

# **FY 2024 AND 2025 AGENCY PREMIUMS**

Workers' Compensation Self-Insurance Fund

May 1, 2023

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ACTUARIAL CONSULTING

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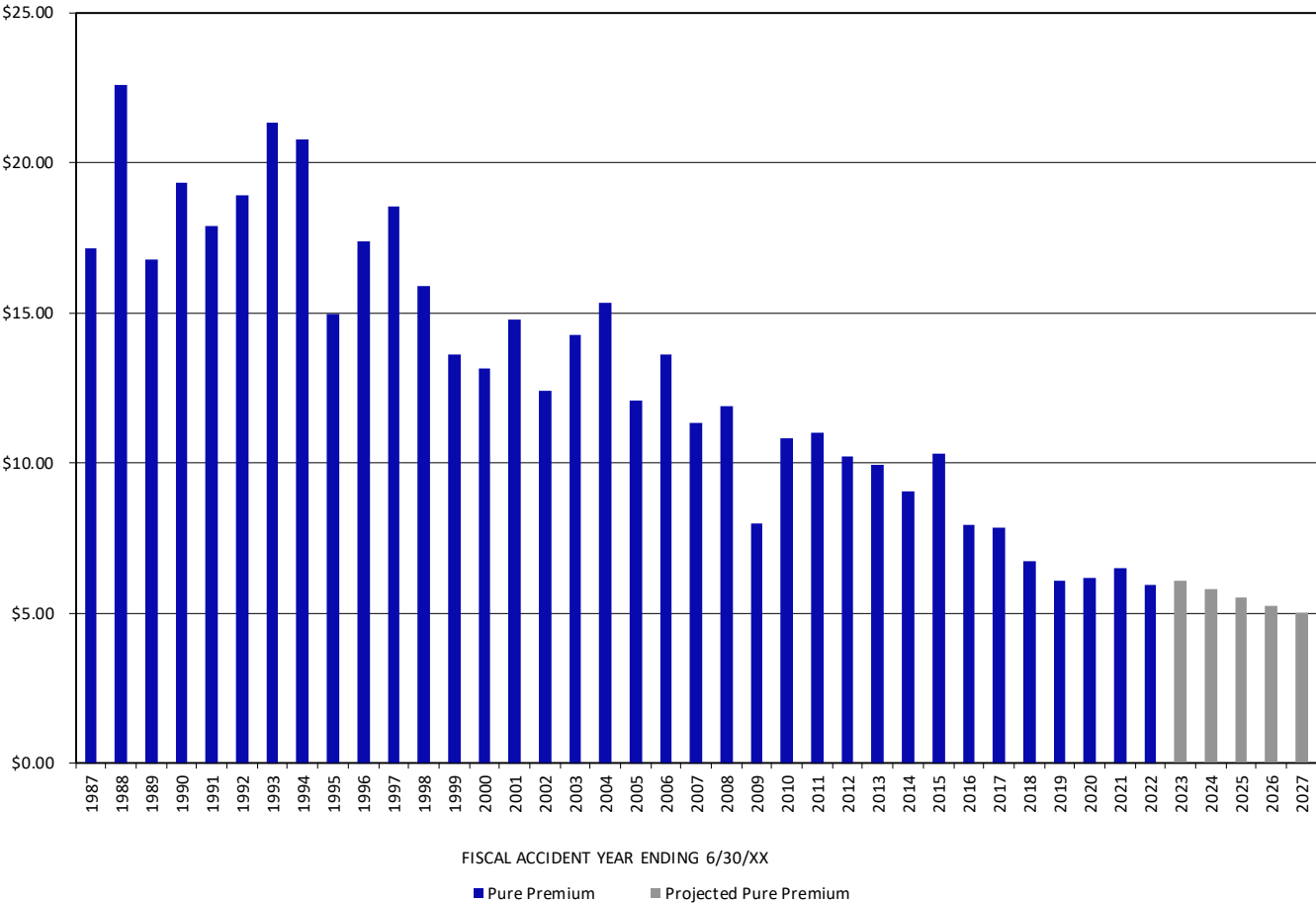
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# PRESENTATION OVERVIEW

