# Retirement Operations and Pension Obligations

## *Guiding Principles for a Retirement Plan*

Fairness and Sustainability Are Both Essential to Benefit Plans

**What Do We Want From Our Retirement Benefit Plan?**

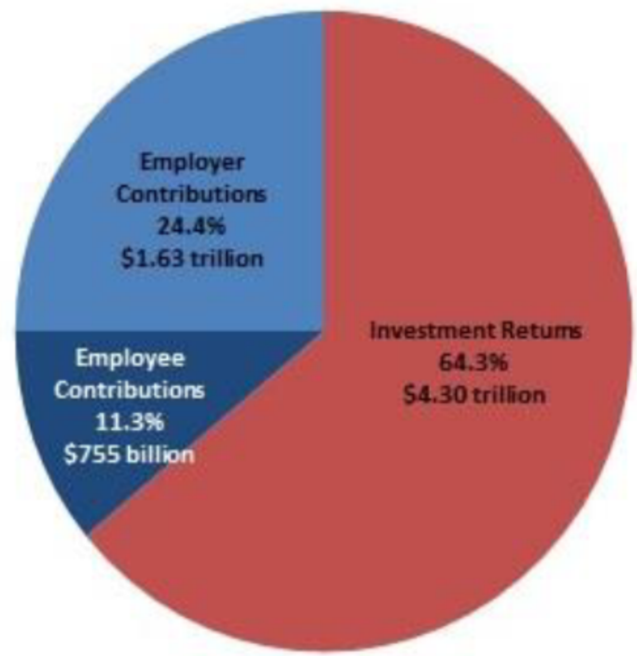
- **Recruitment – The benefit plan should act as an incentive for recruiting high quality employees. The plan must be competitive with those in other states and within Vermont.**
- **Retention – The benefit plan should act as an incentive for retaining high-quality employees and maintaining a stable workforce. The plan should also be compatible with changing workforce and demographic trends.**
- **Reward – The benefit plan should provide a solid foundation for retirement security following a career in public service.**
- **Sustainability – The cost of the benefit plan should be sustainable and predictable over the long term.**
- **Affordability – The cost of the benefit plan should be affordable for current and future public employees and other taxpayers.**
- **Fairness – The benefit plan should be fair to workers and other taxpayers.**
- **Equity – The benefit plan should be equitable for all parties.**

# ***Retirement Customers***

- Serves 51,211 active, retired, inactive, and vested members
- $299.5 million in pension benefits paid in FY 2016
- $58.9 million in healthcare premium payments made in FY2016

# Investment earnings comprise the greatest source of revenue

Figure 3: Public Pension Sources of Revenue, 1985-2014




*Source:* Compiled by NASRA based on U.S. Census Bureau data

# *Annual Required Contribution*

- Method by which  UAL is eventually paid off (assuming it is funded)

- Annual Required Contribution (ARC):
  - A measure of needed plan funding
  - The actuarially determined pension fund contribution in a single year

- The ARC has two parts:

1. The Normal Cost
   - The normal cost generally represents the portion of the cost of projected benefits allocated to the current plan year
   - The employer normal cost equals the total normal cost of the plan reduced by employee contributions

2. Amortization, which is the annual amount needed to eliminate the unfunded liability over the plan's amortization period

# *Upward Budget Pressures on Funding of the ARC*

- Historical
  - Great Recession Impact
  - Lack of Funding of the ARC in past years, especially the teachers' system
- Demographic/Experience and Economic Assumptions vs. Actual
- Experience Study
  - Interest Rate Assumption
  - Mortality
  - Other
- Retirement Incentive
- Teacher Retirements/Education Workforce Changes

# *FY 2016 VSERS Valuation Results*

- Incorporates an FY 2018 ARC recommendation of **$52,065,397**
  - Normal $14,037,814
  - Accrued Liability Amortization $38,027,583
- Increase from prior year of **$3.6 million**
- Normal Cost: 2.88% of projected payroll
- Recent experience study incorporated upward pressures due to the changes in interest rate and new mortality assumptions.

