# Office of the Vermont State Treasurer

Pension Presentation
October 10, 2017

VERMONT

# BEFORE WE BEGIN…

- Some Terms:

  - VSTRS – Vermont State Teachers' Retirement System
  - VSERS – Vermont State Employees Retirement System
  - ARC – Actuarially Required Contribution – now replaced by "ADEC" or Actuarially Determined Employer Contribution
  - OPEB – Other Post Employment Benefits (primarily health care)

- Data based on the 2016 valuation, completed late October 2016. Since 2016, a number of assumption changes (rate of return, inflation, mortality) have been implemented that will result in additional ARC requirements, increase in liabilities and budgetary pressures.

# *HISTORICAL PERSPECTIVE: PAYING FOR THE SINS OF THE PAST AND WHAT THAT MEANS FOR THE FUTURE*

"A recommendation to reduce the FY 1990 retirement fund appropriations is made for two reasons.

First, the immediate impact would be far less than for most operating programs and:

Second, a review of the systems funding is warranted. In light of the change in the market value of the funds' investments during fiscal year 1989 there is no certainty that the suggested reduction would have any impact on the long range ability of the funds' to meet the obligations for which they were established" — *Vermont Joint Fiscal Office (JFO), 9/15/89*

***Comments from various Administration Officials in the 1990s***

"the bottom line is that we do not believe the FY1994 so called "underfundings" suggested by the numbers shown above, really exist"

"…the actuarial 'gains' associated with lower than projected salary increases, combined with returns on the asset portfolio in excess of the 8.5% assumed rate, have resulted in the improved funded position despite so-called 'underfundings'… it is not expected that there will be any long term detrimental impacts to the pension systems…"

"I firmly believe that funding of our pension plans has been adequate given the state's fiscal problems and in fact improved during the past five years"



Note: Underline added

# *DESPITE WARNINGS IN THE 1990s AND EARLY 2000s*

## *Comments by State's Independent Actuary in testimony 1990*

- "Pensions are deferred Compensation"
  - "This makes it tempting to short-change the funding in times of perceived need"
  - "failure to fund is nothing more or less than saying that future taxpayers should pick up the cost for the services rendered by today's public employees—it is borrowing to meet current expenses"
- "Funding as benefits accrue is also significantly less expensive than not funding"

## *Comments by State Auditor in 1995*

"By underfunding the retirement system today, we only delay the inevitable reckoning. It amounts to a kind of camouflaged deficit spending, because the state must eventually cure the funding deficiency"

## *Then—Treasurer Douglas in 1995 Letter to Legislative Council*

"Dipping into the retirement systems' appropriation will be regarded by the investment community as a quick fix to the current year's budget deficit and a failure by the state to address the fundamental weaknesses in our revenue structure and spending patterns"



Note: underline added

## THERE IS NO QUICK FIX TO REDUCING THESE LIABILITIES

- Learn from history: The same arguments made in 1990s and early 2000 (for instance, budget constraints and impacts on important programs) should not be used to support quick fixes at the expense of future taxpayers

- The changes we make now, or in the future, should be based on an effective means of providing retirement benefits at the best value to the taxpayer

- Defined benefit plans provide the best value per retirement benefit for both the employee and other taxpayers for Vermont

- Disciplined, forward-thinking approach is needed

# BEST PRACTICES

## *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.**

Source: "Report of the Commission on the Design and Funding of Retirement and Retiree Health Benefits Plans for State Employees and Teachers" (Adopted 2009)

# 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% |

# *TEACHER FUNDING ISSUE: PRE-2014*

"Unlike the state system where the "pay-as-you-go" portion is budgeted and funded in a separate OPEB Trust fund, the health care expenses for VSTRS are paid out of the pension fund and are treated as an actuarial loss to the system, creating additional financial stresses on the pension system…Health care costs over the last decade or more have risen at a much higher rate than the rate of inflation, and while some stabilization of that trend is expected, costs are projected by our actuaries to continue to exceed CPI. The situation for the teachers' health care payments is reaching a critical phase….

**…The Retirement Commission unanimously voted to include a recommendation to the Legislature to develop, without delay, a structural plan and process to fund the OPEB obligations and set money aside in a material way in a separate, independent funding mechanism."**

Source: "Report of the Commission on the Design and Funding of Retirement and Retiree Health Benefits Plans for State Employees and Teachers", December 2009, p.37 (bold added).

- The lack of funding for teachers health care liabilities is the **single greatest threat** to the stability of the teacher pension fund
- For example: $20 million of health care premium costs "put on the credit card" in FY2012 will cost taxpayers $58.8 million over the amortization period

# *VSTRS PENSION CONTRIBUTION WOULD BE CONSIDERABLY LOWER TODAY IF WE HAD MADE OUR FULL ARC CONTRIBUTIONS*

- In 1994, the actuaries calculated the additional need for the ARC for FY1994, due to prior deficiency in contributions, to be $4.3 million for teachers system. This was 16.7% of the total ARC for that year ($25,805,408)

- In 1996, the projected contribution was $29,884,559 which included $6,180,000 for previous shortfalls or 20.7%