- Overview of the Commonwealth's Workers' Compensation Experience
- Overall Recommended FY 2024 and FY 2025 Workers' Compensation Premiums
- Individual Agency FY 2024 and FY 2025 Premium Calculations
- Settlement Project
- This document represents a summary of our full report titled "FY 2024 and 2025 Workers' Compensation Premium Allocation" dated September 21, 2022. The considerations and limitations outlined in the full report also apply to this document.

# OVERALL COMMONWEALTH EXPERIENCE PURE PREMIUMS

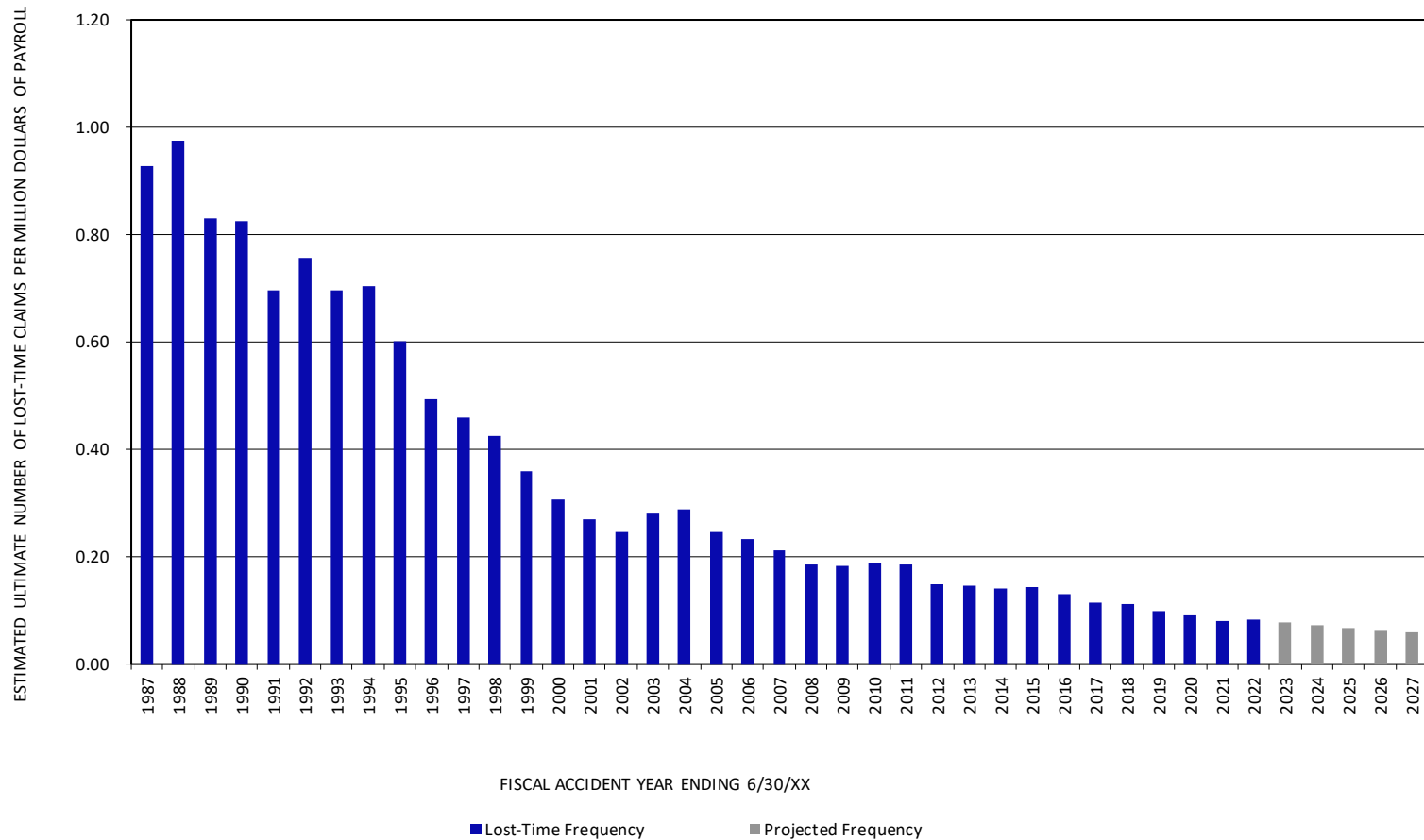
ESTIMATED PURE PREMIUMS BY FISCAL ACCIDENT YEAR  
PURE PREMIUM = ESTIMATED ULTIMATE LOSS PER THOUSAND DOLLARS OF PAYROLL



