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Matthew A. Strom FSA, MAAA, EA
Senior Vice President, Actuary
mstrom@segalco.com

101 North Wacker Drive
Suite 500
Chicago, IL 60606-1724
www.segalco.com

November 30, 2021

Via Email CRupe@leg.state.vt.us

Mr. Chris Rupe
Fiscal Analyst
Joint Fiscal Office

Re: Request 4 – Actuarial Modeling of Combined Scenarios for VSERS Group F and VSTRS

Dear Chris:

As requested by the Pension Task Force, we have calculated the impact of combining potential changes to provisions affecting certain members of the Vermont State Employees' Retirement System (VSERS) and the Vermont State Teachers' Retirement System (VSTRS). The combined scenarios include various changes to the post-retirement benefit increase/COLA provisions and the maximum benefits payable, which were studied on a stand-alone basis in our analysis dated November 16, 2021. The results of the June 30, 2020, actuarial valuation, projected forward on an open group basis, are used as a baseline.

We have calculated the impact of the combined plan change scenarios on the actuarial accrued liability, unfunded actuarial accrued liability, funded percentage, normal cost, and the estimated FY23 ADC[1]. We have also included the impact on the projected amortization payments from FY22-FY38.

For all scenarios, we have calculated the impact that these changes would have on current active members only as of the June 30, 2020, valuation date, as indicated in the request.

The results of this analysis are shown in the pages following this letter.

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[1] Since the actual FY23 contribution was determined with the recently-completed June 30, 2021, actuarial valuation, comparisons of the estimated FY23 ADCs in this analysis are provided for illustrative purposes only.

VSERS Group F Combination Scenarios

The following combined plan change scenarios were prepared:

Description of Plan Changes	Combo-A	Combo-B	Combo-C	Combo-D	Combo-E	Combo-F	Combo-G	Combo-H	Combo-I*	Combo-J*
CPI thresholds are updated to reflect a 0% minimum and a 4% maximum. (PC-3[2])	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Cost-of-Living-Adjustment (COLA) Threshold – Members only receive a COLA on the first $24,000 of their annual pension income. (PC-1)			✔	✔	✔	✔	✔	✔	✔	✔
Increasing COLA Threshold – Members only receive a COLA on the first $24,000 of their annual pension income, where the $24,000 threshold is indexed to increase annually by CPI from FY24 onward. (PC-2)										
Increase the Max Benefit Cap by 1% of Average Final Compensation (AFC) for each year worked beyond 30 years (Old Group F) and 36 years (New Group F), applied prospectively to service actually worked after July 1, 2022. (PC-6)						✔	✔	✔	✔	✔
Members will not receive a COLA until they have been retired for at least 24 months. (PC-4)	✔			✔			✔		✔	
Members will not receive a COLA until they have been retired for at least 36 months. (PC-5)		✔		✔			✔			✔

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

[2] Scenario labels from this analysis (PC-1 through PC-6) refer to like scenarios analyzed in the "Actuarial Modeling of Individual Scenarios" letter dated November 16, 2021.

Description of Plan Changes	Combo-K	Combo-L	Combo-M	Combo-N	Combo-O	Combo-P	Combo-Q*	Combo-R*
CPI thresholds are updated to reflect a 0% minimum and a 4% maximum. (PC-3)	✔	✔	✔	✔	✔	✔	✔	✔
Cost-of-Living-Adjustment (COLA) Threshold – Members only receive a COLA on the first $24,000 of their annual pension income. (PC-1)								
Increasing COLA Threshold – Members only receive a COLA on the first $24,000 of their annual pension income, where the $24,000 threshold is indexed to increase annually by CPI from FY24 onward. (PC-2)	✔	✔	✔	✔	✔	✔	✔	✔
Increase the Max Benefit Cap by 1% of Average Final Compensation (AFC) for each year worked beyond 30 years (Old Group F) and 36 years (New Group F), applied prospectively to service actually worked after July 1, 2022. (PC-6)				✔	✔	✔	✔	✔
Members will not receive a COLA until they have been retired for at least 24 months. (PC-4)		✔			✔		✔	
Members will not receive a COLA until they have been retired for at least 36 months. (PC-5)			✔			✔		✔