# *FY 2016 VSTRS Valuation Results*

- Incorporates an FY 2018 ARC recommendation of **$88,409,437**

    - Normal $ 8,346,261
    - Accrued Liability Amortization $80,063,176

- Increase from prior year of **$5.7 million**

- Normal Cost: 1.33% of projected payroll

- Recent experience study incorporated upward pressures due to the changes in interest rate and new mortality assumptions

- Increasing amortization payments have greater impact on VSTRS

- Increase in retirements, local workforce changes

- Overall, the number of active teachers continues to decline

# ***Funding History***

| | Year ending June 30 | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) |
|---|---|---|---|---|---|
| **VSERS** | 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% |

note: amounts in thousands.

| | Year ending June 30 | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (UAAL) (b-a) | Funded Ratio (a/b) |
|---|---|---|---|---|---|
| **VSTRS** | 2016 | $ 1,716,296 | $ 2,942,024 | $ 1,225,728 | 58.3% |
| | 2015 | 1,662,346 | 2,837,375 | 1,175,029 | 58.6% |
| | 2014 | 1,610,286 | 2,687,049 | 1,076,764 | 59.9% |
| | 2013 | 1,552,924 | 2,566,834 | 1,013,910 | 60.5% |
| | 2012 | 1,517,410 | 2,462,913 | 945,503 | 61.6% |
| | 2011 | 1,486,698 | 2,331,806 | 845,108 | 63.8% |
| | 2010 | 1,410,368 | 2,122,191 | 711,823 | 66.5% |
| | 2009 | 1,374,079 | 2,101,838 | 727,759 | 65.4% |
| | 2008 | 1,605,462 | 1,984,967 | 379,505 | 80.9% |
| | 2007 | 1,541,860 | 1,816,650 | 274,790 | 84.9% |
| | 2006 | 1,427,393 | 1,686,502 | 259,109 | 84.6% |
| | 2005 | 1,354,006 | 1,492,150 | 138,144 | 90.7% |
| | 2004 | 1,284,833 | 1,424,661 | 139,828 | 90.2% |
| | 2003 | 1,218,001 | 1,358,822 | 140,821 | 89.6% |
| | 2002 | 1,169,294 | 1,307,202 | 137,908 | 89.5% |
| | 2001 | 1,116,846 | 1,254,341 | 137,495 | 89.0% |
| | 2000 | 1,037,466 | 1,174,087 | 136,621 | 88.4% |
| | 1999 | 931,056 | 1,065,754 | 134,698 | 87.4% |
| | 1998 | 821,977 | 955,694 | 133,717 | 86.0% |
| | 1997 | 717,396 | 849,179 | 131,783 | 84.5% |

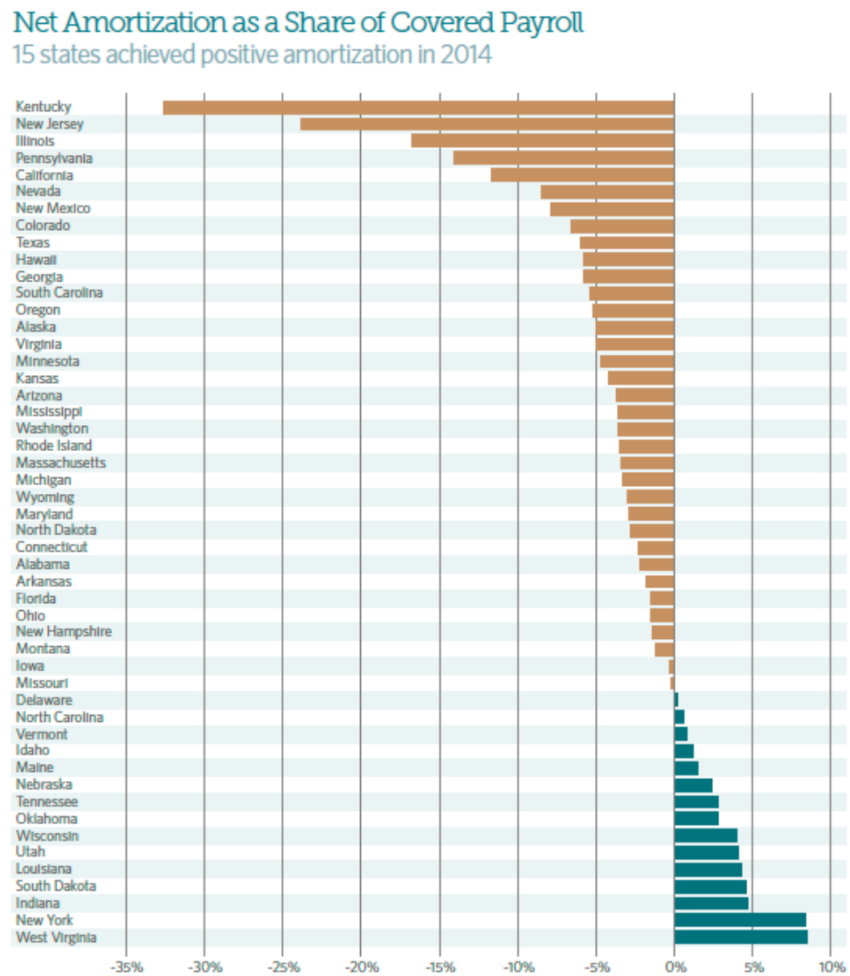
note: amounts in thousands.
note: VSTRS funding method was changed from Entry Age Normal with Frozen Initial Liability to Entry Age Normal effective with the 2006 actuarial valuation.