# OVERALL COMMONWEALTH EXPERIENCE

## Claim Frequency

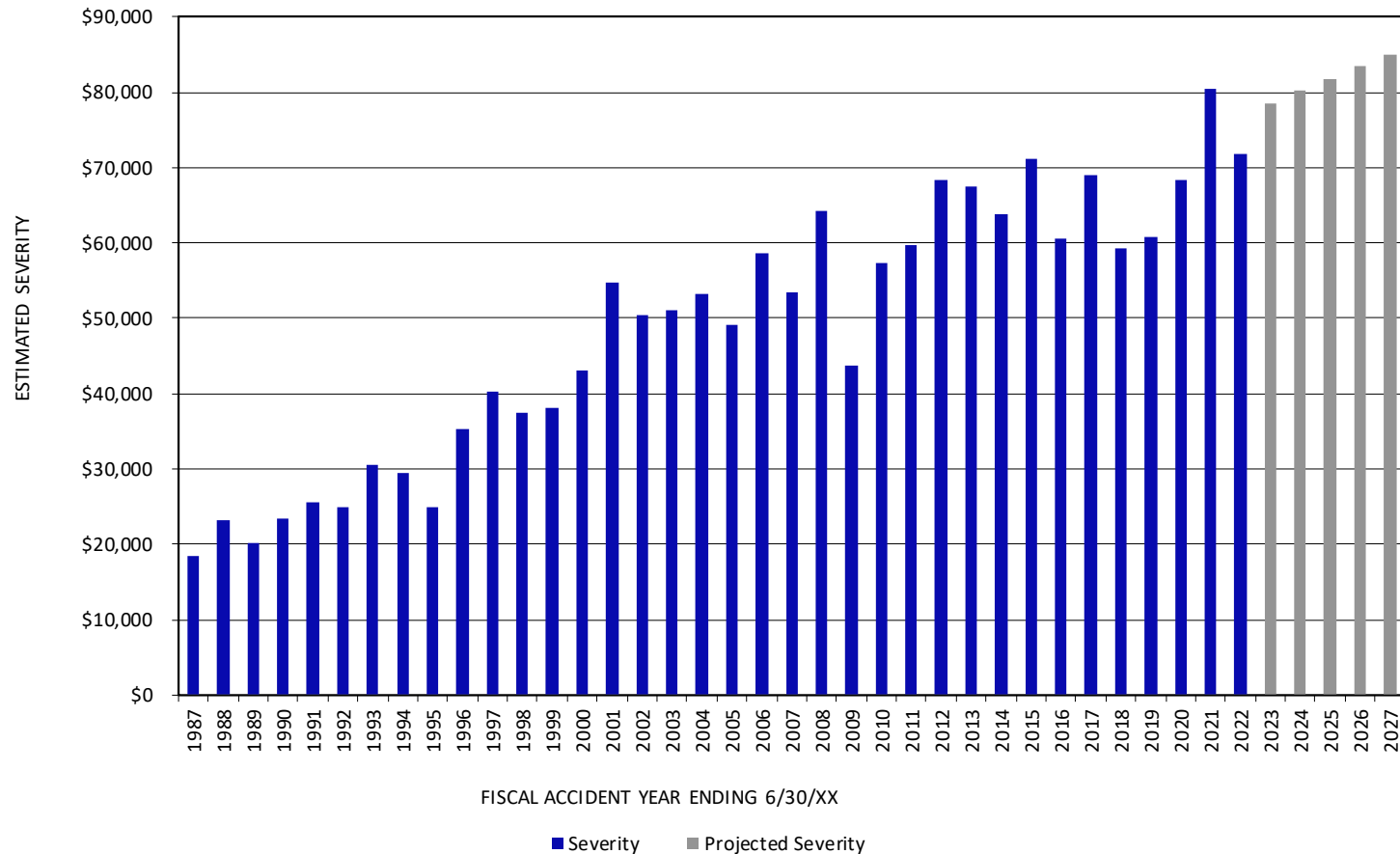
ESTIMATED LOST TIME CLAIM FREQUENCY BY FISCAL ACCIDENT YEAR  
CLAIM FREQUENCY = ESTIMATED ULTIMATE NUMBER OF CLAIMS PER MILLION DOLLARS OF PAYROLL



