UNITE Hotel and Restaurant Employees Local 25 and Hotel Association of Washington DC Pension Plan

Classic Values, Innovative Advice

Experience Study

June 7, 2023

Kevin Woodrich, FSA, EA, MAAA
Coralie Taylor, FSA, EA, FCA, MAAA

Topics for Discussion

- Experience Study Background
- Experience Study Analysis
  - Economic Assumptions
  - Demographic Assumptions
- Summary of Changes
- Projected Financial Impact

Details regarding demographic assumption review can be found in the Appendix beginning on slide 23.

Experience Study Background

- An experience study is a detailed review of the key assumptions, typically performed every 4 or 5 years, to ensure the plan is being valued appropriately.
  – Last study first reflected with 2017 valuation
- Internal Revenue Code requires that the assumptions be *individually* reasonable

- Economic
  - Investment Return
  - Inflation
  - Administrative Expenses
- Demographic
  - Retirement
  - Termination
  - Disability
  - Mortality
  - Missing Gender
  - Missing Date of Birth

Experience Study Background

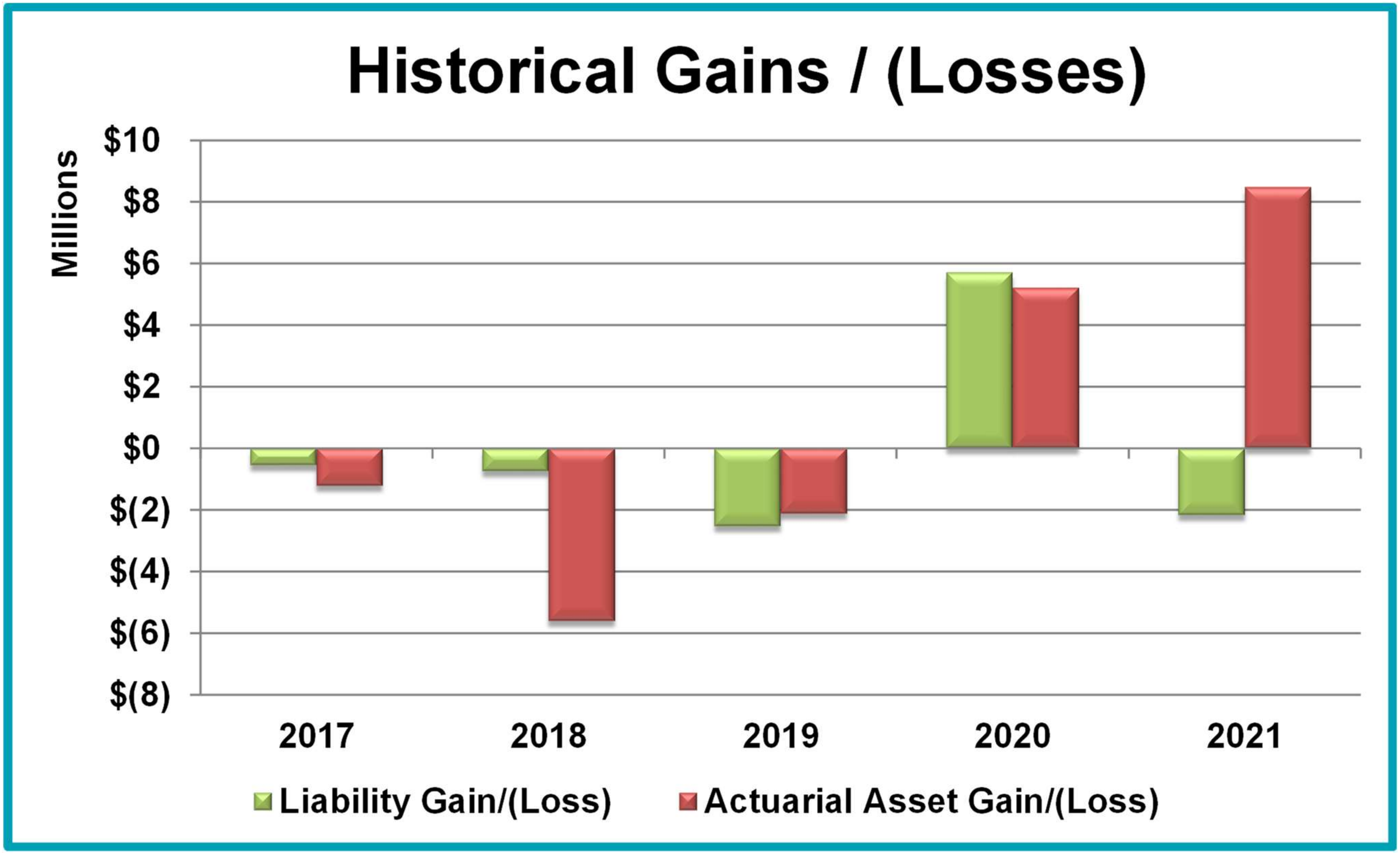
Reconcile Unfunded from 2017 to 2022

Unfunded Actuarial Liability as of January 1, 2017	**$ 98.8**
Expected Change[1]	(15.2)
Investment (Gains)/Losses (compared to expected[2])	(4.7)
Benefit Improvements	0.0
Liability (Gains)/Losses	1.8
Net Change	(19.6)
Unfunded Actuarial Liability as of January 1, 2022	$ 79.2

[1] Normal Cost, Contributions, Benefits, and Interest

[2] Expected Return of 6.75% per year

Experience Study Background
Reconcile Unfunded from 2017 to 2022



Economic Assumptions
Factors to Consider

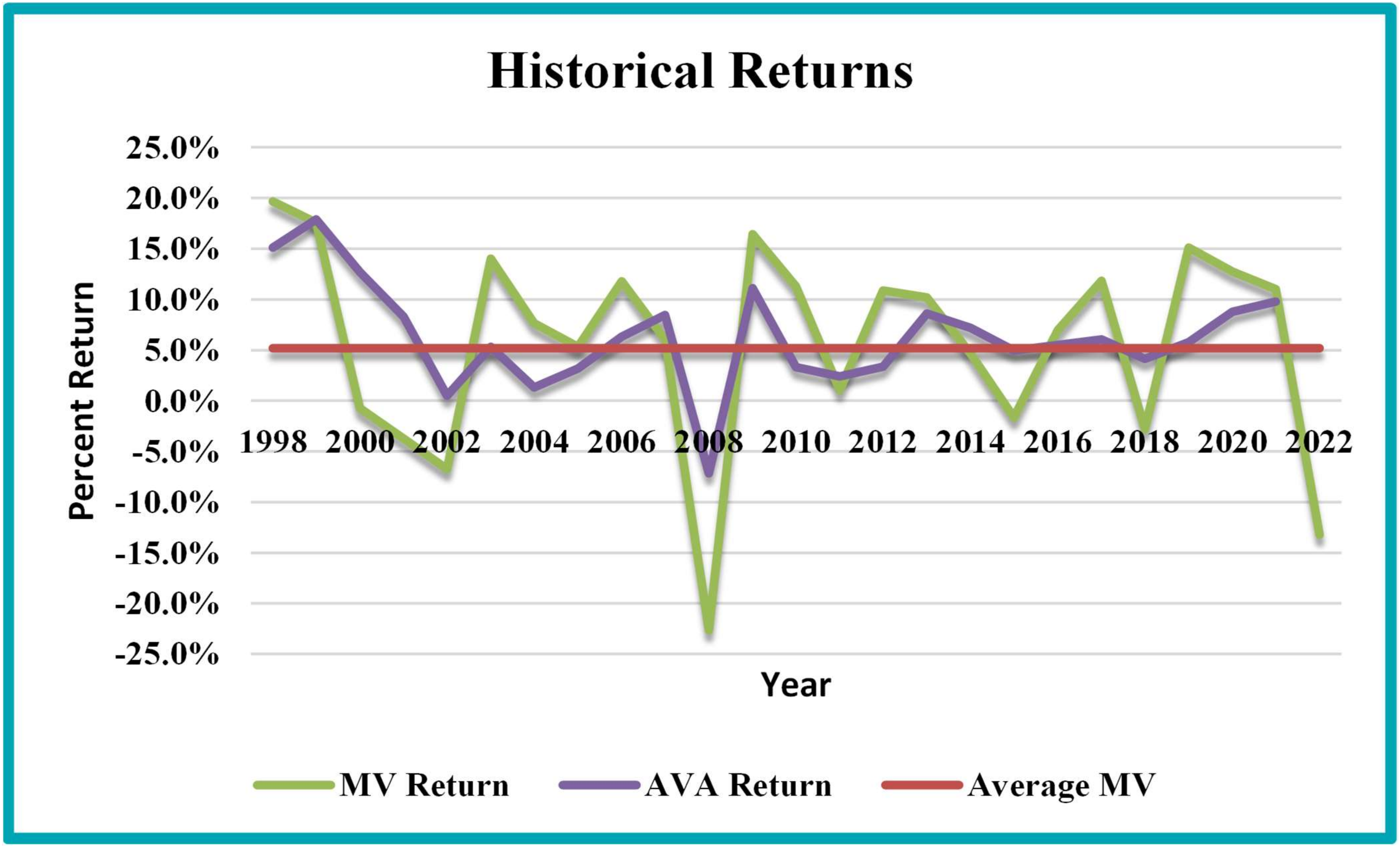
- Past Experience of the Plan
- Historical Data in General
- Outlook for the Future
- Risk Preference of the Board

