Overview of Teacher Pensions

House Committee on Ways and Means

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February 21, 2025

Overview of Teacher Pensions

- Most VT teachers participate in the State Teachers' Retirement System (VSTRS).
- VSTRS provides a *defined benefit* pension to eligible members and their beneficiaries.
- For most teachers, the benefit is calculated:

  [years of service] *x* ***[average final compensation over 3 highest consecutive years]*** *x* ***[benefit multiplier of 1.67% for first 20 years, then 2.0% per subsequent year]***

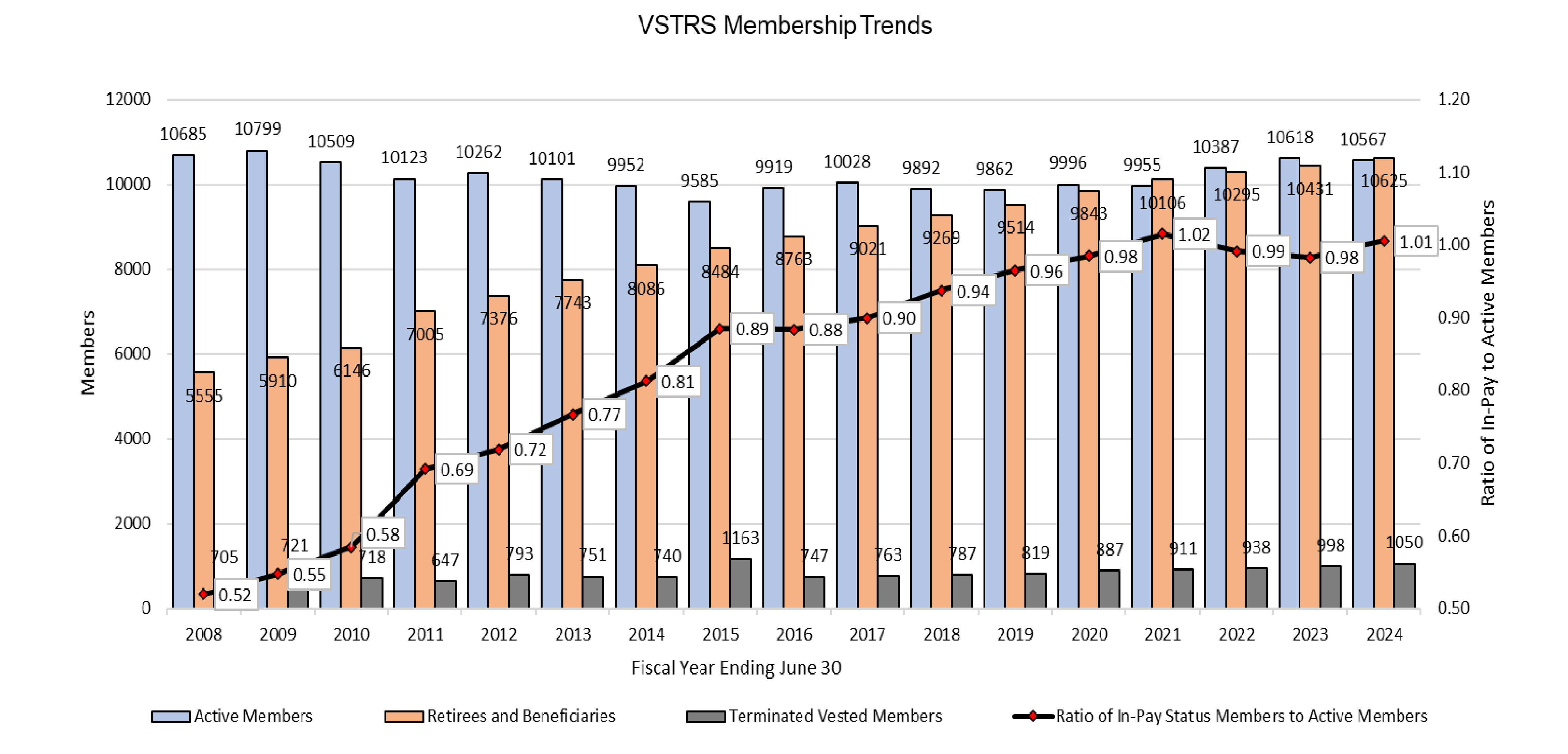
  Example: a teacher who retires with 19 years of service and an AFC of $80,000 would receive an annual benefit of $25,384 (subject to reductions from survivorship elections).