# OVERALL COMMONWEALTH EXPERIENCE

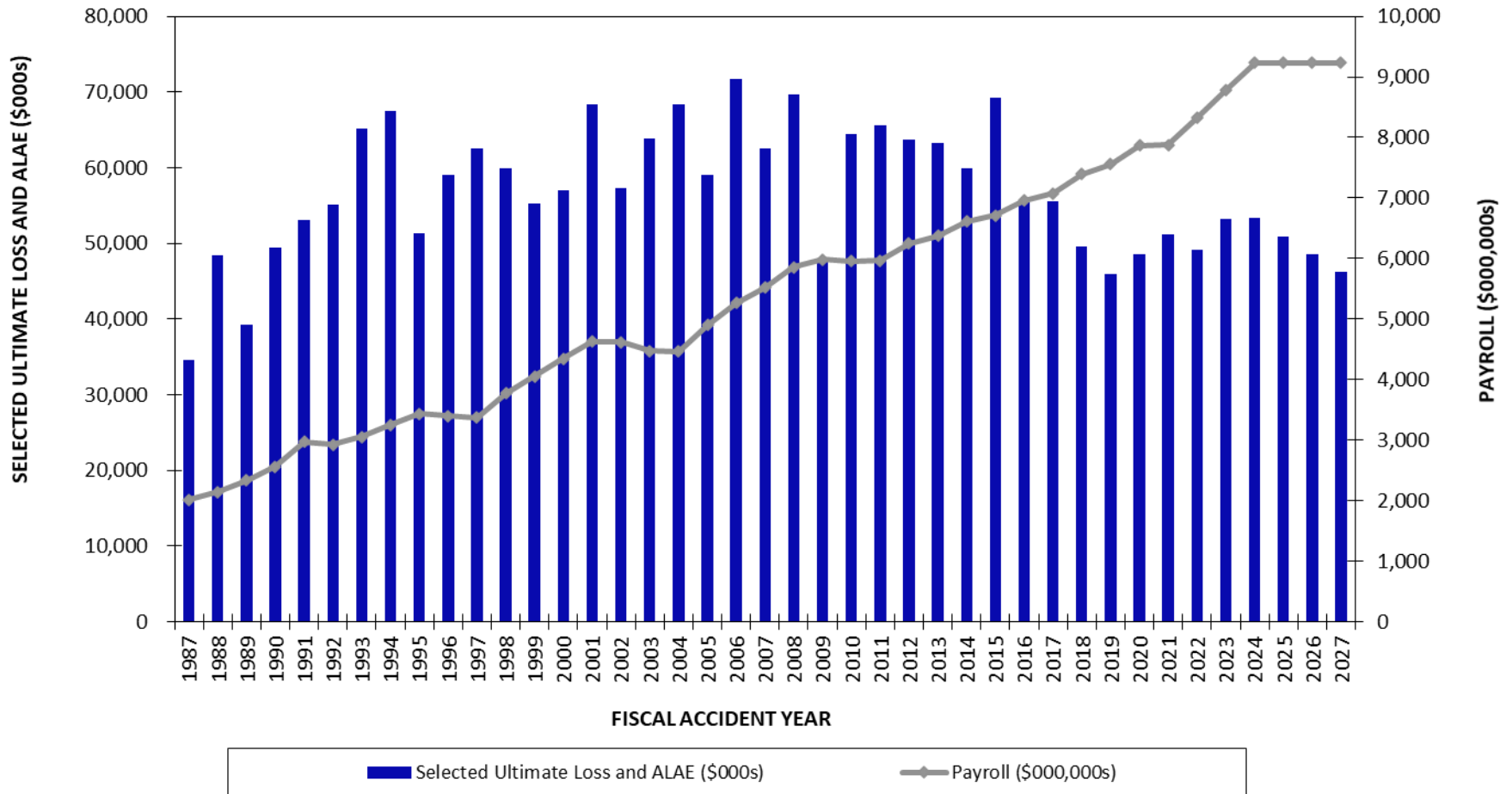
## Claim Severity

ESTIMATED CLAIM SEVERITY PER LOST TIME CLAIM BY FISCAL ACCIDENT YEAR  
CLAIM SEVERITY = ESTIMATED ULTIMATE LOSS PER LOST TIME CLAIM



# OVERALL COMMONWEALTH EXPERIENCE

## Payroll and Losses



# OVERALL COMMONWEALTH EXPERIENCE

## Medical Cost Inflation Index

CALENDAR YEAR	CPI - ALL MEDICAL CARE	PERCENT CHANGE	MEDICAL CARE SERVICES	PERCENT CHANGE
1985	113.5		113.2	
1986	122.0	7.5%	121.9	7.7%
1987	130.1	6.6%	130.0	6.6%
1988	138.6	6.5%	138.3	6.4%
1989	149.3	7.7%	148.9	7.7%
1990	162.8	9.0%	162.7	9.3%
1991	177.0	8.7%	177.1	8.9%
1992	190.1	7.4%	190.5	7.6%
1993	201.4	5.9%	202.9	6.5%
1994	211.0	4.8%	213.4	5.2%
1995	220.5	4.5%	224.2	5.1%
1996	228.2	3.5%	232.4	3.7%
1997	234.6	2.8%	239.1	2.9%
1998	242.1	3.2%	246.8	3.2%