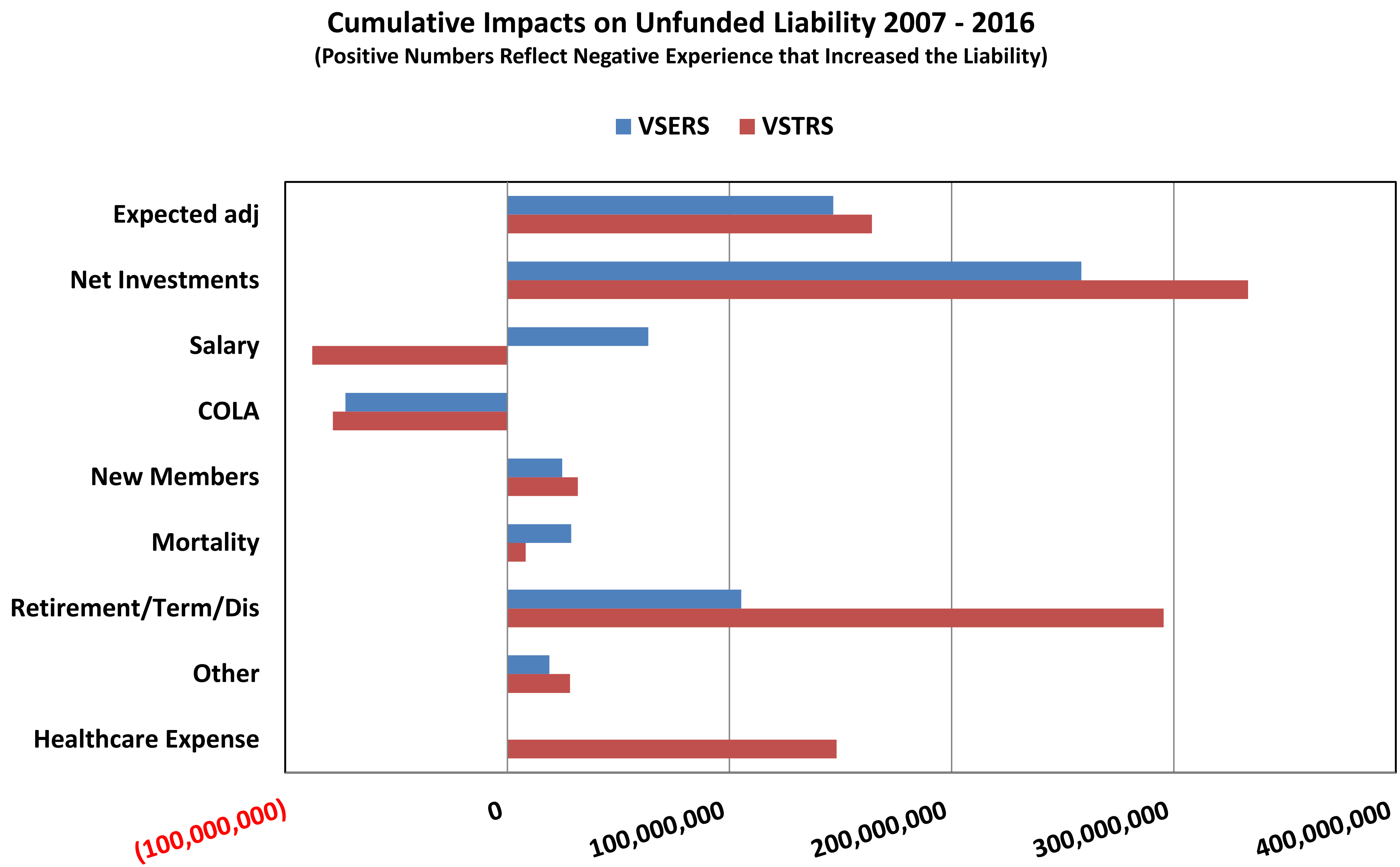
- The above did not include lack of funding for health care

- Rough estimate of current impacts:
  - The shortfall to the ARC has resulted in an increase in liabilities as high as $191 million and currently adds roughly $12 million to the ARC
  - The lack of appropriation for health care likely adds at least $204 million to the liability and $13 million to the ARC*

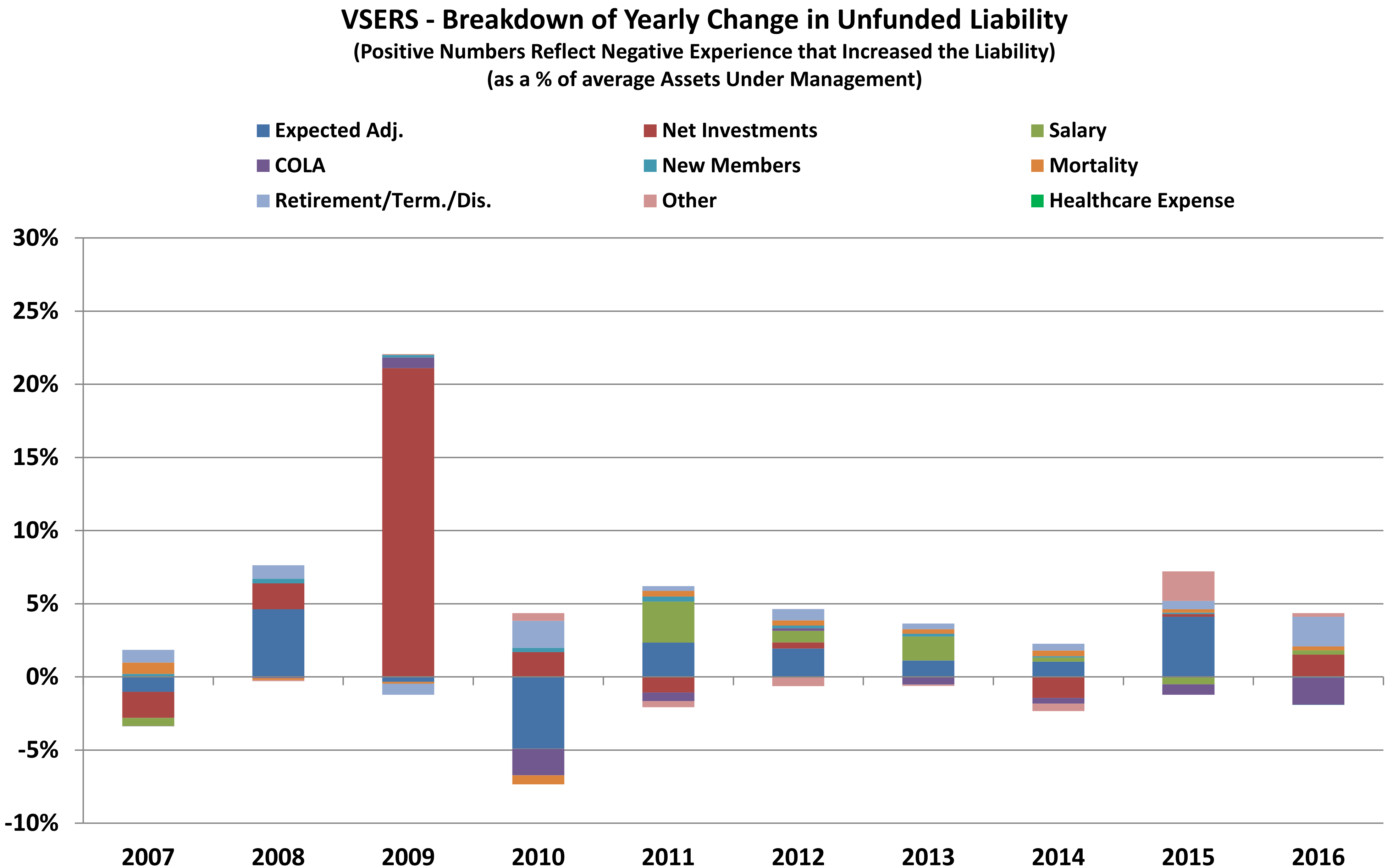
- Through 2016, even after consistently paying the ARC since 2007 and addressing the health care issue in 2014, we are still paying approximately **$25 million for past shortfalls in funding**