- The benefit formula has a maximum of 60% of AFC.
- Benefits are subject to post-retirement cost of living adjustments based on 50% of the change in Consumer Price Index each year, subject to certain minimums and maximums and timing restrictions.
- Teachers must have at least 5 years of service to be entitled to benefits (vest), and meet retirement eligibility criteria in order to start collecting benefits:
  - Early (reduced) retirement: 55 years old
  - Normal retirement: 65 years old, or Rule of 90 (age + years of service = 90)

Teacher Pension Membership

- “Membership in the [VSTRS] System shall be a condition of employment for all teachers.” 16 V.S.A. 1933(a).
- As defined in 16 V.S.A. 1931(20):

(20) “Teacher” means any licensed teacher, principal, supervisor, superintendent, or any professional licensed by the Vermont Standards Board for Professional Educators who is regularly employed, or otherwise contracted if following retirement, for the full normal working time for the teacher’s position in a public day school or school district within the State, or in any school or teacher-training institution located within the State, controlled by the State Board of Education, and supported wholly by the State; or in certain public independent schools designated for such purposes by the Board in accordance with section 1935 of this title; or who is regularly employed by a board of cooperative education services created in accordance with chapter 10 of this title. In all cases of doubt, the Board shall determine whether any person is a teacher as defined in this chapter. It does not mean a person who is teaching with an emergency license.



JFO analysis of data from actuarial valuations.

VSTRS Active Membership Trends							
Year Ending June 30	Active Members	Covered Payroll	% Change YOY	Average Age	Average Years of Service	Average Compensation	% Change YOY
2008	10685	$535,807,012		46.9	13.6	$50,146	
2009	10799	$561,588,013	4.8%	47.1	13.8	$52,004	3.7%
2010	10509	$562,149,916	0.1%	47.1	13.8	$53,492	2.9%
2011	10123	$547,748,405	-2.6%	46.9	13.8	$54,109	1.2%
2012	10262	$561,179,272	2.5%	46.9	13.1	$54,685	1.1%
2013	10101	$563,623,421	0.4%	46.6	13.1	$55,799	2.0%
2014	9952	$567,073,601	0.6%	46.5	13.2	$56,981	2.1%
2015	9585	$557,708,310	-1.7%	46.2	12.9	$58,186	2.1%
2016	9919	$586,397,072	5.1%	45.9	12.7	$59,119	1.6%
2017	10028	$607,354,756	3.6%	45.8	12.6	$60,566	2.4%
2018	9892	$612,899,069	0.9%	45.7	12.6	$61,959	2.3%
2019	9862	$624,908,253	2.0%	45.7	12.7	$63,365	2.3%
2020	9996	$645,902,984	3.4%	45.4	12.4	$64,616	2.0%
2021	9955	$657,934,953	1.9%	45.3	12.3	$66,091	2.3%
2022	10387	$701,566,613	6.6%	45.2	12.1	$67,543	2.2%
2023	10618	$743,005,984	5.9%	45.4	12.0	$69,976	3.6%
2024	10567	$774,174,896	4.2%	45.5	12.1	$73,263	4.7%
Compound Annual Growth Rate	-0.07%	2.33%				2.40%	

VSTRS Retired Membership Trends			
Year Ending June 30	Retirees and Beneficiaries	Total Average Annualized Retirement Allowances	Average Annual Allowance
2008	5,555	$82,480,807	$14,848
2009	5,910	$91,393,401	$15,464
2010	6,146	$95,664,775	$15,565
2011	7,005	$117,019,135	$16,705
2012	7,376	$128,765,217	$17,457
2013	7,743	$138,039,875	$17,833
2014	8,086	$147,409,221	$18,230
2015	8,484	$160,847,936	$18,959
2016	8,763	$168,768,818	$19,259
2017	9,021	$179,082,530	$19,852
2018	9,269	$188,721,417	$20,360
2019	9,514	$198,695,903	$20,885
2020	9,843	$212,287,265	$21,567
2021	10,106	$223,092,411	$22,075
2022	10,295	$235,428,501	$22,868
2023	10,431	$246,923,202	$23,672
2024	10,625	$257,701,044	$24,254
Compound Annual Growth Rate	4.14%	7.38%	3.11%

Retirement allowance data represents an annualized average based off June allowances, not actual amounts paid out by the system each year.