Economic Assumptions

Past Experience on Investment Returns

Plan Year	Return	Plan Year	Return	Plan Year	Return
1997	19.1%	2006	11.8%	2015	(1.6%)
1998	19.7%	2007	6.0%	2016	7.0%
1999	17.6%	2008	(22.7%)	2017	11.8%
2000	(0.7%)	2009	16.4%	2018	(2.8%)
2001	(3.7%)	2010	11.3%	2019	15.1%
2002	(6.7%)	2011	1.0%	2020	12.7%
2003	14.0%	2012	10.9%	2021	11.0%
2004	7.7%	2013	10.2%	2022 (est.)	*(13.2%)*
2005	5.3%	2014	4.6%		

Average Return (20 years)	5.4%
Average Return (15 years)	4.2%
Average Return (10 years)	5.1%
Average Return (5 years)	4.0%



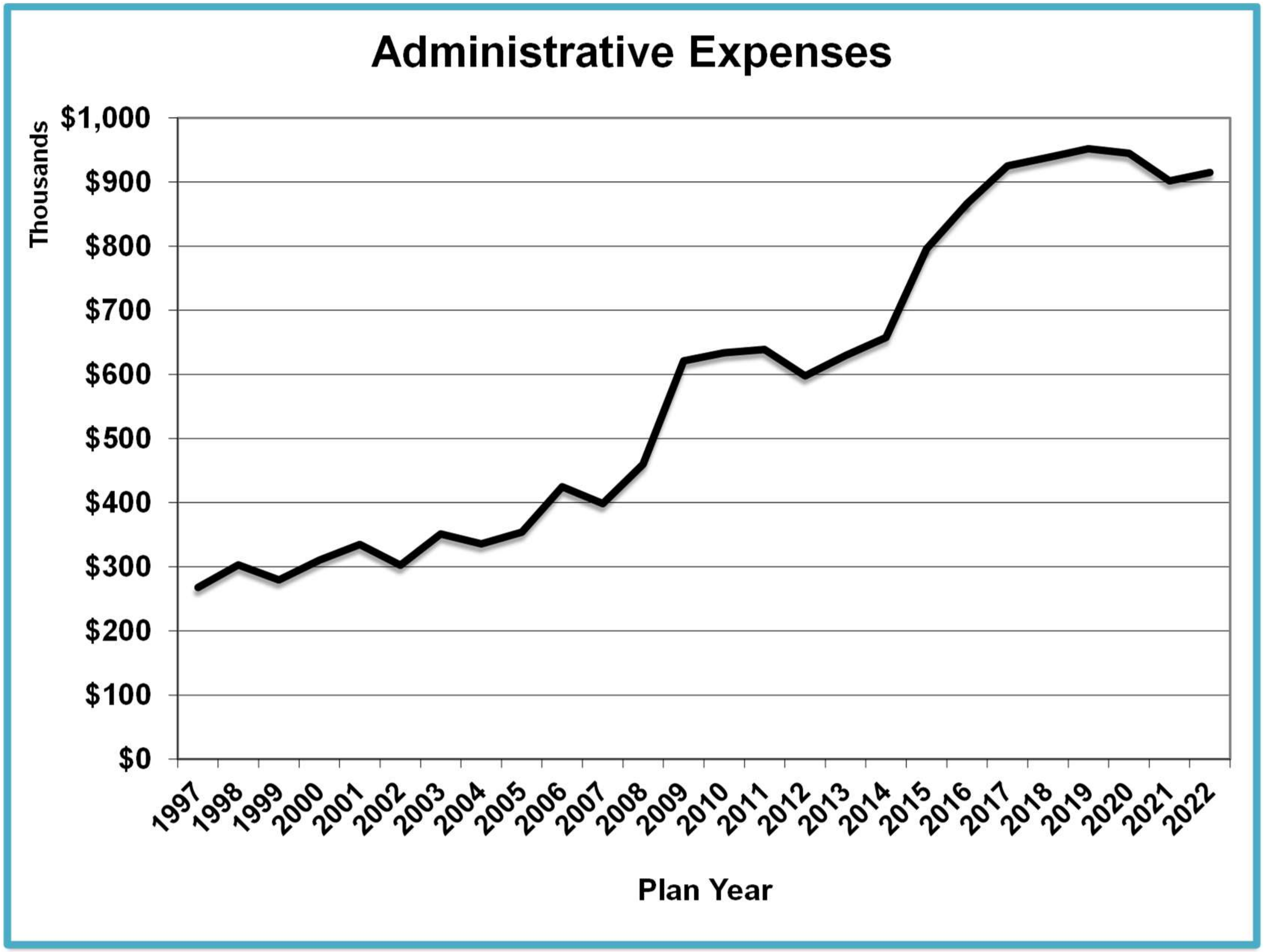
Estimated return for 2022 based on preliminary financial information from Novak

- Meketa's Expected Return
  - 2023 assumptions by asset class predict a 20-year geometric average return of 8.08% with a 12.3% standard deviation and 2.6% underlying inflation assumption.
  - Meketa assumes investment fees of 40 basis points
    - Actual investment fees averaged 25 bps in last five years
  - Anticipated net return in the range of 7.7%

Expected Distribution of Average Annual Investment Returns			
Percentile	1 Year	20 Years	30 Years
95th	29.8%	12.3%	11.5%
75th	16.3%	9.6%	9.3%
67th	13.3%	9.0%	8.7%
50th	7.8%	7.8%	7.8%
33th	2.5%	6.6%	6.8%
25th	-0.1%	5.9%	6.3%
5th	-10.5%	3.4%	4.2%

Economic Assumptions

Administrative Expenses



Current assumption was $963,980 increasing by 1% each year in future.

