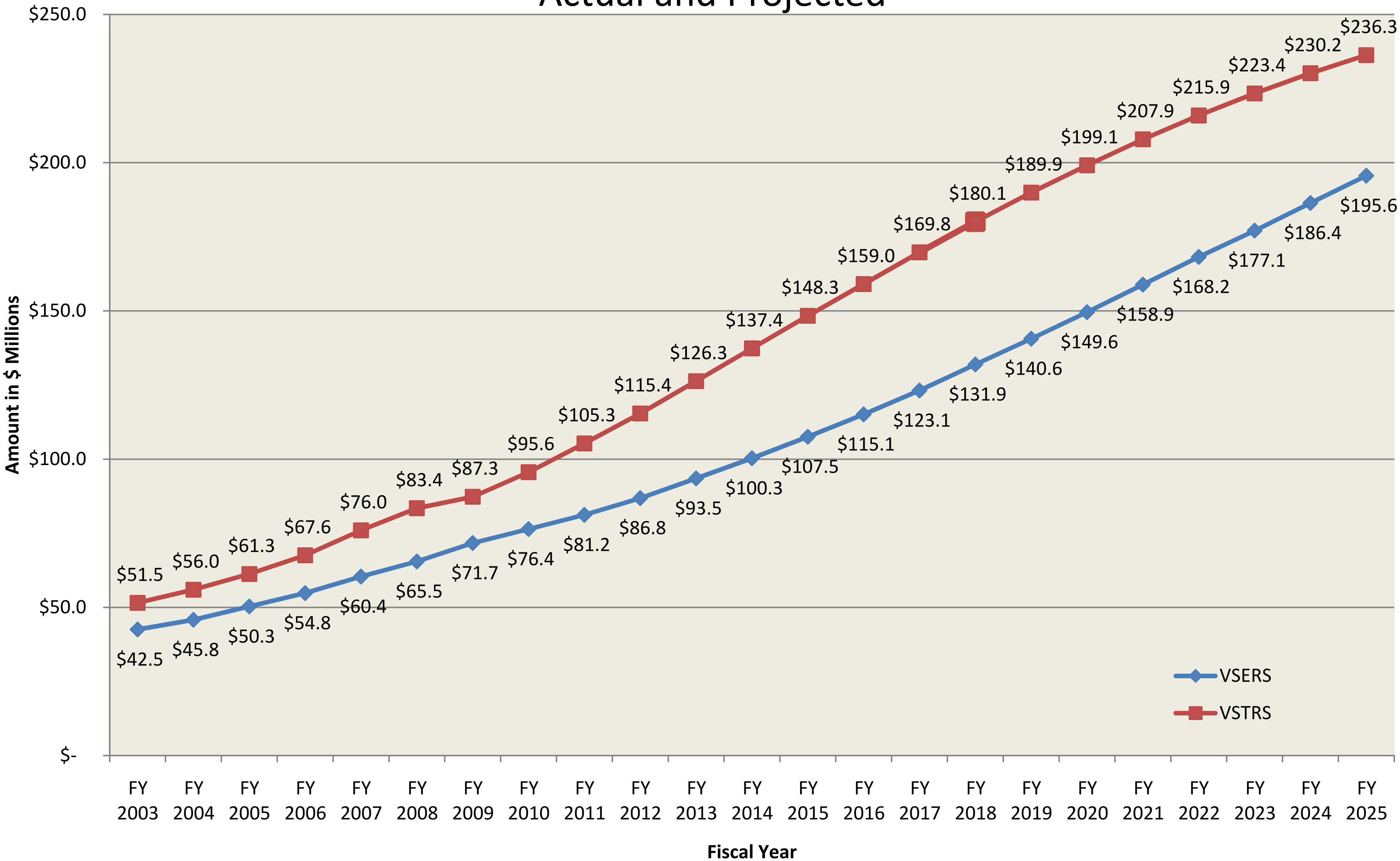
ARC for FY	Based on June 30 valuation of	Normal cost percentage	Active members at beginning of FY	Estimated payroll	Normal cost	Amortization of UAAL	Total Recommended Contribution Excluding Expenses	Expenses	ARC	Avg Compensation	Total retirees
2003	2002	4.04%	10,257	418,904,021	16,923,722	11,356,088	28,279,810	Not Budgeted	28,279,810	42,225	4,169
2004	2003	6.83%	10,355	437,238,543	29,863,392	11,795,554	41,658,946		41,658,946	43,967	4,386
2005	2004	7.79%	10,315	453,517,153	35,328,986	12,385,332	47,714,318		47,714,318	45,311	4,592
2006	2005	8.96%	10,744	486,857,658	43,622,447	13,004,599	56,627,046		56,627,046	46,657	4,879
2007	2006	5.09%	10,696	499,044,327	25,423,886	13,505,843	38,929,729		38,929,729	48,297	5,192
2008	2007	5.16%	10,675	521,501,322	26,578,087	14,625,964	41,204,051		41,204,051	50,146	5,555
Change 2003 to 2008		28%	4%	24%	57%	29%	46%		46%	19%	33%

Note: The actuarial method used though the June 30, 2005, report utilized "frozen initial liability," or FIL, which tended to increase Normal cost while holding the unfunded liability constant. The methodology was changed to "entry age normal" without FIL in 2006. Due to historical underfunding of the VSTRS system, this has resulted in an overstatement of normal rate as a percentage of payroll.

