

May 27, 2020

FY 2021 and 2022 Agency Premiums Commonwealth of Virginia Workers' Compensation Self-Insurance Fund

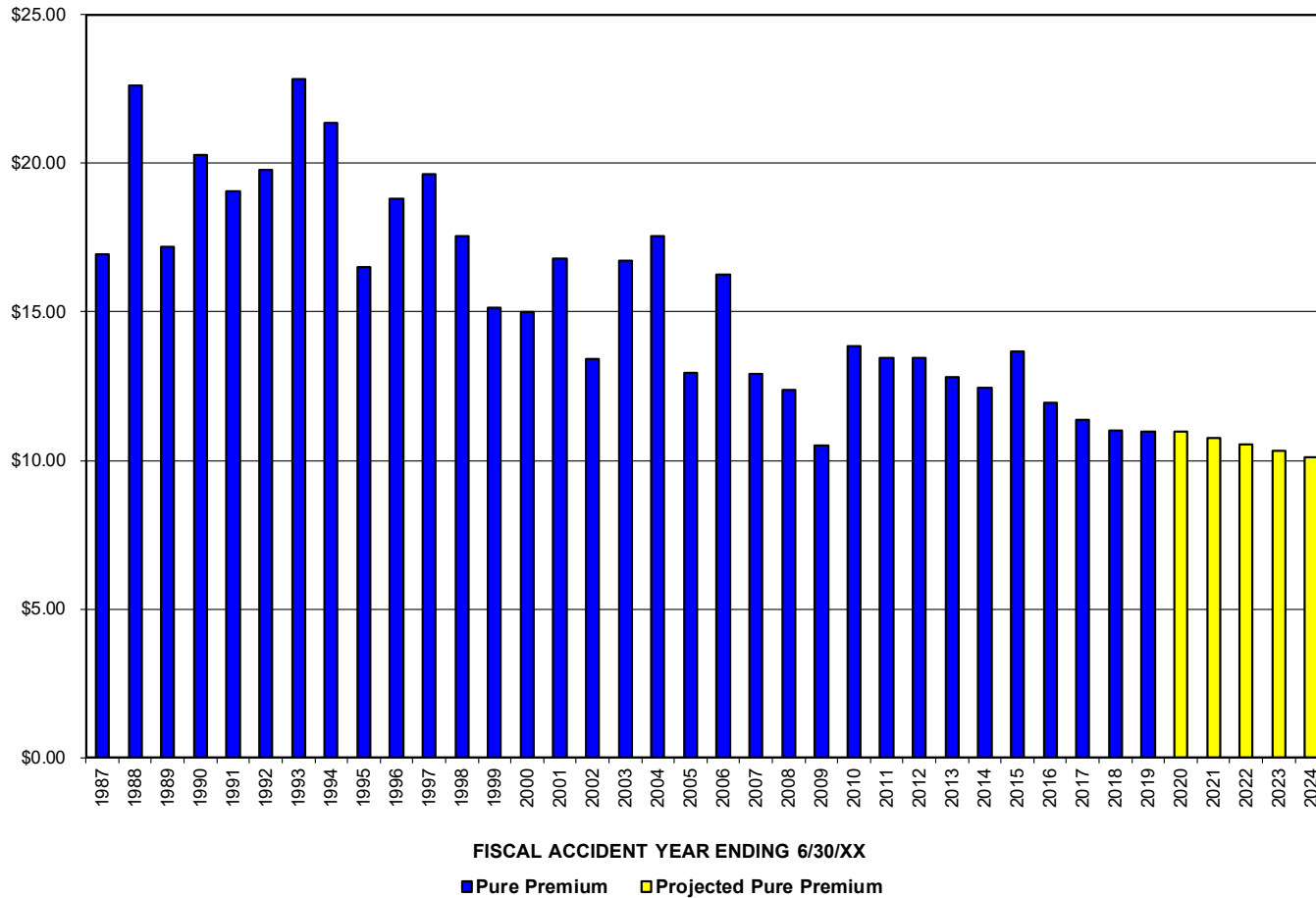
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Presentation Overview

- Overview of the Commonwealth's Workers' Compensation Experience
- Overall Recommended FY 2021 and FY 2022 Workers' Compensation Premiums
- Individual Agency FY 2021 and FY 2022 Premium Calculations
- Settlement Project
- This document represents a summary of our full report titled "FY 2021 and 2022 Workers' Compensation Premium Allocation" dated September 20, 2019. The considerations and limitations outlined in the full report also apply to this document.