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

Assumptions:

- PC-2
    - The $24,000 threshold is assumed to increase annually by 2.30% (current assumption for inflation/CPI)

- PC-3
    - Decrease the annual COLA assumption from 2.40% to 2.25%[3]

- PC-6
    - Old Group F: Group F members who were hired before July 1, 2008
    - New Group F: Group F members who were hired on or after July 1, 2008

- Normal Retirement Eligibility is defined as follows:
    - Old Group F: Age 62 or 30 years of service
    - New Group F: Age 65 or a sum of age plus service greater than or equal to 87

VSTRS Combination Scenarios

The following plan change combination scenarios were prepared:

Description of Plan Changes	Combo-A	Combo-B*	Combo-C	Combo-D*	Combo-E	Combo-F*
COLA Threshold - 50% of CPI on the first $48,000 of annual pension income, 25% of CPI on annual pension income in excess of $48,000. (PC-1[4])	✔	✔				
Tiered COLA - 100% of CPI on the first $20,000 of annual pension income, 50% of CPI on annual pension income between $20,000-$40,000, 25% of CPI on annual pension income above $40,000. (PC-2)			✔	✔		
Vested COLA - No COLA upon retirement unless a member has at least 15 years of benefit service. (PC-3)					✔	✔
Increase the Max Benefit Cap by 1% of AFC for each year worked beyond 33.34 years (Group C2 only), applied prospectively to service actually worked after July 1, 2022. (PC-4)	✔	✔	✔	✔	✔	✔

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

[3] The stochastic analysis of inflation combined with the current minimum and maximum thresholds used in connection with the 2020 Experience Study Review was rerun with the thresholds identified in PC-3. The outcome was a reduction of approximately 0.15% in the 50th percentile long-term average COLA.

[4] Scenario labels from this analysis (PC-1 through PC-4) refer to like scenarios analyzed in the "Actuarial Modeling of Individual Scenarios" letter dated November 16, 2021.

Assumptions:

- PC-1 and PC-2
  - Apply the following COLA increase assumptions[5]:
    - 2.40% where 100% of CPI is applied
    - 1.35% where 50% of CPI is applied
    - 0.95% where 25% of CPI is applied
- PC-4
  - Group C2 (Non-Grandfathered): Group C members who were not within five years of normal retirement eligibility as defined prior to July 1, 2010
- Normal Retirement Eligibility is defined as follows:
  - Group C1 (Grandfathered): Age 62 or 30 years of creditable service
  - Group C2 (Non-Grandfathered): Age 65 or age plus creditable service greater than or equal to 90

Methodology

ADCs for a given fiscal year are determined based on the actuarial valuation from two years prior. For example, the actuarial valuation as of June 30, 2020, determined the ADC for the fiscal year ending June 30, 2022. Since we are using the 2020 actuarial valuation, plan changes will first impact amortization payments in FY23.

Within each individual group/System, each of the combined plan change scenarios can be viewed as additive when combined with any of the revenue scenarios from the November 16th and November 24th communications. For example, in order to estimate the impact of combining the combined plan change scenario Combo-A with the revenue scenario Rev-A, the impact of Combo-A can be added to the impact of Rev-A. Additionally, since the VSERS Group F combined plan change scenarios only impact active members in Group F and the VSERS Group C plan change scenarios (per the November 16th communication) only impact active members in Group C, any combined plan change scenario for VSERS Group F can be viewed as additive if combined with any individual plan change scenario for VSERS Group C. However, two plan changes within a group may not be additive.

Except for VSERS Group C plan changes (per the November 16th communication), we did not assume that any change would materially affect participant behavior and therefore did not revise any demographic assumptions as a result of these plan changes. If any changes affect participant behavior, the results would be different than those illustrated in this analysis. The plan changes were valued assuming that the changes could be fully implemented and that no portion of current accrued or projected benefits were protected. If any changes are implemented with such protections in place, or if required by law, the reductions in actuarial accrued liability and actuarially determined contribution will be lower than illustrated in this analysis.

