

Office of the Vermont State Treasurer

VSERS: Demographic and Financial Overview

February 7, 2020



How Does Data Reconcile to Segal Valuation?

	Report Data		QDRO		Valuation		Variance	
Retired	6,073	128,338,405	88	1,110,121	6,157	129,293,532	4	154,994
Disabled	410	6,115,860			410	6,115,860	0	0
Beneficiary	701	9,192,220			701	9,192,220	0	0
	7,184	143,646,486	88	1,110,121	7,268	144,601,612	4	154,994

Note: Valuation treats QDRO as a separate retirement. Since a QDRO splits a retirement plan or pension plan by recognizing joint marital ownership interests in the plan, TRE has attached the QDRO amount to the associated retiree. TRE has verified with Segal that their treatment in the annual valuation has little or no impact on the reported liability for the pension plan.

For Retirees, data is broken down by three types of retirements or benefits:

- Retired benefit
- Disabled benefit
- Beneficiary benefit

Pension Benefits Reconciled to Actuary Report

Per Retirement Data
(See treatment of QDROs previous page)

Benefit Payments for Retirees and Beneficiaries		
Category	Count	Average Annual Benefit
Retirees	6,073	21,310.54
Retirees with Disabilities	410	14,916.73
Beneficiaries	701	13,113.01
Average		20,145.74
Grand Total	7,184	



Total annualized \$ 144,727,099

Count	7,184
Add back QDROs	+88
Subtract Variance	-4
Revised Count	7,268

Adjusted Benefit:	\$19,913
Per Actuary	\$19,896

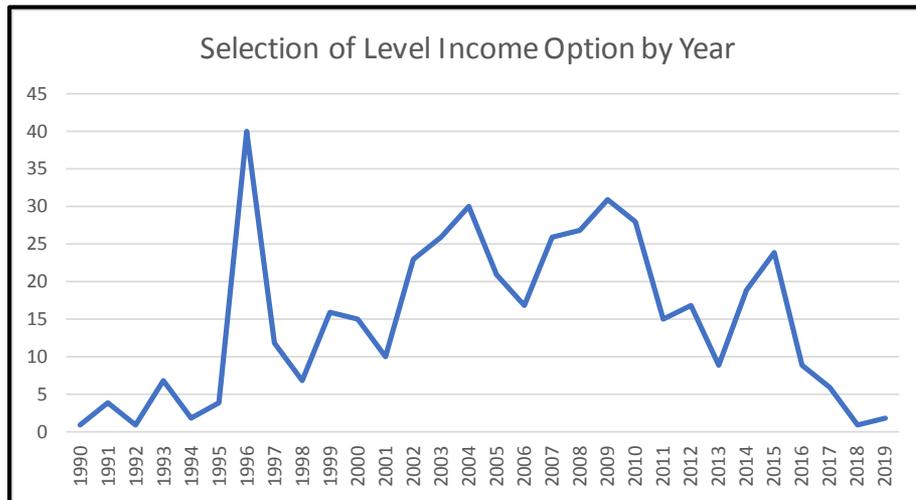
Retirees

Group	Employee Contribution
A	6.65%
C	8.53%
D	6.65%
F	6.65%

Distribution of Benefits to Retirees by Group				
Group	Count	Average Monthly Benefit	Average Annual Benefit	Avg AFC at Retirement
A	110	2,186.59	26,239.06	39,735.33
B	6	1,999.14	23,989.66	46,500.72
C	329	4,278.36	51,340.38	84,405.43
D	60	6,041.98	72,503.72	94,275.52
E	417	500.44	6,005.33	24,478.67
F	5,068	1,677.67	20,132.08	53,904.40
F*	83	616.32	7,395.88	62,653.10
Average		1,775.88	21,310.54	53,778.67
Grand Total	6,073			

Retiree Benefits Skewed Slightly Due to Level Income Option but... Selection of this option is Declining*

Group	Count	Average Monthly Benefit	Average Annual Benefit
A	12	2,174.01	26,088.10
B	3	2,726.66	32,719.88
C	163	4,117.35	49,408.23
D	1	1,669.81	20,037.72
E	1	235.27	2,823.24
F	270	1,561.62	18,739.42
Average		2,508.75	30,105.03
Grand Total	450		-