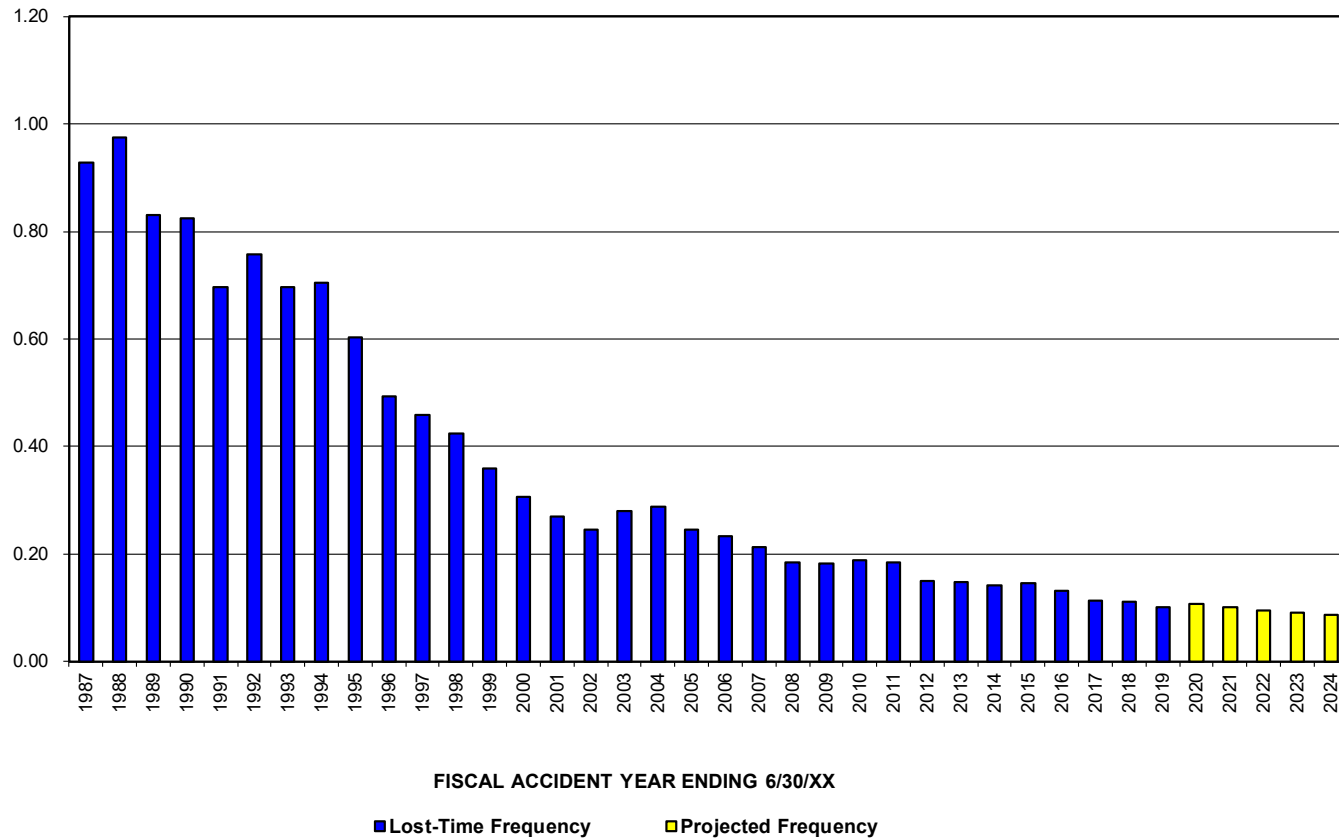
Overall Commonwealth Experience Pure Premiums