How Teacher Pensions Work

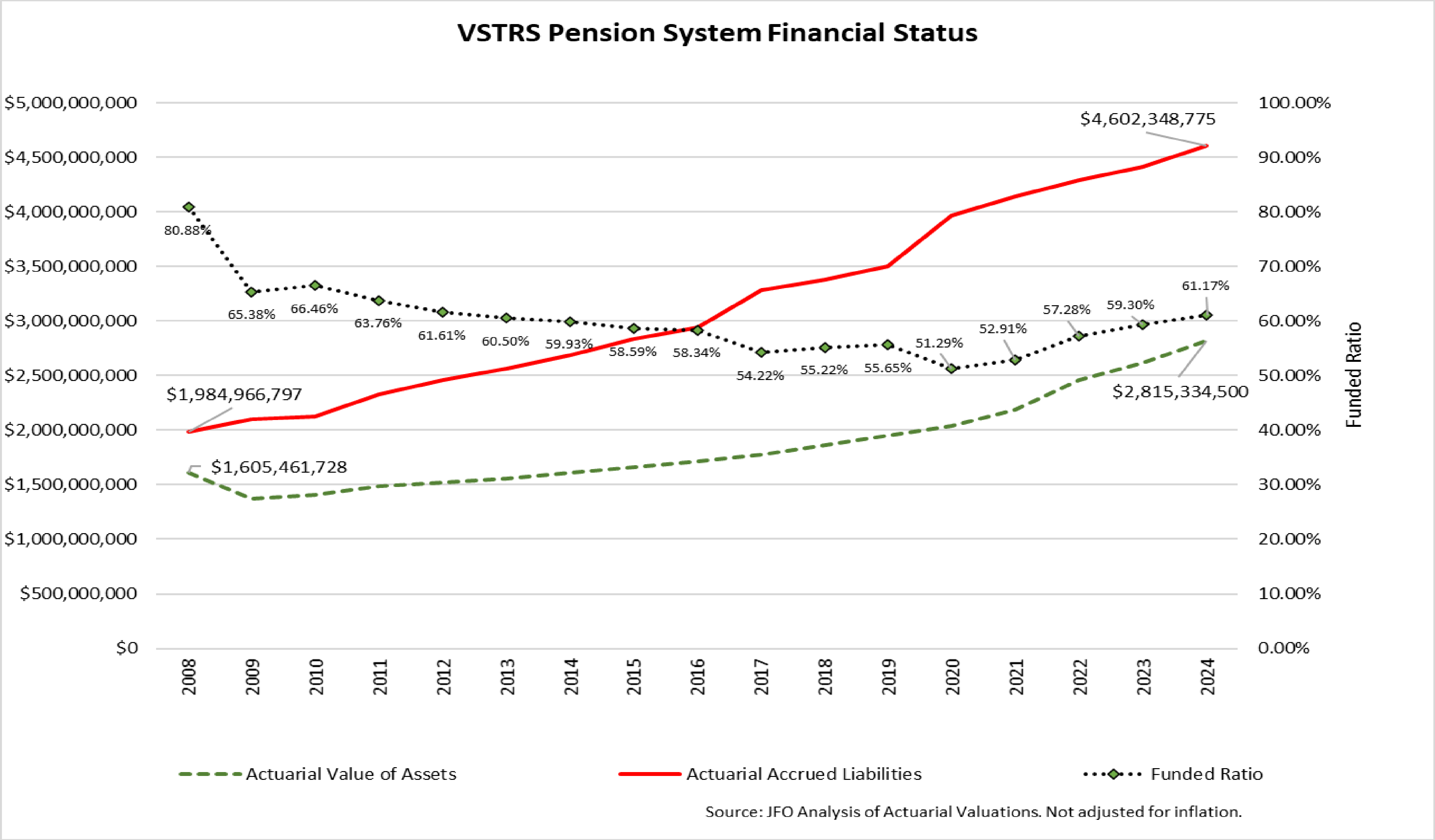
- **Pension benefits are prefunded – employee and employer make regular contributions to the pension system over the course of the employee's career, those funds are invested, and the assets fund the benefits.**

- **Employee contributions fund the normal cost, but not the entire normal cost.**

  - Normal cost is the cost of the benefits earned by the active workforce each year, plus administrative expenses.
  - Normal cost is calculated based on the size and characteristics of the active workforce, and actuarial assumptions.
  - In FY 2025, the normal cost is 11.71% of projected active payroll (including 0.45% admin cost), of which teachers contribute approximately 6.75% and the employer (State) contributes approximately 4.96% (on average).

- **Employer (State) funds the remainder of the normal cost, plus amortization payments on the unfunded liability. This total annual cost is called the actuarial determined employer contribution (ADEC).**

  - Unfunded liability is the shortfall between the accrued liabilities of the pension system (the cost of the benefits it owes), and the assets on hand to pay those liabilities.
  - Unfunded liability is scheduled to be paid off by FY 2038 (fully funded).
  - Payments on the unfunded liability are recalculated each year to increase 3%/year in future years.
  - Act 114 (2022) calls for additional "plus" payments above the ADEC to accelerate pay-down of the unfunded liability, saving interest costs and reducing the rate of growth in future ADEC costs. $15 million/year from FY 2026 until VSTRS is 90% funded (expected in FY 2035).



VSTRS Pension System Financial Status
$5,000,000,000
$4,500,000,000
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$2,500,000,000
$2,000,000,000
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$500,000,000
$0
100.00%
90.00%
80.00%
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Funded Ratio
$4,602,348,775
$1,984,966,797
$1,605,461,728
$2,815,334,500
80.88%
65.38%
66.46%
63.76%
61.61%
60.50%
59.93%
58.59%
58.34%
54.22%
55.22%
55.65%
51.29%
52.91%
57.28%
59.30%
61.17%
2008
2009
2010
2011
2012
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2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Actuarial Value of Assets
Actuarial Accrued Liabilities
Funded Ratio
Source: JFO Analysis of Actuarial Valuations. Not adjusted for inflation.

