

## Police Retirement Assumption Review

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- Assumption setting for pension plans is not an exact science
  - There can be multiple reasonable assumptions
  - Pension Board's decision
- To analyze retirement assumption for reasonability
  - Review the number of retirement eligible actives
  - Review the number of new retirees
  - Review the number of people estimated to retire based on the current assumptions
  - Determine if a change is needed and how the new assumption compares to actual retirements in the data



- Current Assumption: Age 53 & 25 years of service
- Retirement eligibility
  - Hired prior to January 1, 2009 – 20 years of service (yos)
  - Hired after December 31, 2008 – Age 50 & 20 yos
- Experience study reviewed retirement rates from 2012 - 2020
- Originally reviewed the retirement assumption based on ages 43 – 55
  - 83 eligible retirees, 21 actual retirees
  - Expected 2 retirees based on current assumption
- Data was not deemed credible at specific ages

# Police – Retirement Assumption Review



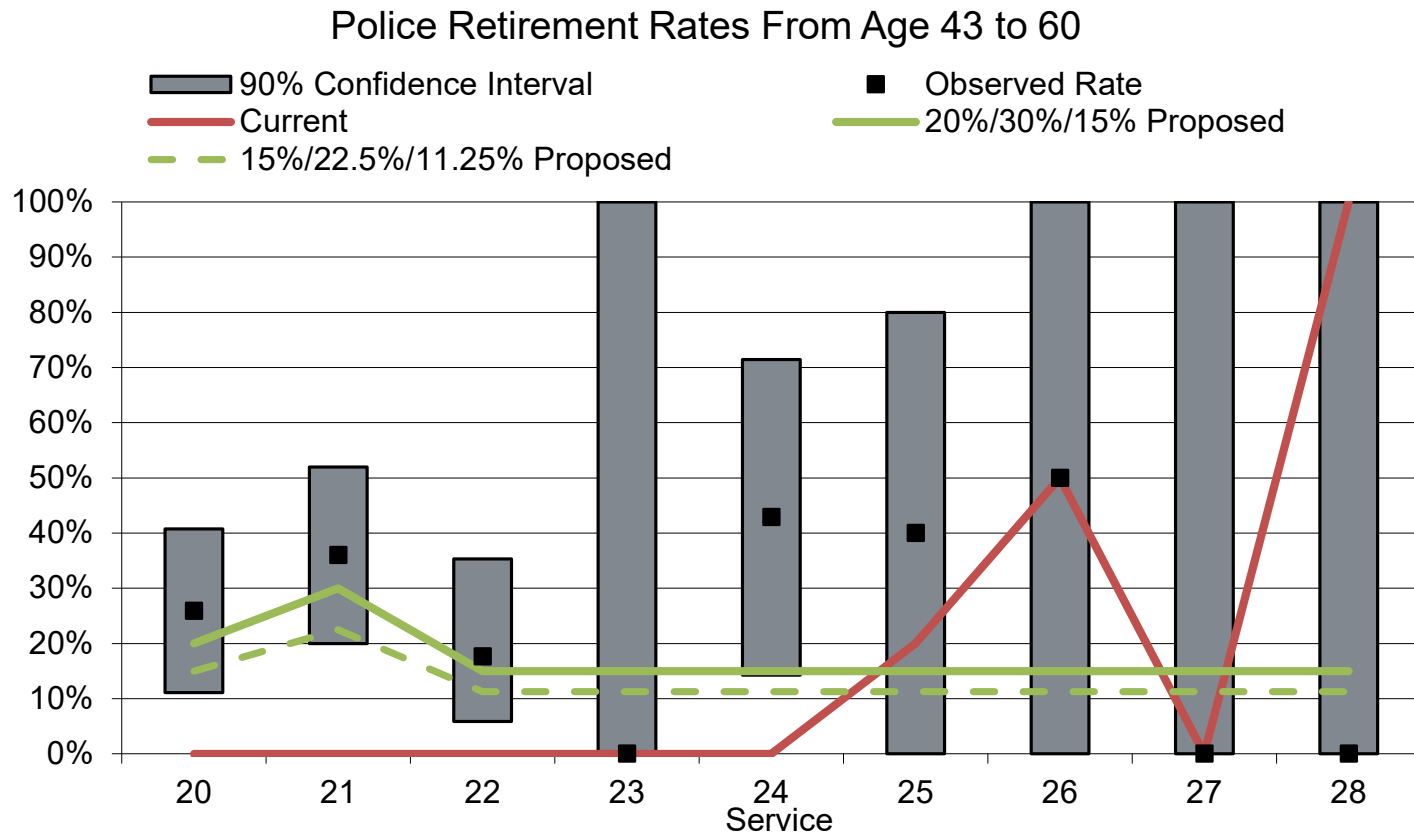
- Now reviewing retirement assumption based on 20 – 28 years of service
  - 93 eligible retirees, 25 actual retirees
  - Expected 3 retirees based on current assumption

