



ACRISURE®

**Allegheny County Employees'
Retirement System**

Actuarial Report

as of January 1, 2025

This report is issued for use by the Retirement Board of Allegheny County and by other professional advisors to the Plan. The information contained in the report may not be provided to other parties without the consent of Acrisure or the Plan Administrator.



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Actuarial Certification

I certify that I have performed an actuarial valuation of the Allegheny County Employees' Retirement System as of January 1, 2025 in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. I meet the qualification standards of the American Academy of Actuaries to render this actuarial opinion.

Participant data and asset information were provided by the Retirement Office. Asset information was provided by the plan's auditor.

In our opinion, the assumptions used in preparing this actuarial report are, individually and in the aggregate, reasonably related to the experience under the plan and to reasonable expectations that represent our best estimate, as of the valuation date, of future anticipated experience under the plan.

To the best of my knowledge this report is complete and accurate.

Certified by



Bradford L. Rigby
ASA, EA, MAAA

12/11/2025

Date



Todd M. Kordecki
EA, MAAA

12/11/2025

Date



Amanda J. Volk
FSA, EA, MAAA

12/11/2025

Date

Summary of Key Results

	<u>Current Year</u>	<u>Prior Year</u>
Key Actuarial Assumptions		
Investment Return Assumption	7.00%	7.75%
Mortality Assumption	Pub-2016, MP-2021	Pub-2010, MP-2021
Assets		
Market Value of Assets	\$ 947,560,409	\$ 946,536,294
Actuarial Value of Assets	947,560,409	946,536,294
Liabilities		
Entry Age Normal Basis	\$ 2,381,574,963	\$ 2,217,286,199
Unit Credit Basis	2,139,930,992	1,967,359,136
Normal Cost		
Total Normal Cost (including Expense Provision)	\$ 51,547,777	\$ 40,617,718
Projected Covered Payroll	459,181,661	443,411,252
As Percentage of Payroll	11.23%	9.16%
Funded Ratios		
Accrued Liability Funded Status Ratio		
Actuarial Liability	\$ 2,381,574,963	\$ 2,217,286,199
Actuarial Value of Assets	947,560,409	946,536,294
Funded Ratio	39.8%	42.7%
Total Funded Status Ratio		
Value of Total Liabilities	\$ 2,782,623,378	\$ 2,513,520,602
Value of Total Assets	1,686,767,287	1,617,223,738
Funded Ratio (TFSR)	60.6%	64.3%
Accrued Benefit Funded Status Ratio		
Accrued Benefit Liability	\$ 2,139,930,992	\$ 1,967,359,136
Market Value of Assets	947,560,409	946,536,294
Funded Ratio	44.3%	48.1%
Low-Default-Risk Obligation Measure		
Discount Rate Assumption	4.28%	4.00%
Low-Default-Risk Obligation	3,236,795,315	3,395,872,541
Market Value of Assets	947,560,409	946,536,294
Funded Ratio	29.3%	27.9%

Changes Since Last Year

Plan Changes

None

Method Changes

None

Assumption Changes

The assumptions have been reviewed, and the following changes made:

- The interest rate has been decreased from 7.75% to 7.00%. This change increased accrued liability by \$173,163,911 or 7.8%.
- As part of an experience review, we have implemented changes to the demographic assumptions based on the plan's experience from 2019 to 2025. In total, these demographic assumption changes decreased accrued liability by \$3,901,456 or 0.2%. The following assumptions have been modified as part of this review process:

Mortality

	<u>Current Year</u>	<u>Prior Year</u>
Healthy:	<u>Non-Uniformed</u> – PubG-2016 Healthy Total Dataset for General Employees. Pub-2016 Contingent Survivor Total Dataset table for spouses.	<u>Non-Uniformed</u> – PubG-2010 Healthy Total Dataset for General Employees. Pub-2010 Contingent Survivor Total Dataset table for spouses.
	<u>Police/Fire</u> : PubS-2016(A) Healthy Amount-Weighted, Above Median for Public Safety Employees. Pub-2016(A) Contingent Survivor Amount-Weighted, Above Median table for spouses.	<u>Police/Fire</u> – PubS-2010(A) Healthy Amount-Weighted, Above Median for Public Safety Employees. Pub-2010(A) Contingent Survivor Amount-Weighted, Above Median table for spouses.
	<u>Sheriffs/Guards</u> – PubS-2016 Healthy Total Dataset for Public Safety Employees. Pub-2016 Contingent Survivor Total Dataset table for spouses.	<u>Sheriffs/Guards</u> – PubS-2010 Healthy Total Dataset for Public Safety Employees. Pub-2010 Contingent Survivor Total Dataset table for spouses.
Disabled:	<u>Non-Uniformed</u> – PubG-2016 Disabled table for Non-Safety Employees.	<u>Non-Uniformed</u> – PubG-2010 Disabled table for Non-Safety Employees.
	<u>All Others</u> – PubS-2016 Disabled table for Public Safety Employees.	<u>All Others</u> – PubS-2010 Disabled table for Public Safety Employees.

