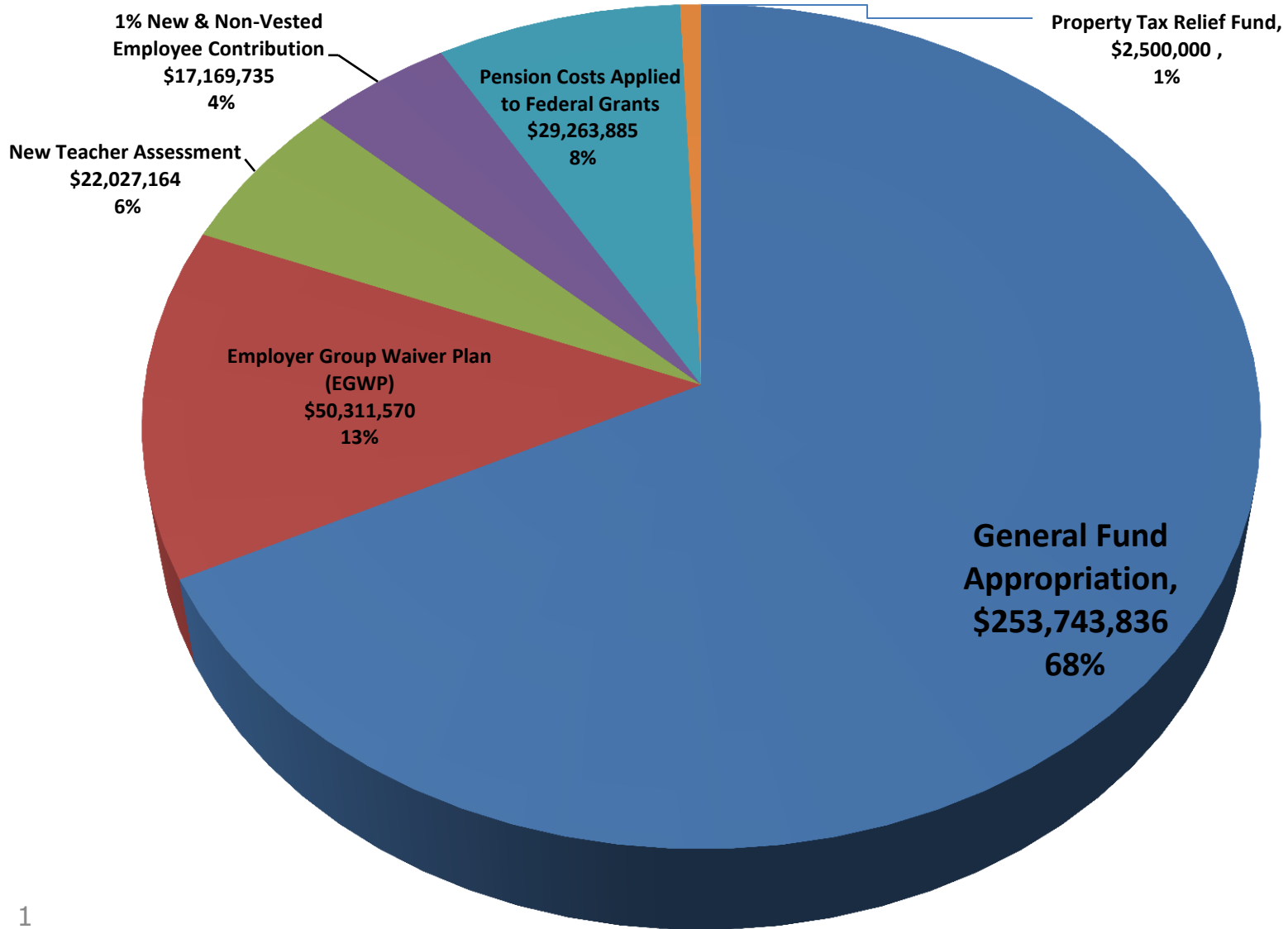


# Pension Funding, Proposed Revisions to the Amortization Schedule and DB/DC Plans

March 2016



# Sources of Funds over Next 10 Years



# **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
- Demographic/Experience and Economic Assumptions vs. Actual
- Experience Study
  - Interest Rate Assumption
  - Mortality
  - Other
- Retirement Incentive
- Teacher Retirements

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# **VSERS Facts**

- Membership as of June 30, 2015:
  - 8,446 active
  - 891 inactive
  - 735 terminated vested
  - 5,980 retired
- VSERS benefits are currently funded by member contributions, contributions by the state (across various funds, roughly 35% to 40% by General Fund), and net investment returns
- Investment returns historically provide the majority of funding for pension benefits
- VSTRS is currently 75.1% funded (on a funding policy basis)
- Much of the unfunded liability is related to investment performance in the Great Recession while recent smaller amounts are attributable to retirement experience, demographic or economic assumptions
- Prior to Great Recession, VSERS was 100.8% funded