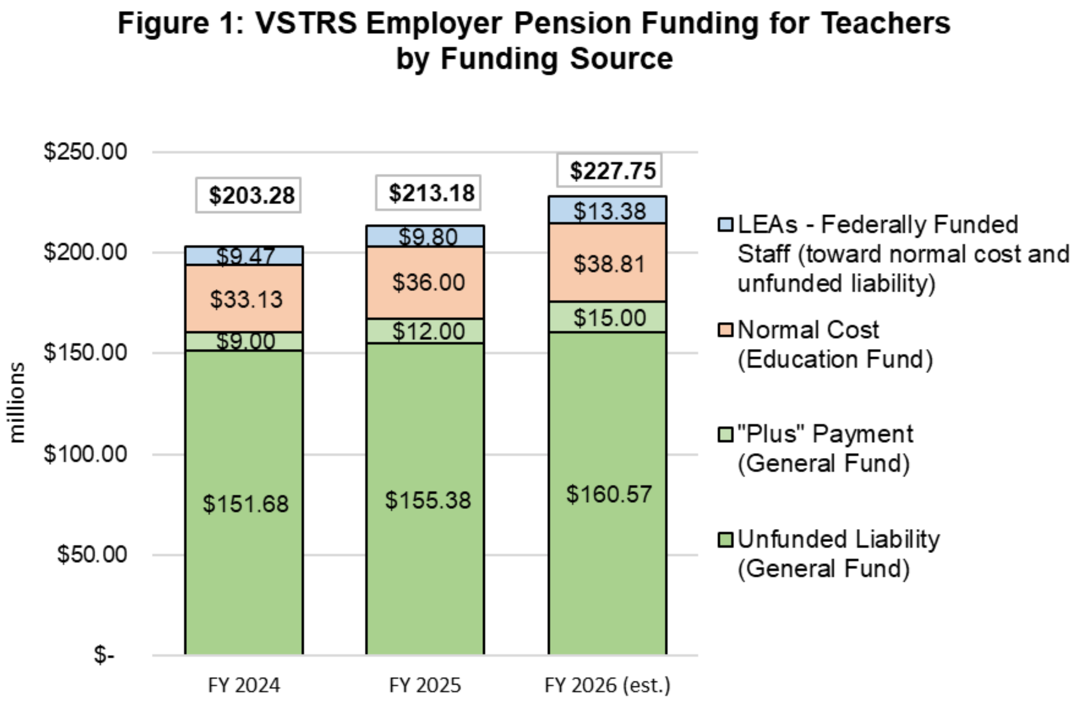
How Teacher Pensions Are Funded

- **Active employees contribute a percentage of pay (pre-tax) at a rate that varies based on their salary:**
  - Rates range from 6.15% (for those earning up to $40,000) to 7.35% (for those earning $100k+)
- **Employer contributions are recalculated annually in the actuarial valuations and are based on:**
  - Total normal cost: *Who is active in the system, and how much are their benefits expected to cost? Admin cost?*
  - Unfunded liability balance and amortization policy
- **We cannot exactly predict the future, but we can use actuarial assumptions to try to estimate when and why members will leave active service and the amount, duration, and present value of their pension benefits.**
  - Assumed rate of return
  - Inflation
  - Cost of Living Adjustments
  - Salary increases and total payroll growth
  - Demographics of membership
  - Retirement and Net Turnover behavior
  - Mortality and Disability
  - Administrative expenses
- **When these assumptions change, it will change the size of the liabilities and the amount that must be contributed (by the employer/State by default) to the pension fund each year.**
  - Experience studies every 3 years (most recently 2023) evaluate the assumptions relative to expectations about the future.