Age	Count
80	1
79	16
78	10
77	14
76	16
75	8
74	19
73	15
72	19
71	24
70	24
69	15
68	30
67	14
66	26
65	22
64	24
63	19
62	24
61	18
60	14
59	20
58	17
57	9
56	9
55	8
54	7
53	4
52	4
Total	450



Reached age 62 for Social Security

*See footnote page for further explanation

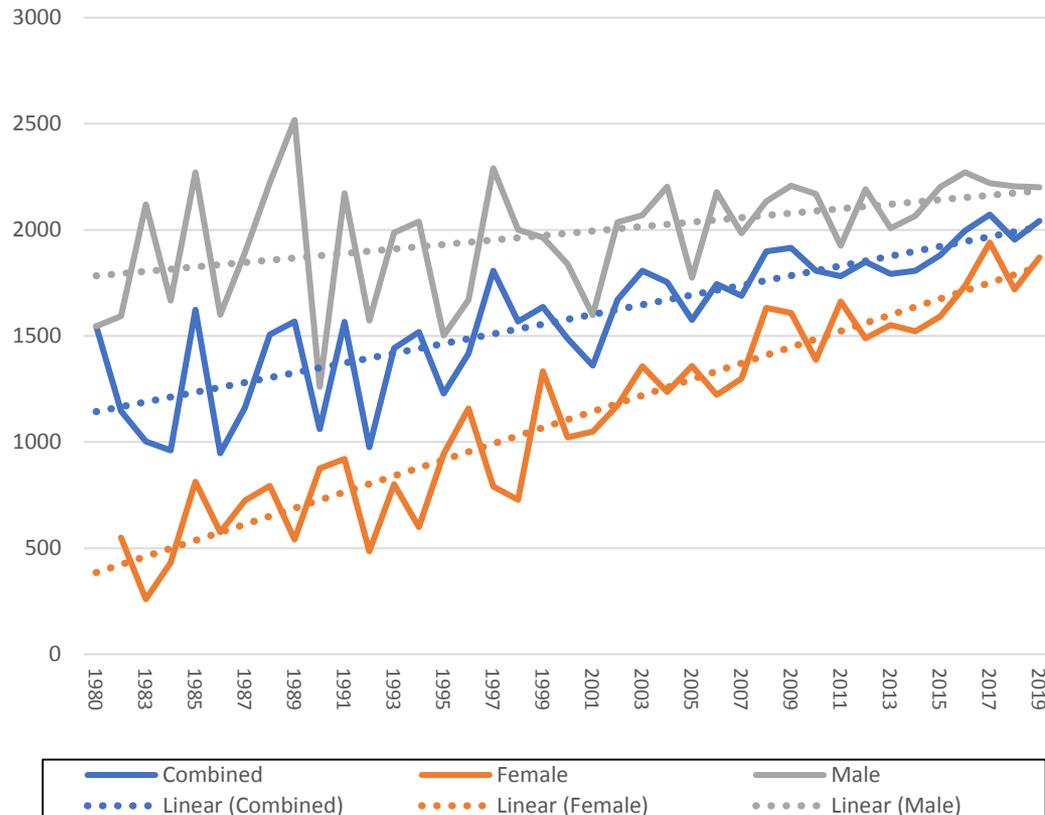
Distribution of Retiree Benefits by Gender

Gender	Count	Average Monthly Benefit	Avg Annual Benefit	Average Years of Service	Average Final Compensation (Avg)
Female	2,928	1,460.84	17,530.14	21.90	48,017.96
Male	3,145	2,069.17	24,830.10	24.78	59,115.39
Average		1,775.88	21,310.54	23.40	53,778.67
Grand Total	6,073				

Distribution of Benefits to Retirees by Group and Gender

Group	Count	Average Monthly Benefit	Average Annual Benefit	Average Final Compensation (Avg)
A Total	110	2,186.59	26,239.06	39,735.33
Female	52	1,793.53	21,522.33	30,930.86
Male	58	2,538.99	30,467.85	47,629.00
B Total	6	1,999.14	23,989.66	46,500.72
Female	-	-	-	-
Male	6	1,999.14	23,989.66	46,500.72
C Total	329	4,278.36	51,340.38	84,405.43
Female	12	3,379.83	40,557.94	73,256.78
Male	317	4,312.38	51,748.54	84,830.14
D Total	60	6,041.98	72,503.72	94,275.52
Female	19	5,770.24	69,242.86	89,649.39
Male	41	6,167.90	74,014.85	96,419.34
E Total	417	500.44	6,005.33	24,478.67
Female	224	438.67	5,264.05	21,838.67
Male	193	572.14	6,865.69	27,529.03
F Total	5,068	1,677.67	20,132.08	53,904.40
Female	2,574	1,517.59	18,211.09	49,925.39
Male	2,494	1,842.89	22,114.69	57,992.63
F* Total	83	616.32	7,395.88	62,653.10
Female	47	624.63	7,495.54	65,705.08
Male	36	605.48	7,265.77	58,816.32
Average		1,775.88	21,310.54	53,778.67
Grand Total	6,073			