[5] Note the 1% and 5% limits from 16 V.S.A. § 1949(c) are applied after the determination of 100%, 50%, and 25% of CPI. Except for when CPI is negative, in which case the COLA is 0%. The stochastic analysis of inflation combined with the current minimum and maximum thresholds used in connection with the 2020 Experience Study Review, which was used to determine the 2.40% and 1.35% assumptions, was rerun with the modifications identified in PC-2. The outcome at 25% of CPI was a reduction of approximately 1.45% in the 50th percentile long-term average COLA (relative to the outcome at 100% of CPI).

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Disclosure

This analysis was prepared in accordance with generally accepted actuarial principles and practices at the request of the Pension Task Force. Please refer to our June 30, 2020, Actuarial Valuation and Review reports for both VSERS and VSTRS for the assumptions and plan of benefits underlying these calculations.

The measurements shown in these actuarial calculations may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

The actuarial calculations were directed under my supervision. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this report is complete and accurate. In my opinion, each assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

Please let me know if you have any questions or need any additional information.

Sincerely,

Matthew A. Strom, FSA, MAAA, EA
Senior Vice President and Actuary

cc: Kathleen Riley, Segal

Results

VSERS Group F – Combination Scenario Descriptions

Description of Plan Changes	Combo-A	Combo-B	Combo-C	Combo-D	Combo-E	Combo-F	Combo-G	Combo-H	Combo-I*	Combo-J*
CPI thresholds are updated to reflect a 0% minimum and a 4% maximum. (PC-3)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cost-of-Living-Adjustment (COLA) Threshold – Members only receive a COLA on the first $24,000 of their annual pension income. (PC-1)			✓	✓	✓	✓	✓	✓	✓	✓
Increasing COLA Threshold – Members only receive a COLA on the first $24,000 of their annual pension income, where the $24,000 threshold is indexed to increase annually by CPI from FY24 onward. (PC-2)										
Increase the Max Benefit Cap by 1% of Average Final Compensation (AFC) for each year worked beyond 30 years (Old Group F) and 36 years (New Group F), applied prospectively to service actually worked after July 1, 2022. (PC-6)						✓	✓	✓	✓	✓
Members will not receive a COLA until they have been retired for at least 24 months. (PC-4)	✓			✓			✓		✓	
Members will not receive a COLA until they have been retired for at least 36 months. (PC-5)		✓			✓			✓		✓

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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VSERS Group F – Combination Scenario Descriptions (continued)

Description of Plan Changes	Combo-K	Combo-L	Combo-M	Combo-N	Combo-O	Combo-P	Combo-Q*	Combo-R*
CPI thresholds are updated to reflect a 0% minimum and a 4% maximum. (PC-3)	✔	✔	✔	✔	✔	✔	✔	✔
Cost-of-Living-Adjustment (COLA) Threshold – Members only receive a COLA on the first $24,000 of their annual pension income. (PC-1)								
Increasing COLA Threshold – Members only receive a COLA on the first $24,000 of their annual pension income, where the $24,000 threshold is indexed to increase annually by CPI from FY24 onward. (PC-2)	✔	✔	✔	✔	✔	✔	✔	✔
Increase the Max Benefit Cap by 1% of Average Final Compensation (AFC) for each year worked beyond 30 years (Old Group F) and 36 years (New Group F), applied prospectively to service actually worked after July 1, 2022. (PC-6)				✔	✔	✔	✔	✔
Members will not receive a COLA until they have been retired for at least 24 months. (PC-4)		✔			✔		✔	
Members will not receive a COLA until they have been retired for at least 36 months. (PC-5)			✔			✔		✔

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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VSERS Group F – Combination Scenarios Combo-A and Combo-B