In the case of VSERS, where historical funding approximated the ARC, the variance is less pronounced.

Note: While actuarial data is not yet finalized, preliminary runs indicate state employee active account is at 8,128 as of 6/30/09 with 4,768 retirees., the first significant reduction in the active member population.

Pay As-You- Go Benefit Payments
Actual and Projected



Note: Includes pension payments and refunds but excludes health care and administrative payments.

Impact of Recent Negative Investment Returns

UAAL (pension only):

	State Employees	Teachers
As of 6/30/08 Valuation:	$ 87.1 Million	$379.5 Million
December 2008 Estimate*:	$319.6 Million	$653.6 Million
Preliminary 6/30/09 Using May Investment Returns**	$332.5 Million	$718.8 Million

Funding Ratio:

	State Employees	Teachers
As of 6/30/08 Valuation:	94.1%	80.9%
December 2008 Estimate:	78.2%	67.1%
Preliminary 6/30/09 Using May Investment Returns**	78.5%	65.7%

*Note: The December estimates are based on the change in asset levels and do not include a recalculation of liabilities which could be impacted by a number of factors, including actual experience vs. assumptions and personnel changes made as a result of budget rescissions. The December numbers are estimates and do not constitute a complete valuation study.

**VSTRS 2008 valuation rolled forward with May 2009 investment results. In the case of VSERS, adjustment made for the drop in active population shown in preliminary census data. This is a preliminary estimate and does not reflect a full valuation.

Impact of Recent Negative Investment Returns

(cont.)

Annual Actuarial Required Contributions (ARC) in the FY08 Valuation:

	State Employees	Teachers
FY10	**$32.0 Million**	**$41.5 Million**
FY11	**$33.5 Million**	**$43.5 Million**

Estimated ARC Based on Investment Return as of December 2008:

	State Employees	Teachers
FY10	**$61.0 Million**	**$57.2 Million**
FY11	**$64.0 Million**	**$59.9 Million**

December 2008 with reamortization*:

	State Employees	Teachers
FY10	**$42.6 Million**	**Not calculated**
FY11	**$44.6 Million**	**Not calculated**

Estimated ARC 6/30/09 Using May Investment Returns/Reamortized** :

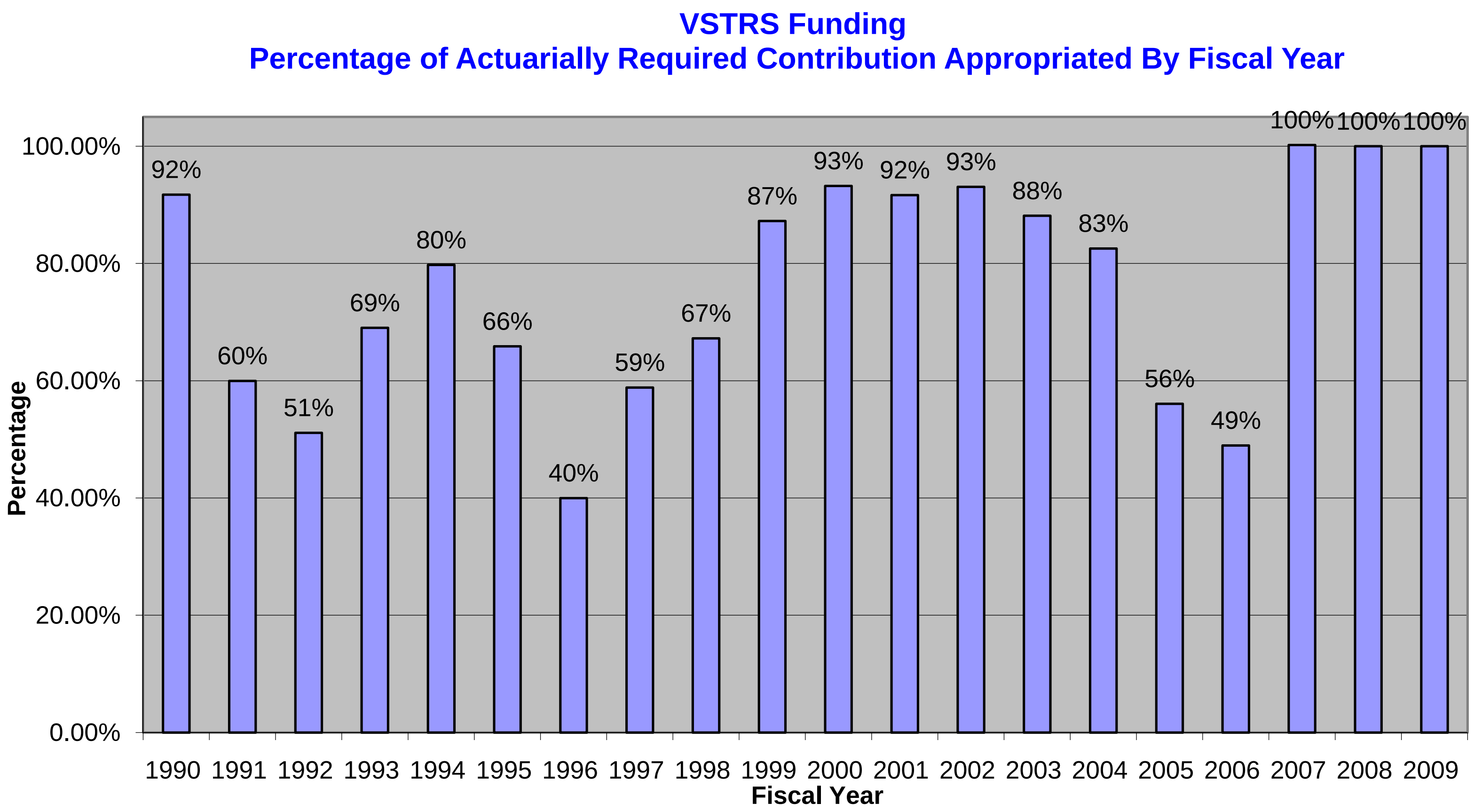
	State Employees	Teachers
FY11	**$43.8 Million**	**$60.9 Million**
FY12	**$45.9 Million**	**$63.8 Million**