* Health care expense prior to 2001 not included. These would add have added to the unfunded liability.

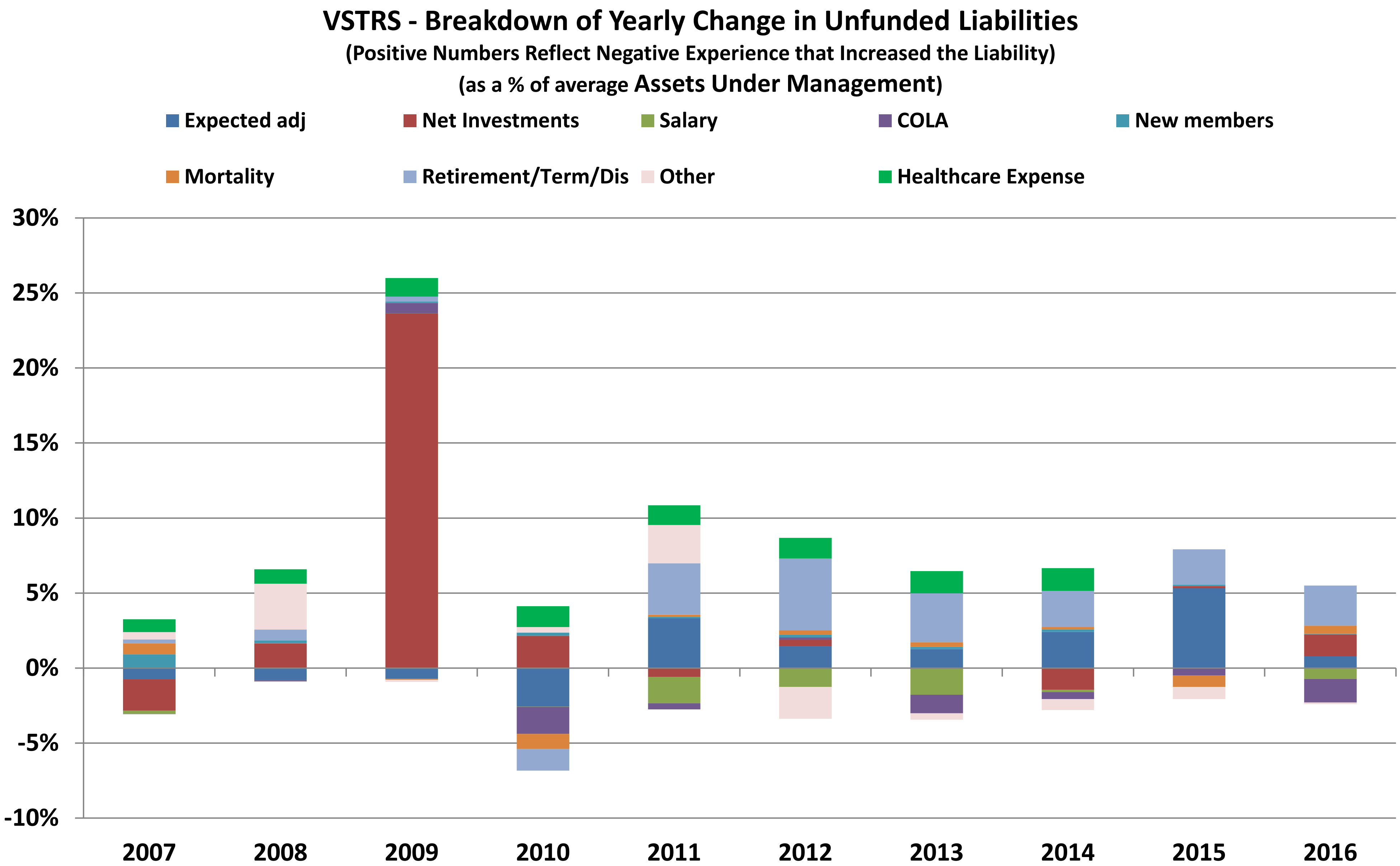
# *WHAT IS DRIVING THE INCREASE IN LIABILITY?*



# LIABILITY DRIVERS BY YEAR



# *LIABILITY DRIVERS BY YEAR*



# ANNUAL REQUIRED CONTRIBUTION (NOW ADEC)

- Method by which unfunded accrued liability (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
   - The annual amount needed to eliminate the unfunded liability over the plan's amortization period

# *FY 2016 VALUATION RESULTS*

## VSERS

- Incorporates an FY 2018 ARC recommendation of

  **$52,065,397**

  - Normal $14,037,814
  - 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
- These have been further updated in 2017 and we expect upward pressures on pension liabilities and the ARC
- Retirement Incentive program increased costs