# A History of Underfunding the ARC led to the Current Underfunding of Teachers Plan, Further Negatively Impacted by Great Recession

| Year | Total VSTRS Payroll | Recommended Contribution For Budget Based on Actuarial Projection | Actual Contribution | $ Difference: Act vs. Rec. (Uses Budget Beginning 1996) | Percentage of Request |
|---|---|---|---|---|---|
| | | | | | |
| 1979 | 96,725,620 | 7,806,825 | 4,825,155 | 2,981,670 | 61.8% |
| 1980 | 104,521,888 | 8,944,090 | 8,471,960 | 472,130 | 94.7% |
| 1981 | 112,811,389 | 9,862,861 | 8,830,900 | 1,031,961 | 89.5% |
| 1982 | 126,748,398 | 10,200,209 | 7,822,760 | 2,377,449 | 76.7% |
| 1983 | 139,085,342 | 10,721,814 | 10,929,355 | (207,541) | 101.9% |
| 1984 | 153,329,729 | 12,341,069 | 11,592,100 | 748,969 | 93.9% |
| 1985 | 169,219,652 | 13,475,181 | 12,567,866 | 907,315 | 93.3% |
| 1986 | 187,834,677 | 14,668,095 | 14,461,148 | 206,947 | 98.6% |
| 1987 | 206,728,650 | 15,925,452 | 16,239,416 | (313,964) | 102.0% |
| 1988 | 230,430,153 | 16,294,346 | 17,186,259 | (891,913) | 105.5% |
| 1989 | 261,596,990 | 18,072,172 | 19,000,000 | (927,828) | 105.1% |
| 1990 | 273,951,188 | 21,320,155 | 19,561,000 | 1,759,155 | 91.7% |
| 1991 | 298,104,184 | 25,013,437 | 15,000,000 | 10,013,437 | **60.0%** |
| 1992 | 312,346,750 | 28,595,220 | 14,618,992 | 13,976,228 | **51.1%** |
| 1993 | 324,536,824 | 28,819,875 | 19,890,048 | 8,929,827 | **69.0%** |
| 1994 | 335,155,405 | 25,805,408 | 20,580,000 | 5,225,408 | **79.8%** |
| 1995 | 346,975,007 | 27,451,926 | 18,080,000 | 9,371,926 | **65.9%** |
| 1996 | 355,894,809 | 29,884,559 | 11,480,000 | 18,404,559 | **38.4%** |
| 1997 | 364,695,370 | 30,954,237 | 18,080,000 | 12,874,237 | **58.4%** |
| 1998 | 357,899,112 | 33,519,949 | 18,106,581 | 15,413,368 | **54.0%** |
| 1999 | 372,298,852 | 27,232,542 | 18,080,000 | 9,152,542 | **66.4%** |
| 2000 | 387,998,959 | 23,573,184 | 18,586,240 | 4,986,944 | **78.8%** |
| 2001 | 403,258,305 | 20,882,521 | 19,143,827 | 1,738,694 | 91.7% |
| 2002 | 418,904,021 | 21,965,322 | 20,446,282 | 1,519,040 | 93.1% |
| 2003 | 437,238,543 | 23,197,088 | 20,446,282 | 2,750,806 | **88.1%** |
| 2004 | 453,517,153 | 29,608,892 | 24,446,282 | 5,162,610 | **82.6%** |
| 2005 | 486,857,658 | 43,592,332 | 24,446,282 | 19,146,050 | **56.1%** |
| 2006 | 499,044,327 | 49,923,599 | 24,985,506 | 24,938,093 | **50.0%** |
| 2007 | 515,572,694 | 38,200,000 | 38,496,410 | (296,410) | 100.8% |
| 2008 | 535,807,012 | 40,749,097 | 40,955,566 | (206,469) | 100.5% |
| 2009 | 561,588,013 | 37,077,050 | 37,349,818 | (272,768) | 100.7% |
| 2010 | 562,149,916 | 41,503,002 | 41,920,603 | (417,601) | 101.0% |
| 2011 | 547,748,405 | 48,233,006 | 50,268,131 | (2,035,125) | 104.2% |
| 2012 | 561,179,272 | 51,241,932 | 56,152,011 | (4,910,079) | 109.6% |
| 2013 | 563,623,421 | 60,182,755 | 65,086,320 | (4,903,565) | 108.1% |
| 2014 | 567,073,601 | 68,352,825 | 72,668,412 | (4,315,587) | 106.3% |
| 2015 | 576,393,699 | 72,857,863 | 72,908,805 | (50,942) | 100.1% |