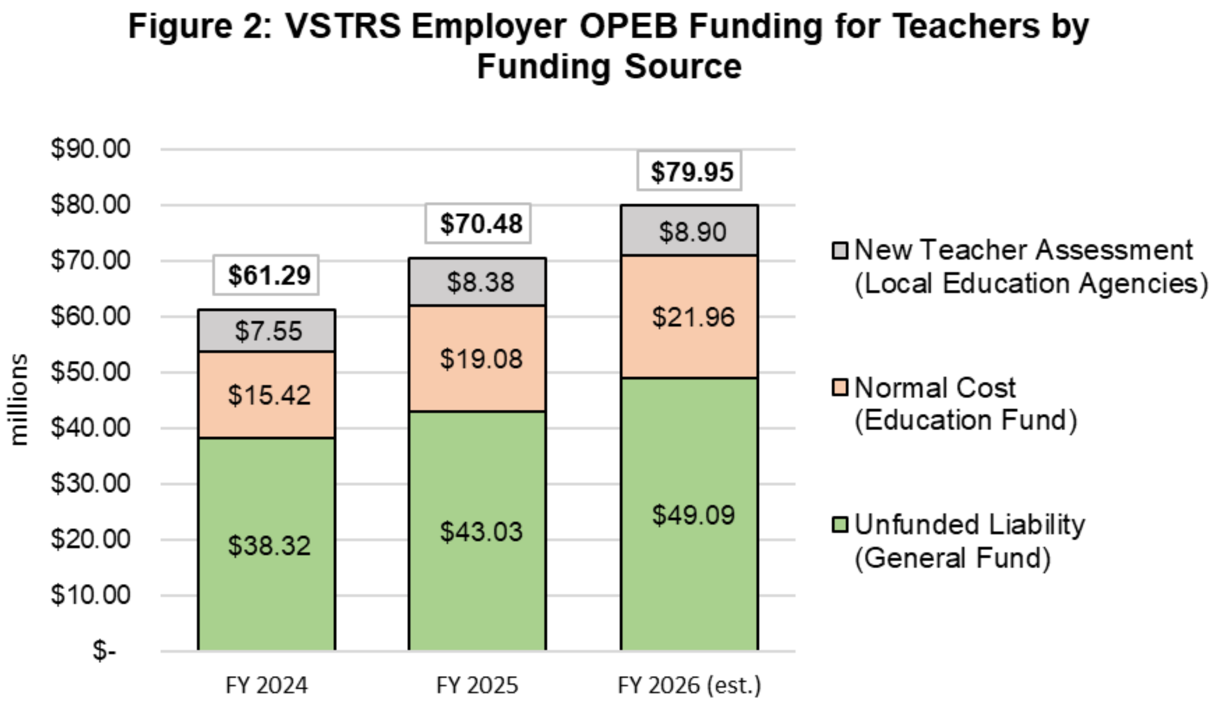
How Teacher Pensions Are Funded

- **The State pays for the employer pension cost from different sources:**
  - The **normal cost** is funded primarily from the Education Fund "off the top" and is not reflected in local school budgets, though local decisions influence the normal cost.
  - The **unfunded liability** costs are funded primarily from the General Fund.
  - LEA's with federally funded staff make payments for those staff, and those payments offset normal cost and unfunded liability cost that would otherwise fall to the Ed Fund or General Fund.
- **Though legacy underfunding occurred in prior decades, the employer (State) has fully funded the ADEC every year in the current amortization period (began in FY 2009).**
  - Legacy underfunding is responsible for a portion of the unfunded liability balance.
  - Most of the current unfunded liability balance is due to experience losses and assumption changes that occurred since the end of FY 2008 – not due to the employer intentionally underfunding the system.
- **Act 114 (2022) called for substantial additional State funding above the ADEC:**
  - FY 2022: $125 million one-time
  - "Plus" payments:
    - FY 2024: $9 million
    - FY 2025: $12 million
    - FY 2026 until 90% funded (FY 2035): $15 million

Recent Employer Funding of Teacher Retirement



Source: Governor's recommended budget summary books. Totals reflect ADEC and Act 114 "plus" funding only.



Source: Governor's recommended budget summary books.

Totals reflect budgeted estimates, not actuals. The LEA pension contributions for federally funded staff and "new teacher assessment" for OPEB are credited proportionally toward both the normal cost and unfunded liability and offset costs that would otherwise be paid by the Education and General Funds, respectively.

Summary of Assumption Impact

Assumption	Description	Impact on Liability/Cost	Impact on Gain/Loss
Inflation	The rate at which price levels are rising and purchasing power is falling	The impact that inflation has on liability and cost varies by each economic assumption	The impact that inflation has on gain/loss varies by each economic assumption
Investment Return	Based on invested plan asset categories and assumed rates of return for each asset class	Higher assumption causes lower liability and cost	Higher than anticipated actuarial return will create actuarial gains
Salary Increases	The expected rate of future salary increases for employees at various ages or years from hire	Higher assumption causes higher liability and cost	Higher than anticipated salary increases to actives will create actuarial losses
Payroll Growth	Used to project covered payroll to estimate the employer normal cost for budgeting purposes	Higher assumption causes higher cost, but has no impact on liability	Payroll growth has no impact on gain/loss
COLA	An annual increase in benefits to counteract inflation	Higher assumption causes higher liability and cost	Higher than anticipated COLAs will create actuarial losses
Mortality	The probability of dying within one year at each age	Lower mortality increases liability and cost	Higher than anticipated mortality will create actuarial gains
Retirement	The age (or ages) when employees are expected to retire	Earlier assumed retirement usually increases liability and cost	If more members retired later in their careers, this could result in gains. Generally, losses result when a member retires earlier without a full actuarial reduction. Other scenarios may result in gains/losses.
Termination	The expected rate of termination for employees at various ages or years from hire	Greater assumed termination decreases liability and cost	Higher than anticipated terminations will likely result in actuarial gains
Disability	The age (or ages) when employees are expected to become disabled	Greater incidence of disability usually slightly increases liability and cost	Greater incidence of disability than anticipated will likely result in slight actuarial losses

From VSTRS 2023 Experience Study (Segal):
https://www.vermonttreasurer.gov/sites/treasurer/files/VSTRS/VSTRS-reports/other-reports/VSTRS%20-%202023%20Actuarial%20Experience%20Review.pdf

- At the start of the amortization period (beginning of FY 2009), VSTRS had an unfunded liability of $379.51 million.
- By the end of FY 2024, the unfunded liability had grown by $1,407.51 million to $1,787.01 million.
- Most significant sources of losses:
  - Changes to actuarial assumptions to reflect evolving expectations about the future.
  - Investment experience (Great Recession)
  - Retirement and Net Turnover behavior
  - Former practice of funding OPEB from pension fund (similar impact to underfunding ADEC)

