



Kentucky Workers' Compensation Funding Commission

Board of Directors Presentation of Actuarial Analysis
Unpaid Claim Estimates and Projections as of June 30, 2023

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Deloitte Consulting | September 27, 2023

Agenda

Scope of Services

Unpaid Claim Analysis

Special Fund Demographic Information

Discussion of Major Assumptions

- Mortality Assumptions

- Workers' Compensation Calendar Year Premium Projections

- State Average Weekly Wage

- UEF Loss Trend

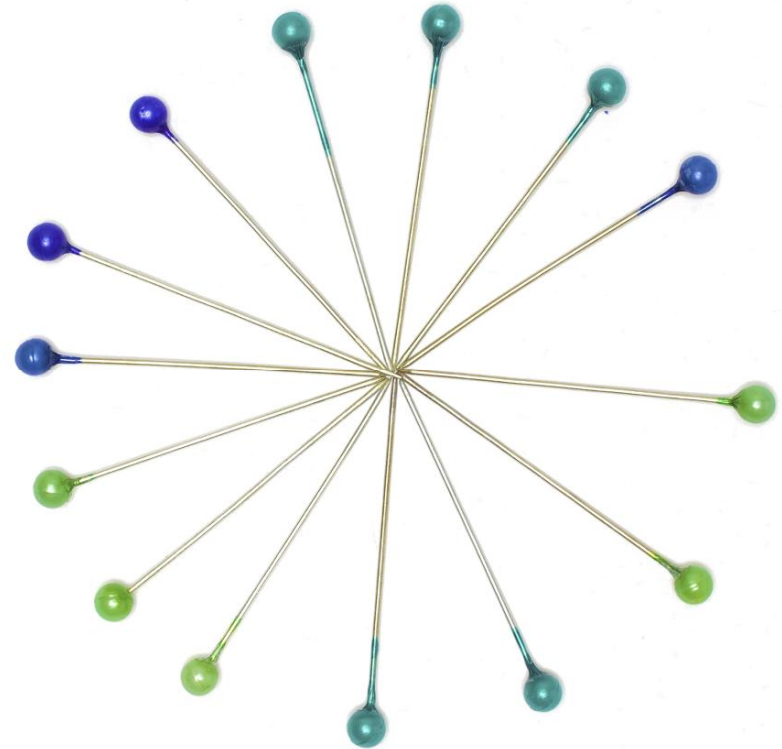
- Administrative Expenses

Proposed Assessment Rate Recommendations and Alternative Assumption Analysis

Projection Future Financial Statements

Required Disclosures

Distribution, Use, Conditions, and Limitations



Scope of Services

Kentucky Workers' Compensation Funding Commission ("KWCFC")

Unpaid Claim Analysis

- Estimate the unpaid claims of the Special Fund and the Uninsured Employers' Fund (UEF) to assist the KWCFC in preparing the financial statements of the Special Fund as of June 30, 2023
- The estimate of unpaid claims is produced on an undiscounted basis and a discounted basis to reflect the time value of money
- The estimate of unpaid claims includes a provision for known claims, incurred but not reported claims, and settlement expenses to bring all claims to closure as of June 30, 2023

Funding Projections

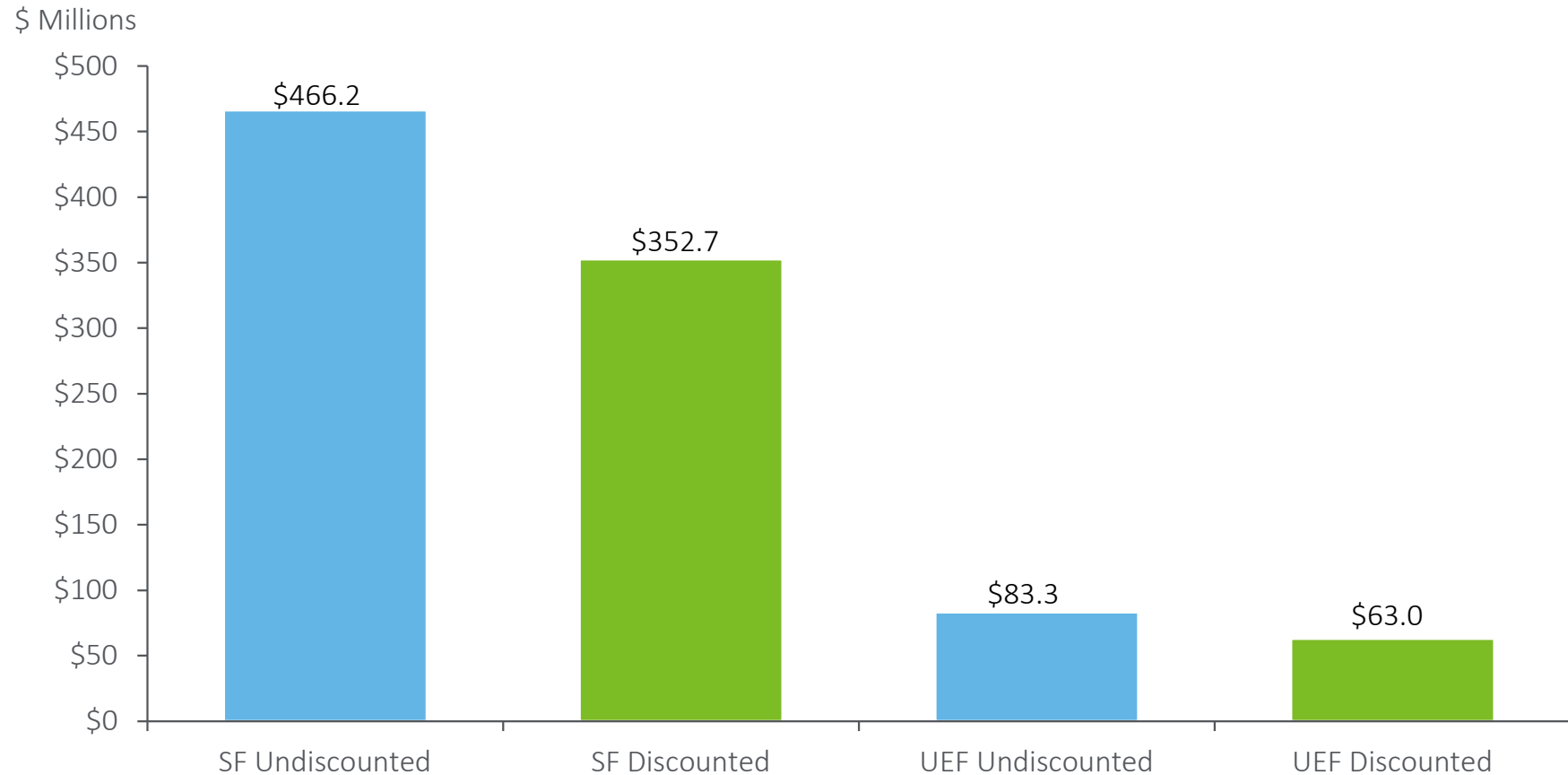
- Estimate future Commonwealth of Kentucky workers' compensation premium base used to estimate future revenue for Special Fund
- Estimate future revenue, claim payments and expenses through calendar year 2029
- Estimate future financial results through calendar year 2029 based on estimated expenses and revenues