Economic Assumptions

Summary

- Changes to be made for 2023 Valuation
  - Interest Rate: Remain at 6.75%?
  - Administrative Expense: Maintain current assumption including 1% annual increases

Demographic Assumptions

- Turnover
- Retirement for Actives
- Disability
- Mortality
- Retirement for Terminated Vesteds
- Missing Gender
- Missing Dates of Birth
- Probability of Receipt for TVs

Demographic Assumptions

Summary

Actual/Expected Ratio	
Year	Ratio
2015	0.84
2016	0.92
2017	0.94
2018	0.97
2019	1.01
2020	3.58
2021	5.14

- Turnover
  - Fewer terminations than expected pre-pandemic
  - Large number of terminations (excluding immediate rehires) during COVID period
  - Rates to be lowered based on pre-COVID years, assume terminations return to pre-pandemic levels
- Retirement for Actives
  - In aggregate, fewer retirements than expected
  - Minimum Required Distribution Age increase to 72 in 2020
  - Rate to be lowered at ages on or before 71, then adjusted to assume all participants retire by 72
- Disability
  - Not much credible experience but fewer disablements than expected, not material enough to warrant change
  - No change to current assumption

Demographic Assumptions
Summary

- Mortality
  - The number of deaths provides for partial credibility (approximately 48%) for healthy annuitants.
  - In past six years, no distinct pattern of gains or losses attributable to inactive mortality.
  - <u>Propose mortality rates to be 90% (100% for females) of the Pri-2012 Blue Collar Sex-Distinct Mortality Table with generational mortality improvements using MP-2021</u>
  - Corresponding disability table (without load) for disabled lives.

Demographic Assumptions

Summary

- Retirement for Terminated Vesteds
  - Average retirement age for terminated vesteds was 65.2 so current assumption of retirement at 65 continues to be reasonable.
- Probability of Receipt for TVs
  - Of the 359 terminated vesteds who retired during the study period, only 3 of them were older than age 75 at retirement.
  - Currently assume 75% probability of receipt for TVs between ages 75-79, 50% for ages 80-84 and 0% for ages 85 and older.
  - Of the 2,651 TVs in preliminary 2023 census, 33 are 75-79, 19 are 80-84 and 48 are 85+.
  - Retain current assumption.

Demographic Assumptions

Summary

- Missing Gender
  - Data has been very clean lately. Based on active population being approximately 51% male and actual experience for those with unknown genders, no change to current assumption based on last digit of SSN of 0-4 to be males; female otherwise for a 50/50 mix
- Missing Dates of Birth
  - Most missing dates of birth are for relatively new participants (average service = 2.1)
  - Current assumption to use average hire age of the known population remains reasonable

Estimated 1/1/2023 Financial Impact

Projected 1/1/2023 Valuation Results ($ amounts in millions)	No Changes	Proposed Demographic / Continue 6.75%	Proposed Demographic / Lower to 6.50%
Investment Rate	6.75%	6.75%	6.50%
Demographic Assumption	Current	Proposed	Proposed
Actuarial Liability	$ 386.6	$ 395.5	$ 406.4
Actuarial Value of Assets (AVA)	307.2	307.2	307.2
Unfunded Actuarial Liability	$ 79.4	$ 88.3	$ 99.2
Funded Status (using AVA)	79.5%	77.7%	75.6%
Market Value of Assets (MVA)	$ 274.6	$ 274.6	$ 274.6
Funded Status (using MVA)	71.0%	69.4%	67.6%

- Projected liabilities based on January 1, 2022 valuation results with adjustments for proposed assumptions.
- Financial information based on draft December 31, 2022 financial statement provided by Novak for preparing the 2023 actuarial certification

Impact on Fund Projection

No Changes to the Assumptions

CHEIRON

MFD	None
Insolvent PYB	None
Emergence	N/A
Fully Funded	2034

1934

Discount Rate for 2023+	6.75%
2022 Return	-13.20%
Demographic Assmps	Baseline

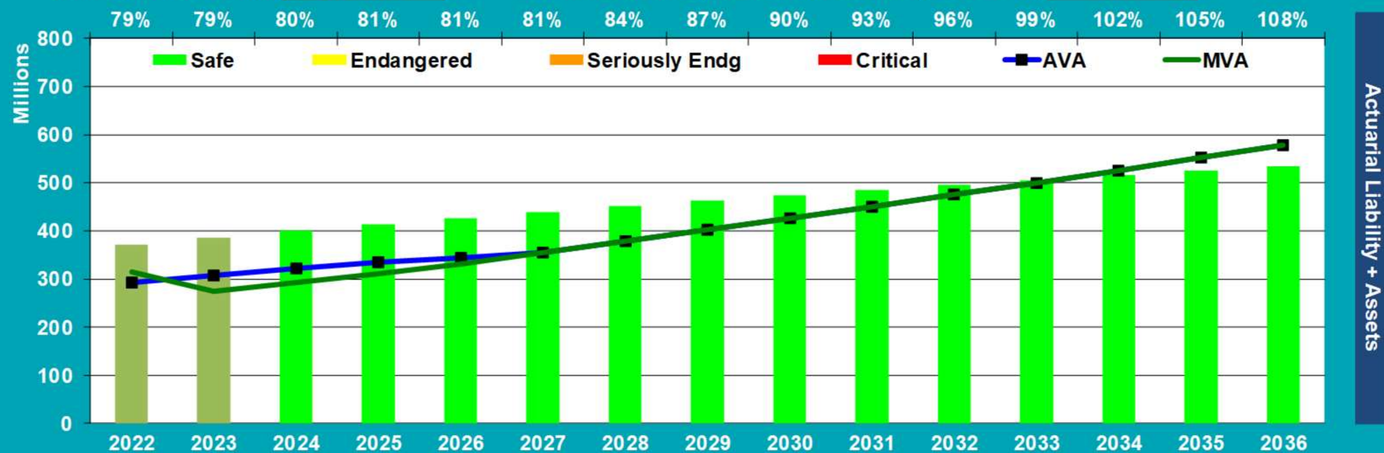
Estimated December 31, 2022 Market Value of Assets	$ 274.6 million
Estimated Jan 1, 2023 Funded Status (AVA Basis)	79.5%
Estimated Jan 1, 2023 Funded Status (MVA Basis)	71.0%

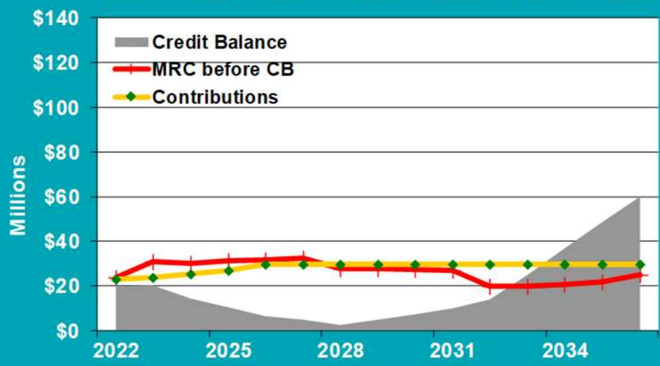
PYB	Return	Contrib Rate*	Ben	Membership Level
2022	-13.20%	$2.75	0.0%	80.0%
2023	6.75%	$2.85	0.0%	80.0%
2024	6.75%	$2.85	0.0%	85.0%
2025	6.75%	$2.85	0.0%	90.0%
2026	6.75%	$2.85	0.0%	100.0%
2027	6.75%	$2.85	0.0%	100.0%
2028	6.75%	$2.85	0.0%	100.0%
2029	6.75%	$2.85	0.0%	100.0%
2030	6.75%	$2.85	0.0%	100.0%
2031	6.75%	$2.85	0.0%	100.0%
2032	6.75%	$2.85	0.0%	100.0%
2033	6.75%	$2.85	0.0%	100.0%
2034	6.75%	$2.85	0.0%	100.0%
2035	6.75%	$2.85	0.0%	100.0%
2036	6.75%	$2.85	0.0%	100.0%
2037	6.75%	$2.85	0.0%	100.0%
2038	6.75%	$2.85	0.0%	100.0%
2039	6.75%	$2.85	0.0%	100.0%
2040	6.75%	$2.85	0.0%	100.0%
2041	6.75%	$2.85	0.0%	100.0%