1999	250.6	3.5%	255.1	3.4%
2000	260.8	4.1%	266.0	4.3%
2001	272.8	4.6%	278.8	4.8%
2002	285.6	4.7%	292.9	5.1%
2003	297.1	4.0%	306.0	4.5%
2004	310.1	4.4%	321.3	5.0%
2005	323.2	4.2%	336.7	4.8%
2006	336.2	4.0%	350.6	4.1%
2007	351.1	4.4%	369.3	5.3%
2008	364.1	3.7%	384.9	4.2%
2009	375.6	3.2%	397.3	3.2%
2010	388.4	3.4%	411.2	3.5%
2011	400.3	3.0%	423.8	3.1%
2012	414.9	3.7%	440.3	3.9%
2013	425.1	2.5%	454.0	3.1%
2014	435.3	2.4%	464.8	2.4%
2015	446.8	2.6%	476.2	2.4%
2016	463.7	3.8%	494.8	3.9%
2017	475.3	2.5%	506.8	2.4%
2018	484.7	2.0%	517.8	2.2%
2019	498.4	2.8%	536.1	3.5%
2020	518.9	4.1%	562.6	4.9%
2021	525.3	1.2%	573.1	1.9%
2022	540.6	2.9%	590.7	3.1%
Trend 1985-2021		4.2%		4.4%
Trend 1992-2021		3.6%		3.9%
Trend 1997-2021		3.5%		3.8%

### NOTES:

TREND IS BASED ON AN EXPONENTIAL ANALYSIS ON THE YEARS INDICATED.



