# Presentation to House Education Committee

**Office of the State Treasurer**
**February 2016**

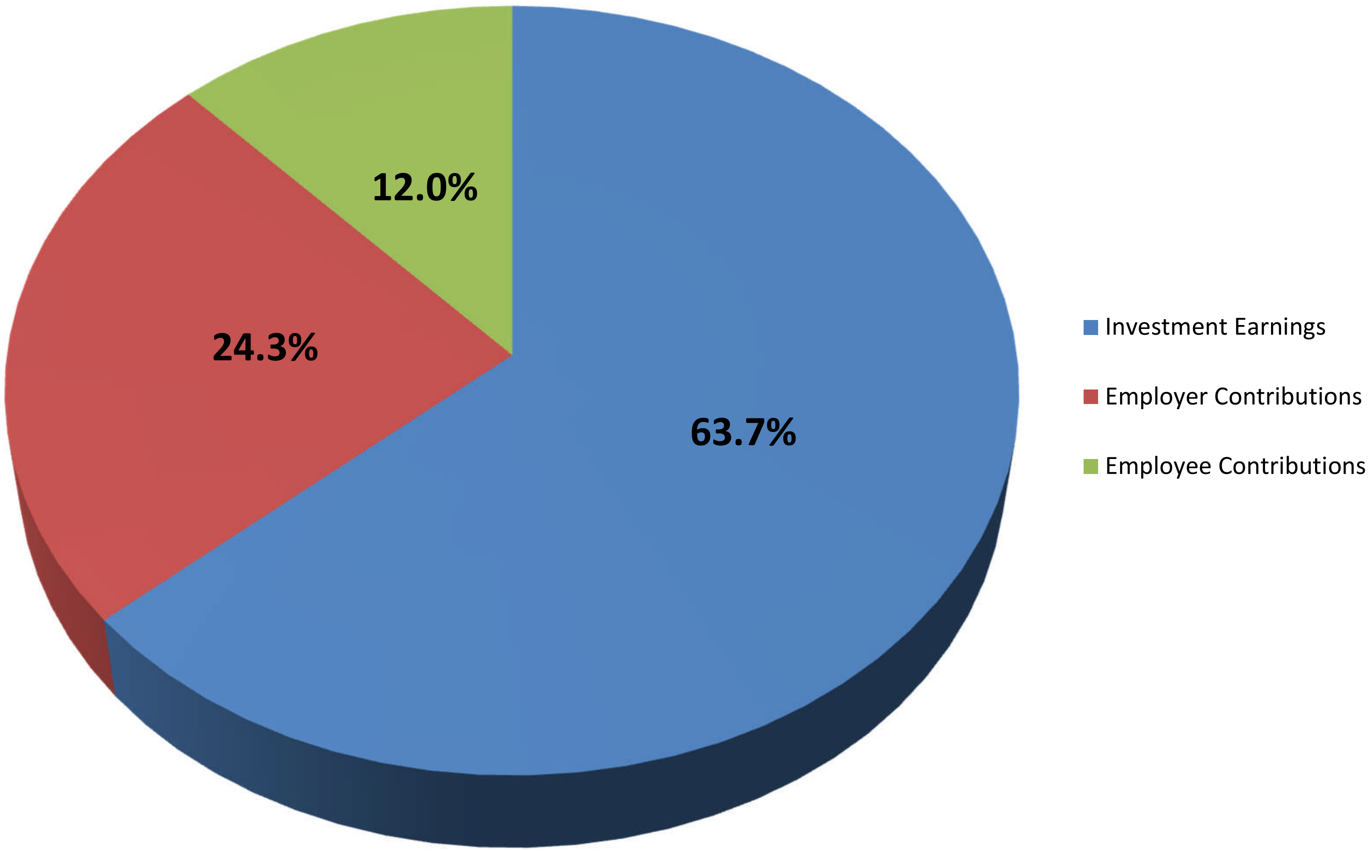
# *Guiding Principles for a Retirement Plan*

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.**

# Investment Earnings Comprise the Greatest Source of Revenue




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

# ***The Pension Challenge***

- Funding for retirement benefits, including health care, is among the largest fiscal challenges facing many state governments, including Vermont
- Health insurance has historically grown much faster than the rate of revenue growth
- Investment losses from the Great Recession significantly impacted pension funding
- At the same time, retirement security is important to Vermont's economic future
- Maintaining a disciplined approach is important to meet these challenges

# ***Pension Funding: How are We Doing?***

- Measured by an Independent Actuary

- Three Important Factors:

  1. What is your funded status?
     - Pension Liabilities
     - Assets Available to meet these liabilities

  2. Are you Contributing to Plan at the Recommended Rate
     - ARC
     - ADC/ADEC

  3. Do you have a plan in place to retire the unfunded liability?

# *New Pension Accounting GASB 67/68*

- GASB 68 divorces funding and accounting
  - In prior standard, the focus was on whether the government is making its ARC contributions to adequately fund the plan
  - Under the new standard, the focus is on the size and growth of the NPL
- GASB68, based on fair market value of assets, will lead to more volatility in the NPL and funded ratio reported for accounting purposes
- Unfunded pension liabilities exist today and will tomorrow, much like the amortized portion of a mortgage
- Legislators and pension governing boards will still need to maintain/develop a funding policy to pay off the liabilities
  - Vermont’s funding policy established in state statute
- Employers’ unfunded pension liabilities are very large but will be paid down via annual contributions to the pension funds over many years

# ***FY 2014/2015 GASB 67 Results***

(Dollar Amount in Thousands)

**FY 2014**

| | **VSERS** | **VSTRS** | **VMERS** |
|---|---|---|---|
| Total Pension Liability | 2,008,888 | 2,663,802 | 543,652 |
| Plan Fiduciary Net Position | (1,657,246) | (1,705,365) | (534,525) |
| Net Pension Liability | 351,642 | 958,437 | 9,127 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability | 82.50% | 64.02% | 98.32% |

**FY 2015**

| | **VSERS** | **VSTRS** | **VMERS** |
|---|---|---|---|
| Total Pension Liability | 2,169,909 | 2,839,621 | 613,000 |
| Plan Fiduciary Net Position | (1,624,861) | (1,653,116) | (535,904) |
| Net Pension Liability | 545,048 | 1,186,505 | 77,096 |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability | 74.88% | 58.22% | 87.42% |

# Funding Progress of the Retirement Systems

## State (VSERS)

***(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) | Covered Payroll ( c) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
|---|---|---|---|---|---|---|---|
| **VSERS** | 2015 | $ 1,636,268 | $ 2,178,827 | $ 542,559 | 75.1% | $ 462,057 | 117.4% |
| | 2014 | 1,566,076 | 2,010,090 | 444,014 | 77.9% | 437,676 | 101.4% |
| | 2013 | 1,469,170 | 1,914,300 | 445,130 | 76.8% | 416,766 | 106.8% |
| | 2012 | 1,400,779 | 1,802,604 | 401,825 | 77.7% | 385,526 | 104.2% |
| | 2011 | 1,348,763 | 1,695,301 | 346,538 | 79.6% | 398,264 | 87.0% |
| | 2010 | 1,265,404 | 1,559,324 | 293,920 | 81.2% | 393,829 | 74.6% |
| | 2009 | 1,217,638 | 1,544,144 | 326,506 | 78.9% | 404,516 | 80.7% |
| | 2008 | 1,377,101 | 1,464,202 | 87,101 | 94.1% | 404,593 | 21.5% |
| | 2007 | 1,318,687 | 1,307,643 | (11,044) | 100.8% | 386,917 | -2.9% |
| | 2006 | 1,223,323 | 1,232,367 | 9,044 | 99.3% | 369,310 | 2.4% |
| | 2005 | 1,148,908 | 1,174,796 | 25,888 | 97.8% | 349,258 | 7.4% |
| | 2004 | 1,081,359 | 1,107,634 | 26,275 | 97.6% | 336,615 | 7.8% |
| | 2003 | 1,025,469 | 1,052,004 | 26,535 | 97.5% | 319,855 | 8.3% |
| | 2002 | 990,450 | 1,017,129 | 26,679 | 97.4% | 300,994 | 8.9% |
| | 2001 | 954,821 | 1,026,993 | 72,172 | 93.0% | 278,507 | 25.9% |
| | 2000 | 895,151 | 967,064 | 71,913 | 92.6% | 266,519 | 27.0% |
| | 1999 | 804,970 | 876,412 | 71,442 | 91.8% | 238,281 | 30.0% |
| | 1998 | 733,716 | 804,501 | 70,785 | 91.2% | 235,956 | 30.0% |
| | 1997 | 639,128 | 753,883 | 114,755 | 84.8% | 227,000 | 50.6% |