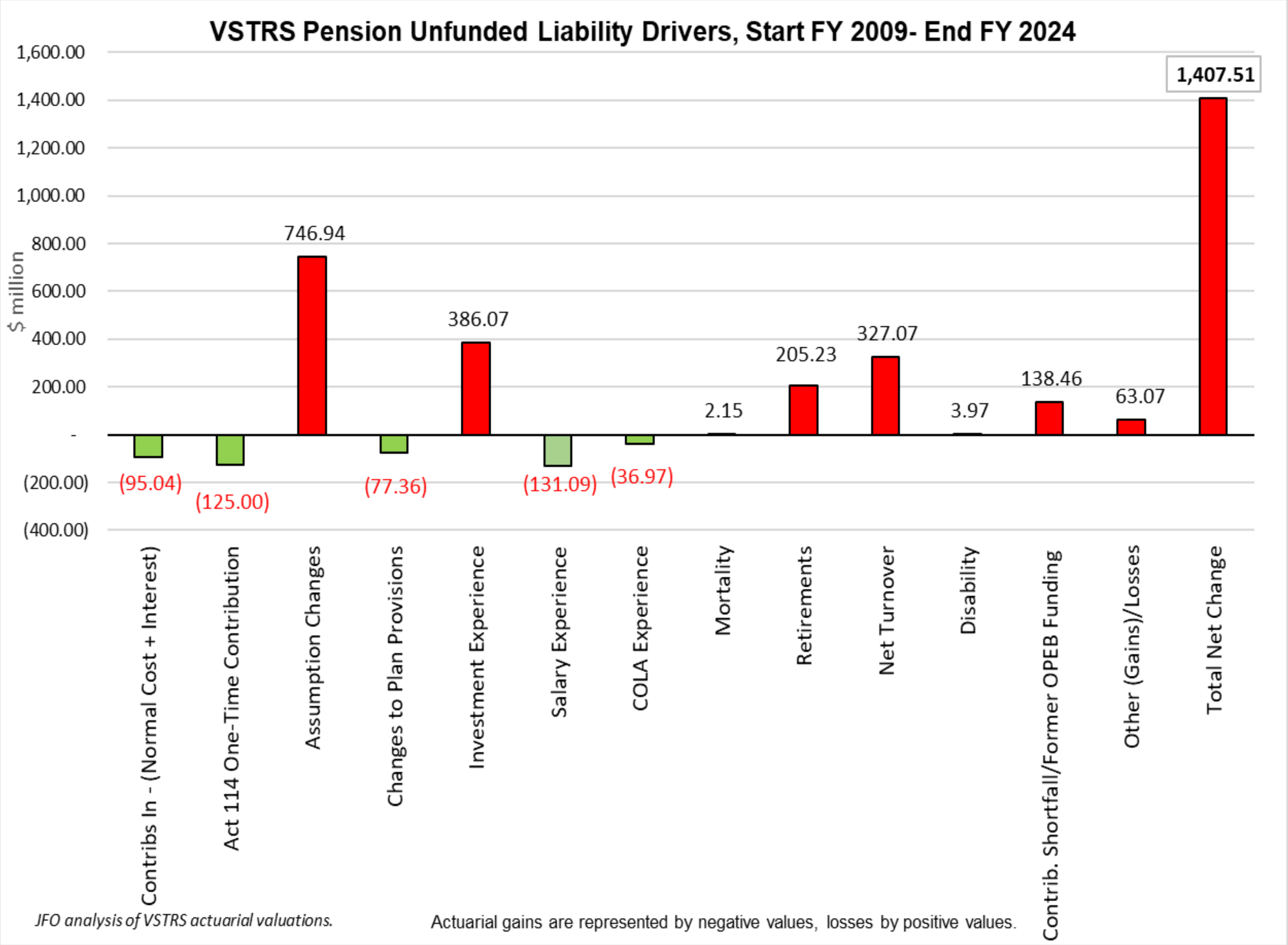


Table A-2: **VSTRS Pension Unfunded Liability Drivers**

$ millions	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cumulative FY09-24**
Beginning Unfunded Liability Balance	**379.51**	**727.76**	**711.82**	**845.11**	**945.50**	**1,013.91**	**1,076.76**	**1,175.03**	**1,225.73**	**1,502.45**	**1,513.43**	**1,554.46**	**1,933.29**	**1,950.36**	**1,832.43**	**1,794.79**	**379.51**
Amortization Expected Adjustments:																	
Normal Cost	*35.69*	*39.34*	*35.85*	*35.21*	*36.67*	*36.15*	*36.63*	*33.88*	*35.38*	*40.13*	*39.77*	*40.75*	*72.12*	*76.08*	*79.92*	*87.01*	*760.57*
Interest	*31.80*	*60.55*	*58.35*	*52.31*	*58.38*	*62.38*	*66.24*	*91.71*	*95.52*	*111.06*	*110.92*	*113.34*	*134.18*	*128.89*	*124.96*	*121.97*	*1,422.55*
Contribution In	*(60.65)*	*(67.68)*	*(82.54)*	*(88.07)*	*(97.72)*	*(105.64)*	*(108.60)*	*(112.82)*	*(119.27)*	*(152.96)*	*(158.60)*	*(167.95)*	*(177.14)*	*(245.31)*	*(254.48)*	*(278.74)*	*(2,278.16)*
Act 114 One-Time														*(125.00)*			*(125.00)*
	6.84	32.21	11.65	(0.55)	(2.67)	(7.11)	(5.73)	12.77	11.63	(1.77)	(7.91)	(13.85)	29.16	(165.34)	(49.61)	(69.76)	*(220.04)*
Assumption Changes	-	-	54.07	43.01	44.50	46.35	94.97	-	190.79	(38.60)	-	334.27	-	-	(22.42)	-	*746.94*
Changes to Plan Provisions	-	(46.53)	-	-	-	-	-	-	-	-	-	-	-	(30.83)	-	-	*(77.36)*
Investment Experience	312.73	26.28	(8.52)	6.45	(0.36)	(23.74)	2.53	24.08	10.26	8.44	11.59	21.31	(57.79)	29.49	21.69	1.63	*386.07*
Salary Experience	0.02	(0.21)	(24.55)	(18.94)	(26.62)	(2.25)	(0.01)	(11.83)	(10.26)	(10.51)	(10.41)	(10.41)	(9.49)	(7.26)	1.96	9.68	*(131.09)*
COLA Experience	9.11	(22.13)	(5.77)	2.59	(18.90)	(7.80)	(8.38)	(25.81)	(8.99)	1.39	(7.68)	(8.84)	22.59	28.71	(5.47)	18.39	*(36.97)*
Demographic Experience Factors:																	
Mortality	(0.75)	(12.20)	2.17	4.24	4.85	2.50	(12.66)	8.80	4.78	(0.75)	2.74	3.34	(1.76)	(5.60)	(1.28)	3.73	*2.15*
Retirements	(7.83)	(13.03)	16.30	16.96	10.03	7.26	20.40	16.65	14.89	15.05	20.02	24.97	16.87	13.88	13.11	19.69	*205.23*
Net Turnover	12.74	(1.49)	32.78	56.99	40.98	34.81	20.85	27.65	33.68	29.37	21.03	21.77	10.52	8.15	(10.36)	(12.39)	*327.07*
Disability	0.82	(0.45)	0.52	1.03	0.70	0.13	(0.08)	0.14	0.02	0.04	0.13	0.05	0.56	(0.04)	0.42	(0.00)	*3.97*
Contribution Shortfall/OPEB	17.67	19.29	21.24	23.12	25.10	27.16	2.63	2.25	-	-	-	-	-	-	-	-	*138.46*