# OVERALL RECOMMENDED COMMONWEALTH PREMIUMS

Accounting Projections – Pay As You Go (Cash Flow) Premiums

		FISCAL YEARS ENDING			
		<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
1.	FUND BALANCE (BEGINNING OF YEAR)	75,601	92,294	104,054	104,054
2.	PREMIUM	78,964	74,299	63,836	64,008
2a.	COMMONWEALTH AGENCIES	78,883	74,183	63,717	63,885
2b.	VCUHA EFFECTIVE 2002	82	116	119	122
3.	NET CASH TRANSFERRED OUT	0	0	0	0
4.	LOSS PAYMENTS	45,889	48,533	49,444	49,618
	4a. PAYMENTS ON CURRENT ACCIDENT YEAR	6,549	7,888	7,900	7,525
	4b. PAYMENTS ON ALL PRIOR ACCIDENT YEARS	39,341	40,645	41,544	42,093
5.	PROGRAM EXPENSES	15,058	16,081	16,483	16,483
6.	ADMINISTRATIVE EXPENSES	1,580	1,635	1,637	1,637
7.	INVESTMENT INCOME	255	3,710	3,728	3,731
8.	FUND BALANCE (END OF YEAR)	92,294	104,054	104,054	104,054
<u>REQUIRED RESERVE</u>					
9.	UNDISCOUNTED	567,952	572,580	576,459	577,708
10.	DISCOUNTED	399,178	402,975	406,093	407,197
<u>FUND POSITION</u>					
11.	UNDISCOUNTED	(475,658)	(468,526)	(472,405)	(473,654)
12.	DISCOUNTED	(306,884)	(298,921)	(302,039)	(303,143)

Notes: All dollars are in thousands.

# OVERALL RECOMMENDED COMMONWEALTH PREMIUMS

Components of Required Cash Flow Premiums

	<u>FY 2024</u>	<u>FY 2025</u>
<b>Loss Payments</b>	<b>49,444</b>	<b>49,618</b>
<b>Plus Program and Administrative Expenses</b>	<b>18,120</b>	<b>18,120</b>
<b>Less Investment Income</b>	<b>3,728</b>	<b>3,731</b>
<b>Equals Total Required Premium</b>	<b>63,836</b>	<b>64,008</b>
<b>Less VCUHA</b>	<b>119</b>	<b>122</b>
<b>Equals Total Commonwealth Agency Premium</b>	<b>63,717</b>	<b>63,885</b>

(All Dollars are in \$000s)

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

Considerations in Determining Agency Premiums

- ⇒ **Exposures (measured as payroll by NCCI job class)**
- ⇒ **Historical Loss Experience**
  - ♦ **Experience Period is FY 2019 through FY 2021**
- ⇒ **Stability and Risk Sharing**

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

## About NCCI

- ⇒ National Council on Compensation Insurance (NCCI) – a national workers’ compensation statistical rating bureau
- ⇒ Collects loss and payroll data from insured and private self-insured entities for majority of states
- ⇒ For most states, including Virginia, analyze the collected loss and payroll data and publish “loss costs”, which represent ultimate losses per \$100 of payroll by job class code
- ⇒ Examples of job class codes:
  - 8810 – Clerical office employees
  - 7720 – Police officers and drivers
  - 7383 – College - all employees other than professional or clerical
  - 8833 – Hospital – professional employees