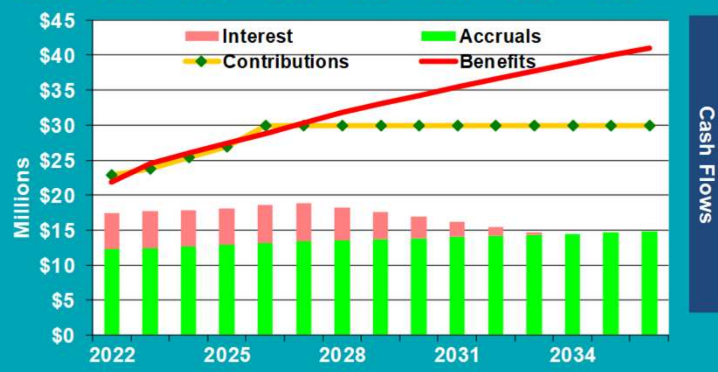
Return

5.65% 20-Year Geometric Average

* Effective March 15,







Impact on Fund Projection

Demographic Only

MFD	2026
Insolvent PYB	None
Emergence	N/A
Fully Funded	2036

1934

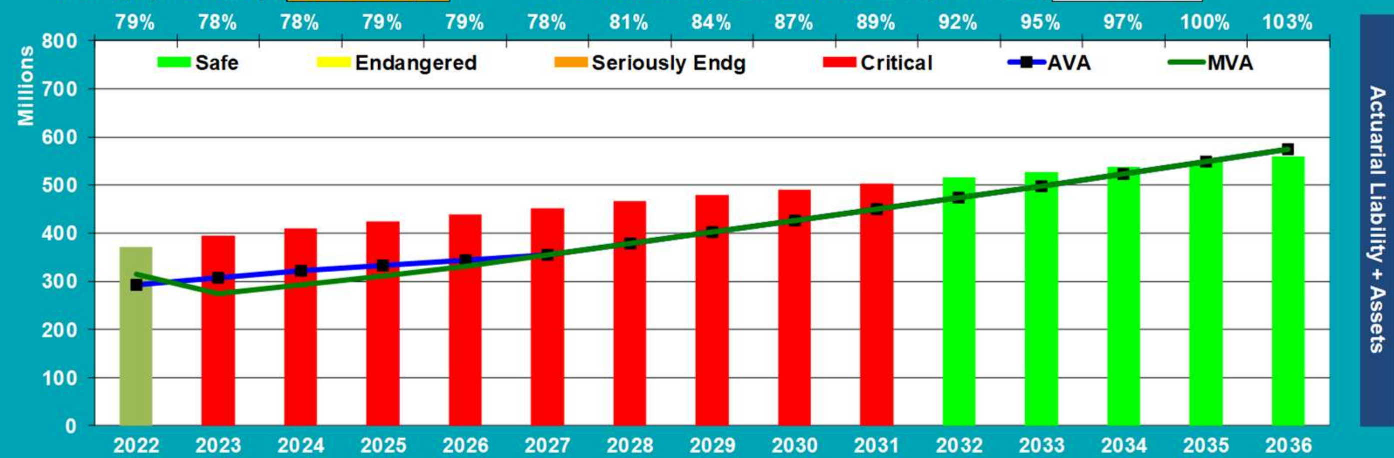
Discount Rate for 2023+	6.75%
2022 Return	-13.20%
Demographic Assmps	New Assmps

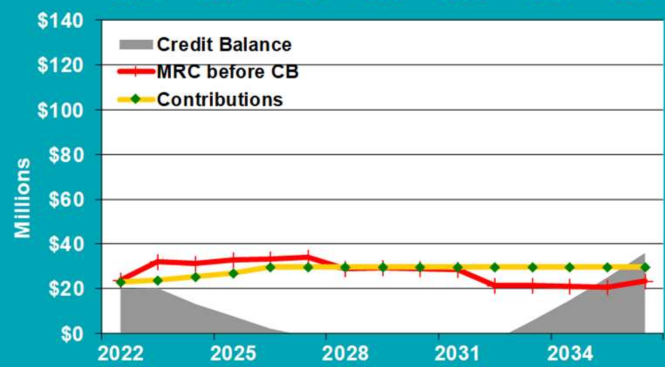
Estimated December 31, 2022 Market Value of Assets	$ 274.6 million
Estimated Jan 1, 2023 Funded Status (AVA Basis)	77.7%
Estimated Jan 1, 2023 Funded Status (MVA Basis)	69.4%

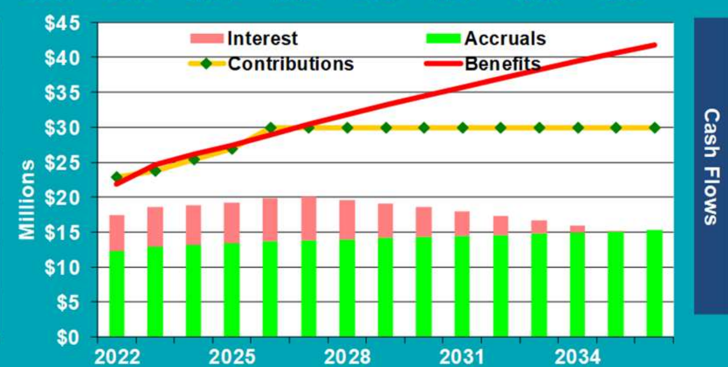
PYB	Return	Contrib Rate*	Ben	Membership Level
2022	-13.20%	$2.75	0.0%	80.0%
2023	6.75%	$2.85	0.0%	80.0%
2024	6.75%	$2.85	0.0%	85.0%
2025	6.75%	$2.85	0.0%	90.0%
2026	6.75%	$2.85	0.0%	100.0%
2027	6.75%	$2.85	0.0%	100.0%
2028	6.75%	$2.85	0.0%	100.0%
2029	6.75%	$2.85	0.0%	100.0%
2030	6.75%	$2.85	0.0%	100.0%
2031	6.75%	$2.85	0.0%	100.0%
2032	6.75%	$2.85	0.0%	100.0%
2033	6.75%	$2.85	0.0%	100.0%
2034	6.75%	$2.85	0.0%	100.0%
2035	6.75%	$2.85	0.0%	100.0%
2036	6.75%	$2.85	0.0%	100.0%
2037	6.75%	$2.85	0.0%	100.0%
2038	6.75%	$2.85	0.0%	100.0%
2039	6.75%	$2.85	0.0%	100.0%
2040	6.75%	$2.85	0.0%	100.0%
2041	6.75%	$2.85	0.0%	100.0%

Return

5.65% 20-Year Geometric Average







* Effective March 15,

Impact on Fund Projection

Demographic and Lower to 6.50%

CHEIRON

MFD	2025
Insolvent PYB	None
Emergence	N/A
Fully Funded	2038

1934

Discount Rate for 2023+	6.50%
2022 Return	-13.20%
Demographic Assmps	New Assmps

Estimated December 31, 2022 Market Value of Assets	$ 274.6	million
Estimated Jan 1, 2023 Funded Status (AVA Basis)	75.6%	
Estimated Jan 1, 2023 Funded Status (MVA Basis)	67.6%	