# Funding Progress of the Retirement Systems

## Teachers (VSTRS)

***(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) | Covered Payroll ( c) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
|---|---|---|---|---|---|---|---|
| **VSTRS** | **2015** | **$ 1,662,346** | **$ 2,837,375** | **$ 1,175,029** | **58.6%** | **$ 576,394** | **203.9%** |
| | 2014 | 1,610,286 | 2,687,049 | $ 1,076,764 | 59.9% | 567,074 | 189.9% |
| | 2013 | 1,552,924 | 2,566,834 | 1,013,910 | 60.5% | 563,623 | 179.9% |
| | 2012 | 1,517,410 | 2,462,913 | 945,503 | 61.6% | 561,179 | 168.5% |
| | 2011 | 1,486,698 | 2,331,806 | 845,108 | 63.8% | 547,748 | 154.3% |
| | 2010 | 1,410,368 | 2,122,191 | 711,823 | 66.5% | 562,150 | 126.6% |
| | 2009 | 1,374,079 | 2,101,838 | 727,759 | 65.4% | 561,588 | 129.6% |
| | 2008 | 1,605,462 | 1,984,967 | 379,505 | 80.9% | 535,807 | 70.8% |
| | 2007 | 1,541,860 | 1,816,650 | 274,790 | 84.9% | 515,573 | 53.3% |
| | 2006 | 1,427,393 | 1,686,502 | 259,109 | 84.6% | 499,044 | 51.9% |
| | 2005 | 1,354,006 | 1,492,150 | 138,144 | 90.7% | 468,858 | 29.5% |
| | 2004 | 1,284,833 | 1,424,661 | 139,828 | 90.2% | 453,517 | 30.8% |
| | 2003 | 1,218,001 | 1,358,822 | 140,821 | 89.6% | 437,239 | 32.2% |
| | 2002 | 1,169,294 | 1,307,202 | 137,908 | 89.5% | 418,904 | 32.9% |
| | 2001 | 1,116,846 | 1,254,341 | 137,495 | 89.0% | 403,258 | 34.1% |
| | 2000 | 1,037,466 | 1,174,087 | 136,621 | 88.4% | 387,999 | 35.2% |
| | 1999 | 931,056 | 1,065,754 | 134,698 | 87.4% | 372,299 | 36.2% |
| | 1998 | 821,977 | 955,694 | 133,717 | 86.0% | 357,899 | 37.4% |
| | 1997 | 717,396 | 849,179 | 131,783 | 84.5% | 364,695 | 36.1% |

# Funding Progress of the Retirement Systems Municipal (VMERS)

***(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) | Covered Payroll ( c) | UAAL as a Percentage of Covered Payroll ((b-a)/c) |
|---|---|---|---|---|---|---|---|
| **VMERS** | 2015 | --------------------------------Data Pending-------------------------------------- | | | | | |
| | 2014 | $ 500,558 | $ 580,972 | $ 80,414 | 86.2% | $ 230,969 | 34.8% |
| | 2013 | 446,236 | 528,426 | 82,190 | 84.4% | 220,372 | 37.3% |
| | 2012 | 417,443 | 488,572 | 71,129 | 85.4% | 215,075 | 33.1% |
| | 2011 | 402,550 | 436,229 | 33,679 | 92.3% | 205,589 | 16.4% |
| | 2010 | 376,153 | 409,022 | 32,869 | 92.0% | 202,405 | 16.2% |
| | 2009 | 331,407 | 366,973 | 35,566 | 90.3% | 191,521 | 18.6% |
| | 2008 | 348,740 | 343,685 | (5,055) | 101.5% | 175,894 | -2.9% |
| | 2007 | 325,774 | 309,853 | (15,921) | 105.1% | 162,321 | -9.8% |
| | 2006 | 288,347 | 276,552 | (11,795) | 104.3% | 148,815 | -7.9% |
| | 2005 | 259,076 | 248,140 | (10,936) | 104.4% | 146,190 | -7.5% |
| | 2004 | 232,890 | 225,092 | (7,798) | 103.5% | 135,351 | -5.8% |
| | 2003 | 222,854 | 218,533 | (4,321) | 102.0% | 126,216 | -3.4% |
| | 2002 | 193,278 | 176,109 | (17,169) | 109.7% | 106,986 | -16.0% |
| | 2001 | 177,928 | 158,786 | (19,142) | 112.1% | 101,873 | -18.8% |
| | 2000 | 161,900 | 138,697 | (23,203) | 116.7% | 87,147 | -26.6% |
| | 1999 | 137,454 | 114,481 | (22,973) | 120.1% | 70,808 | -32.4% |
| | 1998 | 113,678 | 102,005 | (11,673) | 111.4% | 87,328 | -13.4% |
| | 1997 | 96,196 | 85,686 | (10,510) | 112.3% | 70,800 | -14.8% |

# ***Actuarial Gains or Losses***

- A pension plan has actuarial gains or losses each year because the actual events during the year ("experience") do not exactly match the long-term assumptions previously made

- Economic Gains/Losses: Gains or losses on plan assets occur because the actual investment returns were higher or lower than anticipated

- Experience and Demographic Gains or losses: Can occur because long-term assumptions (e.g., mortality, salary increases, termination, retirement) were not met

- An experience study is completed to reset assumptions

# ***FY 2015 VSERS Valuation Results***

- Incorporates an ARC recommendation of $48,503,358.
  - Normal $ 14,181,091
  - Accrued Liability Amortization $ 34,322,267
- Increase from prior year of $2.3 million
- the July experience study incorporated upward pressures due to the change from the select-and-ultimate rate of return assumption to the lower single rate return assumption of 7.95%, and new mortality assumptions. The Board wanted to undertake a further review of the components of the workforce as they related to mortality as well as salary increase assumptions. As a result two major changes were reflected in the valuation:
  - The mortality tables were adjusted to reflect a blended collar (blue collar, general collar) mix consistent with an analysis of the job titles in the active population
  - Mortality assumptions within the actuarial industry are continuing to evolve and the Treasurer's Office concurs with the Actuary's recommendation to conduct an annual review
  - Long term rates of salary increases were adjusted downward based on data supplied by HR and TRE staff

# ***FY 2015 VSTRS Valuation Results***

- Incorporates an ARC recommendation of $82,659,576.
  - Normal $ 8,327,249
  - Accrued Liability Amortization $ 74,332,327

- Increase from prior year of $6.6 million

- The major upward cost drivers are the change from the select-and-ultimate rate of return assumption to the slightly lower single rate return assumption of 7.95%, and updated mortality assumptions

- Increase in retirements

- Overall, the number of active teachers continues to decline

# ***VSTRS Facts***

- Membership as of June 30, 2015
    - 9,585 active
    - 2,260 inactive
    - 1,163 terminated vested
    - 8,484 retired
- VSTRS benefits are currently funded by member contributions, contributions by the state (general fund), and net investment returns
- Investment returns historically provide the majority of funding for pension benefits
- FY2014:VSTRS was funded at 59.9% funded (on a funding policy basis) and 64% funded per GASB 67 standard
- FY2015: VSTRS currently funded at 58.6% (on a funding policy basis), GASB 67 data not yet available.
- VSTRS was not as well funded as the state or municipal plan going into the Great Recession, because of significant periods of underfunding the actuary's recommended contribution and the impact of paying health care in the pension fund without explicit funding sources
- Smaller amounts are attributable to retirement experience, demographic or economic assumptions

***For Our Funding Purposes, the Actuarial Annual Required Contribution is now the Actuarially Determined (Employer) Contribution***