Police Retirement Rates From Age 43 to 60						
Service	Exposures	Retirements		Retirement Rates		A/E Ratios
		Actual	Current	Actual	Current	Current
20	27	7	0	25.9%	0.0%	0%
21	25	9	0	36.0%	0.0%	0%
22	17	3	0	17.6%	0.0%	0%
23	7	0	0	0.0%	0.0%	0%
24	7	3	0	42.9%	0.0%	0%
25	5	2	1	40.0%	20.0%	200%
26	2	1	1	50.0%	50.0%	100%
27	2	0	0	0.0%	0.0%	0%
28	1	0	1	0.0%	100.0%	0%
<b>Total</b>	<b>93</b>	<b>25</b>	<b>3</b>	<b>26.9%</b>	<b>3.2%</b>	<b>833%</b>

# Police – Retirement Assumption Review



- Data is credible for 20 - 22 years of service
- 23+ years of service not credible, large confidence intervals



# Police – Retirement Assumption Review



- Two new retirement assumptions to consider:
  1. 20% retirement rate at 20 years of service, 30% at 21 years of service, 15% thereafter\*
  2. 15% retirement rate at 20 years of service, 22.5% at 21 years of service, 11.25% thereafter\*

Police Retirement Rates From Age 43 to 60										
Service	Exposures	Retirements				Retirement Rates		A/E Ratios		
		Actual	Current	Proposed (15/22.5/11.25%)	Proposed (20/30/15%)	Actual	Current	Current	Proposed (15/22.5/11.25%)	Proposed (20/30/15%)
20	27	7	0	4	5	25.9%	0.0%	0%	173%	130%
21	25	9	0	6	8	36.0%	0.0%	0%	160%	120%
22	17	3	0	2	3	17.6%	0.0%	0%	157%	118%
23	7	0	0	1	1	0.0%	0.0%	0%	0%	0%
24	7	3	0	1	1	42.9%	0.0%	0%	381%	286%
25	5	2	1	1	1	40.0%	20.0%	200%	356%	267%
26	2	1	1	0	0	50.0%	50.0%	100%	444%	333%
27	2	0	0	0	0	0.0%	0.0%	0%	0%	0%
28	1	0	1	0	0	0.0%	100.0%	0%	0%	0%
<b>Total</b>	<b>93</b>	<b>25</b>	<b>3</b>	<b>14</b>	<b>19</b>	<b>26.9%</b>	<b>3.2%</b>	<b>833%</b>	<b>175%</b>	<b>131%</b>

\*Starts at age 40 for participants hired before 1/1/2009, and at age 50 for those hired after 1/1/2009



- 20%/30%/15% proposed retirement rates
  - Increases the liability by about \$4.3m and decreases the average future service from 13 years to 11 years
  - Funded ratio will decrease from 81.7% to 80.1%
  - Increases the 2022 MMO by about \$900k
- 15%/22.5%/11.25% proposed retirement rates
  - Increases the liability by about \$2.7m and decreases the average future service from 13 years to 12 years
  - Funded ratio will decrease from 81.7% to 80.7%
  - Increases the 2022 MMO by about \$600k

The purpose of this presentation is to present the results of the 2020 retirement assumption review for the City of Allentown Police Pension Plan and is for the use of the Pension Board of Trustees. This presentation was prepared exclusively for the City of Allentown, PA for the purpose described 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 such other users.

In preparing this presentation, we relied without audit, on information (some oral and some written) supplied by the City. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

This analysis was based on the current assumptions and methods, financial data through 12/31/2019, and the 1/1/2020 membership data. Assumptions and methods are outlined in the 2020 Actuarial Valuation Report, unless a specific change is outlined. Actual results can be expected to differ to the extent that final data (such as assets) differs from the current data and that future experience differs from the actuarial assumptions used. Future actuarial valuations may differ significantly from the actuarial valuation presented here due to factors such as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

This presentation and its contents were 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 a credentialed actuary, I 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.

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## Retirement rates reviewed based on age

Police Retirement Rates For 20 to 33 Years of Service						
Age	Exposures	Retirements		Retirement Rates		A/E Ratios
		Actual	Current	Actual	Current	Current
43	3	2	0	66.7%	0.0%	0%
44	7	4	0	57.1%	0.0%	0%
45	4	0	0	0.0%	0.0%	0%
46	12	2	0	16.7%	0.0%	0%
47	10	2	0	20.0%	0.0%	0%
48	10	2	0	20.0%	0.0%	0%
49	10	2	0	20.0%	0.0%	0%
50	8	1	0	12.5%	0.0%	0%
51	6	2	0	33.3%	0.0%	0%
52	3	0	0	0.0%	0.0%	0%
53	3	0	1	0.0%	33.3%	0%
54	4	2	1	50.0%	25.0%	200%
55	3	2	0	66.7%	0.0%	0%
<b>Total</b>	<b>83</b>	<b>21</b>	<b>2</b>	<b>25.3%</b>	<b>2.4%</b>	<b>1050%</b>



## Retirement rates reviewed based on age

- Data is not credible, large confidence intervals

Police Retirement Rates For 20 to 33 Years of Service