PYB	Return	Contrib Rate*	Ben	Membership Level
2022	-13.20%	$2.75	0.0%	80.0%
2023	6.50%	$2.85	0.0%	80.0%
2024	6.50%	$2.85	0.0%	85.0%
2025	6.50%	$2.85	0.0%	90.0%
2026	6.50%	$2.85	0.0%	100.0%
2027	6.50%	$2.85	0.0%	100.0%
2028	6.50%	$2.85	0.0%	100.0%
2029	6.50%	$2.85	0.0%	100.0%
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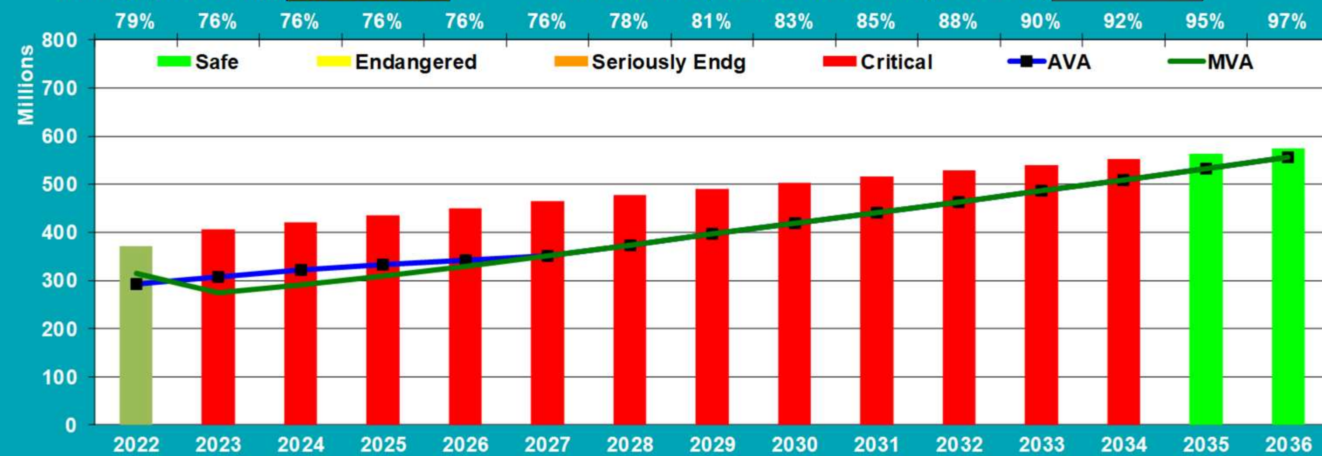
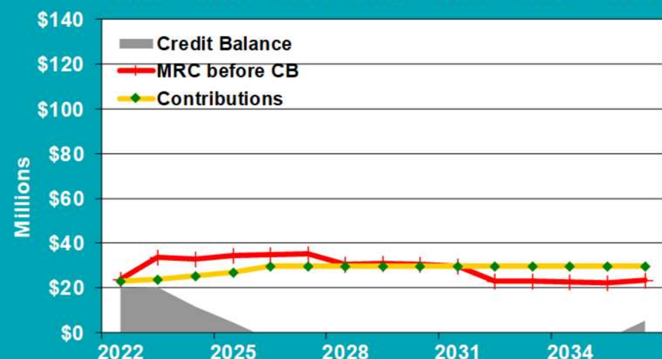
2037	6.50%	$2.85	0.0%	100.0%
2038	6.50%	$2.85	0.0%	100.0%
2039	6.50%	$2.85	0.0%	100.0%
2040	6.50%	$2.85	0.0%	100.0%
2041	6.50%	$2.85	0.0%	100.0%

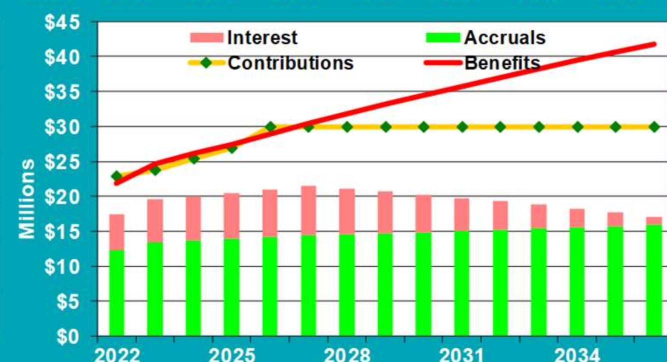
Return	
5.42%	20-Year Geometric Average

* Effective March 15,



Actuarial Liability + Assets





Cash Flows

Required Disclosures

In preparing this presentation, we relied on information supplied by the UNITE Hotel and Restaurant Employees Local 25 and Hotel Association of Washington, DC Pension Plan.

The actuarial assumptions, data and methods are those used in the preparation of the January 1, 2022 actuarial valuation report except as indicated in the proposed assumptions under the experience study analysis. The assumptions reflect our understanding of the likely future experience of the Plan, and the assumptions as a whole represent our best estimate for the future experience of the Plan. The results of this presentation are dependent upon future experience conforming to these assumptions. To the extent that future experience deviates from the actuarial assumptions, the true cost of the Plan could vary from our results.

This presentation and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Cheiron's presentation was prepared solely for the UNITE Hotel and Restaurant Employees Local 25 and Hotel Association of Washington, DC Pension Plan for the purposes described herein, except that the Plan auditor may rely on the report solely for the purpose of completing an audit related to the matters herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Kevin Woodrich, FSA, EA, MAAA
Principal Consulting Actuary