Other (Gains)/Losses	(3.08)	2.33	33.39	(34.51)	(9.21)	(14.47)	(16.24)	(3.99)	29.94	8.33	11.51	6.23	6.41	10.89	14.31	21.25	*63.07*
Ending Unfunded Liability Balance	**727.76**	**711.82**	**845.11**	**945.50**	**1,013.91**	**1,076.76**	**1,175.03**	**1,225.73**	**1,502.45**	**1,513.43**	**1,554.46**	**1,933.29**	**1,950.36**	**1,832.43**	**1,794.79**	**1,787.01**	**1,787.01**

Source: JFO from VSTRS Actuarial Valuations. Note that negative values represent factors that decrease the unfunded liability and positive values represent factors that increase the unfunded liability. Not adjusted for inflation.

Non-Teaching Staff

- Many non-teaching school staff participate in the VT Municipal Employees’ Retirement System (VMERS).

- VMERS is funded by participating employees and employers – not directly through the State budget (unlike VSTRS).
  - Employees and employers pay stated contribution rates (% of pay) that vary across the 4 benefit groups.

- VMERS is different than VSTRS:
  - VMERS is smaller and “less mature,” with more active members than retired (8,692 active vs. 4,638 in-pay)
  - VMERS has a higher funded ratio (74%) and an unfunded liability of $356M (vs. $1.787B for VSTRS)
  - The VMERS ADEC has not been fully funded in recent years (the contribution rates have not generated sufficient revenue). As a result, the funded ratio has slowly declined.
  - Contributions from employees and employers are scheduled to increase by 0.25%/year until FY 2030.

- Most of the same key concepts that apply to VSTRS also apply to VMERS, though their benefit structures are different.

- Losses to VMERS (generally) would put future cost pressures on the budgets of participating employers (e.g., school budgets). They would not directly impact the General Fund or Ed Fund “off the top.”

- The VMERS actuarial valuations provide useful insights into the system, but do not differentiate school employees from non-school employees.
  https://www.vermonttreasurer.gov/sites/treasurer/files/documents/VMERS_Actuarial%20Valuation%20Report%20as%20of%2006.30.2024.pdf

Non-Teacher Pension Membership

- VMERS includes many non-teacher school employees if their employing SD/SU elects to participate in VMERS.
- For VMERS, as defined in 24 V.S.A. 5051(10):