**Vermont Maintains a Strong Commitment to Funding Pension Liabilities**

- Vermont  is one of 15 states that achieved positive amortization in 2014.
- Vermont enacted statutory changes in 2016 to affect more rapid amortization.
- Vermont has  paid more than the ARC/ADEC in the most recent five-year period and continued this trend in FY 2016 and expects to do so in 2017.
- Vermont does not operate under restrictive statutes that cap annual contributions or increases in contributions as a percentage of payroll, which was noted as an issue in other states in a recent publication by FitchRatings.




Source: The PEW Charitable Trusts, Issue Brief, The State Pension Funding Gap: 2014, August 2016

## ARC/ADEC Paid and Amortization Summary

| System Name | 2011 | 2012 | 2013 | 2014 | 2015 | Five Year Average | Period (Years) | Basis | Method |
|---|---|---|---|---|---|---|---|---|---|
| Vermont State RS | 84.5 | 140.2 | 130.4 | 132 | 125.1 | 122.44 | 22 | Closed | Level % |
| Indiana 1977 Police Off. & FF PDF | 113.5 | 102.3 | 121.8 | 135.5 | 123.2 | 119.26 | 27 | Closed | Level $ |
| Indiana STRS (1996) | 123.4 | 117 | 108 | 109.6 | 115.4 | 114.68 | 26 | Closed | Level % |
| South Dakota RS | 100 | 100 | 100 | 121.9 | 115.1 | 107.4 | — | Closed | Level $ |
| Vermont State Teachers RS | 104.2 | 109.6 | 108.1 | 106.3 | 100.1 | 105.66 | 22 | Closed | Level $ |
| Georgia ERS | 100 | 100 | 100 | 100.2 | 100.2 | 100.08 | 19.4 | Closed | Level % |
| Delaware SEPP | 100 | 100 | 100 | 100 | 100 | 100 | 20 | Open | Level % |
| Georgia TRS | 100 | 100 | 100 | 100 | 100 | 100 | 30 | Layered | Level $ |
| Indiana STRS (Pre-1996) | 100 | 100 | 100 | 100 | 100 | 100 | 26 | Closed | Level $ |
| Missouri DOT & Hwy. Patrol ERS | 100 | 100 | 100 | 100 | 100 | 100 | 16 | Closed | Level $ |
| Missouri SEP | 100 | 100 | 100 | 100 | 100 | 100 | 29 | Closed | N.A. |
| South Carolina Police Officers' RS | 100 | 100 | 100 | 100 | 100 | 100 | 27 | Open | Level % |
| South Carolina RS | 100 | 100 | 100 | 100 | 100 | 100 | 30 | Open | Level % |
| Tennessee Closed State & Teachers c | 100 | 100 | 100 | 100 | 100 | 100 | 8 | Closed | Level % |
| Utah PERS — Noncontributory | 100 | 100 | 100 | 100 | 100 | 100 | 20 | Open | Level % |
| Utah Public Safety RS | 100 | 100 | 100 | 100 | 100 | 100 | 20 | Open | Level $ |
| Indiana PERF | 97.7 | 88.5 | 98.2 | 98.3 | 103.6 | 97.26 | 27 | Closed | N.A. |
| Iowa PERS | 82.3 | 98.2 | 98 | 100 | 101.9 | 96.08 | 29 | Closed | N.A. |
| North Carolina Teachers' & State ERS | 73 | 100 | 104 | 100 | 100 | 95.4 | 12 | Closed | Level $ |
| Florida RS | 83 | 60 | 66 | 100 | 100 | 81.8 | 30 | Layered | Level $ |
| Texas TRS | 86 | 74 | 74 | 79.1 | 93.6 | 81.34 | 33 | Open | Level % |
| Maryland Teachers RPS | 75.1 | 71.2 | 77.5 | 73.6 | 89.4 | 77.36 | 23 | Layered | Level % |
| Maryland Employees RPS | 68.8 | 65.9 | 66.9 | 72.9 | 83.9 | 71.68 | 23 | Layered | Level % |
| Virginia RS | 46.7 | 59.6 | 75.8 | 75.8 | 83.5 | 68.28 | 29 | Closed | Level % |
| Texas ERS | 58.5 | 49.2 | 50.7 | 66.3 | 67.9 | 58.52 | 31 | Open | Level % |