Coralie Taylor, FSA, EA, FCA, MAAA
Consulting Actuary

APPENDIX

Supporting Exhibits for Experience Study

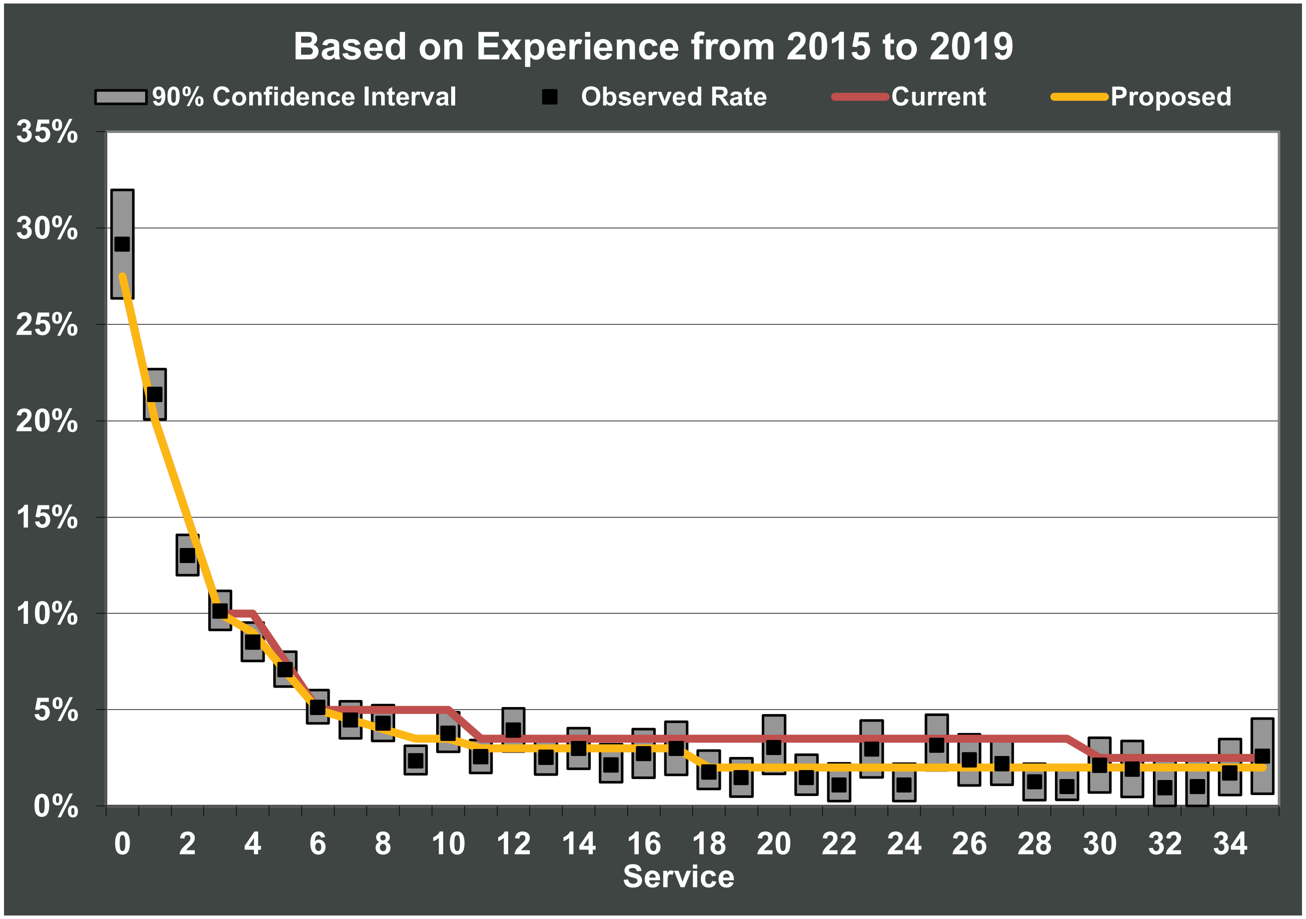
Rate of Turnover

- Current assumption is service-based
- Experience from 2015 through 2022
  - Excluded experience in 2021 and 2022 due to pandemic

Year	Actual	Expected	A/E Ratio
2015	479	569.9	0.84
2016	470	511.0	0.92
2017	446	476.0	0.94
2018	408	422.8	0.97
2019	381	375.8	1.01
2020	1,344	375.8	3.58
2021	1,322	257.0	5.14
2015-19	2,184	2,355.5	0.93

Rate of Turnover

- Propose lowering the service-based rates in later service periods
  - A/E Ratio under proposed rates: 0.99



Rate of Retirement for Actives

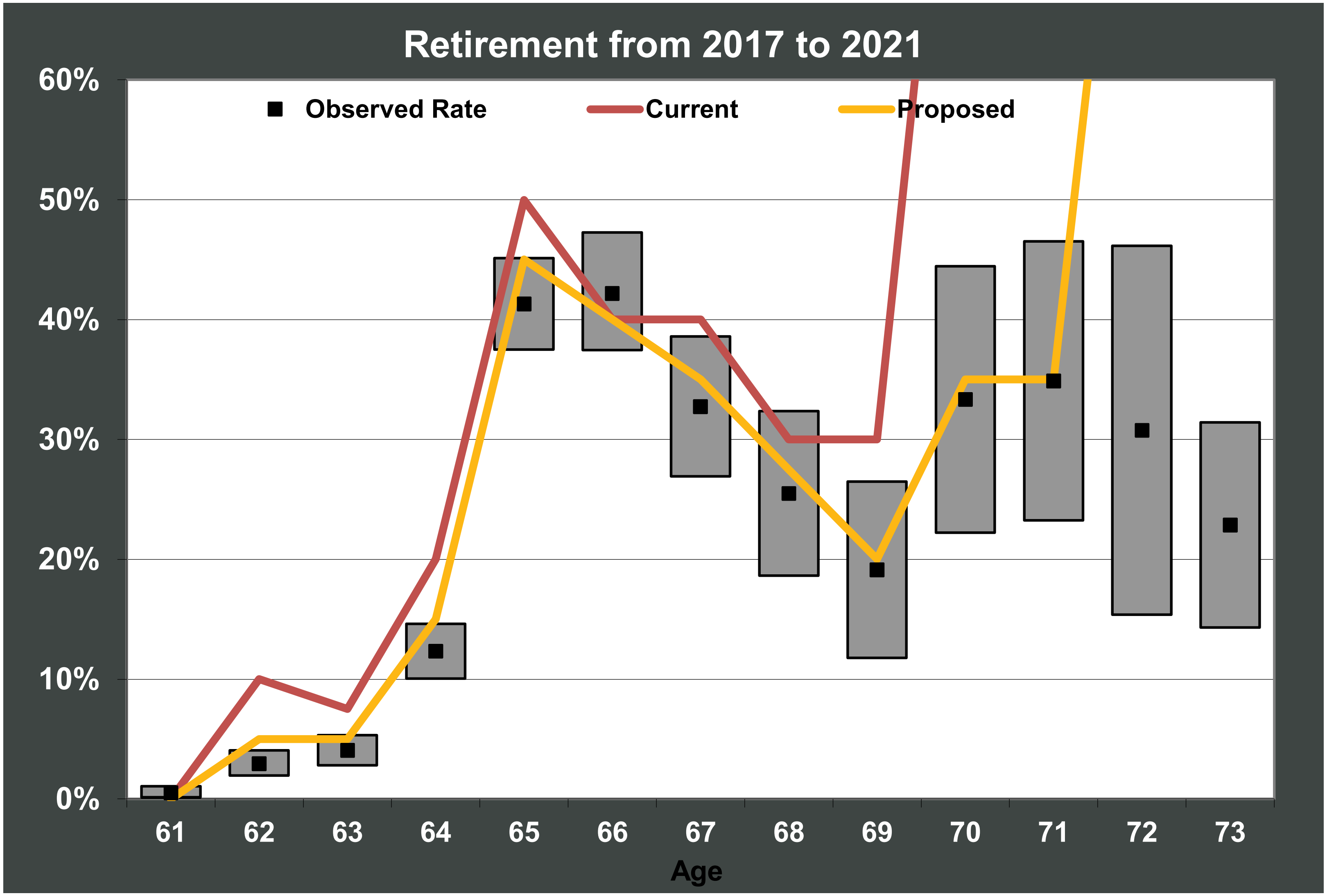
- Current assumption is age-based
- Experience from 2017 through 2021
  - Fewer people than expected retired prior to age 69
  - Required Minimum Distribution Date was increased from 70 ½ to 72 during this time

Year	Actual	Expected	A/E Ratio
2015	63	135.8	0.46
2016	101	151.0	0.67
2017	71	154.9	0.46
2018	131	193.1	0.68
2019	128	189.3	0.68
2020	112	191.2	0.59
2021	138	163.1	0.85
2015-19	494	824.0	0.60
2017-19	330	537.3	0.61
All Years	744	1,178.2	0.63

Rate of Retirement for Actives
2017 – 2021 Experience

Retirement Age	Actual	Expected (Current)	Ratio (Current)	Expected (Proposed)	Ratio (Proposed)
62	21	71.5	0.29	35.8	0.59
63	26	48.0	0.54	32.0	0.81
64	70	113.6	0.62	85.2	0.82
65	195	236.0	0.83	212.4	0.92
66	116	110.0	1.05	110.0	1.05
67	56	68.4	0.82	59.9	0.93
68	26	30.6	0.85	28.1	0.93
69	13	20.4	0.64	13.6	0.96
70	18	54.0	0.33	18.9	0.95
71	15	43.0	0.35	15.1	0.99
72-73	24	96.0	0.25	96.0	0.25
Totals	580	891.5	0.65	707.0	0.82
Totals (<72)	556	795.5	0.69	610.8	0.91