Recommendations

- Based on the results of the financial projection analysis, provide recommendations regarding the premium assessment rates for calendar years 2024 through 2029

Unpaid Claim Analysis

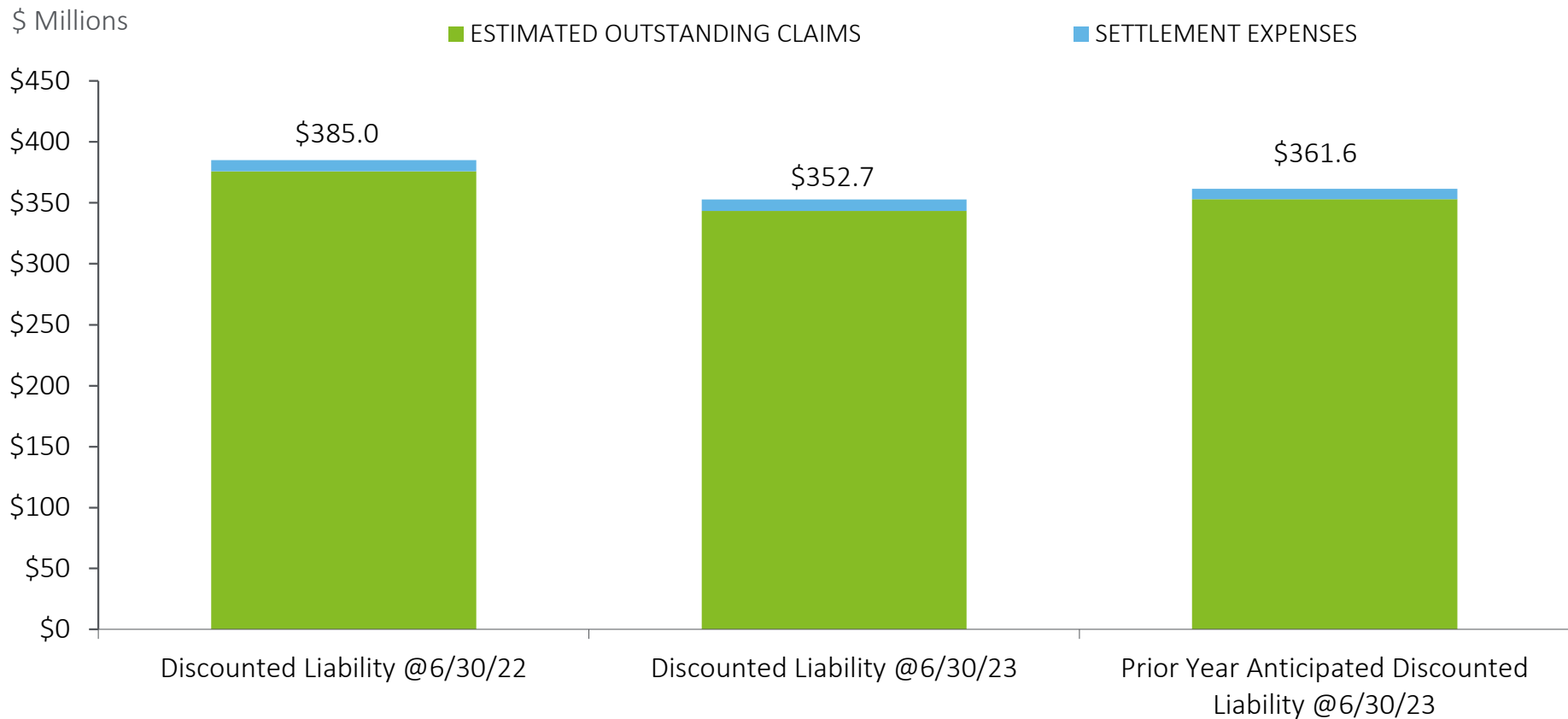
Deloitte Consulting's Estimates as of June 30, 2023



- Interest rate used to discount future claim payments is 3.00%
- Selected interest rates provided by the Commission based on a recommendation from investment advisor Conning