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



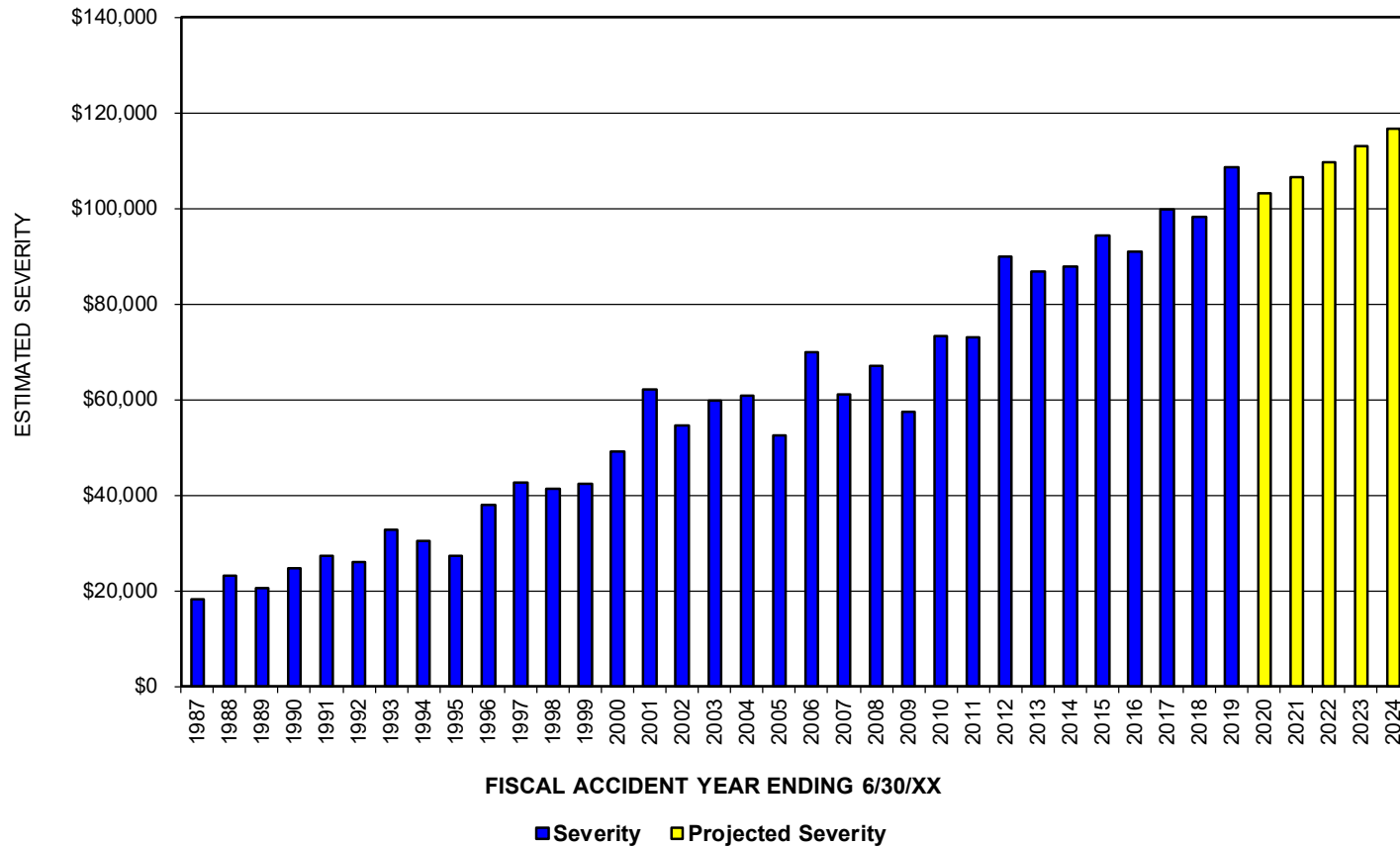
Overall Commonwealth Experience Claim Frequency