ARC= ADC or ADEC

# ***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

# VSTRS- Funding History

| Year | Total VSTRS Payroll | Total VSTRS Payroll/ Using 1979 Dollars | Recommended Contribution For Budget based on Actuarial projection | Actual Contribution | $ Difference: Act vs. Rec. (Uses Budget Beginning 1996) | Percentage of Request Budget Basis | Actual Contribution as a Percentage of Payroll |
|---|---|---|---|---|---|---|---|
| 1979 | 96,725,620 | 96,725,620 | 7,806,825 | 4,825,155 | 2,981,670 | 61.8% | 5.0% |
| 1980 | 104,521,888 | 92,090,887 | 8,944,090 | 8,471,960 | 472,130 | 94.7% | 8.1% |
| 1981 | 112,811,389 | 90,100,185 | 9,862,861 | 8,830,900 | 1,031,961 | 89.5% | 7.8% |
| 1982 | 126,748,398 | 95,356,826 | 10,200,209 | 7,822,760 | 2,377,449 | 76.7% | 6.2% |
| 1983 | 139,085,342 | 101,381,484 | 10,721,814 | 10,929,355 | (207,541) | 101.9% | 7.9% |
| 1984 | 153,329,729 | 107,138,964 | 12,341,069 | 11,592,100 | 748,969 | 93.9% | 7.6% |
| 1985 | 169,219,652 | 114,176,085 | 13,475,181 | 12,567,866 | 907,315 | 93.3% | 7.4% |
| 1986 | 187,834,677 | 124,423,335 | 14,668,095 | 14,461,148 | 206,947 | 98.6% | 7.7% |
| 1987 | 206,728,650 | 132,117,077 | 15,925,452 | 16,239,416 | (313,964) | 102.0% | 7.9% |
| 1988 | 230,430,153 | 141,413,602 | 16,294,346 | 17,186,259 | (891,913) | 105.5% | 7.5% |
| 1989 | 261,596,990 | 153,160,818 | 18,072,172 | 19,000,000 | (927,828) | 105.1% | 7.3% |
| 1990 | 273,951,188 | 152,171,815 | 21,320,155 | 19,561,000 | 1,759,155 | 91.7% | 7.1% |
| 1991 | 298,104,184 | 158,901,349 | 25,013,437 | 15,000,000 | 10,013,437 | **60.0%** | 5.0% |
| 1992 | 312,346,750 | 161,627,755 | 28,595,220 | 14,618,992 | 13,976,228 | **51.1%** | 4.7% |
| 1993 | 324,536,824 | 163,054,487 | 28,819,875 | 19,890,048 | 8,929,827 | **69.0%** | 6.1% |
| 1994 | 335,155,405 | 164,185,441 | 25,805,408 | 20,580,000 | 5,225,408 | **79.8%** | 6.1% |
| 1995 | 346,975,007 | 165,291,243 | 27,451,926 | 18,080,000 | 9,371,926 | **65.9%** | 5.2% |
| 1996 | 355,894,809 | 164,677,904 | 29,884,559 | 11,480,000 | 18,404,559 | **38.4%** | 3.2% |
| 1997 | 364,695,370 | 164,965,008 | 30,954,237 | 18,080,000 | 12,874,237 | **58.4%** | 5.0% |
| 1998 | 357,899,112 | 159,407,825 | 33,519,949 | 18,106,581 | 15,413,368 | **54.0%** | 5.1% |
| 1999 | 372,298,852 | 162,238,275 | 27,232,542 | 18,080,000 | 9,152,542 | **66.4%** | 4.9% |
| 2000 | 387,998,959 | 163,581,443 | 23,573,184 | 18,586,240 | 4,986,944 | **78.8%** | 4.8% |
| 2001 | 403,258,305 | 165,310,858 | 20,882,521 | 19,143,827 | 1,738,694 | 91.7% | 4.7% |
| 2002 | 418,904,021 | 169,051,873 | 21,965,322 | 20,446,282 | 1,519,040 | 93.1% | 4.9% |
| 2003 | 437,238,543 | 172,519,121 | 23,197,088 | 20,446,282 | 2,750,806 | **88.1%** | 4.7% |
| 2004 | 453,517,153 | 174,300,399 | 29,608,892 | 24,446,282 | 5,162,610 | **82.6%** | 5.4% |
| 2005 | 486,857,658 | 180,982,417 | 43,592,332 | 24,446,282 | 19,146,050 | **56.1%** | 5.0% |
| 2006 | 499,044,327 | 179,715,368 | 49,923,599 | 24,985,506 | 24,938,093 | **50.0%** | 5.0% |
| 2007 | 515,572,694 | 180,525,786 | 38,200,000 | 38,496,410 | (296,410) | 100.8% | 7.5% |
| 2008 | 535,807,012 | 180,673,697 | 40,749,097 | 40,955,566 | (206,469) | 100.5% | 7.6% |
| 2009 | 561,588,013 | 190,043,162 | 37,077,050 | 37,349,818 | (272,768) | 100.7% | 6.7% |
| 2010 | 562,149,916 | 187,163,315 | 41,503,002 | 41,920,603 | (417,601) | 101.0% | 7.5% |
| 2011 | 547,748,405 | 176,788,081 | 48,233,006 | 50,268,131 | (2,035,125) | 104.2% | 9.2% |
| 2012 | 561,179,272 | 177,450,696 | 51,241,932 | 56,152,011 | (4,910,079) | 109.6% | 10.0% |
| 2013 | 563,623,421 | 175,650,701 | 60,182,755 | 65,086,320 | (4,903,565) | 108.1% | 11.5% |
| 2014 | 567,073,601 | 172,732,337 | 68,352,825 | 72,668,412 | (4,315,587) | 106.3% | 12.8% |