Additional Resources Needed to Fund FY11 Estimated ARC Over FY10 Levels:	**$11.8 Million**	**$19.4 Million**
TOTAL	**$31.2 Million**	

* The Teachers had a more recent reset of the reamortization period. While new group F changes had a reamortization reset, balance of VSERS did not. Above reflects estimate based on reamortization at 30 years. Legislative change subsequently made at 29 years.

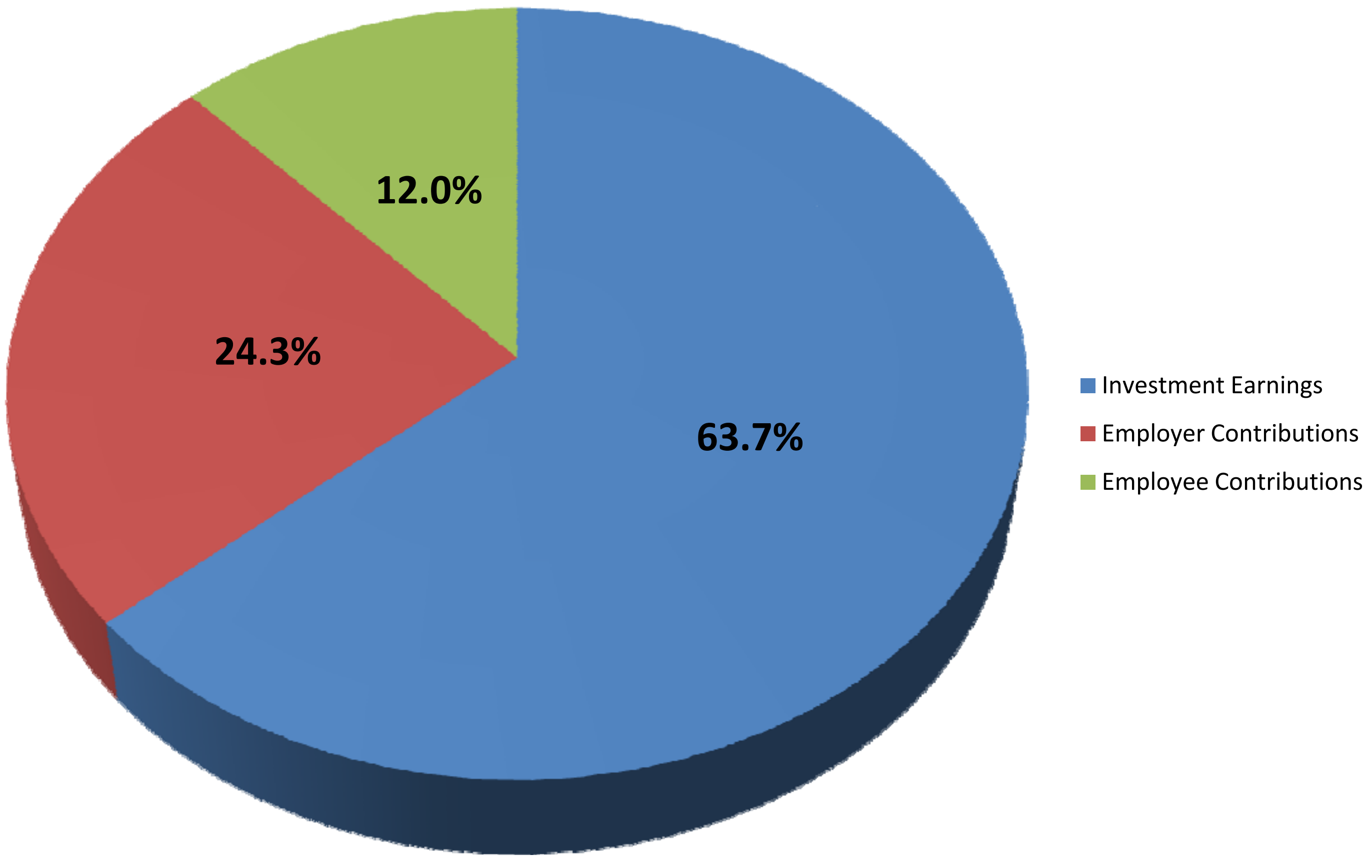
**VSTRS 2008 valuation rolled forward with May 2009 investment results. In the case of VSERS, adjustment made for the drop in active population shown in preliminary census data. This is a preliminary estimate and does not reflect a full valuation ;ARC incorporates new statutory amortization period.