Rate of Retirement for Actives

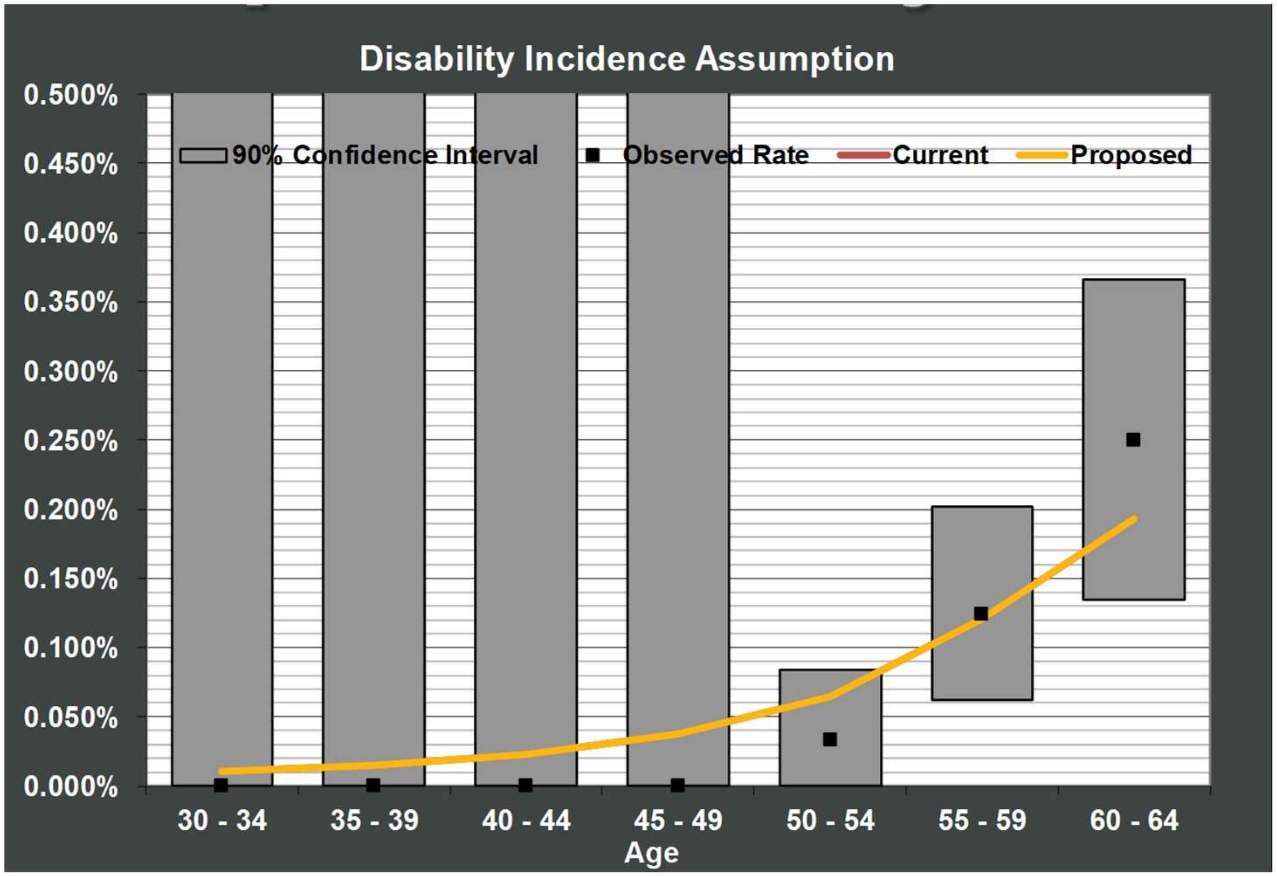


Rate of Disability

- Current assumption is age-based
- Experience from 2017 through 2021
  - Very low number of actual incidences based on data provided to us; not credible

Actual	Expected	Ratio
23	26	0.88

Rate of Disability (Cont.)



- Propose no change to the disability rates

Rate of Mortality

- Current assumption
  - Healthy lives: 102% and 107% of the RP-2014 Healthy Annuitant Mortality Table for males and females, respectively, adjusted to 2006 with Blue Collar Adjustments, projected using the MP-2016 generational mortality improvements to 2017 and then 0.75% per year (ages < 86) thereafter
  - Disabled lives: RP-2014 Disabled Retiree Mortality Table adjusted to 2006 with Blue Collar Adjustments, projected using the MP-2016 generational mortality improvements to 2017 and then 0.75% per year (ages < 86) ultimate scale thereafter.
- ASOP 35 requires the actuary to identify both the underlying mortality as of valuation date as well as provision for future mortality improvement included in assumption.

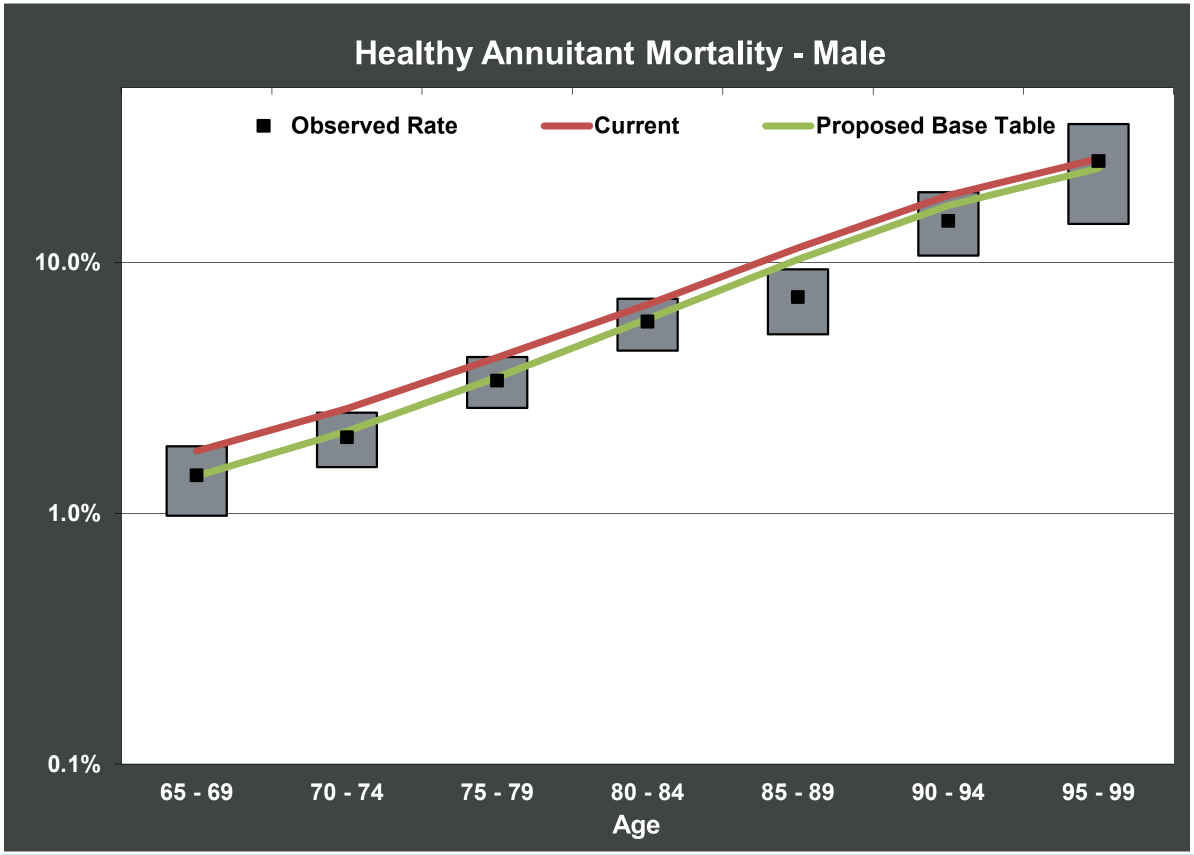
Rate of Mortality (Cont.)