# **FY 2015 VSERS Valuation Results**

- Incorporates an FY 2017 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

# VSTRS- Funding History

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	Actual Contribution as a Percentage of Payroll
1979	96,725,620	7,806,825	4,825,155	2,981,670	61.8%	5.0%
1980	104,521,888	8,944,090	8,471,960	472,130	94.7%	8.1%
1981	112,811,389	9,862,861	8,830,900	1,031,961	89.5%	7.8%
1982	126,748,398	10,200,209	7,822,760	2,377,449	76.7%	6.2%
1983	139,085,342	10,721,814	10,929,355	(207,541)	101.9%	7.9%
1984	153,329,729	12,341,069	11,592,100	748,969	93.9%	7.6%
1985	169,219,652	13,475,181	12,567,866	907,315	93.3%	7.4%
1986	187,834,677	14,668,095	14,461,148	206,947	98.6%	7.7%
1987	206,728,650	15,925,452	16,239,416	(313,964)	102.0%	7.9%
1988	230,430,153	16,294,346	17,186,259	(891,913)	105.5%	7.5%
1989	261,596,990	18,072,172	19,000,000	(927,828)	105.1%	7.3%
1990	273,951,188	21,320,155	19,561,000	1,759,155	91.7%	7.1%
1991	298,104,184	25,013,437	15,000,000	10,013,437	<b>60.0%</b>	5.0%
1992	312,346,750	28,595,220	14,618,992	13,976,228	<b>51.1%</b>	4.7%
1993	324,536,824	28,819,875	19,890,048	8,929,827	<b>69.0%</b>	6.1%
1994	335,155,405	25,805,408	20,580,000	5,225,408	<b>79.8%</b>	6.1%
1995	346,975,007	27,451,926	18,080,000	9,371,926	<b>65.9%</b>	5.2%
1996	355,894,809	29,884,559	11,480,000	18,404,559	<b>38.4%</b>	3.2%
1997	364,695,370	30,954,237	18,080,000	12,874,237	<b>58.4%</b>	5.0%
1998	357,899,112	33,519,949	18,106,581	15,413,368	<b>54.0%</b>	5.1%
1999	372,298,852	27,232,542	18,080,000	9,152,542	<b>66.4%</b>	4.9%
2000	387,998,959	23,573,184	18,586,240	4,986,944	<b>78.8%</b>	4.8%
2001	403,258,305	20,882,521	19,143,827	1,738,694	91.7%	4.7%
2002	418,904,021	21,965,322	20,446,282	1,519,040	93.1%	4.9%
2003	437,238,543	23,197,088	20,446,282	2,750,806	<b>88.1%</b>	4.7%
2004	453,517,153	29,608,892	24,446,282	5,162,610	<b>82.6%</b>	5.4%
2005	486,857,658	43,592,332	24,446,282	19,146,050	<b>56.1%</b>	5.0%
2006	499,044,327	49,923,599	24,985,506	24,938,093	<b>50.0%</b>	5.0%
2007	515,572,694	38,200,000	38,496,410	(296,410)	100.8%	7.5%
2008	535,807,012	40,749,097	40,955,566	(206,469)	100.5%	7.6%
2009	561,588,013	37,077,050	37,349,818	(272,768)	100.7%	6.7%
2010	562,149,916	41,503,002	41,920,603	(417,601)	101.0%	7.5%
2011	547,748,405	48,233,006	50,268,131	(2,035,125)	104.2%	9.2%
2012	561,179,272	51,241,932	56,152,011	(4,910,079)	109.6%	10.0%
2013	563,623,421	60,182,755	65,086,320	(4,903,565)	108.1%	11.5%
2014	567,073,601	68,352,825	72,668,412	(4,315,587)	106.3%	12.8%
2015	576,393,699	72,857,863	72,908,805	(50,942)	100.1%	12.6%



# **Incremental Steps to Address Pension Costs**

- 2005 Teacher Study made changes to the state's actuarial methods and put full funding of ARC on track, effective FY2007
- 2008 Committee restructured Group F benefits, lengthening age of retirement, effective in FY 2009, in concert with health care changes
- 2010 VSTRS: Lengthen age for normal retirement, contribution increases, and other changes, effective in FY2011, resulting in **\$15 million in annual savings to taxpayer**
- 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 shared responsibility by all parties
- 2014 VSTRS: additional contribution increases for new and non-vested members, effective FY 2015, **\$1 million initial annual savings, increasing each year**
- 2014: VSTRS: Statute change permitting the charging of pension costs to federal grants, effective FY 2016, estimated **\$3 to \$4 million savings per year**
- **2015: Created Retired Teachers' health and Medical Benefits Fund**
  - **Projected to save taxpayers \$480 million** in unfunded liability interest costs through FY2038.
  - **Eliminate drag of the pension system**

# Addressing amortization Schedule is the Next Key Initiative

# **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

**Defined Benefit Plans Offer**  
**the Best Alternative to**  
**Employees and Taxpayers**

# **Defined Benefit, 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 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 and investment returns

# **DB vs. DC**

- DC systems have significantly higher annual administrative costs than defined benefit systems
- 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
    - \$21.0 million as of 6/30/15
    - Employees contribute 5.0% of salary
    - Employers contribute 5.125% of salary
  - State does have a small DC plan for exempt employees
    - \$58.3 million as of 6/30/15
    - Employees contribute 2.85% of their salary
    - State makes a fixed contribution of 7%
    - Current Normal Rate for VSERS Plan: 2.93% of payroll in 2016
    - Move to DC would require higher contribution than current normal cost



# **DB vs. DC**

- Towers Watson has been comparing annual investment returns in defined benefit (DB) and defined contribution (DC) plans for more than 15 years
  - 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 (NIRS)
- Reliable and adequate income in retirement is important to Vermont's economic prosperity

# **DB vs. DC**

- 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 system's cover benefits already earned by current employees and retirees
- Changing pension systems for new employees will not reduce the unfunded liability but 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.
- A decreasing employee base in the DB plan will increase the volatility of contribution rates
- Funding the ARC through assessment of employer payrolls will be more volatile, adding to complexity in the state's budgeting system