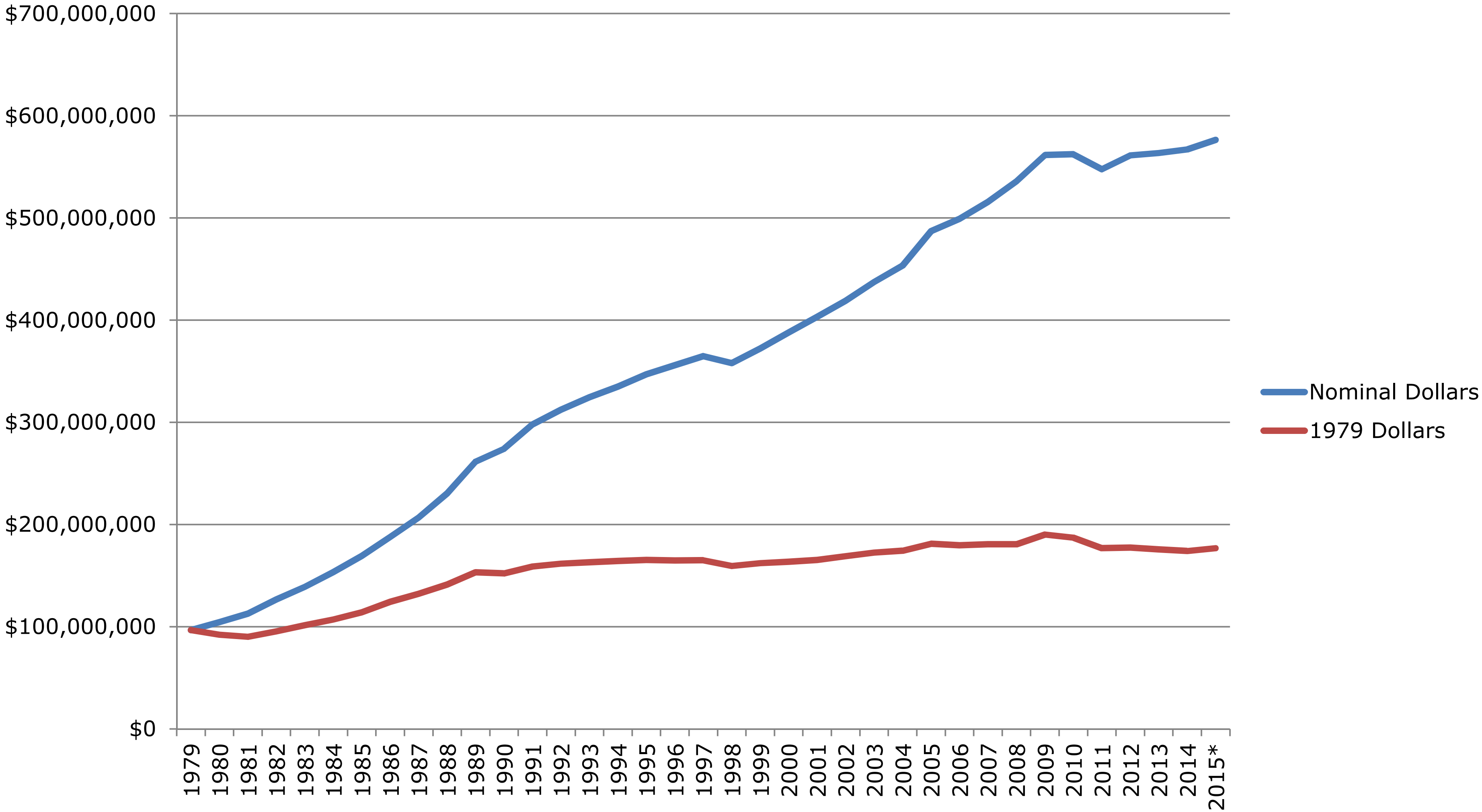
*2015 calculation pending

# VSTRS Demographic Data

| Year | Active Members | Inactive Members | Deferred Vested Members | Retired members | System Total | Actives Only: Average Age | Actives Only: Average Service | Actives Only: Annual Compensation | Actives Only: Avg |
|---|---|---|---|---|---|---|---|---|---|
| 1979 | 7,515 | 603 | 24 | 2,014 | 10,156 | 38.5 | 8.3 | 96,725,620 | 12,871.01 |
| 1980 | 7,665 | 526 | 25 | 2,079 | 10,295 | 38.7 | 8.5 | 104,521,888 | 13,636.25 |
| 1981 | 7,713 | 614 | 25 | 2,156 | 10,508 | 39.0 | 8.7 | 112,811,389 | 14,626.14 |
| 1982 | 8,143 | 881 | 28 | 2,200 | 11,252 | 40.0 | 9.4 | 126,748,398 | 15,565.32 |
| 1983 | 8,116 | 1,209 | 29 | 2,244 | 11,598 | 39.6 | 9.7 | 139,085,342 | 17,137.18 |
| 1984 | 8,218 | 1,312 | 33 | 2,285 | 11,848 | 40.0 | 10.0 | 153,329,729 | 18,657.79 |
| 1985 | 8,367 | 1,302 | 122 | 2,324 | 12,115 | 40.4 | 10.3 | 169,219,652 | 20,224.65 |
| 1986 | 8,549 | 1,455 | 142 | 2,378 | 12,524 | 40.8 | 10.4 | 187,834,677 | 21,971.54 |
| 1987 | 8,737 | 1,493 | 184 | 2,430 | 12,844 | 41.1 | 10.6 | 206,728,650 | 23,661.29 |
| 1988 | 9,057 | 1,426 | 245 | 2,495 | 13,223 | 41.1 | 10.6 | 230,430,153 | 25,442.22 |
| 1989 | 9,487 | 1,428 | 286 | 2,547 | 13,748 | 41.8 | 10.7 | 261,596,990 | 27,574.26 |
| 1990 | 9,644 | 1,417 | 334 | 2,577 | 13,972 | 42.2 | 11.0 | 273,951,188 | 28,406.39 |
| 1991 | 9,770 | 1,442 | 383 | 2,631 | 14,226 | 42.8 | 11.4 | 298,104,184 | 30,512.20 |
| 1992 | 9,763 | 1,339 | 427 | 2,742 | 14,271 | 43.2 | 11.1 | 312,346,750 | 31,992.91 |
| 1993 | 9,777 | 1,267 | 475 | 2,799 | 14,318 | 43.6 | 11.5 | 324,536,824 | 33,193.91 |
| 1994 | 9,836 | 1,265 | 508 | 2,897 | 14,506 | 44.0 | 11.8 | 335,155,405 | 34,074.36 |
| 1995 | 10,110 | 1,292 | 393 | 3,011 | 14,806 | 44.2 | 12.4 | 346,975,007 | 34,319.98 |
| 1996 | 10,185 | 1,465 | 414 | 3,092 | 15,156 | 44.5 | 12.6 | 355,894,809 | 34,943.03 |
| 1997 | 10,280 | 1,681 | 402 | 3,188 | 15,551 | 44.9 | 12.9 | 364,695,370 | 35,476.20 |
| 1998 | 9,808 | 2,227 | 381 | 3,289 | 15,705 | 45.1 | 13.2 | 357,899,112 | 36,490.53 |
| 1999 | 10,006 | 2,278 | 376 | 3,485 | 16,145 | 44.9 | 12.2 | 372,298,852 | 37,207.56 |
| 2000 | 10,234 | 2,414 | 356 | 3,647 | 16,651 | 44.9 | 12.0 | 387,998,959 | 37,912.74 |
| 2001 | 10,264 | 2,654 | 495 | 3,812 | 17,225 | 45.1 | 12.1 | 403,258,305 | 39,288.61 |
| 2002 | 10,257 | 2,932 | 513 | 3,991 | 17,693 | 44.5 | 12.4 | 418,904,021 | 40,840.79 |
| 2003 | 10,355 | 2,901 | 583 | 4,169 | 18,008 | 45.4 | 12.5 | 437,238,543 | 42,224.87 |
| 2004 | 10,315 | 3,084 | 560 | 4,386 | 18,345 | 45.9 | 12.8 | 453,517,153 | 43,966.76 |
| 2005 | 10,744 | 2,906 | 568 | 4,592 | 18,810 | 44.6 | 12.6 | 486,857,658 | 45,314.38 |
| 2006 | 10,696 | 2,777 | 759 | 4,879 | 19,111 | 46.7 | 13.6 | 499,044,327 | 46,657.10 |
| 2007 | 10,675 | 2,901 | 741 | 5,192 | 19,509 | 46.7 | 13.6 | 515,572,694 | 48,297.21 |
| 2008 | 10,685 | 2,929 | 705 | 5,555 | 19,874 | 46.9 | 13.6 | 535,807,012 | 50,145.72 |
| 2009 | 10,799 | 2,655 | 721 | 5,910 | 20,085 | 47.1 | 13.8 | 561,588,013 | 52,003.71 |
| 2010 | 10,509 | 2,853 | 718 | 6,146 | 20,226 | 47.1 | 13.8 | 562,149,916 | 53,492.24 |
| 2011 | 10,123 | 2,675 | 647 | 7,005 | 20,450 | 46.9 | 13.8 | 547,748,405 | 54,109.30 |
| 2012 | 10,262 | 2,193 | 793 | 7,376 | 20,624 | 46.9 | 13.1 | 561,179,272 | 54,685.18 |
| 2013 | 10,101 | 2,322 | 751 | 7,743 | 20,917 | 46.6 | 13.1 | 563,623,421 | 55,798.77 |
| 2014 | 9,952 | 2,416 | 740 | 8,086 | 21,194 | 46.5 | 13.2 | 567,073,601 | 56,980.87 |
| 2015 | 9,585 | 2,260 | 1,163 | 8,484 | 21,492 | 46.2 | 12.9 | 576,393,699 | 60,134.97 |

Note: Based on data point of 6/30; does not include new hires/transfers/terminations during year but does reflect school year end retirements. Includes members of the teachers retirement system, does not include school staff (non licensed positions) that are included in the municipal retirement system

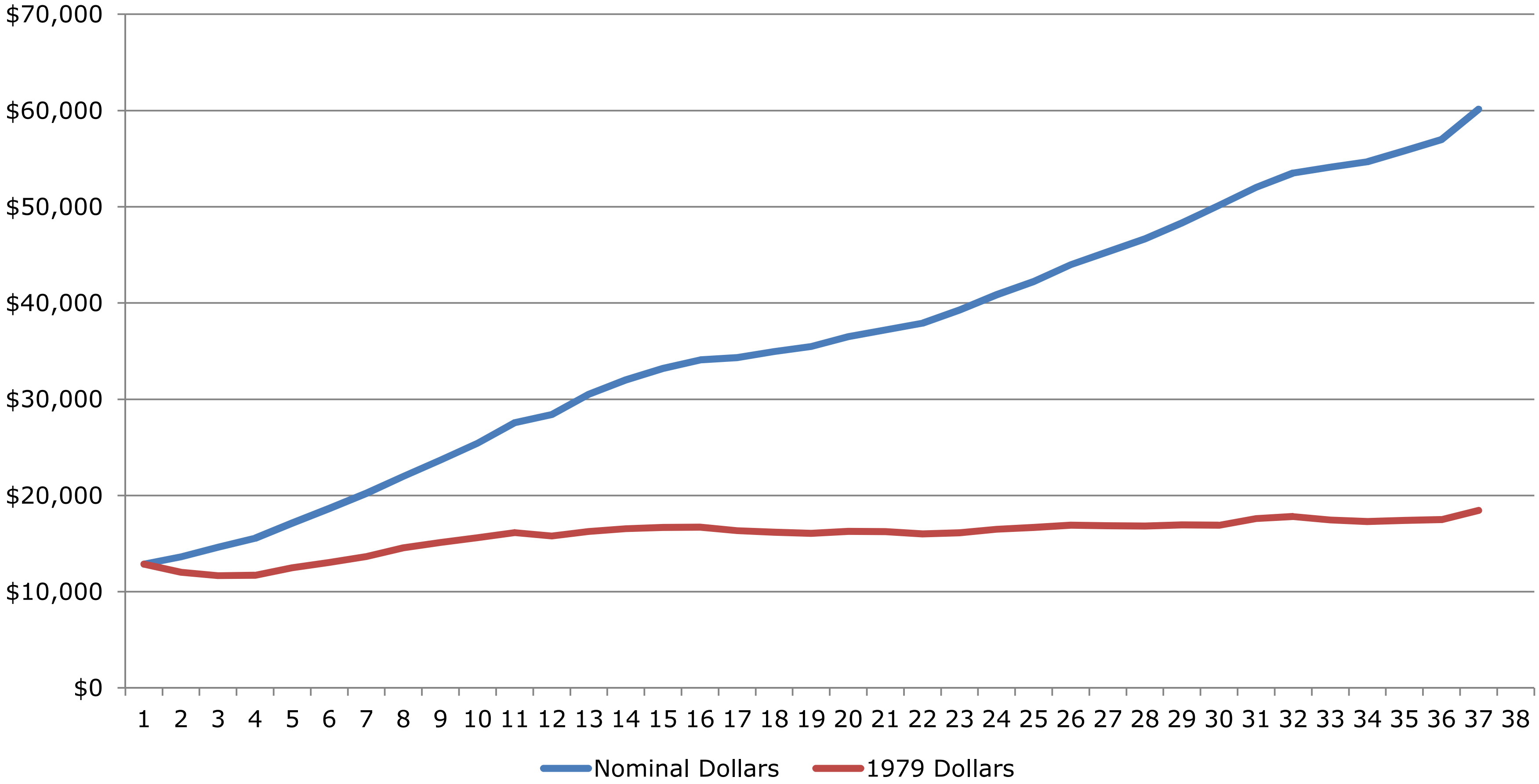
# ***VSTRS Total Active Annual Compensation as of 6/30 by Year***




**Preliminary Data**

*2015: An estimate for 2015 is based on the change in the CPI from second quarter 2014 to second quarter 2015