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

General Agency Premium Determination Formula

**Agency Estimated Benchmark Premium**

**x Commonwealth Total Required Premium**

**Commonwealth Total Estimated Benchmark Premium**

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

Estimated Benchmark Premiums

**Estimated Benchmark Premium =**

**Estimated Manual Losses**

**X**

**Agency Experience Modification Factor**

**X**

**Loading for Insurance Company Expenses and Profit**

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

Example of FY 2024 Manual Loss Calculation

Sample Agency Estimated Manual Losses			
NCCI Class (1)	NCCI Virginia Loss Cost (2)	Agency FY 2024 Payroll (3)	FY 2024 Manual Losses (4)
8810	0.05	200,000	100
8868	0.17	700,000	1,190
9101	1.50	100,000	1,500
Total		1,000,000	2,790
Notes: (2) Loss Cost represents ultimate loss per hundred dollars of payroll $(4) = (2) \times (3) / 100$			

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

## Experience Modification Factors

$$\text{Experience Modification Factor} = \frac{A_p + [W \times A_e] + [(1-W) \times E_e] + B}{E + B}$$

- Formula is published by NCCI
- Measures relationship between loss of an individual insured relative to the average for the class of insureds
- Assumes historical relationship of insured's losses to class averages is predictor of future relationship of insured's losses to class averages (3 year experience period is FY 2019 to FY 2021)
- Factor of 1.15 indicates that insured's losses are expected to be 15% higher than class average
- Factor of 0.90 indicates that insured's losses are expected to be 10% lower than class average
- A and E represent actual and expected losses (subscript p refers to primary losses and subscript e refers to excess losses); W and B vary with size of insured



# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

Sample Agency's Estimated Benchmark Premium

Sample Agency Estimated Commercial Premium	
Estimated FY 2024 Manual Losses	2,790
times	X
Sample Agency Experience Modification Factor	0.95
times	X
Loading for Insurance Company Expenses and Profit	1.333
equals	=
Estimated 2024 Benchmark Premium	3,533

Note: The expense and profit loading is shown to illustrate estimated benchmark premiums -- it does not affect the allocation procedure.

# INDIVIDUAL AGENCY PREMIUM CALCULATIONS

Stability Considerations - Credibility

- ⇒ Experience Modification Factor reflects “credibility” of agency’s historical experience by:
  - ★ Considering the size of the agency (W and B factors), and
  - ★ Limiting the dollars on any one loss to \$291,000 in the formula

# SETTLEMENT PROJECT

## Overview

- Item 81 F.3 of Chapter 2, 2018 Special Session 1, Virginia Acts of Assembly provides for Working Capital Advances of up to \$20 million to settle certain workers' compensation claims and requires DHRM to pay back the working capital advance from annual premiums over a seven-year period.
- The Commonwealth determined that the cost avoidance associated with accelerated closure of these settled claims should accrue to the individual agencies whose claims have been settled and that each individual affected agency should bear the cost of the repayment of the settlement costs over the indicated seven-year period.
- The first year of the working capital advance repayment occurred in FY 2019 for claims settled in FY 2017. The following table summarizes the results to-date of the settlement project:

Settlement Year	# of Claims	Total \$ Settlements	Cost Avoidance	Payback Period
FY 2017	62	\$4,889,899	\$14,726,445	2019-2025
FY 2018	42	\$3,569,370	\$8,794,562	2020-2026
FY 2019	39	\$3,576,463	\$13,363,769	2021-2027
FY 2020	49	\$4,140,500	\$13,840,065	2022-2028
FY 2021	45	\$3,896,000	\$11,224,660	2023-2029
FY 2022	25	\$1,827,000	\$5,000,690	2024-2030
Total	262	\$21,899,232	\$66,950,190	

# SETTLEMENT PROJECT

## Premium Methodology

- Initially, the total premium allocated to individual agencies includes the FY 2024 or FY 2025 cost avoidance amount. This represents the total required premium if the settlements had not occurred.
- The cost avoidance amounts specific to the individual agencies are deducted from those agencies' preliminary premiums to arrive at the final premiums.
- Additionally, these individual agencies are charged  $1/7^{\text{th}}$  of their FY 2017 through FY 2022 settlement amounts in FY 2024 and FY 2025, reflecting the 7 year payback periods.

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