2020 Valuation ($ in millions)	Baseline	Combo-A	Combo-B
Actuarial Accrued Liability:	$3,095.3	$3,059.9	$3,042.6
Change from Baseline Valuation:		($35.4)	($52.7)
Actuarial Value of Assets:	$2,054.8	$2,054.8	$2,054.8
Unfunded Actuarial Accrued Liability:	$1,040.5	$1,005.1	$987.8
Change from Baseline Valuation:		($35.4)	($52.7)
Funded Percentage:	66.4%	67.2%	67.5%
Change from Baseline Valuation:		0.8%	1.1%
Normal Cost*:	$73.2	$71.1	$70.1
Change from Baseline Valuation:		($2.1)	($3.1)
Estimated Actuarially Determined Contribution for Fiscal 2023:**	$123.7	$118.3	$115.7
Change from Baseline Valuation:		($5.4)	($8.0)

*Adjusted for middle of the year timing
**Estimated in the June 30, 2020 Actuarial Valuation and Review for VSERS

Note: Numbers may not add due to rounding

Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)

Year	Baseline	Combo-A	Combo-B
2022	$84.8	$84.8	$84.8
2023	90.4	87.4	85.9
2024	94.8	91.2	89.5
2025	99.1	95.4	93.6
2026	103.4	99.6	97.7
2027	107.7	103.7	101.8
2028	112.0	107.9	105.9
2029	116.3	112.2	110.1
2030	120.8	116.5	114.4
2031	125.3	120.8	118.7
2032	129.9	125.3	123.1
2033	134.6	129.9	127.6
2034	139.4	134.6	132.2
2035	144.4	139.5	137.0
2036	149.6	144.5	142.1
2037	155.2	149.9	147.4
2038	161.2	155.9	153.2

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VSERS Group F – Combination Scenarios Combo-C through Combo-E

2020 Valuation ($ in millions)	Baseline	Combo-C	Combo-D	Combo-E
Actuarial Accrued Liability:	$3,095.3	$2,990.1	$2,979.7	$2,971.6
Change from Baseline Valuation:		($105.2)	($115.6)	($123.7)
Actuarial Value of Assets:	$2,054.8	$2,054.8	$2,054.8	$2,054.8
Unfunded Actuarial Accrued Liability:	$1,040.5	$935.3	$924.9	$916.8
Change from Baseline Valuation:		($105.2)	($115.6)	($123.7)
Funded Percentage:	66.4%	68.7%	69.0%	69.1%
Change from Baseline Valuation:		2.3%	2.6%	2.7%
Normal Cost*:	$73.2	$67.9	$67.2	$66.6
Change from Baseline Valuation:		($5.3)	($6.0)	($6.6)
Estimated Actuarially Determined Contribution for Fiscal 2023:**	$123.7	$108.6	$106.9	$105.6
Change from Baseline Valuation:		($15.1)	($16.8)	($18.1)

*Adjusted for middle of the year timing
**Estimated in the June 30, 2020 Actuarial Valuation and Review for VSERS

Note: Numbers may not add due to rounding

	Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)			
Year	**Baseline**	**Combo-C**	**Combo-D**	**Combo-E**
2022	$84.8	$84.8	$84.8	$84.8
2023	90.4	81.4	80.5	79.9
2024	94.8	84.3	83.2	82.4
2025	99.1	88.1	87.0	86.2
2026	103.4	92.1	90.9	90.1
2027	107.7	96.0	94.8	93.9
2028	112.0	100.0	98.8	97.8
2029	116.3	103.9	102.7	101.8
2030	120.8	108.0	106.7	105.7
2031	125.3	112.1	110.8	109.8
2032	129.9	116.3	115.0	113.9
2033	134.6	120.6	119.2	118.2
2034	139.4	125.0	123.6	122.5
2035	144.4	129.6	128.1	127.0
2036	149.6	134.3	132.8	131.7
2037	155.2	139.4	137.8	136.7
2038	161.2	144.9	143.4	142.2

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VSERS Group F – Combination Scenarios Combo-F through Combo-J