Average Monthly Benefit by Year of Retirement



Distribution of Benefits to Retirees by Years of Service

Years of Service	Count	Average Monthly Benefit	Average Annual Benefit	Average Final Compensation (Avg)
Less than 5 years (see note next page)	93	1,274.69	15,296.28	48,146.26
5 years to less than 10 years	705	435.42	5,225.07	44,877.08
10 years to less than 15 years	882	660.26	7,923.14	41,079.00
15 years to less than 20 years	689	1,115.98	13,391.76	48,125.59
20 years to less than 25 years	752	1,919.08	23,029.01	54,797.42
25 years to less than 30 years	647	2,680.24	32,162.91	62,707.94
30 years to less than 35 years	1,525	2,448.26	29,379.14	58,648.55
35 years to less than 40 years	544	2,695.90	32,350.75	63,541.94
40 years to less than 45 years	196	2,608.34	31,300.05	61,987.95
45 years to less than 50 years	32	3,008.87	36,106.48	74,957.31
50 years and over	8	2,897.20	34,766.43	57,422.13
Average		1,775.88	21,310.54	53,778.67
Grand Total	6,073			

Average of Annual Benefit by Type of Retirement				
	Female	Male	Total	Count
Early	9,941.81	21,605.26	15,613.84	1,059
Less than 5 years (see note)	12,326.02	33,938.52	23,132.27	10
5 years to less than 10 years	4,124.60	4,368.72	4,233.23	209
10 years to less than 15 years	6,614.11	7,345.86	6,897.25	199
15 years to less than 20 years	10,053.87	11,905.00	10,667.72	193
20 years to less than 25 years	13,970.61	26,494.90	20,898.94	235
25 years to less than 30 years	15,452.43	41,112.99	34,216.72	160
30 years to less than 35years	24,864.06	36,097.14	31,802.14	34
35 years to less than 40 years	26,675.26	27,899.96	27,287.61	12
40 years to less than 45years	26,521.98	21,588.30	24,877.42	6
45 years to less than 50 years	43,651.44	-	43,651.44	1
Service/Normal	19,261.70	25,461.58	22,513.73	5,014
Less than 5 years (see note)	14,654.12	14,042.89	14,352.19	83
5 years to less than 10 years	5,063.85	6,369.57	5,643.00	496
10 years to less than 15 years	7,421.54	9,114.25	8,222.04	683
15 years to less than 20 years	12,962.80	16,446.32	14,451.72	496
20 years to less than 25 years	19,988.79	28,245.19	23,997.22	517
25 years to less than 30 years	24,579.82	37,619.95	31,488.14	487
30 years to less than 35years	27,989.38	30,436.79	29,323.88	1,491
35 years to less than 40 years	30,573.93	33,440.10	32,464.96	532
40 years to less than 45 years	30,558.78	31,887.50	31,502.87	190
45 years to less than 50 years	29,031.00	38,658.04	35,863.09	31
50 years and over	38,782.86	30,750.00	34,766.43	8
Grand Total	17,530.14	24,830.10	21,310.54	6,073

Footnotes/Explanations:

- Some totals have differences due to rounding
- Variances with actuarial report:
 - Actuary lists QDROs as separate retirees while TRE links them to the retiree and treats as one retirement benefit for purposes of counts/averages. See reconciliation page.
 - Mixed members were not consolidated for purposes of counts, but this is not believed to be material to the demographic. Treatment is identical to that in actuarial report.
- Retirement with less than five years of service:
 - Up to 2004, members who retire and are 63 and older were not required to have five years of service to be eligible for a retirement benefit, which also permitted them access to health care coverage at the 20% premium rate.
 - 2004 Change: A member hired on or after July 1, 2004 must have a minimum of five years to qualify for any type of retirement
 - Note: later change to tiered health care system for Group F* employees, those hired on or after July 1, 2008.
- Level Income Option Explained:
 - At age 62, many are eligible to receive a Social Security retirement benefit. Some members, however, retire before reaching age 62 and would like to increase their benefit through the Level Income Option.
 - Under this option, a member elects to receive a percentage of the member's estimated Social Security benefit from the Retirement System before Social Security actually begins, and then receives a reduced allowance from the System after age 62 when Social Security is received. The actual Social Security benefits received will not affect the Level Income Option after the initial calculations are made.
 - Example: A member received an estimate from the Social Security Administration that his/her benefit at age 62, if he/she chooses to retire now, will be \$600 monthly. Further assume a retirement benefit from the System is \$800 monthly. Under this option a percentage of the estimated Social Security benefit based upon age (the younger you are, the smaller the percentage), is added to your retirement benefit. At age 59, for example, with the above \$600 estimate from Social Security, \$470 would be added to the monthly retirement benefit and the retiree would receive a total of \$1,270 monthly from the System until age 62. At age 62, \$600 would be subtracted from the monthly benefit amount and the retiree would receive \$670 thereafter for the remainder of his/her lifetime.

Disability Retirements

Distribution of Benefits for Disability Retirements by Group				
Group	Count	Average Monthly Benefit	Average Annual Benefit	Avg AFC at Retirement
A	7	897.81	10,773.72	21,787.83
B	2	1,837.75	22,053.00	32,622.66
C	33	3,196.77	38,361.24	65,253.43
D	-	-	-	
E	14	626.35	7,516.20	20,537.64
F	344	1,095.99	13,151.88	40,542.13
F*	10	841.28	10,095.36	41,968.44
Average		1,243.06	14,916.73	41,526.37
Grand Total	410			

Gender	Count	Average Monthly Benefit	Average Annual Benefit	Average Years of Service	Average Final Compensation (Avg)
Female	208	1,094.93	13,139.19	15.50	39,576.85
Male	202	1,395.59	16,747.08	16.04	43,524.14
Average		1,243.06	14,916.73	15.77	41,526.37
Grand Total	410				

Group	Count	Average Monthly Benefit	Average Annual Benefit	Average Years of Service	Average Final Compensation (Avg)
A	7	897.81	10,773.74	13.89	21,787.83
Female	3	797.33	9,567.96	14.42	17,199.96
Male	4	973.17	11,678.07	13.49	25,228.74
B	2	1,837.75	22,052.94	15.09	32,622.66
Male	2	1,837.75	22,052.94	15.09	32,622.66
C	33	3,196.77	38,361.29	16.88	65,253.43
Female	3	2,455.68	29,468.20	8.97	52,425.44
Male	30	3,270.88	39,250.60	17.67	66,536.23
E	14	626.35	7,516.24	17.00	20,537.64
Female	7	534.72	6,416.69	17.11	17,487.05
Male	7	717.98	8,615.79	16.89	23,588.23
F	344	1,095.99	13,151.84	15.90	40,542.13
Female	189	1,104.97	13,259.60	15.85	40,448.54
Male	155	1,085.04	13,020.45	15.95	40,655.64
F*	10	841.28	10,095.38	7.37	41,968.44
Female	6	900.85	10,810.14	6.22	42,799.50
Male	4	751.94	9,023.25	9.08	40,721.85
Average		1,243.06	14,916.73	15.77	41,526.37
Grand Tot:	410				

Distribution of Disability Retirements by Years of Service				
Years of Service	Number	Average Monthly Benefit	Average Annual Benefit	Average Final Compensation
Less than 5 years	10	1,138.96	13,667.52	46,990.72
5 years to less than 10 years	98	847.61	9,900.11	36,622.44
10 years to less than 15 years	104	949.35	11,392.16	35,914.27
15 years to less than 20 years	70	1,316.94	15,803.22	43,605.25
20 years to less than 25 years	71	1,734.49	20,813.94	50,027.32
25 years to less than 30 years	52	1,779.37	21,352.42	46,218.38
30 years to less than 35 years	5	1,721.11	20,653.34	45,924.43
Average		1,243.06	14,916.73	41,526.37
Grand Total	410			