Unpaid Claim Analysis

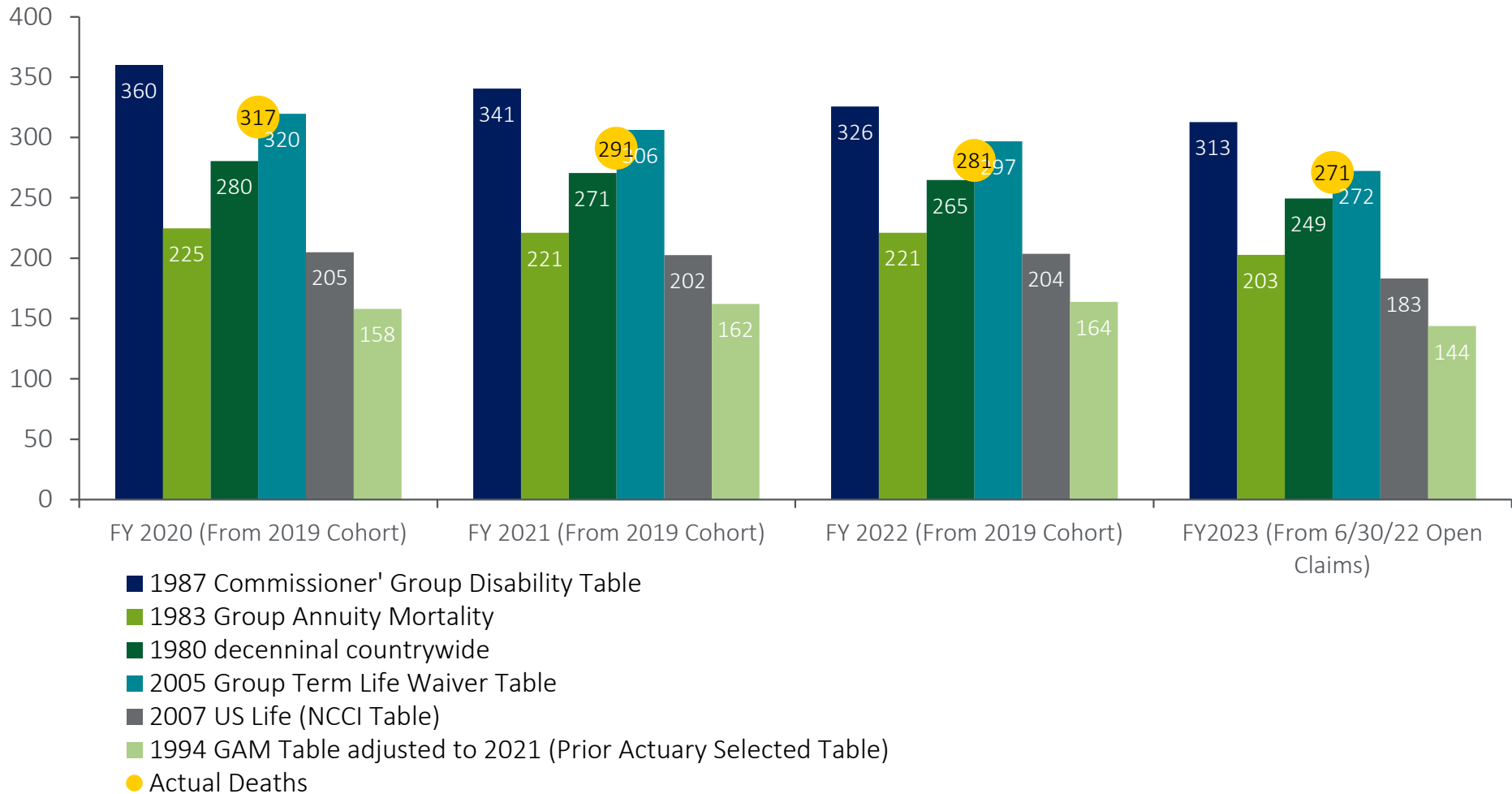
Comparison to Prior Year Estimate – Special Fund



- Deloitte Consulting's estimate of unpaid claims as of 6/30/23 is approximately 8.9 million lower than expected in our estimate as of 6/30/22. The liability was expected to decrease \$23.4 million but decreased \$32.3 million
- Assumptions have remained the same over the past year
- Favorable development occurred as more claims closed (claimants died) than was expected from mortality assumptions

Special Fund Projections

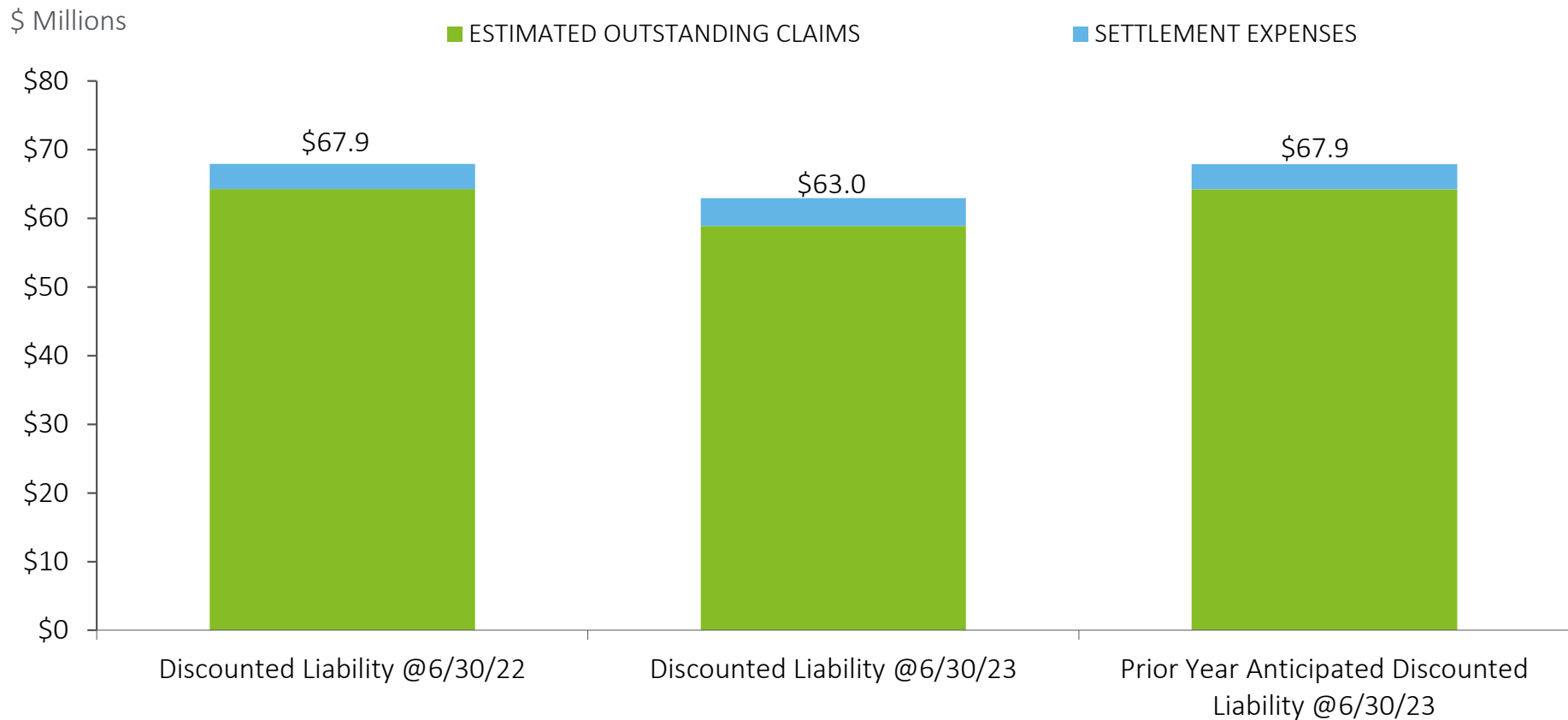
Retrospective Look At Mortality Assumption