Teachers' System Funding Would be Far Worse Without Recent Efforts to Meet Full Funding of ARC



Note: FY07, FY08, and FY09 includes anticipated Medicare D reimbursements. FY07 and later data based on conversion to "entry age normal" actuarial method. FY09 uses revised ARC based on March 09 experience study.

Investment Earnings Comprise the Greatest Source of Revenue for Pension Funds



Source: NASRA, Key Facts Regarding State and Local Government Defined Benefit Plans, January 2007.

Prefunding Over Time Maximizes Investment Gains and Reduces Annual Costs

VSERS

	Year	Projected Benefit Payments	Normal Cost	Amortization of Unfunded Liability	Total
	FY 2011	$ 81,195,480	$ 25,247,228	$ 18,582,060	$ 43,829,288
	FY 2012	86,842,914.00	26,383,353.00	19,511,163.00	45,894,516.00
3-Year	**FY 2013**	**93,478,791.00**	**27,570,604.00**	**20,486,721.00**	**48,057,325.00**
	FY 2014	100,301,785.00	28,811,281.00	21,511,057.00	50,322,338.00
5-Year	**FY 2015**	**107,537,497.00**	**30,107,789.00**	**22,586,610.00**	**52,694,399.00**
	FY 2016	115,091,641.00	31,462,640.00	23,715,941.00	55,178,581.00
	FY 2017	123,148,486.00	32,878,459.00	24,901,738.00	57,780,197.00
	FY 2018	131,918,513.00	34,357,990.00	26,146,825.00	60,504,815.00
	FY 2019	140,592,747.00	35,904,100.00	27,454,166.00	63,358,266.00
10-Year	**FY 2020**	**149,558,334.00**	**37,519,785.00**	**28,826,874.00**	**66,346,659.00**
	FY 2021	158,861,741.00	39,208,175.00	30,268,218.00	69,476,393.00
	FY 2022	168,192,801.00	40,972,543.00	31,781,629.00	72,754,172.00
	FY 2023	177,070,388.00	42,816,307.00	33,370,710.00	76,187,017.00
	FY 2024	186,374,205.00	44,743,041.00	35,039,246.00	79,782,287.00
	FY 2025	195,600,326.00	46,756,478.00	36,791,208.00	83,547,686.00
	Total	$ 2,015,765,649			$ 925,713,939

The challenge is continuing to fund the ARC in current economic climate…

VSTRS

	Year	Projected Benefit Payments	Normal Cost	Amortization of Unfunded Liability	Total
	FY 2011	$ 105,308,890	$ 20,713,059	$ 40,169,179	$ 60,882,238
	FY 2012	115,402,350.36	21,645,147.00	42,177,638.00	63,822,785.00
3-Year	**FY 2013**	**126,288,396.83**	**22,619,179.00**	**44,286,520.00**	**66,905,699.00**
	FY 2014	137,364,413.33	23,637,042.00	46,500,846.00	70,137,888.00
5-Year	**FY 2015**	**148,338,916.88**	**24,700,709.00**	**48,825,888.00**	**73,526,597.00**
	FY 2016	159,038,196.62	25,812,241.00	51,267,182.00	77,079,423.00
	FY 2017	169,755,989.97	26,973,792.00	53,830,541.00	80,804,333.00
	FY 2018	180,096,987.29	28,187,613.00	56,522,068.00	84,709,681.00
	FY 2019	189,919,518.70	29,456,056.00	59,348,171.00	88,804,227.00
10-Year	**FY 2020**	**199,103,896.99**	**30,781,579.00**	**62,315,580.00**	**93,097,159.00**
	FY 2021	207,877,800.14	32,166,750.00	65,431,359.00	97,598,109.00
	FY 2022	215,903,113.97	33,614,254.00	68,702,927.00	102,317,181.00
	FY 2023	223,353,291.34	35,126,895.00	72,138,073.00	107,264,968.00
	FY 2024	230,173,662.79	36,707,605.00	75,744,977.00	112,452,582.00
	FY 2025	236,277,351.49	38,359,447.00	79,532,226.00	117,891,673.00
	Total	$ 2,644,202,776			$ 1,297,294,543

Note: Future retirements are reflected in the benefit payments. The ARC effectively assumes a constant number of actives. The unfunded liability is a reflection only of current participants on the valuation date, while the projection of future normal costs reflects the assumption that active people are replaced as they leave by new entrants who do not alter the normal cost as a percentage of pay for the group.