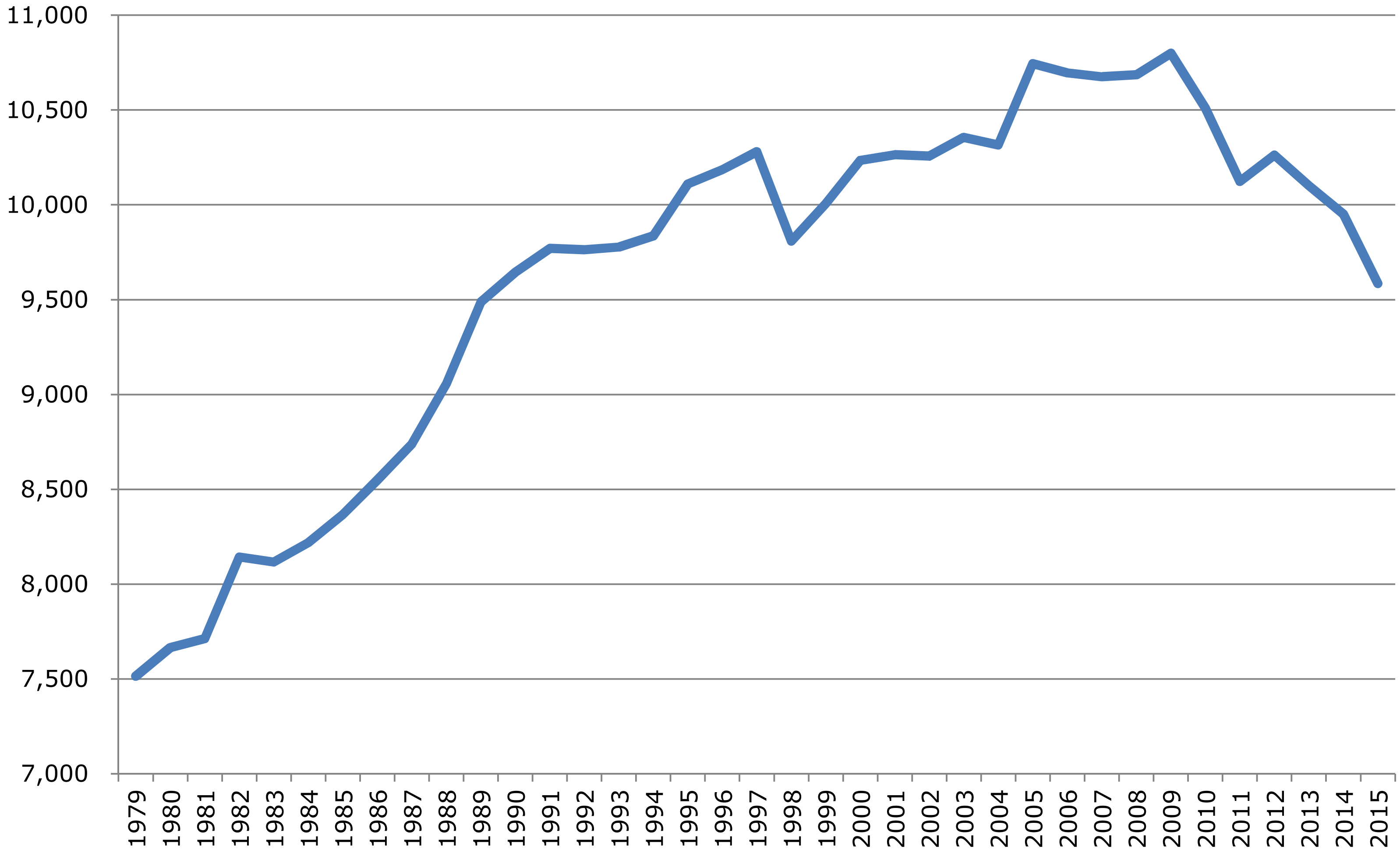
# ***VSTRS Average Annual Salaries as of 6/30 by Year***




**Preliminary Data**

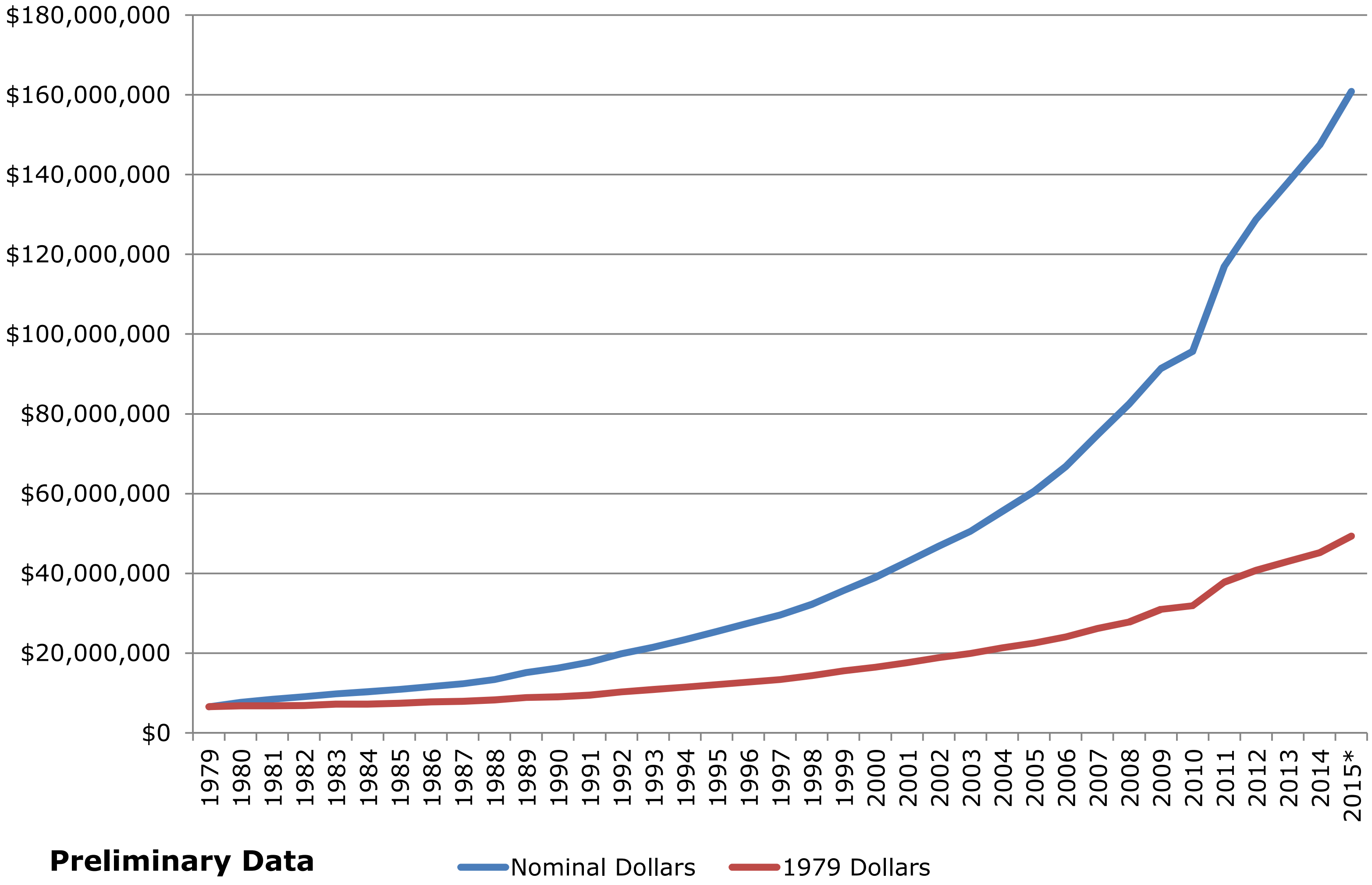
*2015: An estimate for 2015 is based on the change in the CPI from second quarter 2014 to second quarter 2015

# ***VSTRS Active Member Count as of 6/30***




Based on counts as of 6/30 per actuarial data and does not take into account activity +/- during course of the year

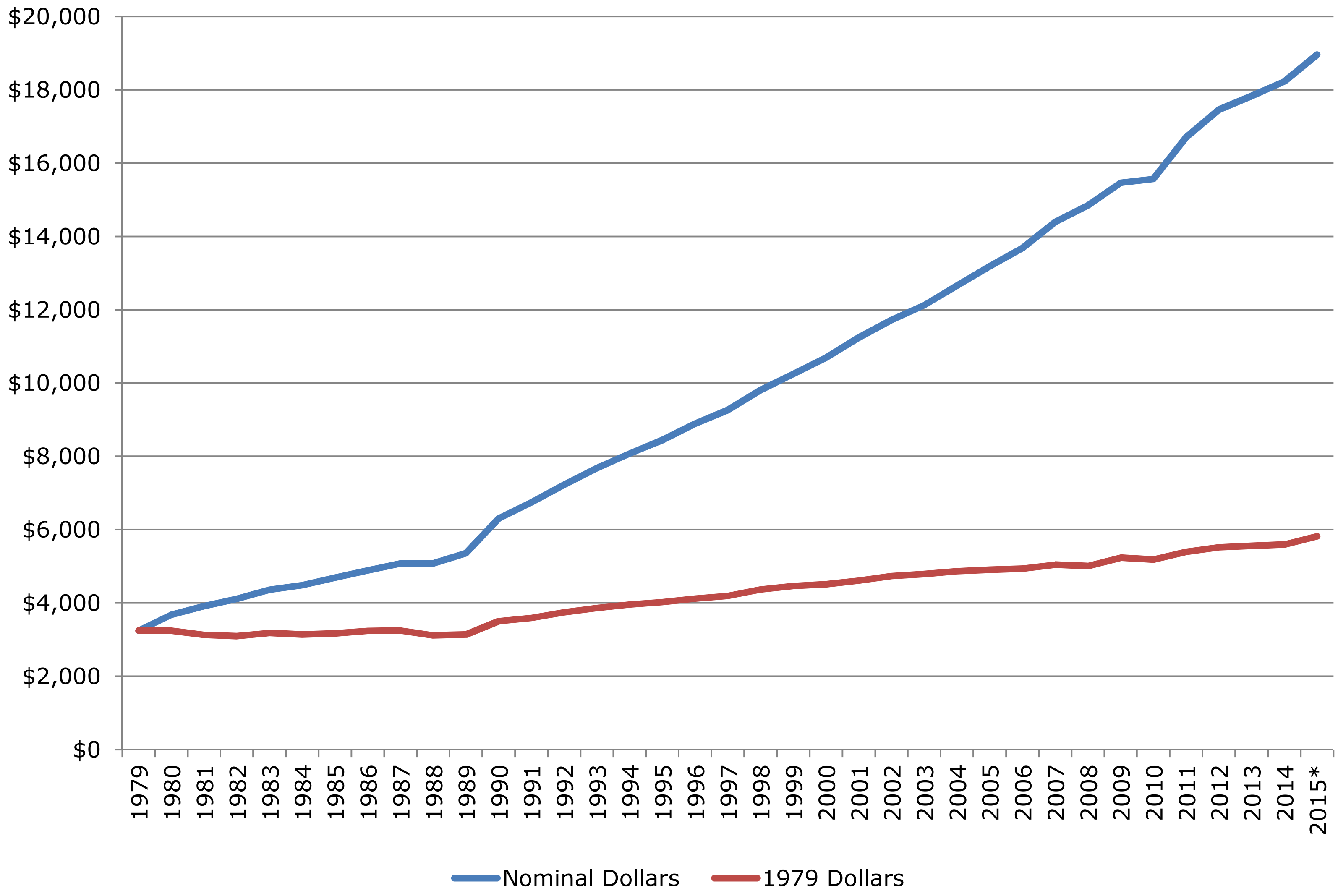
# VSTRS Growth in Retiree Total Annual Allowances




**Preliminary Data**

*2015: An estimate for 2015 is based on the change in the CPI from second quarter 2014 to second quarter 2015.