- Retrospective test based on Cohort of 5,433 open claims as of June 30, 2019
- An analysis using experience from FY2020 through FY2022 performed last year concluded that the 2005 Group Term Life Waiver Table modeled closest to actual experience
- Deloitte Consulting experience assumes that the 2005 Group Term Life Waiver Table works best for runoff books of workers' compensation lifetime claims
- The base model assumed last year used the 2007 US Life table to be consistent with the assumption by the prior actuary
- FY2023 mortality experience continues to indicate that the 2005 Group Term Life Waiver Table models closest to actual experience

Unpaid Claim Analysis

Comparison to Prior Year Estimate – UEF



- Deloitte Consulting's estimate of unpaid claims as of 6/30/23 is approximately 4.9 million lower than expected in our estimate as of 6/30/22. The liability was expected remain approximately the same but decreased \$4.9 million
- The large majority of the decrease is related to a single large claim.
 - 53 year old man that will have significant medical expenses the remaining of his life
 - Last year annual medical expense was \$280k and this year the annual medical expense is \$108k
 - CCMSI estimates the expense will be approximately \$150k annually
 - We lowered the annual medical expense from \$280k annually to \$150k annually

Special Fund Projections

FY2023 Actual Versus Expected Revenue and Expenses

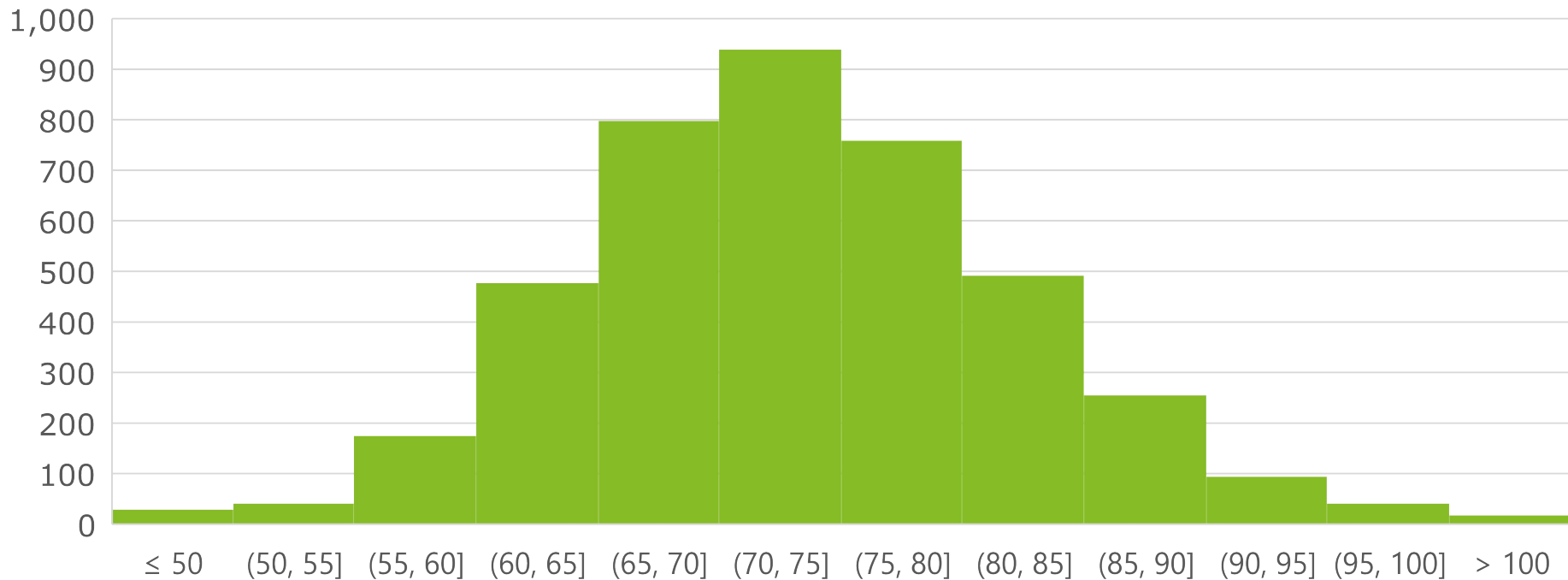
FINANCIAL STATEMENT ITEM	EXPECTED IN 06/30/22 ANALYSIS	ACTUAL DURING FY2023	EFFECT ON SOLVENCY OF FUND
(1)	(2)	(3)	(4)
REVENUE ITEMS			
PREMIUM REVENUE	65,412,831	70,067,763	4,654,932
ASSESSMENT PENALTY AND INTEREST	937,829	213,152	(724,677)
AUDIT REIMBURSEMENT	316,726	213,000	(103,726)
TOTAL REVENUE	66,667,386	70,493,915	3,826,529
EXPENSE ITEMS			
SPECIAL FUND CLAIM PAYMENTS	34,167,784	32,666,700	1,501,084
UEF CLAIM PAYMENTS	7,361,207	6,212,000	1,149,207
ADMINISTRATIVE EXPENSES	38,787,000	32,768,725	6,018,275
TOTAL EXPENSES	80,315,991	71,647,425	8,668,566
CHANGE IN BALANCE SHEET ITEMS			
SPECIAL FUND UNPAID CLAIM LIABILITY	(23,442,121)	(32,286,403)	8,844,281
UEF FUND UNPAID CLAIM LIABILITY	(39,645)	(4,949,566)	4,909,921
TOTAL CHANGE	(23,481,766)	(37,235,968)	13,754,202
INVESTMENTS	6,994,667	28,058,525	21,063,858
TOTAL EFFECT ON ANTICIPATED SOLVENCY OF FUND			47,313,154

- Higher premium revenue, very favorable investment environment, and favorable claims experience over the past year
- Has resulted in a much-improved solvency level as of 6/30/23 than was expected in our prior analysis