## VSTRS

- Incorporates an FY 2018 ARC recommendation of

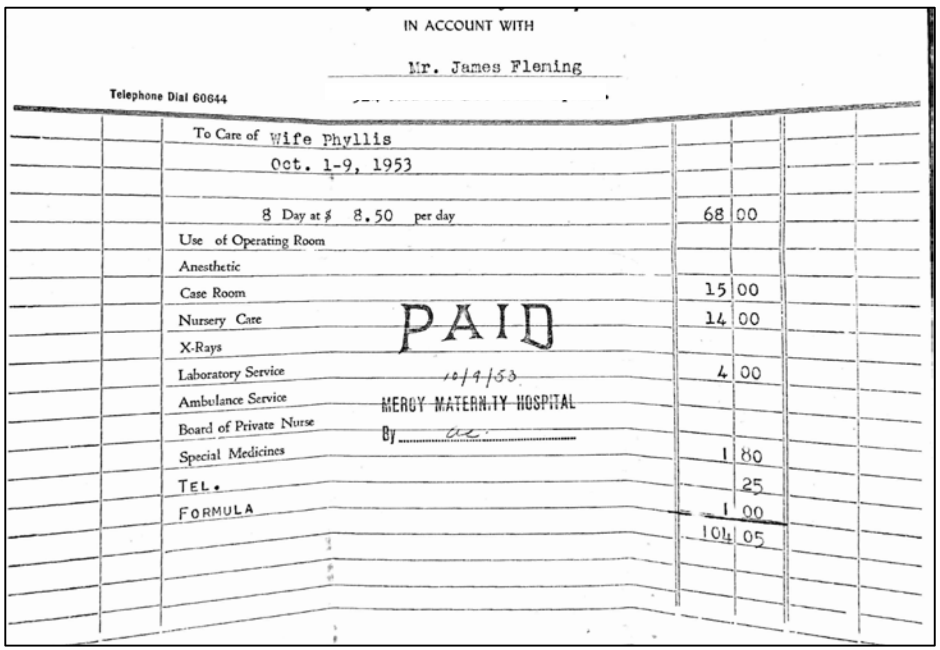
  **$88,409,437**

  - Normal $ 8,346,261
  - 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. Further updated in 2017.
- Intentional lack of funding of the ARC in past years, impacts on amortization
- Increase in retirements, local workforce changes have increased costs

# *HEALTH CARE IS AN ISSUE THAT STRETCHES BEYOND RETIREMENT*

- Health care costs are rising faster than inflation
- Health care cost increases are an issue for the private sector and state budgets, including post-retirement and operating budgets (Medicaid)
- Comprehensive health care approach is needed



IN ACCOUNT WITH

Mr. James Fleming

Telephone Dial 60644

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| To Care of Wife Phyllis | | |
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| Use of Operating Room | | |
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PAID
10/4/53
MERCY MATERNITY HOSPITAL
By

1953 hospital bill for birth of twins $104.05

At CPI inflation, just under $1000 today

According to data from the U.S. Department of Health and Human Services for 2014, national median charges for childbirth hospital stays in the U.S. were:

- $13,524 for delivery and care for mothers
- $3,660 for newborns

State Medicaid Budget FY 2017: $1.7 billion, 46% paid by State

State active employees/dependents: FY16 claims expense: $117 million 80% paid by State

# ADDRESSING FUNDING FOR HEALTH CARE IS KEY

- Most post-retirement efforts have concentrated on reducing liabilities
  - Tiered health care structure
  - Employer Group Waiver Plan (EGWP)

- VSERS — Benefit structure changes effective for new employees after July 1, 2008 (prior plan 80% at 5 years)
    - Up to 9 years: No subsidized coverage
    - 10 years: 40%
    - 15 years: 60%
    - 20 years: 80%

- VSTRS — Benefit changes to a tiered structure effective July 1, 2010
  - For new hires and those with less than 10 years of service (prior plan was 80% at 10 years)
    - Up to 14 years: No subsidized coverage
    - 15 years: 60% Single
    - 20 years: 70% Single
    - 25 years: 80% Single or spousal

- However, incremental steps in reducing liabilities <u>cannot replace funding</u>
  - Minimal prefunding in VSERS
  - Historical "use of the credit card" for VSTRS
    - Partially addressed in 2012
    - Larger plan developed in 2014
    - Has potential to create prefunding if we maintain fiscal discipline

## *FUNDAMENTAL CHANGES TO VSTRS HEALTH CARE FUNDING EFFECTIVE JULY 1, 2014*

- The State has established and began to fund a separate trust to account for the assets and liabilities of the retiree medical benefit plan

- Annual contributions to the retiree medical plan are 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

- Projected to save $480 million in avoided interest costs through 2038

# CHANGES TO TEACHER UNFUNDED OPEB LIABILITY

- Unfunded Teacher OPEB Liability
  - 6/30/2016 $678 Million
  - 6/30/2015 $1,004 Million
  - 6/30/2014 $767 Million
  - 6/30/2013 $713 Million
  - 6/30/2012 $827 Million
  - 6/30/2011 $780 million
  - 6/30/2010 $704 million
  - 6/30/2009 $872 million

**Updated per capita costs and claims information for Medicare and non-Medicare retirees, claims experience**

**Implementation ASOP 6, see note below**

**Implementation of Employer Group Waiver Plan (EGWP)**

**Implemented Savings Initiatives including Tiered Eligibility Structure**

- Note, effective FY2018: For retirees that are Medicare eligible, premium rates were reduced by 2% and non-Medicare retiree premiums held at 0%

- ASOP6: For valuations prior to 2015, the per capita costs were based on weighted average premium rates with no age or gender related morbidity reflected. In the FY2015 valuation, the method for developing per capita costs was changed to reflect guidance for pooled arrangements published in ASOP 6. This change had a major impact across the country, including Vermont. We asked the actuary to calculate, for demonstration purposes only, the results using standards prior to ASOP 6, but using existing assumptions changes. The resulting actuarial accrued liability in this scenario was $292.7 million lower than in the actual valuation.