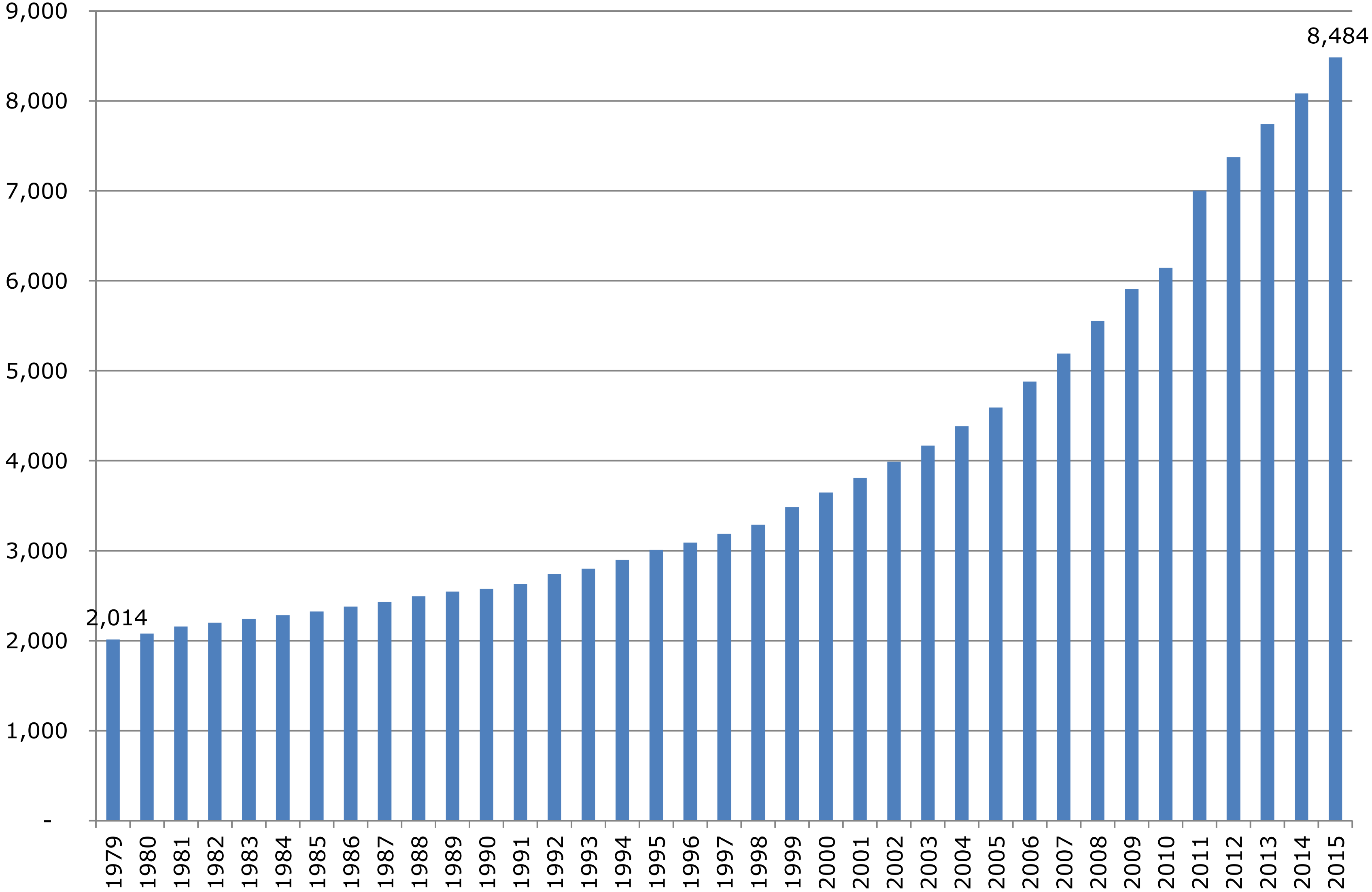
# VSTRS Average Annual Retirement Allowance by Year

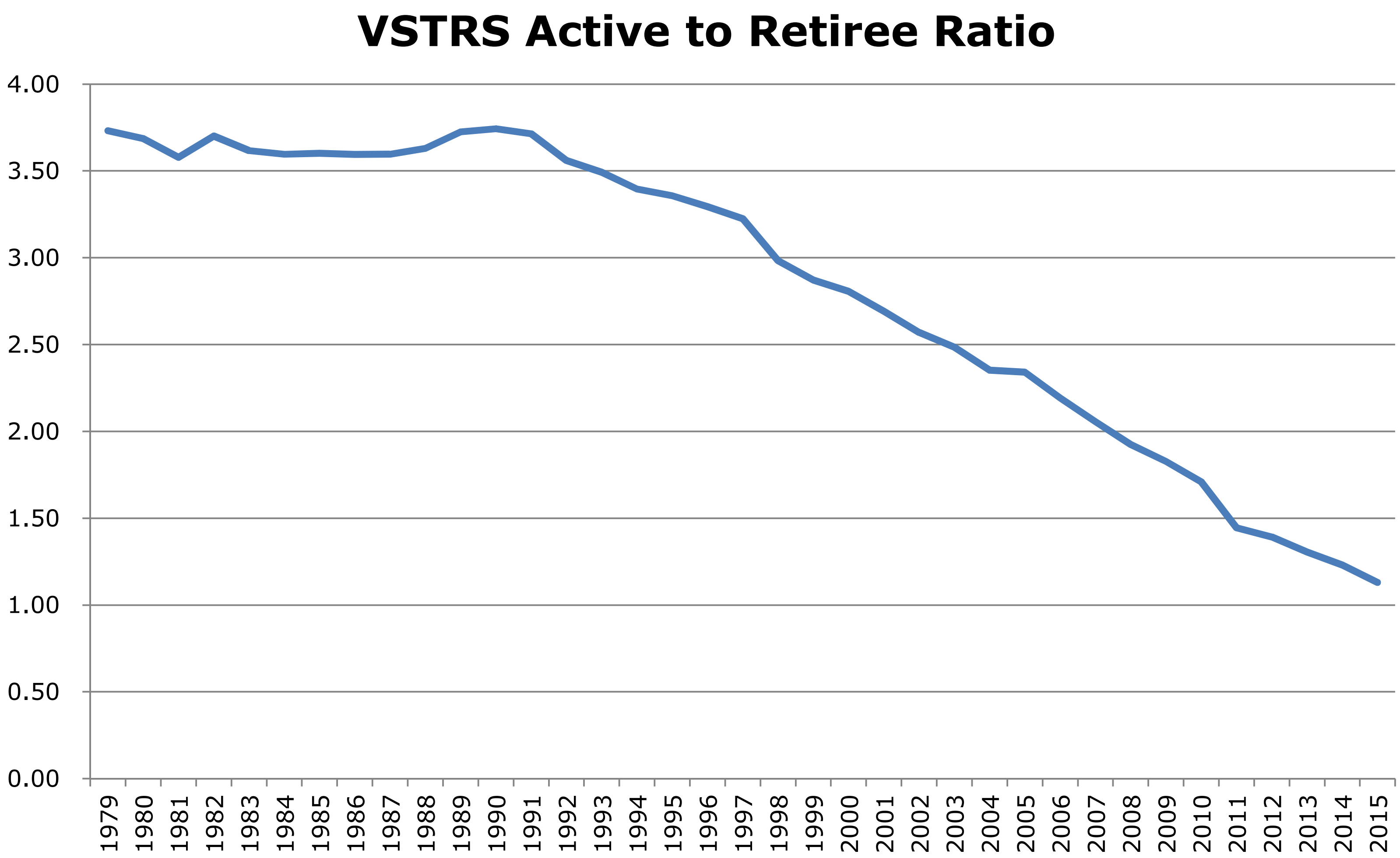



**Preliminary Data**

*2015: An estimate for 2015 is based on the change in the CPI from second quarter 2014 to second quarter 2015.