Source: Adapted from Fitch Ratings, 2016 State Pension Update: New Accounting, Old Challenges, November 15, 2016

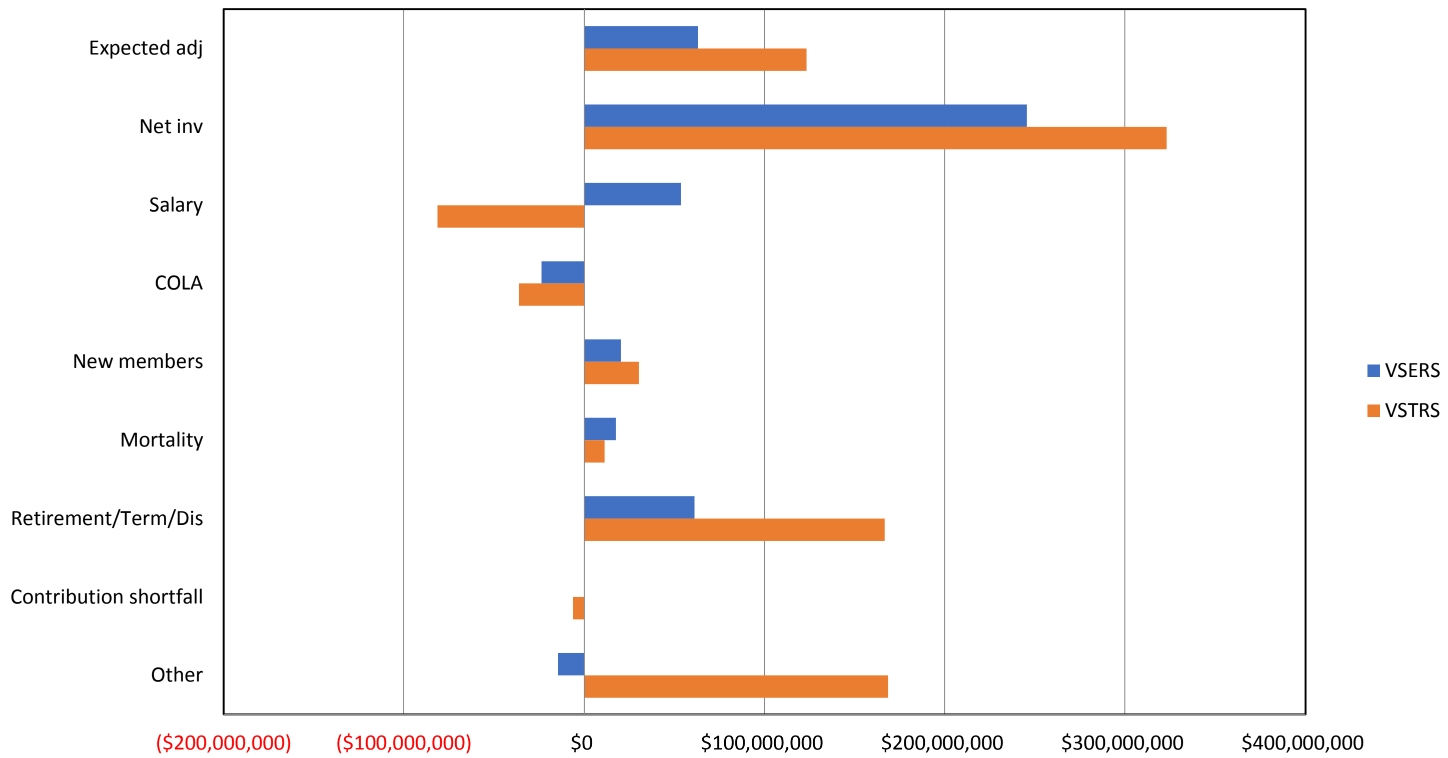
Vermont continues to compare favorably with its Triple-A peers