Special Fund Projections

Demographic Information

Distribution of Open Claimants by Age

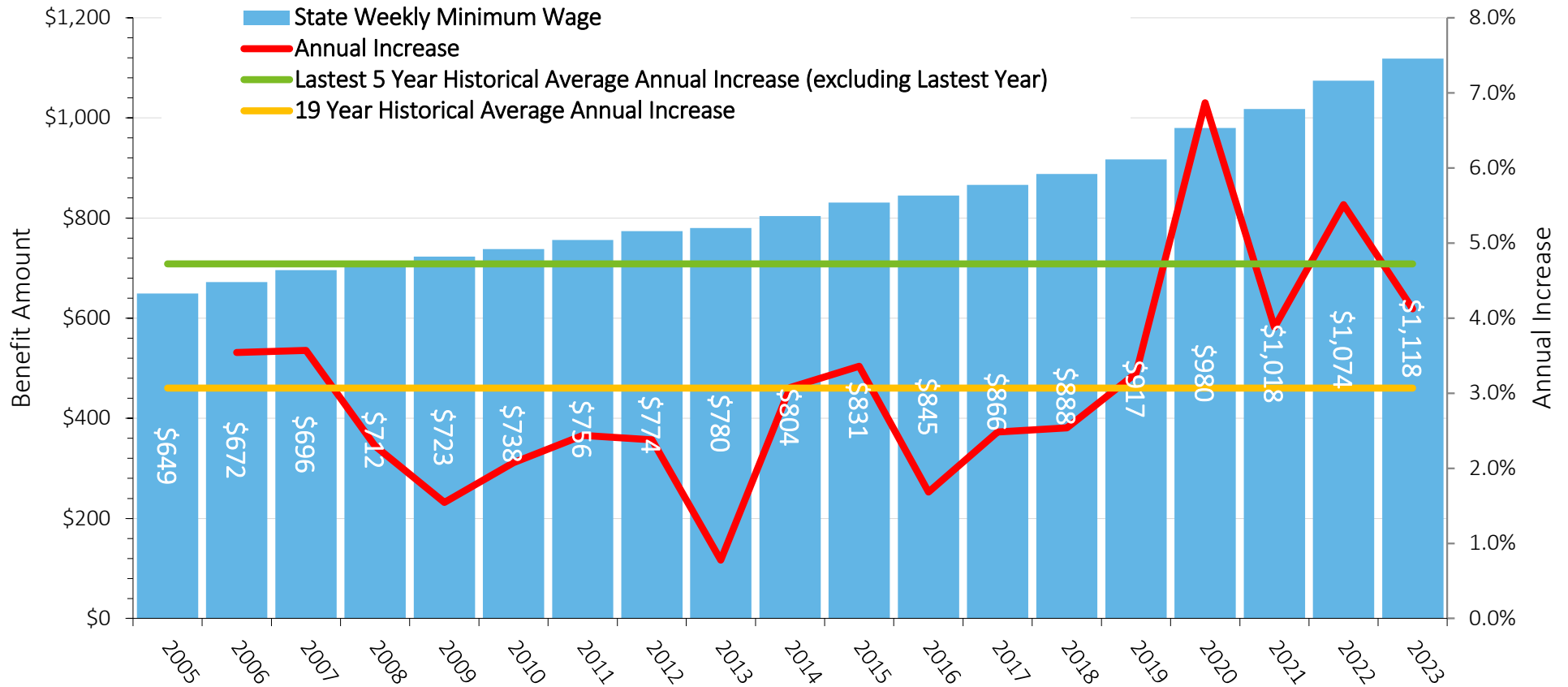


- 4,118 Open Claims as of June 30, 2023
 - Awarded Status: 3,762
 - Pending Status: 233
 - Suspended Status: 120
 - Unknown Status: 3

- Pending Claims
 - Claims that have never started payments
 - Claims in attorney fee recoupment for future post life expectancy schedules
 - Future tier down schedules
 - Future un-reduced pay schedules for attorney fee weekly reduction post life expectancy
 - Weekly rate changes due to agreed opinion and awards

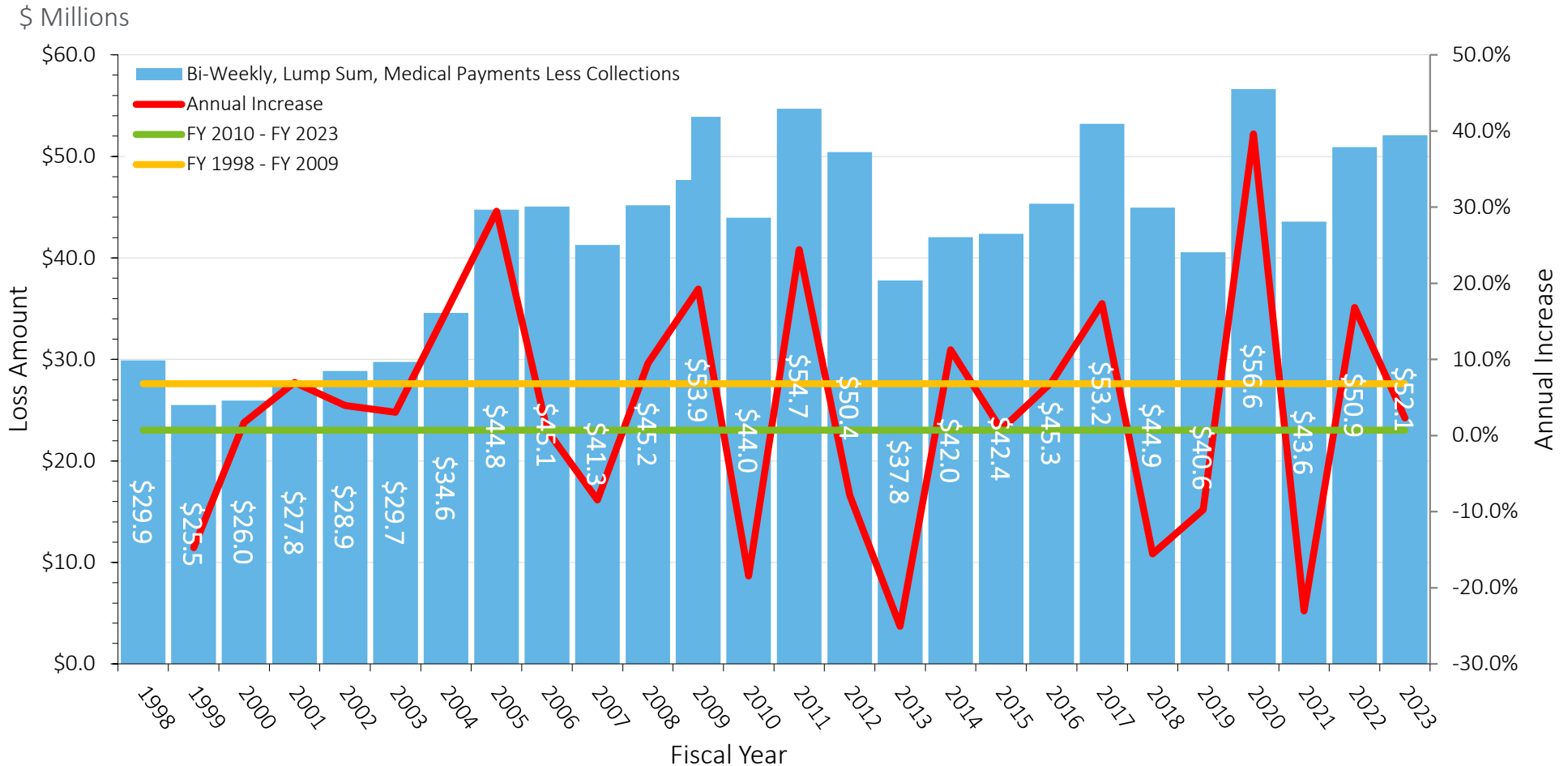
- Suspended Claims
 - Potential investigation
 - Can't find claimant \ verification of still living
 - Potential widow\beneficiary claim after death notification