Level Funding the ARC at Current Appropriation Levels is Not an Option

Degradation of Pension Assets Assuming Contributions Frozen at Existing Levels

Hypothetical model for VSERS Funding at FY10 Levels Instead of Full ARC		
Year	Resulting Asset value	Resulting Funding ratio:
FY 2011	1,043,982,162	74.89%
FY 2012	1,073,050,334	71.17%
FY 2013	1,097,612,448	67.34%
FY 2014	1,117,102,071	63.40%
FY 2015	1,130,671,318	59.37%
FY 2016	1,137,500,449	57.57%
FY 2017	1,136,510,380	55.54%
FY 2018	1,126,314,007	53.25%
FY 2019	1,106,251,479	50.69%
FY 2020	1,075,205,702	47.85%
FY 2021	1,031,919,082	44.68%
FY 2022	975,352,975	41.16%
FY 2023	904,883,635	37.28%
FY 2024	818,920,579	32.99%
FY 2025	716,266,413	28.27%

Hypothetical model for VSTRS Funding at FY10 Levels Instead of Full ARC *		
Year	Resulting Asset value	Resulting Funding ratio:
FY 2011	1,176,483,941	74.89%
FY 2012	1,196,653,452	59.15%
FY 2013	1,207,160,749	55.58%
FY 2014	1,207,011,050	51.83%
FY 2015	1,195,430,769	47.93%
FY 2016	1,171,763,236	45.73%
FY 2017	1,134,991,990	43.21%
FY 2018	1,084,428,005	40.37%
FY 2019	1,019,472,809	37.18%
FY 2020	939,603,083	33.62%
FY 2021	844,015,450	29.68%
FY 2022	732,192,039	25.34%
FY 2023	603,391,789	20.57%
FY 2024	456,869,381	15.35%
FY 2025	291,908,399	9.67%

Note: This is a hypothetical model assuming that experience emerged exactly in accordance with actuarial assumptions. Model assumes that the market value earns exactly 8.25% in every future year, and that the effect of the smoothing method thus wears off over the first five years of the projection.

As noted in the 2005 study, the critical tipping point is not when assets run out or even decline, but when governments no longer believe the required contributions are realistic and give up trying to fund the actuarially required contributions or are faced with devastating changes to benefits or personnel levels.

* Chart corrected from original presentation.

Conventional Wisdom is that public pension plans have historically rebounded and, with prudent management, will do so again

Does this still hold?

Other Post Employment Benefits (OPEB)

- Beginning in FY 2008 the Government Accounting Standards Board required the disclosure of other post employment benefits in the State's financial reports.
- OPEB refers to any post employment benefit other than pensions (medical, life insurance, long-term care, etc.), although medical is the most significant component.
- Currently the State does not prefund, with the exception of a small portion of Medicare D reimbursements from the State Employees' system.
- Budget a year's premiums in the State Employees' system; expenses not explicitly budgeted and funded in the Teachers' system
- To maintain funding in the future, we need to budget and fund the actuarially required contribution.

Health Care Expenses Are Creating Additional Strains on the Teachers' System

- *State Employees*:
  - Administrative expenses, including health care, are appropriated through a "charge" to each department budget as a percentage of payroll and are collected with each payroll.
  - An OPEB Prefunding account has been established by State Statute; to date only Medicare D funds have been designated to prefunding. Only $4.8 million through 6/30/09 (preliminary unaudited).
  - State OPEB is just 0.6% funded.
  - Separate OPEB Fund establsihed.
- *Teachers*
  - No explicit funding of administrative (including health care) expenses.
  - Funding would require $16.4 million, increasing with inflation on an annual basis.

Teacher Pension Heath Care Issue

- Pension plans are expected to provide primarily pension benefits. Where health care benefits are provided through the same plan (not the predominant model) they must, according to IRS code, be subordinate to the pension benefits and must also be managed through a separate "sub trust."

- IRS code establishes a 25% limitation on contributions to 401(h) sub trust. One of the many conditions that a pension program must meet is that the "aggregate actual contributions" for medical benefits do not exceed 25% of the "total actual contributions" to the plan after the date it first offers medical benefits.

- In the case of the State system, "pay-as-you go" health care premiums are explicitly budgeted, along with other administrative expenditures, and are budgeted as an "add-on" to the actuarial required contribution for pension benefits. That provides an ongoing funding mechanism. A "true-up" is conducted each year, impacting future appropriations, accounting for any surpluses or deficits ion the planned expenditures.

- In the Teachers' system, health care is treated as a loss to the system and therefore impacts the contribution level calculated by the actuary. It is in essence "retrospective financing," always incorporating a lag.

- As such, there are no explicit current appropriations to pay for the health care expenses; an explicit appropriation cannot be transferred to an OPEB or similar fund to pay for these. In order to create a separate fund to pay these costs, we would need to appropriate similar amounts of funds, in the order of $16.4 million plus and going up each year.

- Over time, this will reduce the pension ARC, which incorporates a heath care portion, but not at a 1:1 ratio and not with the original "jump-start" needed to fund the health care fund.