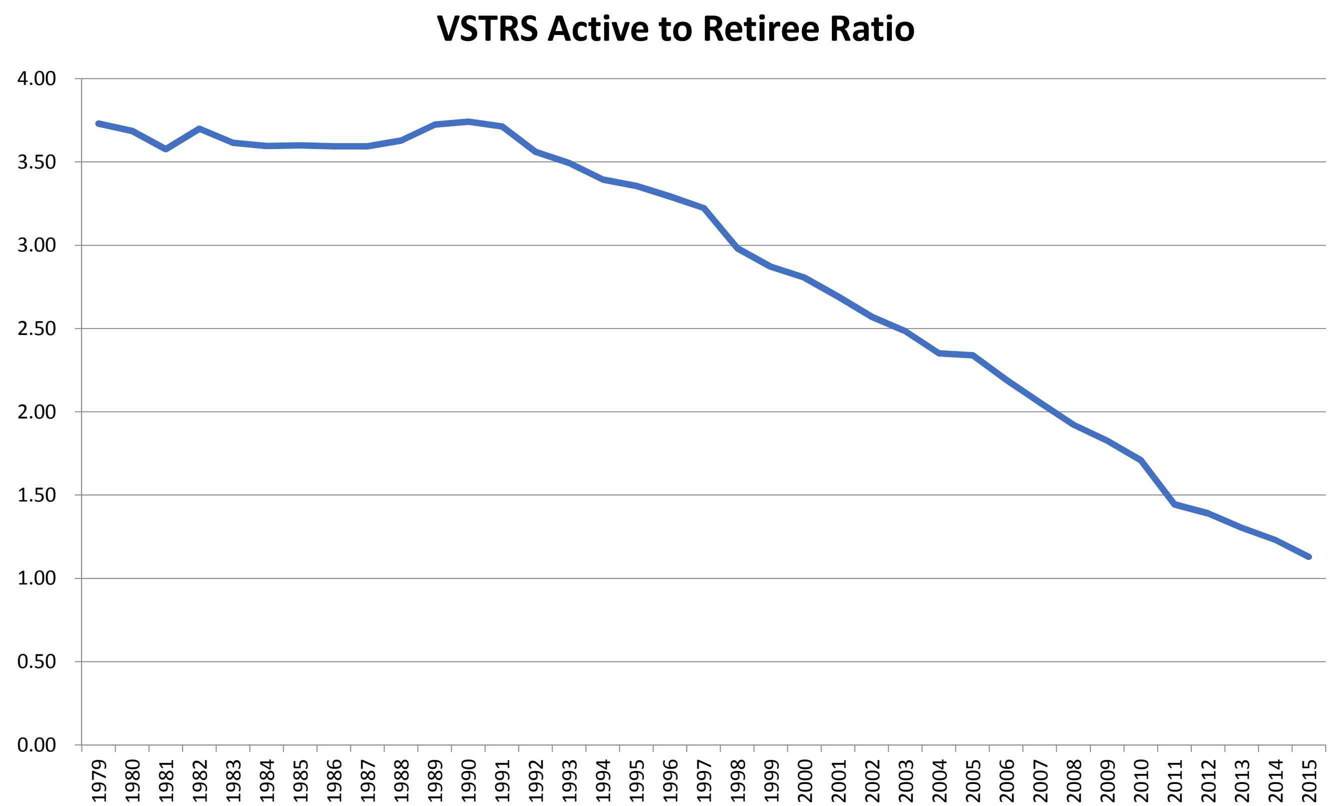
In FY2016, Vermont continued its efforts to contribute in excess of the ARC/ADEC:
State retirement System: 117.5%, State Teachers retirement System 101.1%

# *Drivers of Changes in the Unfunded Liability*

## Cumulative impacts on unfunded liability 2003 – 2013

**(Positive Numbers Reflect Negative Experience that Increased the Liability)**





VSTRS Active to Retiree Ratio
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1979
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# *Issues related to Active to Retiree Ratio*

- Unlike a "pay-as-you-go" plan such as Social Security, the actuary takes this in account when developing models to prefund benefits.