- Actuarial assumptions and methods will be revised under GASB 74 for the FY2017 valuation

# NEW TEACHER ASSESSMENT

Statutory Reference:

§ 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

Advantages:

- New teacher assessment links hiring to costs
- More transparency
- Local LEAs share in the cost, reduces future general fund expenditures
- Will, in combination with other 2014 initiatives, provide a system of *at least* partial prefunding by 2023

# MOODY'S AAA RATING

- **Credit Strengths**
  - » Strong fiscal management leading to surpluses most years
  - » Good progress on funding pension liabilities
  - » Modest debt burden
- **Credit Challenges**
  - » Above-average net pension liability
  - » Aging population and work force
  - » Slow economic and revenue growth
- **Rating Outlook**

  The stable outlook reflects the state's proven ability to balance its budget in a variety of operating environments. Having grown fund balance and liquidity substantially in the past few years, Vermont is financially well-positioned for the future.
- **Factors that Could Lead to an Upgrade**
  - » Not applicable
- **Factors that Could Lead to a Downgrade**
  - » Reversal of recent progress toward better funding of pension liabilities
  - » Reversal of historical track record of running budget surpluses even in bad years
  - » Protracted population loss, aging of population, and/or shrinkage of workforce leading to poor revenue trends and difficulty servicing liabilities

# QUOTES FROM MOODY'S MOST RECENT RATINGS REPORT RATING: AAA

**"PENSIONS AND OPEB:**
Vermont is an above-average pension state, and its net pension liability paired with its aging population remains the biggest credit weakness at the Aaa level. Nonetheless, Vermont's pension situation is nothing out of the ordinary for the New England region. Several neighboring states face similar pension challenges reflecting the demographic dynamics of an aging population and work force.

**A few positives about Vermont's pension burden are important to note.**
First, Vermont is aggressively funding its net pension liability, and has adopted several measures (such as lowering the assumed rate of return) to assure it remains on track to full funding by 2037.

As a proxy to measure whether a state's net pension liabilities are generally on track to grow or shrink, we look at the contribution it would need to make to "tread water" (meaning to keep net pension liabilities unchanged assuming all actuarial assumptions are met), and compare that to its actual contribution**. Vermont's actual contributions are more than its tread water contribution, reflecting its path toward improving funded ratios over the coming years. This cannot be said about all states, and Vermont's pension contributions put it in a much better position than some of the states with the biggest pension problems."**

Note: Bold Added

# VERMONT CONTINUES TO COMPARE FAVORABLY WITH ITS TRIPLE-A PEERS

- **In FY 2016, Vermont continued its efforts to contribute in excess of the ARC/ADEC: VSERS – 117.5%, VSTRS – 101.1%**
- **FY 2017 ARC/ADEC: VSERS – 124.3%, VSTRS – 100.3%**

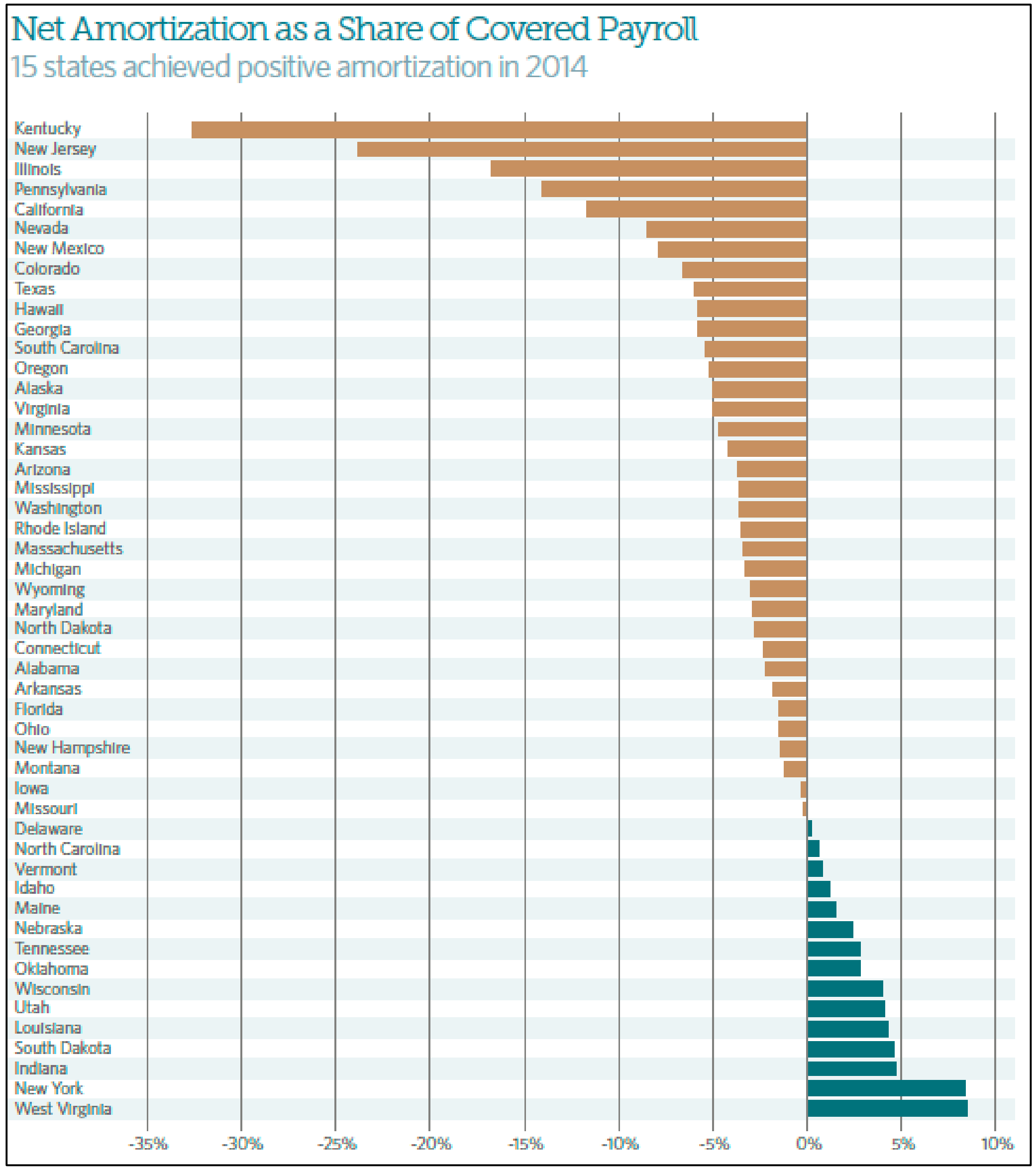
**ARC/ADEC Paid and Amortization Summary**

| 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 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 even 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 FY 2017
- Vermont does not operate under restrictive statutes that cap annual contributions or increases in contributions as a percentage of payroll




