



ALLEGHENY COUNTY
EMPLOYEES' RETIREMENT SYSTEM

Demographic Experience Study and
Recommended Assumption Changes

November 20, 2025

Demographic Experience Study

Experience Review Summary

- Reviewed all demographic assumptions and methods. Experience from 2019 to 2025 was used for the study:
 - The study was adjusted for COVID-19 experience since COVID-19 was observed to have an impact on retirement and turnover experience. Experience years 2020, 2021 and 2022 were largely ignored or minimized for purposes of the review.
- The recommended changes have the following impact on accrued liability as of 1/1/2025:

	Increase/(Decrease) on AAL as of 1/1/2025	Percent Change
Retirement for Actives	\$3,395,000	0.142%
Disability	(497,000)	(0.021%)
Mortality	(2,885,000)	(0.121%)
Salary Scale	(3,793,000)	(0.159%)
Marriage Characteristics	(122,000)	(0.005%)
Total	(3,902,000)	(0.164%)

- The following assumptions were reviewed and updated :
 - Retirement assumption – updated to reflect recent experience and to account for differing eligibility requirements for post-Act 125 hires.
 - Disability assumption – modified to reflect recent SSA study and fit to the experience observed.
 - Mortality assumption – new study of public plan experience recently published.
 - Salary Scale assumption – updated to reflect wage growth that has exceeded expectations.
 - Marriage Characteristics assumption – changed to reflect general population trends.

Experience Review – Retirement Rates (Pre-Act 125 Hires)

- **Recommended changes to Retirement Rates for the Sheriffs, Prison Guards and POs**
 - Based on the prior 6 years of experience, it is evident that rates need to be increased for the Sheriff, Guards and POs group. It is our belief that rates should be higher at first eligibility, which is why we have reflected higher rates at age 55, and also at the 20-year service mark.
 - **Rates highlighted in green represent our recommendation for the new assumption of full retirement rates.** The new rates generally push members to retire sooner than under the old assumption.
- Rates for the Non-Uniform group were reviewed, and actual experience was found to be in line with the current assumption. No change is recommended.
- Rates for the Police and Firefighters were reviewed. Actual experience exceeded expected results. Due to the minimal exposure observed, we do not recommend a change to the assumption at this time. If rates continue to trend high over the next several years, we will recommend an increase the next time we review demographic assumptions.

Sheriff, Prison, and POs: Pre-Act 125 (full retirement)			
	Expected	Actual	New Table
Age	20 yrs / 21+ yrs	20 yrs / 21+ yrs	20 yrs / 21+ yrs
55	25%/25%	33%/49%	40%/40%
56-59	10%/25%	35%/33%	30%/25%
60	10%/25%	37%/43%	30%/30%
61-64	15%/25%	37%/27%	25%/20%
65-69	25%/25	N/A /52%	40%/30%
70+	100%	N/A / N/A	100%

Experience Review – Retirement Rates (Post- Act 125 Hires)

- Act 125 requires an additional 5 years of service to meet eligibility for full retirement for members hired after February 21, 2014. Now that these early Act 125 members are exceeding 10-years of service, we believe it is appropriate to assign separate retirement assumptions for this group.
- While we do not have experience to consider for this group, it is reasonable to assume that retirement rates will not increase once 20 years of service is attained, since they will not be eligible for full retirement until reaching 25 years of service.
- Our recommendation is to modify the current retirement tables that are used for members that were hired prior to Act 125 to reflect the additional service requirements that apply to the post-Act 125 members. This recommendation includes utilization of the newly recommended rates for the Sheriff, Prison Guard, and POs group from the prior page.
- Post-Act 125 assumption recommendation:** Utilize the same tables as Pre-Act 125, but modify the service requirement groupings to show updated service requirements of; less than 25 years, 25 years, and 26 years and greater.