- The increasing trend may get ahead of actuarial demographic assumptions, creating actuarial losses.

- Trends are indicative of a maturing plan and can make it more difficult to achieve the objectives of full funding.

- Potentially creates more volatility in employer contribution rates.

- As more funds are needed for benefit payments, the system has a greater negative cash flow (benefit payments exceed contributions), requiring more liquid assets to fund these payments.

- Impacts asset allocation strategy over time. May have VPIC impacts.

# History of Disciplined Incremental Steps to Reduce Pension and Retiree Health Care Costs To Taxpayer

- 2005 Teacher Study made changes to the state's actuarial methods and put full funding of ARC on track. Legislature has consistently adopted a budget with full funding of the ARC since 2007.

- 2008 Committee restructured state system (VSERS)Group F benefits, lengthening age of retirement, effective in FY 2009, in concert with health care changes.

- 2009 Pension and Health Care Study completed providing basis for negotiated savings over the next few years for both state (VSERS) and teachers (VSTRS) system.

- 2010 VSTRS: Lengthen age for normal retirement, contribution increases, and other changes , effective in FY2011, resulting in $**15 million in annual pension savings to taxpayer. In addition to pension costs, additional health care savings accrued.**

- 2011 VSERS: Employee contribution rate increases beginning FY2012, **$5 million in savings per year.**

- **2011-2012 VSTRS:** Secured **one-time revenues in excess of $5 million for VSERS and VSTRS** under the Federal Early Retirement Reinsurance Program.

- 2012- 2015: Incremental increases in employee and employer contributions to municipal system, demonstrating <u>shared responsibility</u> by all parties. Put the municipal system on a stronger financial track.

- 2014 VSTRS: additional contribution increases for new and non-vested members, effective FY 2015, **$1 million initial annual savings, increasing each year.**

# History of Disciplined Incremental Steps to Reduce Pension and Retiree Health Care Costs To Taxpayer (cont.)

- **2015: Created Retired Teachers' Health and Medical Benefits Fund starting FY2015**
  - Since the 1980s, health care premiums for teachers paid out of a sub-trust of teachers pension fund; by 2014 costing over $20 million per year in interest costs to taxpayer
  - Collaborative solution: Successfully convened over a dozen stakeholders, including employee group, to address the problem including combined pension/health care changes. In addition to pension and health care changes previously stated, a new health care assessment for LEAs, linking local employment decisions to the benefit costs.
  - **Projected to save taxpayers $480 million** in unfunded liability interest costs through FY2038.

- 2016: Changes to the amortization financing schedule for the State and Teacher systems. **Will result in saving the taxpayer $165 million** in interest from present to 2038. See next page for explanation.

- 2016: Increased employee contributions will result in **$1.2 million in annual savings, with savings growing larger in future years.**

**At the same time creating additional Transparency and Accountability**

- 2013: Pension forfeiture statute, applicable to all three systems (state, teacher and municipal).

- 2015: VSERS Disability retirement reform permitting wage verification of disability pensioners.

**Collaborative Approach Key to Success**

- All benefit changes made though collaborative efforts involving Administration, Treasurer’s Office, General Assembly and Employee Groups.

- No court litigation/disruptions in planned implementations.

# *2016 Amortization Change Explained*

- While the State has a date set in statute, 2038, to pay down the unfunded liability, the payment schedule was established with increases in 5% increments each year
- This has the effect of increasing interest costs associated with the payment of these liabilities
- Leveling out the payment schedule would:
  - increase ARC payments in the short-term but have the effect of saving the taxpayers millions of dollars over the long-term
  - more rapid reduction of the unfunded liability
- Changes to amortization schedule phased-in to cushion budgetary impact
- Adopted by the Legislature in 2016
- Treasurer's Office proposed and the Legislature adopted phasing in a payment schedule with increases at 3% increments each year, closer to the projected long-term rate of inflation. **Interest savings through 2038 estimated at $165 million**.