State Average Weekly Wage



- Historical averages
 - 19-year average = 3.07%
 - Latest 5-year average = 4.72%
 - Recent increases have been higher: 2020 increased 6.9% with still elevated rates 2021-2023
- Projections for 2024 and beyond
 - 2024 = 4.1%, 2025 = 3.47%; Provided by Commonwealth Economist
 - 2026+ = 3.0%; Historical Average
- Prior year projections
 - 2024 = 4.0%, 2025 = 3.50%, 2026+ = 2.7%

UEF Loss Trend



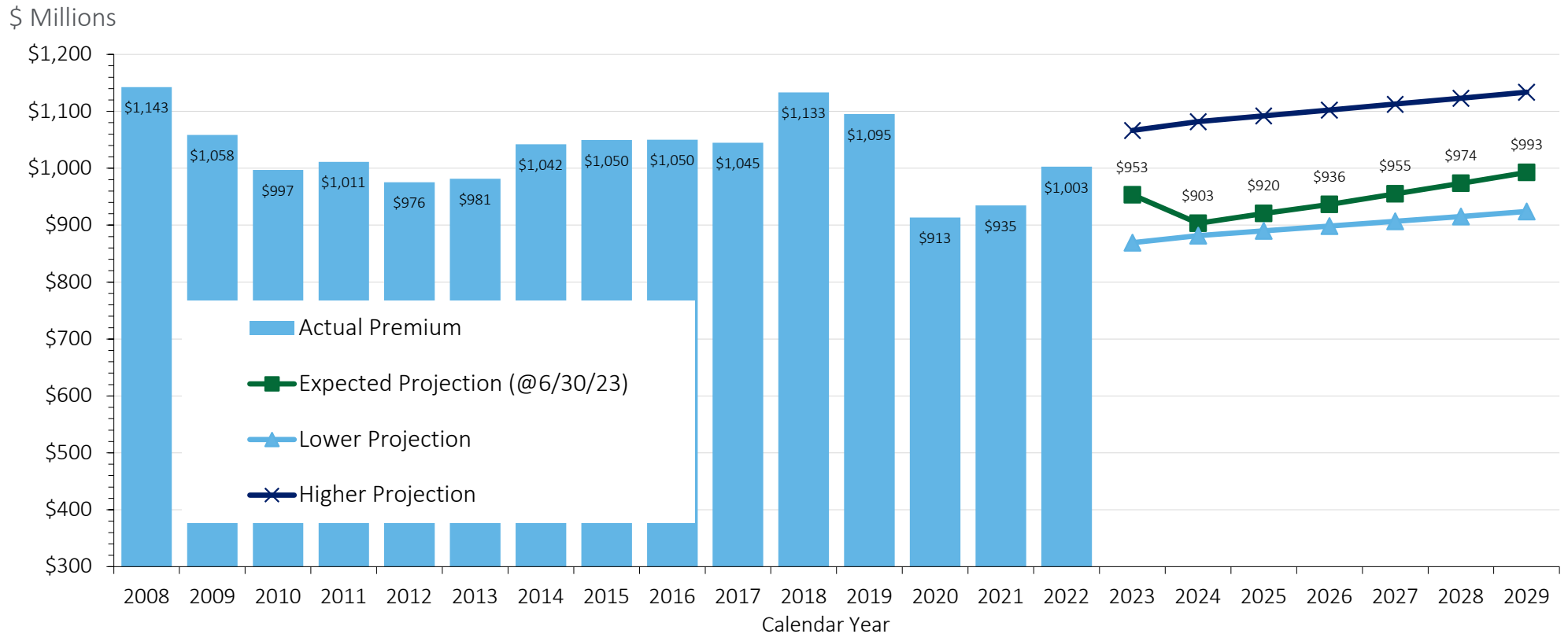
- Historical averages
 - Year to year volatility is high
 - Fiscal Year 2023 Trend = 2.3%
 - 1998-2009 average = 6.8%
 - 2010 – 2023 average = 0.7%
 - 1998 – 2023 average = 2.4%
- Projections for 2024 and beyond
 - General inflation may hit the workers’ compensation industry in the future
 - 2024: 4.0%, 2025+ = 3.0%
 - Selection is the same as last year