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

# *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 will be 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 were estimated at $165 million.**

# *AMORTIZATION OF THE UNFUNDED PENSION LIABILITY*

- While payments will go up by 179% ((313-112)/112), this is in nominal dollars and does not factor in inflation and value in 2016 dollars
  - Using historic inflation of 2.2%, 2016 actuarial assumption of 3%, and the updated long-term inflation rate assumption of 2.75%, you get different results:

| | Inflation Factor | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Year | nominal | | 2.20% | | 2.75% | | 3.00% | |
| | Dollars | % Increase | Dollars | % Increase in 2016 dollars | Dollars | % Increase in 2016 dollars | Dollars | % Increase in 2016 dollars |
| 2016 | $112,467,389 | | $ 112,467,389 | | $ 112,467,389 | | $ 112,467,389 | |
| 2037 | $313,329,939 | 179% | $ 197,582,504 | 76% | $ 177,248,861 | 58% | $ 168,430,282 | 50% |
| 2038 | 0 | -100% | 0 | -100% | 0 | -100% | 0 | -100% |

- More important: the Unfunded liability in 20 years will be paid off, <u>reducing the unfunded liability payment to ZERO in 2038</u>
- Remaining cost will be normal cost—calculated at 1.33% of payroll for VSTRS and 2.88% of payroll for VSERS. In 2018, this was calculated at $8.3 million and $14.0 million respectively. While these will grow as a function of state payroll levels set by the budget process, **$313 million** will be available to fund other functions of government and/or reduce expenditures (IF WE STICK TO A FUNDING PLAN).

# DISTRIBUTION OF STATE ARC PAYMENT BY ENTITIES AND FUNDS

VSERS Pension and Health Care Premiums—Included across various state funds as part of a payroll benefit charge. Approximately 35%-40% of VSERS ARC is paid by the General Fund, depending on year.

VSTRS Pension—While most of the ARC is paid with general fund dollars, beginning in FY 2015, a portion is paid through federal grants via local school systems. For 2018 this is calculated to be 5.2%.

FY 2018 budget includes $7.9 million of VSTRS normal cost funded through the Education Fund.

VSTRS Health Care premium—While a significant portion paid with general fund dollars, beginning in FY2016, a "New Teacher Assessment" is paid by local education agencies (LEAs). As new hires occur, LEAs will pick up greater share of the health care premiums. General fund dollar contributions are further reduced by federal reimbursement through the Employer Group Waiver Plan (EGWP).

# *THE NEW GASB RULES – IMPACTS ON THE STATE'S FINANCIALS*

- While a portion of the $1.8 billion in health care liabilities will need to be stated on the State's financials beginning in FY 2018, the following should be noted:
  - Will be included in the government wide financials. The liability does not run through the general fund financials
- Net pension Liability (NPL) already posted to government wide financials
- Net OPEB Obligation (NOO) on the government wide financial statements will be replaced by a Net OPEB Liability
- State of Vermont carrying NOO of $794,339,394 through FY 2016 – since no significant prefunding of health care is occurring, this increased in FY 2017
- In FY 2018 the NOO will be reversed out and replaced with the Net OPEB Liability
  - Local Education Agencies will post a portion to their government wide financials, reducing the amount booked by the State. Breakdown not available at this date
- Does <u>not</u> impact either the State or local school general fund results

# INVESTMENT RETURNS ENDPOINT DEPENDENT

**VPIC Composite Net Return**

| | 6/30/2017 | 6/30/2016 | 6/30/2015 | 6/30/2014 |
|---|---|---|---|---|
| 3-Years | 3.7% | 4.7% | 7.1% | 7.9% |
| 5-Years | 6.6% | 4.8% | 8.6% | 12.1% |
| 10-Years | 4.0% | 4.6% | 5.5% | 6.4% |
| 7-Years | 7.7% | 8.6% | 5.1% | 4.2% |

*Source: NEPC*

- Vermont Pension Investment Committee and Trustee Boards jointly set the investment rates based on two professional reviews:
- NEPC, LLC- Investment Advisory Firm to VPIC input of portfolio asset allocation into long-term capital model
- Actuarial Firm (Buck, now Segal) also uses a capital model based on asset allocation plan
  - Both firms must agree to final return assumption
  - Neither VPIC nor the Trustee boards have adopted a rate of return at variance to its independent consultants
- FY 2017: Pension portfolio rate of return has been reduced from 7.95% to 7.5% which will add to unfunded liability

# *EMPLOYEE CONTRIBUTIONS HAVE INCREASED*

- **Teachers (VSTRS):**

  In 2009, a teacher paid 3.54% of salary for their pension. Employees agreed to an increase to 5% effective 7/1/10. Employees also agreed to work longer to receive a full benefit – the result was a **reduction for taxpayers of $15 million per year in the ARC, increasing over time.**

  For new employees after 7/1/15, that increased to 6%, generating **$1 million initial annual savings, increasing each year.**

- **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 forgo the reduction to 4.85% and agreed to increase to 6.65%. Group C employees agreed to similar increases and are paying 8.53% of payroll today. **For FY 2017, this is estimated to result in at least $8.4 million in additional contributions from state employees.**

# HISTORY OF DISCIPLINED INCREMENTAL STEPS TO REDUCE PENSION AND RETIREE HEALTH CARE LIABILITIES

**2005:** Teacher Study made changes to the State's actuarial methods and put full funding of the ARC on track. The 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 VSERS and the teachers' (VSTRS) system