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



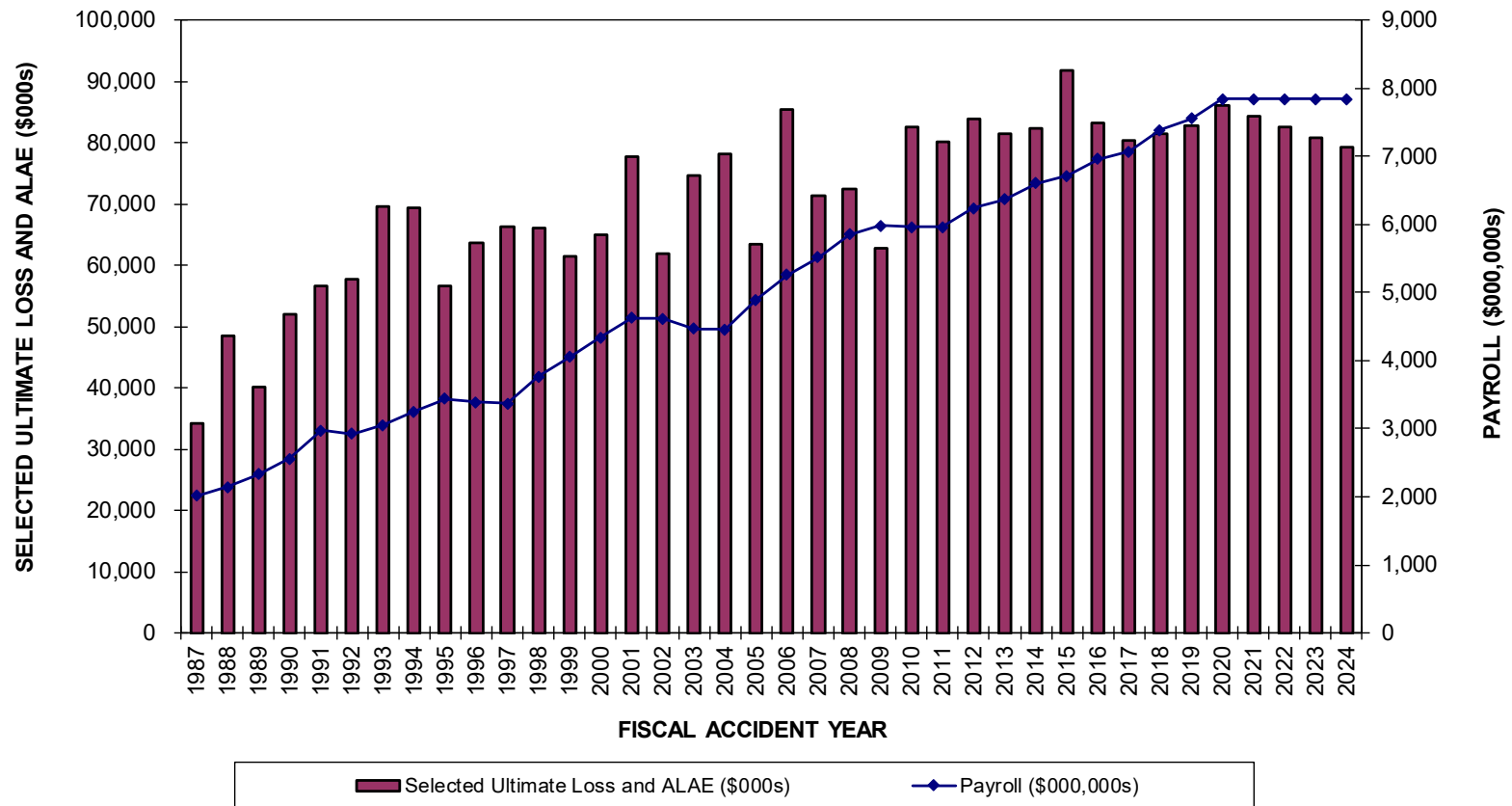
Overall Commonwealth Experience Claim Severity

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



'Note: Claim severities reflect the cost and benefit level of each respective fiscal year.