Special Fund Administration Expenses

FISCAL YEAR	LABOR CABINET ADMIN	CUSTODY FEE EXPENSE	INVESTMENT MANAGEMENT EXPENSES	ASSESSMENT REFUNDS	PAYROLL EXPENSES	OPERATING EXPENSES	COMBINED ADMIN EXPENSES	INCREASE LABOR CABINET ADMIN	ON-LEVEL COMBINED ADMIN EXPENSES		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
2010	21,516,600	506,000	0	1,466,205	188,943	1,286,189	416,175	25,380,112	2,736,959	35,864,813	
2011	24,330,500	520,000	0	1,403,023	414,706	1,265,621	224,156	28,158,006	2,793,626	38,801,849	
2012	24,177,100	530,800	0	9,648	318,440	1,209,537	281,204	26,526,729	2,851,466	36,085,535	
2013	24,241,200	469,125	0	16,281	1,192,950	1,276,205	227,232	27,422,992	2,910,504	36,570,548	
2014	23,813,100	711,200	0	13,166	270,086	1,273,622	325,364	26,406,538	2,970,764	34,725,706	
2015	28,743,300	687,900	0	9,849	332,945	1,357,351	300,628	31,431,973	3,032,272	40,063,790	
2016	27,958,000	690,000	4,793	0	452,277	1,244,461	353,564	30,703,095	3,095,053	38,534,101	
2017	25,130,500	572,500	23,535	0	356,686	1,325,878	338,311	27,747,410	3,159,135	34,536,924	
2018	25,763,400	555,400	0	8,987	180,756	1,293,242	349,822	28,151,606	3,224,543	34,413,661	
2019	29,494,000	540,200	0	265,677	4,578	1,587,703	349,185	32,241,342	3,291,305	38,286,873	
2020	29,341,000	662,700	8,573	286,191	53,528	1,561,906	336,629	32,250,526	3,359,449	37,654,918	
2021	27,839,800	670,800	13,459	496,010	1,345,771	1,642,153	309,873	32,317,865	3,429,005	37,098,967	
2022	29,974,059	671,834	19,014	400,277	2,067,199	1,791,989	496,321	35,420,693	0	36,154,057	
2023	28,779,345	728,400	27,134	330,186	155,794	2,283,032	464,833	32,768,725	0	32,768,725	
							<u>Trend</u>				
							2010-2023:	2.1%	29,780,544		36,540,033
							2018-2023:		32,191,793		36,062,867
							Selected Trend 2024:	4.1%			
							Selected Trend 2025:	4.1%			
							Selected Trend 2026:	3.5%			
							Selected Trend 2027:	3.0%			
							Selected Long-Trend:	3.0%			
							Administrative Cost Excluding UEF Admin Costs:				36,500,000
							UEF Admin Costs:				980,000
							Final Selected Admin Costs:				37,480,000

- Fiscal year 2023 expenses dropped back down compared to fiscal years 2022. Current projection assumes will return to the higher level in fiscal year 2024 and beyond.

Workers' Compensation Calendar Year Premium Projections



- Actual reported premiums (including Insurer, Self-Insured, and Group Insured Reported Premiums) for calendar year 2022 was \$43 million higher than the “Recession Projection” estimate assumed as of June 30, 2022 (\$1,003 million of actual premiums reported versus \$960 million of expected premium)
- Expected Projection: Considers the following items
 - Premiums for the 1st Half of 2023 are running 0.4% lower than the 1st Half of 2022
 - NCCI approved a 10.4% reduction in loss costs beginning on January 1, 2022 and an additional 6.8% reduction in loss costs beginning on January 1, 2023. These reductions should have an effect on the 2023 premiums
 - Long term loss costs estimated to drop -1.0% while wages increase 3.0% annually
 - Assumes a 1% retraction in the economy during the remaining half of CY2023 and an additional 5% retraction in CY2024
- Included a lower and higher bound of premium projection through CY2029 to test volatility of premium projection

Special Fund Projections

Alternative Assumptions

Indicated Assessment Rates Using Alternative Assumption Scenarios

Assumption: Mortality Scenario	Assumption: Future Workers' Compensation Premium Scenario		
	Higher Bound	Expected	Lower Bound
2005 Group Term Life Waiver Table	4.87%	5.78%	6.12%
2007 US Life (NCCI Table)	5.50%	6.526%	6.90%
1994 GAM Table adjusted to 2021	5.91%	7.00%	7.40%

Fund Balance as of December 31, 2029 Assuming a 2024-2029 Assessment Rate of 6.53%

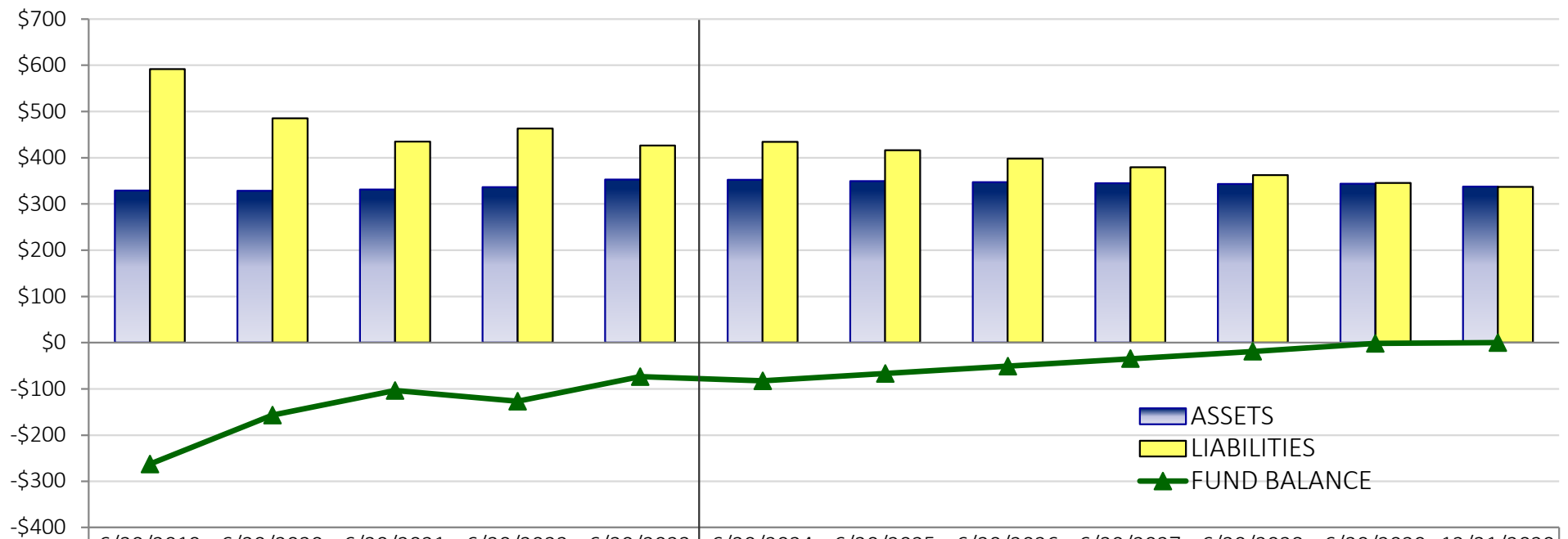
Assumption: Mortality Scenario	Assumption: Future Workers' Compensation Premium Scenario		
	Higher Bound	Expected	Lower Bound
2005 Group Term Life Waiver Table	\$136.2	\$52.3	\$27.4
2007 US Life (NCCI Table)	\$84.2	\$0.3	(\$24.6)
1994 GAM Table adjusted to 2021	\$51.0	(\$32.9)	(\$57.8)