Beneficiary Benefits

Distribution of Beneficiary Benefits by Group				
Group of Employee	Count	Average Monthly Benefit	Average Annual Benefit	Avg AFC of Employee
A	32	1,038.06	12,456.71	28,110.84
B	4	1,367.11	16,405.32	48,018.69
C	77	1,807.77	21,693.19	48,423.18
D	8	4,084.17	49,009.98	65,255.00
E	88	486.33	5,835.95	24,595.97
F	481	1,049.68	12,596.12	44,948.31
F*	11	706.31	8,475.68	49,785.99
Average		1,092.75	13,113.01	42,331.63
Grand Total	701			

Active Employee Data

(Per Actuary)

Vermont State Employees' Retirement System (VSERS)

	<u>June 30, 2019</u>	<u>June 30, 2018</u>	<u>% Change</u>
Active Members			
Vested	5,341	5,370	-0.54%
Not Vested	3,102	3,160	-1.84%
Total Active members	8,443	8,530	-1.02%
Average Age	45.7	45.9	-0.44%
Average Service	10.8	11.0	-1.82%
Average Compensation	\$ 62,486	\$ 61,157	2.17%
Retired Members and Beneficiaries			
Number	7,268	6,974	4.22%
Net Benefit Payments	\$ 144,296,719	\$ 134,090,344	7.61%
Inactive Members	1,443	1,266	13.98%
Terminated Vested Members	747	753	-0.80%

MEMBER POPULATION: 2010 – 2019

As of July 1	Active Members	Deferred Members as Reported by the System*	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives
2010	7,782	765	5,201	5,966	0.77
2011	7,768	774	5,375	6,149	0.79
2012	7,878	767	5,600	6,367	0.81
2013	8,158	741	5,795	6,536	0.80
2014	8,325	732	5,980	6,712	0.81
2015	8,446	735	6,204	6,939	0.82
2016	8,436	728	6,542	7,270	0.86
2017	8,620	742	6,727	7,469	0.87
2018	8,530	753	6,974	7,727	0.91
2019	8,443	747	7,268	8,015	0.95

*Excludes inactive members as reported by the System.

MEMBERSHIP DATA STATISTICS: 2010 – 2019

As of July 1	Active Members			Retired Members*		
	Count	Average Age	Average Service	Count	Average Age	Average Monthly Amount
2010	7,782	47.0	12.6	4,678	--	\$1,348
2011	7,768	47.0	12.6	4,851	--	1,398
2012	7,878	46.4	12.5	5,060	--	1,450
2013	8,158	46.2	12.2	5,248	--	1,478
2014	8,325	45.2	11.8	5,421	69.7	1,510
2015	8,446	46.5	11.7	5,554	70.0	1,561
2016	8,436	46.2	11.3	5,858	70.1	1,587
2017	8,620	46.0	11.1	6,092	70.3	1,616
2018	8,530	45.9	11.0	6,302	70.4	1,663
2019	8,443	45.7	10.8	6,567	70.6	1,718

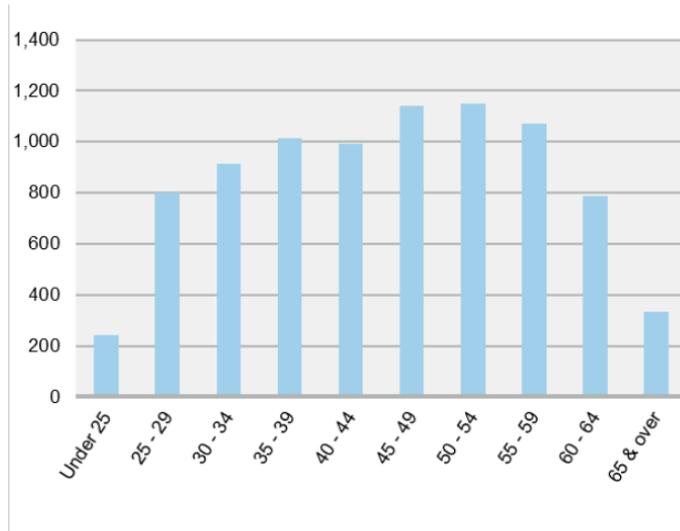
* Not including beneficiaries.