Post Employment Benefits a Significant Obligation Recognized for the first time on the State's Books in FY 2008

State Employees		
	8.25% (Prefunding Assumed)	4% (Pay-As-You-Go)
Unfunded Liability	$423.5 Million	$751.0 Million
ARC for FY09	$36.7 Million	$58.7 Million
Pay-As-You-Go applied to ARC	$23.0 Million	$23.0 Million
Teachers		
	8.25% (Prefunding Assumed)	4% (Pay-As-You-Go)
Unfunded Liability	$424.1 Million	$863.6 Million
ARC for FY09	$32.3 Million	$59.1 Million

The budgeted health care expenses in the State Employees' system can be used to offset the ARC. In the Teachers' system, the lack of an explicit budget for health care results in a higher liability.

Current Estimated VSTRS OPEB Liability as of FY 2009

VT TEACHERS MEDICAL
8.25% Discount Rate
Accrued Liability 416,163,953

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability	Total State ARC	Pay-as-you-go	Difference
2010	10,212,271	20,665,724	30,877,995	17,426,245	13,451,750
2011	11,021,087	21,699,010	32,720,097	19,478,948	13,241,149
2012	11,820,091	22,783,960	34,604,051	21,641,244	12,962,807
2013	12,801,968	23,923,158	36,725,126	23,563,909	13,161,217
2014	13,910,925	25,119,316	39,030,241	25,525,720	13,504,521
2015	15,097,200	26,375,282	41,472,482	27,524,881	13,947,602
2016	16,322,496	27,694,046	44,016,542	29,703,926	14,312,616
2017	17,591,222	29,078,749	46,669,971	31,891,494	14,778,476
2018	19,009,376	30,532,686	49,542,062	34,179,812	15,362,250
2019	20,761,196	32,059,320	52,820,516	36,662,692	16,157,825
2020	22,002,535	33,662,286	55,664,821	39,235,316	16,429,506
2021	23,255,128	35,345,401	58,600,529	42,132,829	16,467,700
2022	24,539,655	37,112,671	61,652,326	45,113,382	16,538,943
2023	25,811,666	38,968,304	64,779,970	48,427,707	16,352,263
2024	27,114,209	40,916,719	68,030,928	51,780,328	16,250,601
2025	28,416,768	42,962,555	71,379,323	55,443,176	15,936,147
2026	29,761,096	45,110,683	74,871,779	59,300,370	15,571,409
2027	31,168,485	47,366,217	78,534,702	63,324,126	15,210,576
2028	32,663,905	49,734,528	82,398,433	67,573,520	14,824,913
2029	34,237,653	52,221,255	86,458,908	71,977,653	14,481,255
2030	35,876,813	54,832,317	90,709,130	76,789,575	13,919,555
2031	37,634,967	57,573,933	95,208,900	81,716,361	13,492,539
2032	39,491,088	60,452,630	99,943,718	86,883,845	13,059,872
2033	41,436,533	63,475,261	104,911,794	92,242,927	12,668,867
2034	43,481,110	66,649,024	110,130,134	97,800,677	12,329,458
2035	45,629,778	69,981,476	115,611,254	103,568,783	12,042,470
2036	47,896,858	73,480,549	121,377,407	109,425,779	11,951,629
2037	50,274,523	77,154,577	127,429,100	115,538,962	11,890,138
2038	52,773,546	81,012,306	133,785,852	121,909,292	11,876,560
2039	55,396,278	85,062,921	140,459,199	128,650,034	11,809,165

VT TEACHERS MEDICAL
4.00% Discount Rate
Accrued Liability 888,805,041

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability	Total State ARC	Pay-as-you-go	Difference
2010	33,205,410	25,700,119	58,905,529	17,426,245	41,479,284
2011	35,378,210	27,217,621	62,595,831	19,478,948	43,116,883
2012	37,608,468	28,799,130	66,407,598	21,641,244	44,766,354
2013	40,439,500	30,472,338	70,911,839	23,563,909	47,347,929
2014	43,806,033	32,255,863	76,061,896	25,525,720	50,536,176
2015	47,488,706	34,162,524	81,651,229	27,524,881	54,126,349
2016	51,261,064	36,194,637	87,455,701	29,703,926	57,751,775
2017	55,130,159	38,359,879	93,490,038	31,891,494	61,598,544
2018	59,357,309	40,671,371	100,028,681	34,179,812	65,848,869
2019	64,325,739	43,151,519	107,477,258	36,662,692	70,814,566
2020	68,153,901	45,770,131	113,924,032	39,235,316	74,688,717
2021	72,008,612	48,523,965	120,532,577	42,132,829	78,399,748
2022	75,952,768	51,418,670	127,371,438	45,113,382	82,258,056
2023	79,880,841	54,449,555	134,330,396	48,427,707	85,902,689
2024	83,902,654	57,623,758	141,526,412	51,780,328	89,746,084
2025	87,950,359	60,938,641	148,889,000	55,443,176	93,445,824
2026	92,139,181	64,398,344	156,537,525	59,300,370	97,237,155
2027	96,517,552	68,009,450	164,527,001	63,324,126	101,202,875
2028	101,154,209	71,779,127	172,933,336	67,573,520	105,359,816
2029	106,029,704	75,716,338	181,746,042	71,977,653	109,768,389
2030	111,121,321	79,822,258	190,943,579	76,789,575	114,154,004
2031	116,566,405	84,110,879	200,677,284	81,716,361	118,960,923
2032	122,313,610	88,591,495	210,905,105	86,883,845	124,021,260
2033	128,343,541	93,274,639	221,618,180	92,242,927	129,375,253
2034	134,680,077	98,171,775	232,851,852	97,800,677	135,051,175
2035	141,335,566	103,294,849	244,630,415	103,568,783	141,061,632
2036	148,354,527	108,661,210	257,015,737	109,425,779	147,589,958
2037	155,711,817	114,283,208	269,995,025	115,538,962	154,456,063
2038	163,441,773	120,174,692	283,616,465	121,909,292	161,707,173
2039	171,558,164	126,347,141	297,905,305	128,650,034	169,255,270