# VSTRS Growth in Retiree Count as of 6/30 by Year





VSTRS Active to Retiree Ratio
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015

# ***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.

# Amortization

- The amortization period is the expected period of time for UAAL to be paid-in-full
- Amortization payment (of unfunded actuarial accrued liability) **:** That portion of the ARC plan contribution which is designed to pay interest on and to amortize the UAAL
- Three methods for public plans:

  1. Open amortization period: A period that begins again each time a new actuarial valuation is performed. This is analogous to getting a new 30 year mortgage every year for the unpaid balance of the mortgage started the previous year

  2. Closed amortization period: A specific number of years that is counted from one date and decreases by one each year. This is analogous to a 30 year mortgage (with no re-financing)

  3. Recalculated amortization period: A period that is recalculated each time a new actuarial valuation is performed. This type of amortization commonly applies to plans with a fixed contribution rate (e.g., set in statute)

     - Source: PRB, Understanding the Basics of Actuarial Methods, April 2013

# ***Amortization Schedule:***

- While the State has a date set in statute, 2038, to pay down the unfunded liability, the payment schedule increases in 5% increments each year

- This has the effect of increasing interest 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

- This would also have the effect of a more rapid reduction of the  unfunded liability

- Changes to amortization schedule can be phased in to cushion budgetary impact

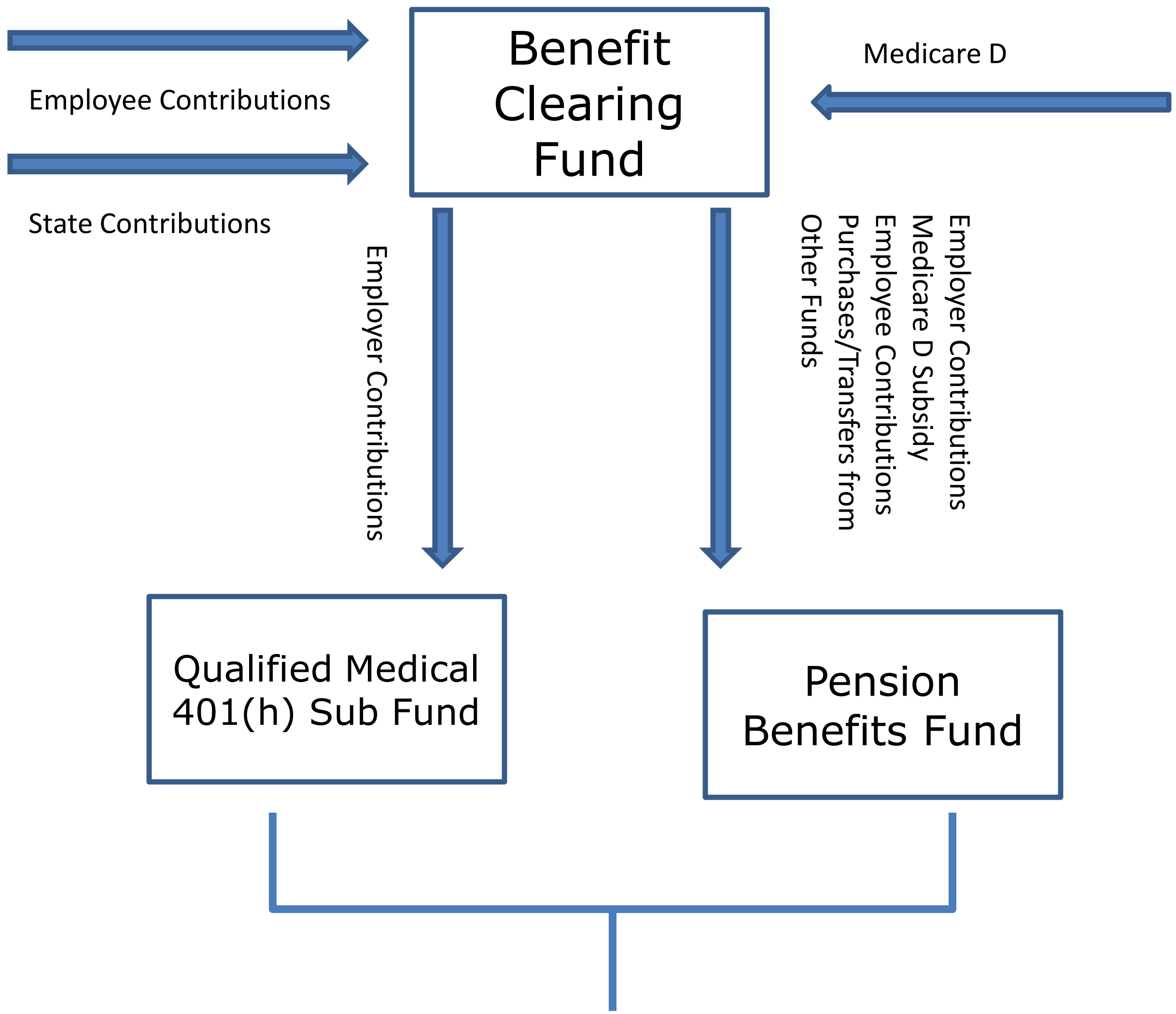
- Treasurer’s Office staff will model alternatives schedules at the Committee’s request to obtain an optimum solution

# ***Recommendation: Consider Changes to Pension Funding Amortization Schedules for the Pension Plans***

- Potentially phase-in any upward pressures from assumption changes
- Changing the 5% increment to a lower percentage
  - Level out payments
  - More cost in early years but lower the overall cost to pay the unfunded liability “mortgage”
  - Save interest payments by taxpayer over the long-run
  - More rapid improvement of the funded position of plans

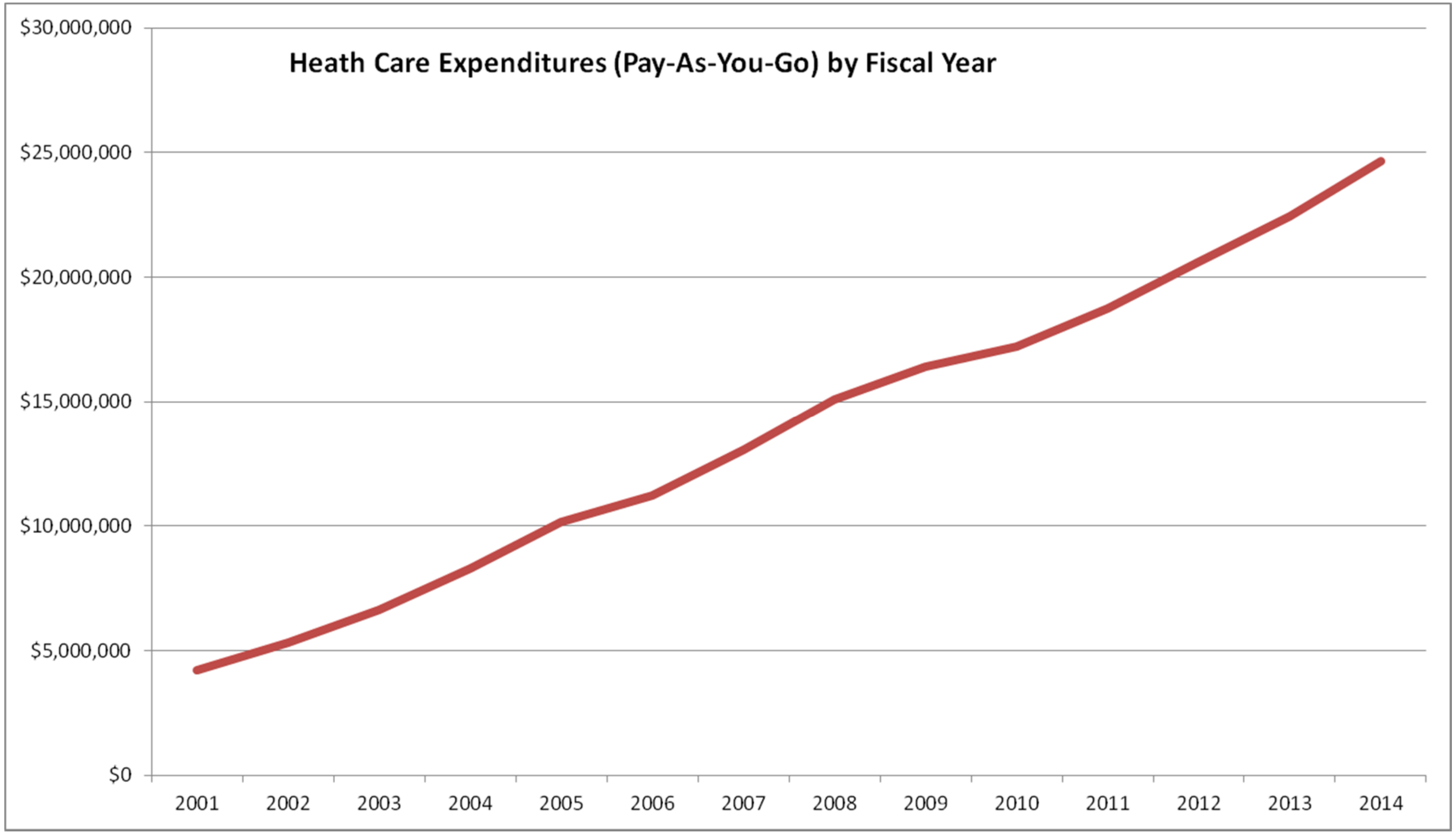
# Teacher Health Care and Pensions, Act 179 of 2014

# Pension Fund Structure Up to FY 2015




Both Comprise the Pension Fund

# ***Health Care Expenses Are Rising***




**Health Care Expenses**

| 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4,194,215 | 5,299,600 | 6,634,738 | 8,279,332 | 10,167,601 | 11,233,854 | 13,040,783 | 15,081,847 | 16,421,176 | 17,203,669 | 18,749,675 | 20,620,144 | 22,459,219 | 24,640,986 |

As retiree health care takes a bigger bite out of available funds, VSTRS's pension funded position was threatened and the annual actuarial required contributions (ARC) was rising at an accelerated rate.