Post-Act 125 Recommendation			
	Police/Fire	Sheriff/ Guards/ POs	Non-Uniform
Age	<25/25/26+ Yrs Svc	<25/25/26+ Yrs Svc	Same as Pre-Act 125
50	0%/50%/50%	N/A	N/A
51-54	0%/25%/25%	N/A	N/A
55	10%/25%/25%	10%/40%/40%	N/A
56-59	10%/25%/10%	5%/30%/25%	N/A
60	10%/40%/40%	10%/30%/30%	No change
61-64	10%/25%/10%	10%/25%/20%	No change
65-69	10%/25%/10%	10%/40%/30%	No change
70+	100%	100%	No change

Experience Review - Disability

- Recommended changes to Disability Rates
 - Actual number of disabilities by Non-Uniform members were approximately half of expected for the period reviewed. Police/Fire and Sheriff/Guards/POs were mostly in line with expectations.
 - Recommended rates are those derived from the Social Security Administration's 2020 projections of disability incidence (ultimate rates only). The rates have been modified into a unisex table, and a constant factor of reduction has been applied based on job class, to best fit the experience observed during the review period. Applicable factors are:
 - Police/Fire = 55%
 - Sheriff/Guards/POs = 35%
 - Non-Uniform = 20%
 - Sample rates are as follows:

	Police/Fire		Sheriff/Guard		Non-Uniform	
Age	Current	Recommended	Current	Recommended	Current	Recommended
25	0.00045	0.00075	0.00030	0.00048	0.00030	0.00027
35	0.00195	0.00136	0.00130	0.00087	0.00130	0.00050
45	0.00203	0.00268	0.00135	0.00170	0.00135	0.00097
55	0.00443	0.00671	0.00295	0.00427	0.00295	0.00244

Experience Review – Mortality

New Mortality Base Table Summary:

- Pub-2016 Public Retirement Plans Mortality Tables were released in May 2025
- Data used in the study is from 2013 to 2019
- Overall, improvement in longevity is slightly lower for all ages than previously anticipated with the largest differences being seen at ages 75 and older. This results in a decrease in liability.
 - The exception is for males in public safety saw an improvement in mortality for all ages.
 - **Results in a decrease in total County liability by 0.12%.**

Mortality Base Table Assumption Recommendation:

- Current: Pub-2010 Public Retirement Plans Mortality Tables
- **Recommended adopting latest mortality table: Pub-2016 Public Retirement Plans Mortality Tables**
- No recommended changes to job category or subdivision used between the Pub-2010 and Pub-2016 study:
 - Non-Uniformed: General Employees - Total Dataset
 - Police/Fire: Public Safety Employees – Above Median
 - Sheriffs/Guards: Public Safety Employees – Total Dataset
- No recommended change to the Improvement Projection Scale: MP-2021

Experience Review – Salary Scale

Observations

- COVID-19 was observed to have an impact on salary growth.
 - Only years 2019, 2023, and 2024 were used for the study as a result.
- Service as well as age was observed to have an impact on salary growth.
 - Current recommendation increases salary only by age.
 - Recommend updating salary increases to be different for members who are within their first 5 years of employment due to higher salary growth.

Recommended salary scale:

- Note, no recommended changes to members with over 5 years of service (YOS)

Age Band	Expected	Actual	New YOS < 5	No Change YOS >= 5
<25	5.75%	24.43%	6.75%	5.75%
25-29	5.25%	12.17%	6.25%	5.25%
30-34	4.25%	8.29%	6.00%	4.25%
35-39	3.75%	5.67%	5.50%	3.75%
40+	3.25%	4.76%	5.50%	3.25%

Experience Review – Marriage Characteristics

The assumption changes are largely based on current retiree data. The data indicates a reduction in the percent of members married assumption and the spousal age difference is necessary.

Percent Married

- Recommended assumption is 70% of participants are assumed to be married. The review indicated a lower percentage to be likely as the actual experience, but we don't have marital data for each participant. Due to incomplete data, we are suggesting 70% as a common percentage utilized for actuarial calculations.
- *Current assumption is 100% of the participants are assumed to be married.*

Spouse Age Difference

- Recommended assumption is to have a 3-year age difference between male (older) and female (younger) spouses as this aligns with actual age differences with the group reviewed.
- *Current assumption is 4-year age difference.*

Experience Review - Turnover

- Turnover rates for each job class were reviewed. Actual experience was found to be in line with the current assumption. No change is recommended.

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