Note: Pay-as-you-go is not explicitly funded and is paid through the Retirement System. See FY08 Audit presentation, previous page.

Current Estimated VSERS OPEB Liability as of FY 2009

VT EMPLOYEES MEDICAL
8.25% Discount Rate
Accrued Liability 433,256,490

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability	Total State ARC	Pay-as-you-go	Difference
2010	15,456,619	21,522,037	36,978,656	25,956,794	11,021,862
2011	15,472,445	22,598,139	38,070,584	29,089,988	8,980,596
2012	15,284,399	23,728,046	39,012,445	31,770,568	7,241,877
2013	15,114,653	24,914,448	40,029,101	34,224,827	5,804,274
2014	14,993,545	26,160,171	41,153,716	36,395,216	4,758,500
2015	14,877,335	27,468,179	42,345,514	38,555,435	3,790,079
2016	14,876,478	28,841,588	43,718,067	40,341,136	3,376,931
2017	14,916,770	30,283,668	45,200,438	42,118,518	3,081,920
2018	15,188,929	31,797,851	46,986,780	44,055,736	2,931,044
2019	15,811,817	33,387,744	49,199,561	45,425,300	3,774,261
2020	16,471,569	35,057,131	51,528,700	47,268,914	4,259,786
2021	17,170,183	36,809,987	53,980,170	49,016,947	4,963,223
2022	18,036,949	38,650,487	56,687,436	51,078,792	5,608,644
2023	19,064,451	40,583,011	59,647,462	52,885,690	6,761,772
2024	20,046,417	42,612,161	62,658,578	54,697,683	7,960,895
2025	21,036,225	44,742,770	65,778,995	56,865,727	8,913,268
2026	22,016,270	46,979,908	68,996,178	59,077,057	9,919,121
2027	23,120,617	49,328,903	72,449,520	61,652,497	10,797,023
2028	24,258,343	51,795,349	76,053,691	64,301,100	11,752,591
2029	25,583,666	54,385,116	79,968,782	66,455,434	13,513,348
2030	26,897,880	57,104,372	84,002,252	68,921,821	15,080,431
2031	28,171,752	59,959,590	88,131,343	71,693,782	16,437,561
2032	29,545,577	62,957,570	92,503,147	74,517,660	17,985,487
2033	30,980,224	66,105,448	97,085,672	77,316,538	19,769,134
2034	32,483,235	69,410,721	101,893,956	80,284,752	21,609,204
2035	34,115,528	72,881,257	106,996,785	83,327,713	23,669,072
2036	35,762,660	76,525,320	112,287,980	85,644,266	26,643,714
2037	37,486,422	80,351,586	117,838,008	88,843,890	28,994,118
2038	39,279,194	84,369,165	123,648,359	92,280,005	31,368,354
2039	41,157,705	88,587,623	129,745,328	95,959,614	33,785,714