**2010 VSTRS:** Lengthened age for normal retirement, contribution increases, and other changes, effective in FY 2011, resulting in **$15 million in annual pension savings. In addition to pension costs, additional health care savings accrued**

**2011 VSERS:** Employee contribution rate increases beginning FY 2012, initially generating **$5 million in savings per year, increasing each 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 (VMERS), demonstrating <u>shared responsibility</u> by all parties. These changes put VMERS on a stronger financial track

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

**2014 VSTRS:** Statute change permitting that teacher pension costs be charged to federal grants, effective FY 2016, creating an estimated **$3 to $4 million of savings per year**

# *HISTORY OF DISCIPLINED INCREMENTAL STEPS TO REDUCE PENSION AND RETIREE HEALTH CARE LIABILITIES (continued.)*

- **2015:** Created Retired Teachers' Health and Medical Benefits Fund starting FY 2015
  - Since the 1980s, health care premiums for teachers were paid out of a sub-trust of teachers pension fund: by 2014 this arrangement was costing over $20 million per year in interest costs
  - Collaborative solution: Successfully convened over a dozen stakeholders, including employee group, to address the problem with combined pension/health care changes
  - In addition to pension and health care changes previously stated, a new health care assessment for LEAs was implemented, linking local employment decisions to the benefit costs
  - **Projected to save taxpayers $480 million in unfunded liability interest costs through FY 2038**

- **2016:** Changes to the amortization financing schedule for VSERS and VSTRS **will result in saving $165 million in interest from present to 2038**
- **2016:** Increased employee contributions resulting 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 adopted for all three systems (VSERS, VSTRS, VMERS)
- **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, Legislature and employee groups
- No court litigation/disruptions in planned implementations

### Recent Actuarial Assumption Changes:

- Lowered investment rate of return assumption to 7.5% based on independent analysis by actuary and pension consultant
- Currently updating mortality table assumptions

## DEFINED BENEFIT AND DEFINED CONTRIBUTION PLANS

- Under a defined benefit (DB) system the employer guarantees an annual retirement payment for their employee that is based on a formula

- The defined benefit is calculated based on an employee's years of service, age at retirement, and either ending salary or average salary over a period of time (AFC or average final compensation)

- In a defined contribution (DC) system, the ultimate retirement benefit is the accumulated value of an individual's account at retirement, resulting from his/or her own contributions, employer contributions, and investment returns

# DEFINED BENEFIT VS. DEFINED CONTRIBUTION PLANS

- A DC system will cost states and local governments MORE money than the current defined benefit system

  - Municipal retirement has a small optional DC plan
    - $22.3 million as of 6/30/17 (preliminary, unaudited)
    - Employees contribute 5.0% of salary; Employers contribute 5.125% of salary

  - State does have a small DC plan option for <u>exempt</u> employees
    - $63.8 million as of 6/30/17 (preliminary, unaudited)
    - Employees contribute 2.85% of their salary
    - State makes a fixed contribution of **7% of payroll**
    - Current Normal Rate for VSERS Defined Benefit Plan: **2.88% of payroll** in 2016
    - A move to current DC plan would require higher contribution than current normal cost 7.0-2.88 = **increased cost of 4.12% of payroll***
      - **Based on payroll levels projected by the actuary, an increase cost, if applied to all employees, of <u>$19.4 million</u> in 2017, expected to grow to <u>$20.1 million in 2018</u> and growing each subsequent year**
      - **At 5% instead of 7%, annual cost of <u>$10 million</u> in 2017, expected to grow to <u>$10.3 million in 2018</u> and growing each subsequent year**
      - **Even limiting conversion to new employees would be a substantial cost**
  - Teachers Normal Rate is even smaller at 1.33% payroll, assuming 7% (no current DC system), increased cost of 5.67% of payroll for every teacher in DC for every year if moved to a defined contribution plan.
      - **Based on payroll levels projected by the actuary, an increase cost, if applied to all employees, annual cost of <u>$33.2 million</u> in 2017, expected to grow to <u>$34.2 million in 2018</u> and growing each subsequent year**
      - **At 5% instead of 7%, annual cost of <u>$21.5 million</u> in 2017, expected to grow to <u>$22.2 million in 2018</u> and growing each subsequent year**
      - **Even limiting conversion to new employees would be a substantial cost**

*Note: This is a preliminary estimate and assumes continued utilization of using current DC plan and not a new configuration. Would need to look at actuarial value of a proposed DC plan as compared to the pension plan, normal cost for new entrants, cash flows, and other factors to complete the estimate.

# DEFINED BENEFIT VS. DEFINED CONTRIBUTION PLANS

- Towers Watson has been comparing annual investment returns in defined benefit (DB) and defined contribution (DC) plans since 1995*
    - Their latest analysis adds investment returns for 2009 through 2011
    - Findings:
        - Consistent with other down stock market years, defined benefit plans outperformed defined contribution plans in 2011 by one of the largest margins since 1995
        - Among the largest one-sixth of plans, defined benefit plans have outperformed defined contribution plans by almost a percentage point since 1995
        - Defined contribution plans are outperforming defined benefit plans in market booms, while defined benefit plans are better equipped to weather downturns

- Supported by other studies (National Institute on Retirement Security or NIRS)

- <u>Reliable and adequate income in retirement is important to Vermont's economic prosperity</u>
    - Retirees with adequate and reliable income buy goods and service and are part of the economic generator
    - Per 2016 NIRS study, retiree spending of pension benefits in 2014 generated $1.2 trillion in total economic output, supporting some 7.1 million jobs across the U.S.
        - In 2014, State and local pension funds in Vermont and other states paid a total of $308.7 million in benefits to 17,125 Vermont residents. Retirees' expenditures from these benefits supported a total of $386.5 million in total economic output in the state
        - In 2014, the average pension benefit received was $1,468 per month or $17,622 per year in Vermont
        - Retiree expenditures stemming from state and local pension plan benefits supported 2,809 jobs in Vermont