- Compared experience for 2015-2021 to a number of standard tables projected to the mid-point of the period (i.e., 2018).
- A more updated table was to use 90% (100% for females) of the Pri-2012 mortality tables with Blue Collar projected using the MP-2021 generational mortality improvements
- Will periodically test continued applicability and adjust as warranted
- Propose using the comparable disability tables with no load

Healthy Annuitant Mortality A/E Ratio

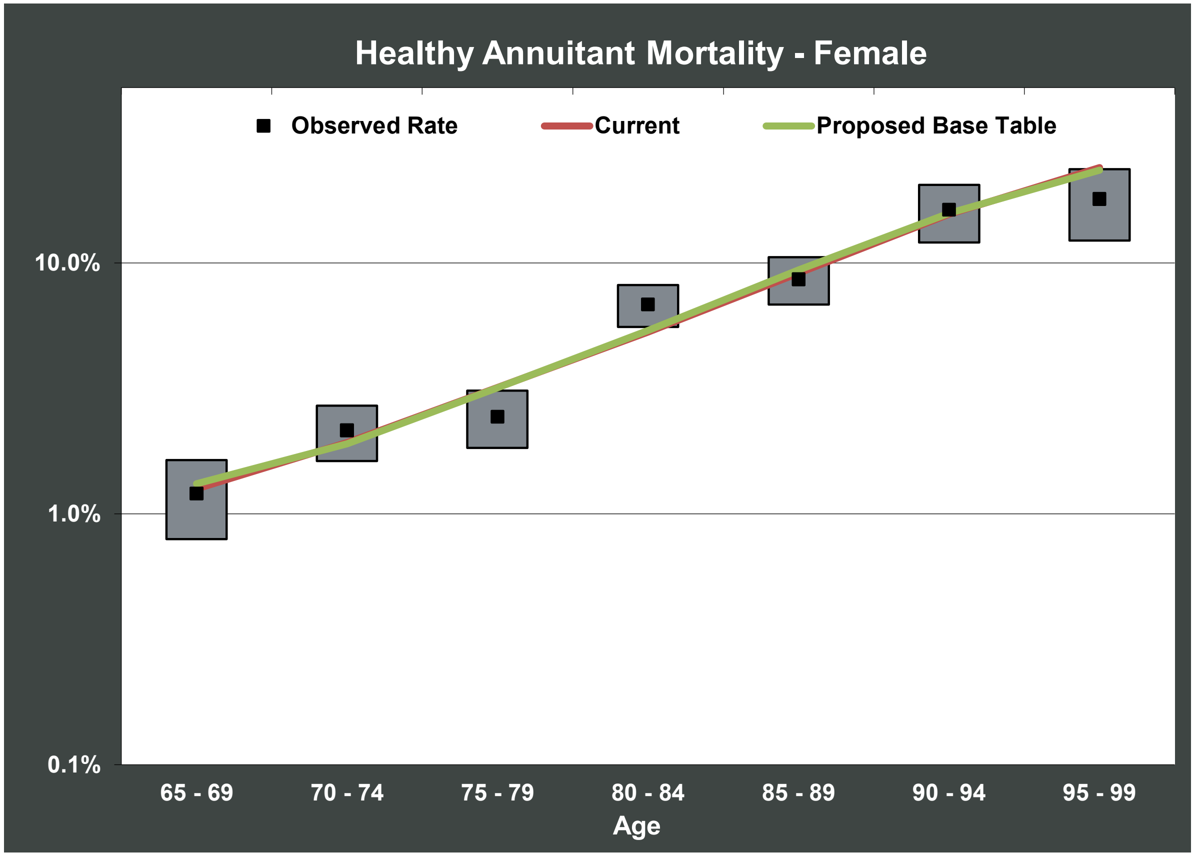
	Males			Females		
Year	Actual	Expected	A/E	Actual	Expected	A/E
2015	$ 12,363	$ 12,867	0.96	$ 12,345	$ 13,478	0.92
2016	$ 14,213	$ 13,736	1.03	$ 15,008	$ 13,755	1.09
2017	$ 7,037	$ 14,903	0.47	$ 12,824	$ 14,363	0.89
2018	$ 12,394	$ 18,798	0.66	$ 18,278	$ 17,891	1.02
2019	$ 15,044	$ 20,982	0.72	$ 20,182	$ 18,811	1.07
2020	$ 21,593	$ 23,143	0.93	$ 17,712	$ 20,089	0.88
2021	$ 19,140	$ 25,242	0.76	$ 23,061	$ 21,000	1.10
2015-21	$ 101,784	$ 129,669	0.78	$ 119,410	$ 119,387	1.00

Male Healthy Annuitant Mortality



Deaths for Ages 55 - 99			
	Weighted Actual	Weighted Expected	Ratio
Current	$ 101,784	$ 129,669	0.78
Proposed	$ 101,784	$ 110,010	0.93

Female Healthy Annuitant Mortality



Deaths for Ages 55 - 99			
	Weighted Actual	Weighted Expected	Ratio
Current	$ 119,410	$ 119,387	1.00
Proposed	$ 119,410	$ 114,929	1.04

Retirement for TVs

- Current assumption that TVs retire at age 65 seems reasonable

Year of Experience	Count of TVs who Retired in Year	Average Age at Retirement
2017	77	65.7
2018	54	64.7
2019	75	64.9
2020	63	65.4
2021	90	65.1
Total	359	65.2

Probability of Receipt for TVs

- Maintain current assumption but recommend AA perform a death audit

	Under 75			75 - 79			80 - 84			85 & Older		
Year	BOY Count	TV Retire	%	BOY Count	TV Retire	%	BOY Count	TV Retire	%	BOY Count	TV Retire	%
2017	1,981	75	3.8%	26	2	7.7%	18	0	0.0%	16	0	0.0%
2018	1,969	54	2.7%	23	0	0.0%	13	0	0.0%	17	0	0.0%
2019	2,021	75	3.7%	24	0	0.0%	12	0	0.0%	20	0	0.0%
2020	1,998	63	3.2%	22	0	0.0%	12	0	0.0%	20	0	0.0%
2021	2,906	89	3.1%	22	1	4.5%	17	0	0.0%	32	0	0.0%
	10,875	356	3.3%	117	3	2.6%	72	0	0.0%	105	0	0.0%
Current			100%			75%			50%			0%

Missing Gender

- Current assumption is to use last digit of SSN; Male if last digit is 0-4; Female if 5-9
- Recent data has been very clean, and assumption has not been needed
- No change to assumption

Missing Dates of Birth

- Current assumption is to use date of birth based on average hire age for non-missing participants and service.

	Actives with Missing Dates of Birth			Known Date of Birth Later				
Valuation Year	Count	Assumed Age	Average Service	Count	Actual Age	Assumed Age	Difference	Average Age for All Actives
2021	3	39.7	2.0	1	27.2	43.0	-15.8	50.31
2020	18	38.0	2.4	4	25.4	40.8	-15.4	48.72
2019	40	40.2	2.3	21	31.0	41.2	-10.3	48.43
2018	40	39.9	2.0	14	34.0	42.5	-8.5	48.13
2017	38	42.1	1.8	21	38.5	42.1	-3.7	47.48
Total	139	40.3	2.1	61	33.8	41.8	-8.0	

- Although it has deviated in recent years, approach is still more reasonable than just using average age for entire group