Overall Commonwealth Experience Payroll and Losses



Payroll provided by Department of Planning and Budget.

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	493.6	1.8%	530.2	2.4%
Trend 1985-2018		4.3%		4.6%
Trend 1992-2018		3.7%		4.0%
Trend 1997-2018		3.6%		3.9%

NOTES:

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

2019 DATA IS BASED ON DATA THROUGH JULY.

Overall Recommended Commonwealth Premiums Accounting Projections - Pay As You Go (Cash Flow) Premiums

		FISCAL YEARS ENDING			
		<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
1.	FUND BALANCE (BEGINNING OF YEAR)	40,253	46,877	53,066	53,066
2.	PREMIUM	83,801	83,479	79,156	80,357
2a.	COMMONWEALTH AGENCIES	83,634	83,236	78,905	80,101
2b.	VCUHA EFFECTIVE 2002	167	243	250	256
3.	NET CASH TRANSFERRED OUT	5,625	0	0	0
	TRANSFER OF RESERVE	0	0	0	0
	TRANSFER FROM W/C	0	0	0	0
4.	LOSS PAYMENTS	57,461	62,816	64,326	65,143
	4a. PAYMENTS ON CURRENT ACCIDENT YEAR	7,722	9,870	9,652	9,441
	4b. PAYMENTS ON ALL PRIOR ACCIDENT YEARS	49,739	52,946	54,674	55,702
5.	PROGRAM EXPENSES	14,569	14,933	15,306	15,689
6.	ADMINISTRATIVE EXPENSES	1,224	1,294	1,294	1,307
7.	INVESTMENT INCOME	1,701	1,753	1,771	1,783
8.	FUND BALANCE (END OF YEAR)	46,877	53,066	53,066	53,066
<u>REQUIRED RESERVE</u>					
9.	UNDISCOUNTED	936,261	959,673	979,747	997,243
10.	DISCOUNTED	693,405	711,503	726,964	740,493
<u>FUND POSITION</u>					
11.	UNDISCOUNTED	(889,384)	(906,607)	(926,681)	(944,177)
12.	DISCOUNTED	(646,528)	(658,436)	(673,898)	(687,427)

Note: All dollars are in thousands.

Overall Recommended Commonwealth Premiums Components of Required Cash Flow Premiums

	<u>FY 2021</u>	<u>FY 2022</u>
Loss Payments	64,326	65,143
Plus Program and Administrative Expenses	16,601	16,996
Less Investment Income	1,771	1,783
Equals Total Required Premium	79,156	80,357
Less VCUHA	250	256
Equals Total Commonwealth Agency Premium	78,905	80,101

(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 2016 through FY 2018**

- ⇒ **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

$$\frac{\text{Agency Estimated Benchmark Premium}}{\text{Commonwealth Total Estimated Benchmark Premium}} \times \text{Commonwealth Total Required Premium}$$

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 2021 Manual Loss Calculation

Sample Agency Estimated Manual Losses			
NCCI Class (1)	NCCI Virginia Loss Cost (2)	Agency FY 2021 Payroll (3)	FY 2021 Manual Losses (4)
8810	0.09	200,000	180
8868	0.27	700,000	1,890
9101	2.21	100,000	2,210
Total		1,000,000	4,280
Notes:			
(2) Loss Cost represents ultimate loss per hundred dollars of payroll			
(4) = (2) x (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 2016 to FY 2018)
- 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 2021 Manual Losses	4,280
times	X
Sample Agency Experience Modification Factor	0.95
times	X
Loading for Insurance Company Expenses and Profit	1.333
equals	=
Estimated 2021 Benchmark Premium	5,420

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 \$283,500 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. A total of \$698,557 was paid back from the annual collection of workers' compensation premiums.

Settlement Project 2017 through 2019 Results

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
Total	143	\$12,035,732	\$36,884,776	

Settlement Project Premium Methodology

- Initially, the total premium allocated to individual agencies includes the FY 2021 or FY 2022 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 1/7th of their FY 2017 through FY 2019 settlement amounts in FY 2021 and FY 2022, reflecting the 7 year payback periods.