- Varying two key assumptions indicates significantly different assessment rates needed through calendar year 2029 for the Special Fund to become fully funded
- Another significant assumption not considered above are investment returns

Special Fund Projections

Fiscal Year Future Financial Statements (\$ Millions)

\$ Millions



	6/30/2019	6/30/2020	6/30/2021	6/30/2022	6/30/2023	6/30/2024	6/30/2025	6/30/2026	6/30/2027	6/30/2028	6/30/2029	12/31/2029
ASSETS	\$329.1	\$328.3	\$331.2	\$336.4	\$352.6	\$352.1	\$349.4	\$347.2	\$344.9	\$343.4	\$343.6	\$337.4
LIABILITIES	\$591.6	\$485.1	\$434.8	\$463.0	\$426.3	\$434.6	\$416.2	\$398.0	\$379.6	\$362.3	\$345.2	\$337.2
FUND BALANCE	(\$262.5)	(\$156.8)	(\$103.6)	(\$126.7)	(\$73.6)	(\$82.5)	(\$66.8)	(\$50.8)	(\$34.7)	(\$18.9)	(\$1.6)	\$0.3

- Fund balance has increased from a fund deficit of \$262.5 million as of June 30, 2019 to a fund deficit \$73.6 million under current assumptions as of June 30, 2023
- Given current mortality, trend, investment, and calendar year workers' compensation premium assumptions, the fund balance will become fully funded (assets > liabilities) by December 31, 2029 as required by statute
- Assumes an assessment rate of 6.53% through calendar year 2029
 - Assuming 2007 US Life Table (NCCI Table) and Recession Premium Scenario

Required Disclosures for Unpaid Claim Estimates per ASOP 43: Property/Casualty Unpaid Claim Estimates

Terminology: the terms “Unpaid Loss & Loss Adjustment Expense (LAE) Estimates”, “Estimates of Unpaid Claim Liabilities”, and “Unpaid Claim Estimates” are used interchangeably and are meant to convey the same meaning. The term “Reserve” is limited to its strict definition as an amount recorded in financial statements.

Recorded Reserves: The Entity’s Recorded Reserves were provided by Management and are compared to Deloitte Consulting’s estimate of unpaid loss and loss adjustment expense.

Purpose or Use of the Unpaid Claim Estimates: The purpose of the unpaid claim estimates is to provide Entity Management with an independent analysis and estimates of unpaid loss and loss adjustment expense.

Scope of the Unpaid Claim Estimates: The intended measure of the unpaid claim estimates provided is an actuarial central estimate (i.e., an estimate that represents an expected value over the range of reasonably likely outcomes). Our estimates are shown on both an undiscounted and a discounted basis.

Constraints on the Unpaid Claim Estimates: There were certain constraints in the performance of this actuarial analysis. These constraints stem from substantial uncertainties in estimating the loss and loss adjustment expenses for unpaid claims. Examples include but are not limited to the rate of inflation inherent in losses during observable development periods, the projected development for losses as they age beyond the observable development periods, and the inherent variability in losses over time.

Uncertainty and Range: We have not attempted to measure the uncertainty in the estimates. We have provided a range of estimates based on our judgment, which includes a reflection of the results of our analysis using different methods of estimating ultimate losses.

Applicable Dates: These unpaid claim estimates as of June 30, 2023 were based on data as of June 30, 2023, and any additional information provided to us through September 25, 2023.

Documentation: We will provide the KWFC with a written report and detailed exhibits supporting our unpaid claim estimates as of June 30, 2023.

Qualifications: Rod Morris who authored this presentation is a member of the Casualty Actuarial Society and the American Academy of Actuaries and meets the qualification standards to render the actuarial opinion contained herein.

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This analysis has been prepared for the internal use of Entity and as documentation supporting our unpaid claim estimates as of June 30, 2023. Limited distribution is permitted to the Kentucky Workers' Compensation Funding Commission.

Any other distribution of this presentation is not permitted without the prior written consent of Deloitte Consulting LLP.

Deloitte Consulting has relied upon data provided by the Entity for this review. A specific audit to verify the accuracy or completeness of the data is beyond the scope of this engagement. While we have reviewed the data with regard to its reasonableness and consistency for our review, we have relied on such data without audit or verification and our conclusions are based on the assumption that it is accurate and complete. If the underlying information provided is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Due to the inherent uncertainty in projecting ultimate cost of claims, no assurance can be offered that any particular range of estimates of ultimate losses or unpaid claim liabilities will be adequate. We believe, however, that the actuarial techniques and assumptions used in our analysis are reasonable.

In valuating the unpaid losses and loss adjustment expenses, it is necessary to project future loss and loss adjustment expense payments. It is certain that actual future losses and loss adjustment expenses will not develop exactly as projected and may, in fact, vary significantly from the projections. No warranty is expressed or implied that such variance will not occur.

Our projections make no provision for the broadening of coverage by legislative action or judicial interpretation or for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the Company's historical database or which are not yet quantifiable.

The services we performed in this actuarial analysis do not constitute an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants (AICPA). Any use of the word "review" within this presentation should be interpreted in the common use of that term, and not the definition of "review" promulgated by the AICPA.



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