2020 Valuation ($ in millions)	Baseline	Combo-F	Combo-G	Combo-H	Combo-I*	Combo-J*
Actuarial Accrued Liability:	$3,095.3	$3,022.4	$3,012.0	$3,004.0	$3,068.3	$3,064.9
Change from Baseline Valuation:		($72.9)	($83.3)	($91.3)	($27.0)	($30.4)
Actuarial Value of Assets:	$2,054.8	$2,054.8	$2,054.8	$2,054.8	$2,054.8	$2,054.8
Unfunded Actuarial Accrued Liability:	$1,040.5	$967.6	$957.2	$949.2	$1,013.5	$1,010.1
Change from Baseline Valuation:		($72.9)	($83.3)	($91.3)	($27.0)	($30.4)
Funded Percentage:	66.4%	68.0%	68.2%	68.4%	67.0%	67.0%
Change from Baseline Valuation:		1.6%	1.8%	2.0%	0.6%	0.6%
Normal Cost:**	$73.2	$68.7	$68.0	$67.4	$69.2	$68.9
Change from Baseline Valuation:		($4.5)	($5.2)	($5.8)	($4.0)	($4.3)
Estimated Actuarially Determined Contribution for Fiscal 2023*:**	$123.7	$112.4	$110.7	$109.4	$117.0	$116.4
Change from Baseline Valuation:		($11.3)	($13.0)	($14.3)	($6.7)	($7.3)

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes
**Adjusted for middle of the year timing
***Estimated in the June 30, 2020 Actuarial Valuation and Review for VSERS

Note: Numbers may not add due to rounding

Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)

Year	Baseline	Combo-F	Combo-G	Combo-H	Combo-I*	Combo-J*
2022	$84.8	$84.8	$84.8	$84.8	$84.8	$84.8
2023	90.4	84.2	83.3	82.6	88.1	87.8
2024	94.8	87.4	86.4	85.5	91.8	91.5
2025	99.1	91.4	90.3	89.5	96.0	95.6
2026	103.4	95.4	94.3	93.4	100.1	99.8
2027	107.7	99.5	98.3	97.4	104.3	103.9
2028	112.0	103.5	102.3	101.4	108.5	108.1
2029	116.3	107.6	106.4	105.4	112.7	112.3
2030	120.8	111.8	110.5	109.5	117.0	116.6
2031	125.3	116.0	114.7	113.7	121.4	120.9
2032	129.9	120.3	119.0	117.9	125.8	125.4
2033	134.6	124.7	123.3	122.3	130.4	129.9
2034	139.4	129.2	127.8	126.7	135.1	134.6
2035	144.4	133.9	132.4	131.3	140.0	139.5
2036	149.6	138.8	137.3	136.1	145.0	144.5
2037	155.2	143.9	142.4	141.2	150.3	149.8
2038	161.2	149.6	148.0	146.8	156.2	155.7

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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VSERS Group F – Combination Scenarios Combo-K through Combo-M

2020 Valuation ($ in millions)	Baseline	Combo-K	Combo-L	Combo-M
Actuarial Accrued Liability:	$3,095.3	$3,017.5	$3,005.3	$2,995.7
Change from Baseline Valuation:		($77.8)	($90.0)	($99.6)
Actuarial Value of Assets:	$2,054.8	$2,054.8	$2,054.8	$2,054.8
Unfunded Actuarial Accrued Liability:	$1,040.5	$962.7	$950.5	$940.9
Change from Baseline Valuation:		($77.8)	($90.0)	($99.6)
Funded Percentage:	66.4%	68.1%	68.4%	68.6%
Change from Baseline Valuation:		1.7%	2.0%	2.2%
Normal Cost*:	$73.2	$69.5	$68.6	$68.0
Change from Baseline Valuation:		($3.7)	($4.6)	($5.2)
Estimated Actuarially Determined Contribution for Fiscal 2023:**	$123.7	$112.8	$110.8	$109.2
Change from Baseline Valuation:		($10.9)	($12.9)	($14.5)

*Adjusted for middle of the year timing
**Estimated in the June 30, 2020 Actuarial Valuation and Review for VSERS

Note: Numbers may not add due to rounding

Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)