* **Source:** "DB vs DC Investment Returns: The 2009 – 2011 Update." https://www.towerswatson.com/en-US/Insights/Newsletters/Americas/insider/2013/DB-Versus-DC-Investment-Returns-the-2009-2011-Update

# *DEFINED BENEFIT VS. DEFINED CONTRIBUTION PLANS*

- The National Institute on Retirement Security (NIRS) released its report, Still a Better Bang for the Buck
  - DB plans can deliver a given level of retirement income at a cost that is 48% lower than 401(k)-type DC accounts
  - In addition, the report found that DB plan investment returns are around 100 basis-points (i.e., 1.00 percentage point) higher on average than DC plan investment returns due to higher DC plan expenses and longer DB plan investment horizons
- Cost Factors Cited In Report:
  - Longevity risk pooling – generates a cost savings of about 10%
    - In order to provide lifelong income to each and every retiree, DB plans only have to fund benefits to last to average life expectancy
    - In a DC plan, an individual must accumulate extra funds in order to self-insure against the possibility of living longer than average or possibly buy a life annuity from an insurance Company, at a cost
  - Well-diversified, long-term portfolios – generates a cost savings of about 11%
    - DB plans can maintain a diversified investment portfolio over the long-term
    - Individuals in DC plans are often advised to shift to lower-risk/lower-return assets as they age
  - Low-fee professional investment management and higher investment returns – generates a cost-savings of about 27%
    - DB plans generally have lower investment and administrative expenses than DC plans and have better access to professional investment management

# *UNFUNDED LIABILITIES AND RESIDUAL PLAN MANAGEMENT*

- The unfunded pension liability in the Vermont systems cover benefits already earned by current employees and retirees
- Changing pension systems for new employees will not reduce the unfunded liability
- It will **add more dollars** in excess of the “normal cost”
- Introducing or expanding a DC option will not eliminate the necessity of continued maintenance of the DB plan

# *RESIDUAL PLAN MANAGEMENT*

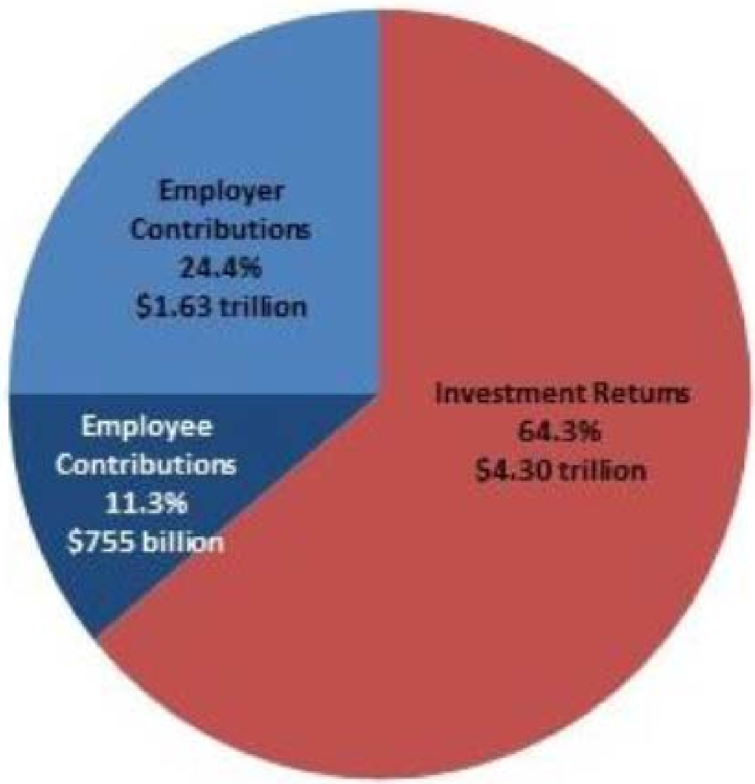
- ***<u>Allocation of Unfunded Liabilities</u>***
  - Shorter time frame for amortizing unfunded liabilities as you approach the amortization end date could create a spike in costs, at least in short-term

- ***<u>Investment of Plan Assets</u>***
  - If DB plan is closed, the age profile of the plan will change, necessitating revisions to the asset investment horizon at some point in the future (not likely a near-term event)
  - More liquidity required to meet obligations
  - Changes to asset allocation plan would be necessitated, to a more conservative profile, likely adversely impacting return at some point in the future

# INVESTMENT EARNINGS COMPRISE THE GREATEST SOURCE OF REVENUE

Past studies in Vermont show some variations from year to year and by system, but general rule of thumb is that for every dollar paid to retirees, 65 to 70 cents comes from investment income

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




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

## DC PLANS TRANSFER ADDITIONAL COSTS TO PUBLIC SECTOR

- Inadequate retirement income from DC plans requires additional public sector supports in retirement such as fuel assistance and other assistance payments
- These supports do not have the added benefit of investment return – instead this requires dollar for dollar payout in form of assistance payments instead of reaping up to 70 cents from investment income
- Utah Study: “Increasing net worth among the bottom one-third of retirees by just 10 percent over the worker’s career would decrease government outlays by more than $194 million over the next 15 years”*
  - DC plans provide less retirement security, adding to government budgetary pressures in the long run
- The opportunity for financial well-being in retirement at a lower cost to the taxpayer should be the goal

**AARP Utah Commissions Study on Cost of Retiring Poor in the State,* “http://states.aarp.org/aarp-utah-commissions-study-oncost-of-retiring-poor-in-the-state/

## *IN CONCLUSION, WE NEED TO CONTINUE TO . . .*

- Avoid a quick fix to the current year's budget deficit and <u>address the fundamental weaknesses in our revenue structure and spending patterns</u>

- Maintain continued policies for full actuarial funding of the pension funds

- Utilize periodic valuations with reasonable assumptions to assure that the pension systems are achieving the dual goals of <u>benefit security</u> and <u>fiscal responsibility</u> to both members and taxpayers

- Review changes to the benefit system to asses their impact

- Remain disciplined investors

- Exercise prudence, assess current risk management framework and develop productive strategies