# *Example Amortization of $20 million of Retiree Healthcare Costs*

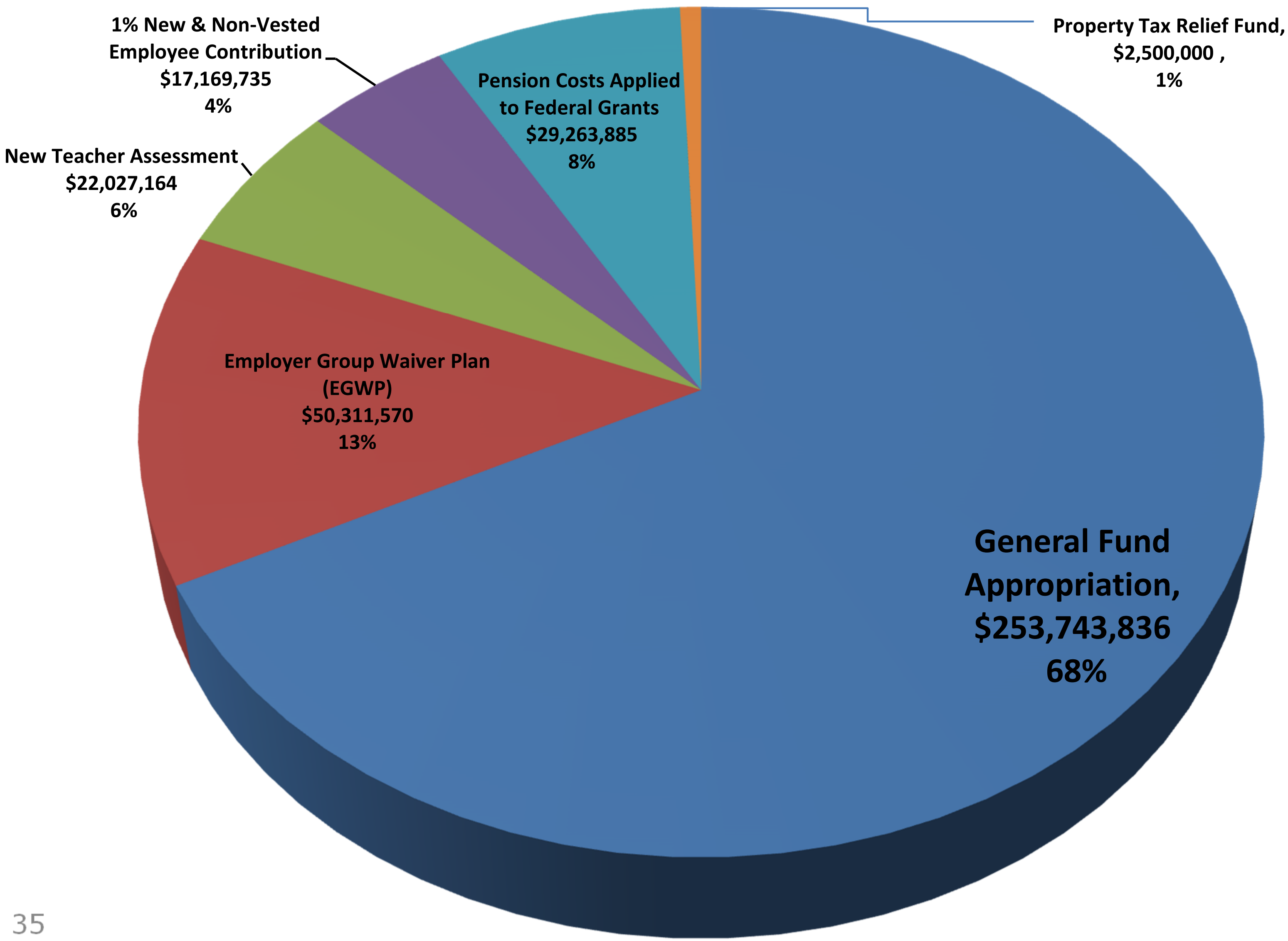
| Fiscal Year-End Date | Unfunded Liability Balance | Interest Ultimate" Discount Rate | Interest on Unfunded Liability | Amortization Increasing at 5.00% |
|---|---|---|---|---|
| 6/30/2012 | 20,000,000 | 6.25% | 1,250,000 | 1,150,174 |
| 6/30/2013 | 20,099,826 | 6.75% | 1,356,738 | 1,207,682 |
| 6/30/2014 | 20,248,882 | 7.00% | 1,417,422 | 1,268,067 |
| 6/30/2015 | 20,398,237 | 7.50% | 1,529,868 | 1,331,470 |
| 6/30/2016 | 20,596,635 | 7.75% | 1,596,239 | 1,398,043 |
| 6/30/2017 | 20,794,831 | 8.25% | 1,715,574 | 1,467,945 |
| 6/30/2018 | 21,042,459 | 8.25% | 1,736,003 | 1,541,343 |
| 6/30/2019 | 21,237,120 | 8.25% | 1,752,062 | 1,618,410 |
| 6/30/2020 | 21,370,772 | 8.50% | 1,816,516 | 1,699,330 |
| 6/30/2021 | 21,487,957 | 8.50% | 1,826,476 | 1,784,297 |
| 6/30/2022 | 21,530,137 | 8.50% | 1,830,062 | 1,873,512 |
| 6/30/2023 | 21,486,686 | 8.50% | 1,826,368 | 1,967,187 |
| 6/30/2024 | 21,345,867 | 8.50% | 1,814,399 | 2,065,547 |
| 6/30/2025 | 21,094,719 | 8.50% | 1,793,051 | 2,168,824 |
| 6/30/2026 | 20,718,947 | 8.50% | 1,761,110 | 2,277,265 |
| 6/30/2027 | 20,202,792 | 8.75% | 1,767,744 | 2,391,129 |
| 6/30/2028 | 19,579,408 | 9.00% | 1,762,147 | 2,510,685 |
| 6/30/2029 | 18,830,869 | 9.00% | 1,694,778 | 2,636,219 |
| 6/30/2030 | 17,889,428 | 9.00% | 1,610,049 | 2,768,030 |
| 6/30/2031 | 16,731,447 | 9.00% | 1,505,830 | 2,906,432 |
| 6/30/2032 | 15,330,845 | 9.00% | 1,379,776 | 3,051,753 |
| 6/30/2033 | 13,658,868 | 9.00% | 1,229,298 | 3,204,341 |
| 6/30/2034 | 11,683,825 | 9.00% | 1,051,544 | 3,364,558 |
| 6/30/2035 | 9,370,812 | 9.00% | 843,373 | 3,532,786 |
| 6/30/2036 | 6,681,399 | 9.00% | 601,326 | 3,709,425 |
| 6/30/2037 | 3,573,299 | 9.00% | 321,597 | 3,894,896 |
| 6/30/2038 | 0 | 9.00% | 0 | 0 |

Total Amortization Payments: **58,789,350**

# ***<u>Fundamental Changes to Health Care Funding  Effective 7/1/2014</u>***

- The State has established and funded a separate trust to account for the assets and liabilities of the retiree medical benefit plan.
- Annual contributions to the Retiree Medical Plan are be separately identified in the State budget and not commingled with Retirement Plan contributions.
- A series of funding sources were put in place,  replacing the "retroactive"  funding approach.
- Will save $480 million in interest through 2038.

# Sources of Funds over Next 10 Years



# ***New and Non-Vested Members of VSTRS***

- **E.514.2**
- Supervisory Unions and School Districts employing Group C members of the VSTRS *having less than five years of membership service as of July 01, 2014* now withhold 6%, instead of 5%, of earnable compensation each payroll.

# ***New Teacher Health Care Assessment***

§ 1944d. EMPLOYER ANNUAL CHARGE FOR TEACHER HEALTH CARE

The employer of teachers who become members of the State Teachers' Retirement System of Vermont on or after July 1, 2015 shall pay an annual assessment for those teachers' health and medical benefits. The assessment shall be the value, as approved annually by the Board of Trustees based on the actuary's recommendation, of the portion of future retired teachers' health and medical benefits attributable to those teachers for each year of service in the State Teachers' Retirement System of Vermont. The equivalent number for the June 30, 2013 valuation is $1,072.00

- Equivalent number from June 30, 2014 valuation is $1,097, to be used in FY 2016 budget
- The number remains unchanged for FY2017

# ***Federal Grants***

§ 1944c. EMPLOYER CHARGES FOR FEDERAL GRANTS OR REIMBURSEMENTS

(a) Notwithstanding any provision of law to the contrary, effective on July 1, 2015, the employer retirement costs and administrative operating expenses related to the retirement plans applicable to those teachers whose funding is provided from federal grants or through federal reimbursement shall be paid by local school systems or educational entities that participate in the Vermont Teachers' Retirement Fund from those federal monies.

(b) The percentage rates to be applied shall be determined by an actuary approved by the Board of Trustees of the State Teachers' Retirement System of Vermont and shall be applied to the total earnable compensation of members prepared by the actuary in compliance with subsection 1942(r) of this title. The Secretary of Education shall annually provide an accounting of federal grants and federal reimbursements, by school system, upon which payment by the participating schools shall be determined.

(c) The State Treasurer and the Secretary of Education shall establish procedures for the collection and deposit of those monies in the State Teachers' Retirement System of Vermont. The Secretary of Education may delay implementation upon review of the federal grant program to permit timely and accurate claims for reimbursement of retirement expenses under a particular federal program in order to receive funding under that program. The Secretary of Education shall provide an annual report to the House and Senate Committees on Appropriations and on Education regarding progress in implementation of this section.

The rate assessed is 12.84% of payroll for FY2016; 13.92% for FY 2017

Thank You!