(10) "Employee" means the following persons employed on a regular basis by a school district, by a supervisory union, or by a board of cooperative education services for not fewer than 1,040 hours in a year and for not fewer than 30 hours a week for the school year, as defined in 16 V.S.A. § 1071, or for not fewer than 1,040 hours in a year and for not fewer than 24 hours a week year-round; provided, however, that if a person who was employed on a regular basis by a school district as either a special education or transportation employee and who was transferred to and is working in a supervisory union or a board of cooperative education services in the same capacity pursuant to 16 V.S.A. § 261a(a)(6) or (8)(E) and if that person is also employed on a regular basis by a school district within the supervisory union, then the person is an "employee" if these criteria are met by the combined hours worked for the supervisory union and school district. The term also means persons employed on a regular basis by a municipality other than a school district for not fewer than 1,040 hours in a year and for not fewer than 24 hours per week, including persons employed in a library at least one-half of whose operating expenses are met by municipal funding;

Key Considerations

- **What happens to the pension funds if there is a significant change in the size of the active workforce?**

  - Generally, fewer active members would lead to reduced normal cost and accruing liabilities over time – if the workforce remains reduced long term.
  - Active employee contributions fund a portion of the normal cost – but not the entire normal cost.
  - Active employees do not fund the unfunded liability.

- BUT….there are a few other considerations….

Key Considerations

- **<u>How</u> a workforce is reduced can matter.**
  - Does a workforce reduction significantly change retirement behavior?
  - For example, early retirement incentives often cause losses to pension systems.
  - Is a workforce reduction sustained long term?
    - If so, pensions would generally see slower rates of liability growth (in dollar terms) in the future.
  - Downside can be mitigated through strategies like attrition and spreading impacts across the workforce.
  - Downside can increase with strategies that target one specific subset of the workforce if, for example, retirement/turnover behavior significantly changes from assumptions.
- **Experience and assumptions are important!**
  - Actuarial assumptions should reflect realistic long-term expectations to ensure that pensions are adequately funded. Assumptions aren't perfect, and expectations about the future evolve.
  - When actuarial assumptions are revised, the Fund incurs gains or losses which are reflected in the unfunded liability and normal cost.
  - When experience (reality each year) deviates significantly from assumptions, the Fund incurs gains or losses that are reflected in the unfunded liability balance.
- **Retirement and Net Turnover experience deviating from assumptions has been a significant driver of the VSTRS unfunded liability. From FY09-24:**
  - Retirement experience: $205.2 million impact
  - Net Turnover experience: $327.1 million impact

A quick note about OPEB…

- OPEB (Other Post-Employment Benefits, a.k.a. subsidized retiree health care benefits) represent an additional significant long-term liability to the State, which is funded by the Ed Fund and General Fund (see prior slide) similar to pensions (fully funded by FY 2048).

- Local schools pay a flat annual contribution toward OPEB for each teacher first hired after 7/1/15 (around $1500/year, indexed to inflation). But the vast majority of the OPEB employer cost is not reflected in local school budgets.

- Generally, OPEB subsidies are available to retired teachers with at least 15 years of service. VMERS offers no OPEB benefit.

- Teachers do not pay toward OPEB while in active service. Instead, they pay a share of the premium cost once enrolled in retirement. The OPEB benefit subsidizes premiums based on years of service:
  - 0% subsidy if less than 15 years of service at retirement
  - 60% subsidy if 15-19.99 years of service
  - 70% subsidy if 20.24.99 years of service
  - 80% subsidy if 25+ years of service, plus eligibility for spousal coverage.

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A quick note about OPEB…

- OPEB liabilities are driven largely by the length of retirement, health care costs, years of service/subsidy rates for retirees, and number of people claiming subsidized benefits.
- Generally, the most expensive members to cover are those with high years of service, spousal coverage, and retired prior to becoming eligible for Medicare.
- If more teachers with long years of service retire sooner than they otherwise would, it could lead to earlier enrollment in OPEB, which could increase liabilities in the near-term.
  - Pre-eligibility for Medicare = more expensive years to pay out the benefit
  - More years in retirement = more total years to pay out the benefit
- If fewer active members are earning future OPEB benefits, liabilities and normal costs for OPEB would generally be lower over time (when all else is equal).
- VT began to prefund teacher OPEB in FY 2023 on an amortization schedule that ends in FY 2048. Prior to that, there was no prefunding policy in place (pay-as-you-go). Prior to 2015, costs were paid from the pension system.
- As of FY 2024:

Total OPEB Liability:	$974.5 million
OPEB Assets:	$113.2 million
Funded Ratio:	11.6%

- Still at the very beginning of the prefunding journey – with a long way to go!

Questions?

- Resources:

  - VSTRS FY 2024 Pension Actuarial Valuation: https://www.vermonttreasurer.gov/sites/treasurer/files/documents/VSTRS_Actuarial%20Valuation%20Report%20as%20of%2006.30.2024.pdf
  - VSTRS Nonemployer Allocations and Collective Pension Amounts (FY 2023): https://www.vermonttreasurer.gov/sites/treasurer/files/VSTRS/PDF/2024/VSTRS%20GASB%2068%20Signed%20Final%20Audit%20Report%20FY23.pdf
  - VSTRS FY 2024 OPEB GASB 74 Valuation: https://www.vermonttreasurer.gov/sites/treasurer/files/documents/VSTRS%20GASB%2074%202024.pdf
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