Active Members

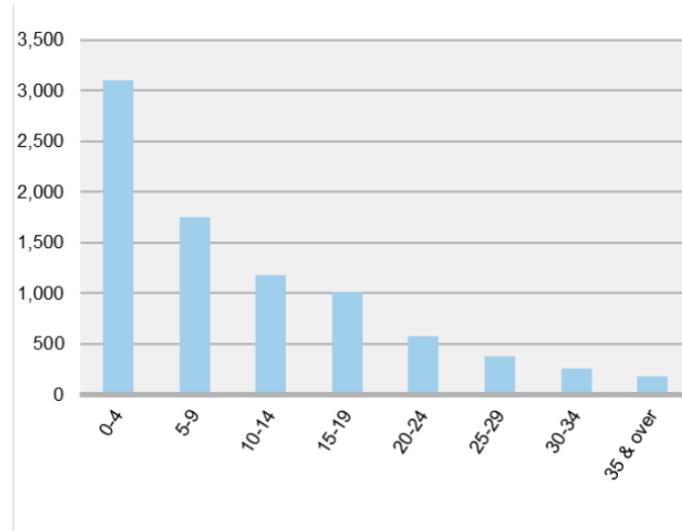
Plan costs are affected by the age, years of creditable service and payroll of active members. In this year's valuation, there were 8,443 active members with an average age of 45.7, average years of creditable service of 10.8 years, and average payroll of \$62,486. The 8,530 active members in the prior valuation had an average age of 45.9, average service of 11.0 years and average payroll of \$61,157.

Distribution of Active Members as of July 1, 2019

BY AGE



BY YEARS OF CREDITABLE SERVICE



Financial Data

Funding Status

VSERS	2017	2018	2019
Actuarial Accrued Liability	\$ 2,511,372,455	\$ 2,661,608,857	\$ 2,779,965,523
Actuarial Value of Assets	\$ 1,793,794,733	\$ 1,881,804,847	\$ 1,964,500,825
Unfunded Liability	\$ 717,577,722	\$ 779,804,010	\$ 815,464,698
Funding Percentage	71.43%	70.70%	70.67%

Schedule of Funding by Year

Year ending June 30	Actuarial		Actuarial		Funded Ratio (a/b)
	Value of Assets (a)	Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)		
(in thousands)					
2019	\$ 1,964,501	\$ 2,779,966	815,465		70.7%
2018	1,881,805	2,661,609	779,804		70.7%
2017	1,793,795	2,511,373	717,578		71.4%
2016	1,707,268	2,289,452	582,184		74.6%
2015	1,636,268	2,178,827	542,559		75.1%
2014	1,566,076	2,010,090	444,014		77.9%
2013	1,469,170	1,914,300	445,130		76.8%
2012	1,400,779	1,802,604	401,825		77.7%
2011	1,348,763	1,695,301	346,538		79.6%
2010	1,265,404	1,559,324	293,920		81.2%
2009	1,217,638	1,544,144	326,506		78.9%
2008	1,377,101	1,464,202	87,101		94.1%
2007	1,318,687	1,307,643	(11,044)		100.8%
2006	1,223,323	1,232,367	9,044		99.3%
2005	1,148,908	1,174,796	25,888		97.8%
2004	1,081,359	1,107,634	26,275		97.6%
2003	1,025,469	1,052,004	26,535		97.5%
2002	990,450	1,017,129	26,679		97.4%
2001	954,821	1,026,993	72,172		93.0%
2000	895,151	967,064	71,913		92.6%
1999	804,970	876,412	71,442		91.8%
1998	733,716	804,501	70,785		91.2%
1997	639,128	753,883	114,755		84.8%

Upward Pressures on Pension Liability

- Historical
 - Great Recession impact
- Demographic/Experience and Economic Assumptions vs. Actual
 - Changing workforce characteristics
 - Turnover
 - Salary assumptions
 - Rate of return
- Experience Study
 - Interest Rate Assumption
 - Mortality
 - Other
- Retirement Incentive
 - 2010, 2016
 - Cost of accelerated retirements and retirement of individuals having reached maximum benefit level added to unfunded liability
 - Backfill of positions - vacancy goals not achieved

Employee Contributions

State Employees (VSERS):

- In 2010, Group A, D and F employees were paying 5.1% of pay for their retirement, scheduled to go to 4.85% in FY16.
- Employees agreed to increase this to 6.4% effective 7/1/10. In 2016, employees agreed to increase to 6.65%. Group C employees agreed to similar increases and are paying 8.53% of payroll today.
- For FY17, this is estimated to result in at least \$8.4 million in additional contributions from state employees. Estimated to be \$10.6 million for FY21.