VT EMPLOYEES MEDICAL
4.00% Discount Rate
Accrued Liability 799,792,112

Fiscal Year Ending in	Normal Cost	Amortization of the Unfunded Actuarial Liability	Total State ARC	Pay-as-you-go	Difference
2010	36,784,384	22,987,484	59,771,868	25,956,794	33,815,074
2011	36,822,047	24,156,490	60,978,537	29,089,988	31,888,549
2012	36,374,527	25,279,753	61,654,280	31,770,568	29,883,712
2013	35,970,557	26,363,427	62,333,984	34,224,827	28,109,157
2014	35,682,340	27,417,780	63,100,120	36,395,216	26,704,904
2015	35,405,777	28,442,291	63,848,068	38,555,435	25,292,633
2016	35,403,739	29,455,063	64,858,802	40,341,136	24,517,666
2017	35,499,627	30,458,819	65,958,447	42,118,518	23,839,929
2018	36,147,324	31,465,078	67,612,402	44,055,736	23,556,666
2019	37,629,702	32,515,779	70,145,481	45,425,300	24,720,181
2020	39,199,811	33,601,361	72,801,172	47,268,914	25,532,258
2021	40,862,405	34,728,817	75,591,222	49,016,947	26,574,275
2022	42,925,175	35,902,603	78,827,777	51,078,792	27,748,985
2023	45,370,472	37,143,593	82,514,066	52,885,690	29,628,376
2024	47,707,400	38,451,068	86,158,468	54,697,683	31,460,785
2025	50,062,993	39,817,747	89,880,740	56,865,727	33,015,013
2026	52,395,348	41,244,024	93,639,372	59,077,057	34,562,315
2027	55,023,525	42,730,443	97,753,968	61,652,497	36,101,471
2028	57,731,138	44,279,639	102,010,778	64,301,100	37,709,678
2029	60,885,205	45,922,125	106,807,331	66,455,434	40,351,897
2030	64,012,833	47,651,636	111,664,469	68,921,821	42,742,648
2031	67,044,454	49,459,755	116,504,209	71,693,782	44,810,427
2032	70,313,945	51,355,248	121,669,193	74,517,660	47,151,533
2033	73,728,186	53,346,700	127,074,885	77,316,538	49,758,347
2034	77,305,121	55,437,849	132,742,970	80,284,752	52,458,218
2035	81,189,728	57,639,731	138,829,459	83,327,713	55,501,746
2036	85,109,650	59,979,258	145,088,908	85,644,266	59,444,642
2037	89,211,940	62,441,379	151,653,319	88,843,890	62,809,429
2038	93,478,463	65,028,963	158,507,426	92,280,005	66,227,421
2039	97,949,031	67,745,986	165,695,017	95,959,614	69,735,402

Steps Already Taken to Mitigate Pension and Health Care Fiscal Impacts

1. **Teacher Funding Study (2005)**
   a) Created a commitment to funding discipline
   b) Change in actuarial method to Entry Age Normal
   c) Recommended change in rate of return to 8.25%
   d) Did not address benefit levels

2. **Group F Changes**
   a) 2008 Legislature passed Act 116, a comprehensive approach to funding a full (up to 5 percent) group F cost-of- living adjustment (COLA) for State employees retiring on or after July 1, 2008.
   b) Previously, Group F members were the only State employee group that did not have this benefit.
   c) It will be paid for by a combination of an increase in the group F member contribution rate coupled with changes in retirement benefits and medical insurance subsidies for future newly hired group F members including a tiered health care funding model.
   d) This legislation saves the State money.
      1. Over the next 30 years, the projected savings total approximately $265 million if we continue to fund our retiree medical benefits on a pay-as-you-go basis, and an estimated $308 million if we move to pre-funding our retiree medical insurance.
      2. The present value of these projected savings is $46 million and $70 million respectively.

Steps Taken to Mitigate Pension and Health Care Fiscal Impacts (cont.)

3. State System: Re-amortize the unfunded actuarial liability (UAL)

- Teacher system re-amortization reset by statute effective 7/1/06 to 30 years
- State system was not reset
- Group F changes went into effect on 7/1/08. These changes were amortized over 30 years while all other liabilities remained unchanged
- Even without recent investment experience, resetting the amortization period makes sense
  - Unusually short periods create greater volatility in the ARC
  - If no amortization at all, gains and losses would all be absorbed in one year
- With the resetting of the amortization period for the entire unfunded liability to 30 years beginning 7/1/2008, there is a significant impact on the ARC :

	Without Re-amortization	***With Re-amortization***
FY10	**$61.0 Million**	**$42.6 Million**
FY11	**$64.0 Million**	**$44.6 Million**

Potential Steps to Mitigate Pension Impacts

1. **Review of Actuarial Assumptions**
   - While assumption uses in the actuarial reports are generally long-term, there is an opportunity to factor in short-term changes that may have significant impacts:
     - Health Care Changes
     - Payroll Changes from Revision Actions
     - Any Planned Personnel Actions
       - Staff Reductions
       - Temporary COLA Adjustments

2. **Teacher Health Care Funding**
   - In the Teachers’ system, health care is treated as a loss to the system and therefore impacts the contribution level calculated by the actuary.
   - Need to begin process of identifying long-term sustainable system of funding health care costs.
   - The 25% IRS subordinate requirement will impact this plan in the near future. Need to be pro-active.

Potential Steps to Mitigate Pension Impacts

(continued)

3. **Review Benefit Levels and Provisions**
   a) The cost of the benefit plan should be sustainable and predictable over the long term.
   b) The plan should also be compatible with changing workforce and demographic trends.

4. **Review Employer and Employee Contribution Levels**
   a) Employee contribution rates set by statute
   b) Historically, rates have remained constant as employer costs increased
   c) Health care- tiered system established for new group F members in state; should we consider in VSTRS?
   d) Health care prescription benefit vs. Medicare D subsidy

5. **Review of Alternative Benefit Delivery Models**
   a) Defined contribution, hybrid, cash value plans
   b) What are funding implications for legacy systems?

In conclusion . . .

- To keep pension and OPEB benefits fair and affordable we must:
  - Acknowledge the problem
  - Assess the ability to pay and identify existing and potential funding sources
  - As needed, restructure the payments with a realistic, dedicated source of funding matched to realistic and attainable benefits

- Failure to address the issue now will lead to potentially larger problems later and more draconian steps, failing both the employees and the taxpayers.