Year	Baseline	Combo-K	Combo-L	Combo-M
2022	$84.8	$84.8	$84.8	$84.8
2023	90.4	83.8	82.7	81.9
2024	94.8	87.0	85.8	84.8
2025	99.1	91.0	89.7	88.7
2026	103.4	95.0	93.7	92.6
2027	107.7	99.1	97.7	96.6
2028	112.0	103.1	101.7	100.6
2029	116.3	107.2	105.7	104.6
2030	120.8	111.3	109.8	108.7
2031	125.3	115.5	114.0	112.8
2032	129.9	119.8	118.2	117.0
2033	134.6	124.2	122.6	121.3
2034	139.4	128.7	127.0	125.7
2035	144.4	133.4	131.7	130.3
2036	149.6	138.2	136.5	135.1
2037	155.2	143.4	141.6	140.2
2038	161.2	149.0	147.2	145.8

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VSERS Group F – Combination Scenarios Combo-N through Combo-R

2020 Valuation ($ in millions)	Baseline	Combo-N	Combo-O	Combo-P	Combo-Q*	Combo-R*
Actuarial Accrued Liability:	$3,095.3	$3,049.9	$3,037.7	$3,028.0	$3,084.2	$3,079.7
Change from Baseline Valuation:		($45.4)	($57.6)	($67.3)	($11.1)	($15.6)
Actuarial Value of Assets:	$2,054.8	$2,054.8	$2,054.8	$2,054.8	$2,054.8	$2,054.8
Unfunded Actuarial Accrued Liability:	$1,040.5	$995.1	$982.9	$973.2	$1,029.4	$1,024.9
Change from Baseline Valuation:		($45.4)	($57.6)	($67.3)	($11.1)	($15.6)
Funded Percentage:	66.4%	67.4%	67.6%	67.9%	66.6%	66.7%
Change from Baseline Valuation:		1.0%	1.2%	1.5%	0.2%	0.3%
Normal Cost:**	$73.2	$70.3	$69.5	$68.8	$70.5	$70.1
Change from Baseline Valuation:		($2.9)	($3.7)	($4.4)	($2.7)	($3.1)
Estimated Actuarially Determined Contribution for Fiscal 2023*:**	$123.7	$116.6	$114.6	$113.0	$119.8	$119.0
Change from Baseline Valuation:		($7.1)	($9.1)	($10.7)	($3.9)	($4.7)

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes
**Adjusted for middle of the year timing
***Estimated in the June 30, 2020 Actuarial Valuation and Review for VSERS

Note: Numbers may not add due to rounding

Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)

Year	Baseline	Combo-N	Combo-O	Combo-P	Combo-Q*	Combo-R*
2022	$84.8	$84.8	$84.8	$84.8	$84.8	$84.8
2023	90.4	86.5	85.5	84.7	89.5	89.1
2024	94.8	90.2	88.9	88.0	93.5	93.0
2025	99.1	94.3	93.0	92.0	97.7	97.2
2026	103.4	98.4	97.1	96.0	101.9	101.4
2027	107.7	102.5	101.2	100.1	106.1	105.6
2028	112.0	106.7	105.3	104.2	110.4	109.8
2029	116.3	110.9	109.4	108.3	114.7	114.1
2030	120.8	115.1	113.6	112.4	119.0	118.4
2031	125.3	119.4	117.9	116.7	123.4	122.8
2032	129.9	123.8	122.2	121.0	127.9	127.3
2033	134.6	128.3	126.7	125.4	132.6	131.9
2034	139.4	132.9	131.3	130.0	137.3	136.7
2035	144.4	137.7	136.0	134.7	142.2	141.6
2036	149.6	142.7	140.9	139.6	147.3	146.7
2037	155.2	147.9	146.1	144.7	152.7	152.0
2038	161.2	153.7	151.9	150.4	158.7	158.0

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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VSTRS – Combination Scenario Descriptions

Description of Plan Changes	Combo-A	Combo-B*	Combo-C	Combo-D*	Combo-E	Combo-F*
COLA Threshold - 50% of CPI on the first $48,000 of annual pension income, 25% of CPI on annual pension income in excess of $48,000. (PC-1)	✔	✔				
Tiered COLA - 100% of CPI on the first $20,000 of annual pension income, 50% of CPI on annual pension income between $20,000-$40,000, 25% of CPI on annual pension income above $40,000. (PC-2)			✔	✔		
Vested COLA - No COLA upon retirement unless a member has at least 15 years of benefit service. (PC-3)					✔	✔
Increase the Max Benefit Cap by 1% of AFC for each year worked beyond 33.34 years (Group C2 only), applied prospectively to service actually worked after July 1, 2022. (PC-4)	✔	✔	✔	✔	✔	✔

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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VSTRS – Combination Scenarios Combo-A through Combo-F

2020 Valuation ($ in millions)	Baseline	Combo-A	Combo-B*	Combo-C	Combo-D*	Combo-E	Combo-F*
Actuarial Accrued Liability:	$3,969.0	$3,983.7	$3,986.8	$4,032.6	$4,013.6	$3,995.6	$3,997.6
Change from Baseline Valuation:		$14.7	$17.8	$63.6	$44.6	$26.6	$28.6
Actuarial Value of Assets:	$2,035.7	$2,035.7	$2,035.7	$2,035.7	$2,035.7	$2,035.7	$2,035.7
Unfunded Actuarial Accrued Liability:	$1,933.3	$1,948.0	$1,951.1	$1,996.9	$1,977.9	$1,959.9	$1,961.9
Change from Baseline Valuation:		$14.7	$17.8	$63.6	$44.6	$26.6	$28.6
Funded Percentage:	51.3%	51.1%	51.1%	50.5%	50.7%	50.9%	50.9%
Change from Baseline Valuation:		-0.2%	-0.2%	-0.8%	-0.6%	-0.4%	-0.4%
Normal Cost**:	$74.6	$74.9	$75.0	$77.7	$76.9	$75.0	$75.4
Change from Baseline Valuation:		$0.3	$0.4	$3.1	$2.3	$0.4	$0.8
Estimated Actuarially Determined Contribution for Fiscal 2023***:	$202.1	$203.8	$204.1	$211.0	$208.5	$204.9	$205.5
Change from Baseline Valuation:		$1.7	$2.0	$8.9	$6.4	$2.8	$3.4

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes
**Adjusted for middle of the year timing
***Estimated in the June 30, 2020 Actuarial Valuation and Review for VSTRS

Note: Numbers may not add due to rounding

Projected Amortization Payment for the Plan Year Ending June 30 ($ in millions)

Year	Baseline	Combo-A	Combo-B*	Combo-C	Combo-D*	Combo-E	Combo-F*
2022	$157.3	$157.3	$157.3	$157.3	$157.3	$157.3	$157.3
2023	166.2	167.4	167.7	171.5	169.9	168.4	168.6
2024	172.9	174.3	174.6	179.1	177.3	175.4	175.6
2025	179.4	180.9	181.2	185.9	184.0	182.1	182.3
2026	186.0	187.5	187.8	192.7	190.7	188.7	189.0
2027	192.7	194.2	194.6	199.6	197.6	195.5	195.7
2028	199.4	201.1	201.4	206.6	204.5	202.4	202.6
2029	206.4	208.0	208.4	213.7	211.6	209.4	209.6
2030	213.4	215.1	215.5	220.9	218.8	216.5	216.8
2031	220.6	222.4	222.8	228.4	226.1	223.8	224.1
2032	228.0	229.8	230.2	236.0	233.7	231.3	231.6
2033	235.6	237.5	237.9	243.8	241.4	239.0	239.3
2034	243.5	245.3	245.8	251.9	249.4	246.9	247.2
2035	251.5	253.5	253.9	260.2	257.7	255.1	255.4
2036	259.9	261.9	262.4	268.8	266.2	263.6	263.9
2037	268.7	270.7	271.2	277.8	275.1	272.5	272.8
2038	278.1	280.2	280.6	287.3	284.6	282.0	282.3

*Exempts all actives within 5 years of Normal Retirement Eligibility from all COLA changes

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