Changes Since Last Year (continued)

Assumption Changes (continued)

Salary Scale

	<u>Current Year</u>		<u>Prior Year</u>	
<u>Age</u>	<u><5 YOS Rate/Year</u>	<u>>= 5 YOS Rate/Year</u>	<u><5 YOS Rate/Year</u>	<u>>= 5 YOS Rate/Year</u>
< 25	6.75%	5.75%	5.75%	5.75%
25 – 29	6.25%	5.25%	5.25%	5.25%
30 – 34	6.00%	4.25%	4.25%	4.25%
35 – 39	5.50%	3.75%	3.75%	3.75%
40+	5.00%	3.25%	3.25%	3.25%

Spouse's Benefit

Current Year

- 70% of the participants are assumed to be married.
- The female spouse three years younger than the male spouse.

Prior Year

- 100% of the participants are assumed to be married.
- The female spouse four years younger than the male spouse.

Retirement

Current Year

Sample rates as follows for **Pre-Act 125** Hires:

	Police and Fire			Sheriff, Probation Officers, Jail Guards			Non- Uniformed Employees
<u>Age</u>	<u><20 years</u>	<u>20 years</u>	<u>21+ years</u>	<u><20 years</u>	<u>20 years</u>	<u>21+ years</u>	<u>8+ years</u>
50	0%	50%	50%	N/A	N/A	N/A	N/A
51-54	0	25	25	N/A	N/A	N/A	N/A
55	10	25	25	10%	40%	40%	4%
56-59	10	25	10	5	30	25	4
60	10	40	40	10	30	30	10
61	10	25	10	10	25	20	10
62	10	25	10	10	25	20	20
63	10	25	10	10	25	20	15
64	10	25	10	10	25	20	15
65	10	25	10	10	40	30	25
66-69	10	25	10	10	40	30	25
70	100	100	100	100	100	100	100

Changes Since Last Year (continued)

Assumption Changes (continued)

Retirement (continued)

Current Year (continued)

Sample rates as follows for **Post-Act 125** Hires:

	Police and Fire			Sheriff, Probation Officers, Jail Guards			Non- Uniformed Employees
Age	<25 years	25 years	26+ years	<25 years	25 years	26+ years	8+ years
50	0%	50%	50%	N/A	N/A	N/A	N/A
51-54	0	25	25	N/A	N/A	N/A	N/A
55	10	25	25	10%	40%	40%	4%
56-59	10	25	10	5	30	25	4
60	10	40	40	10	30	30	10
61	10	25	10	10	25	20	10
62	10	25	10	10	25	20	20
63	10	25	10	10	25	20	15
64	10	25	10	10	25	20	15
65	10	25	10	10	40	30	25
66-69	10	25	10	10	40	30	25
70	100	100	100	100	100	100	100

Prior Year

Sample rates as follows (Assumption the same for Pre and Post Act 125 Hires):

	Police and Fire			Sheriff, Probation Officers, Jail Guards			Non- Uniformed Employees
Age	<20 years	20 years	21+ years	<20 years	20 years	21+ years	8+ years
50	0%	50%	50%	N/A	N/A	N/A	N/A
51-54	0	25	25	N/A	N/A	N/A	N/A
55	10	25	25	10%	25%	25%	4%
56-59	10	25	10	5	10	25	4
60	10	40	40	10	15	25	10
61	10	25	10	10	15	25	10
62	10	25	10	10	15	25	20
63	10	25	10	10	15	25	15
64	10	25	10	10	15	25	15
65	10	25	10	10	25	25	25
66-69	10	25	10	10	25	25	25
70	100	100	100	100	100	100	100

Changes Since Last Year (continued)

Assumption Changes (continued)

Disability

Current Year

Sample rates are as follows:

<u>Police and Fire</u>		<u>Sheriff and Guards</u>		<u>Non-Uniform</u>	
<u>Age</u>	<u>Rate/Year</u>	<u>Age</u>	<u>Rate/Year</u>	<u>Age</u>	<u>Rate/Year</u>
25	0.00075	25	0.00048	25	0.00027
35	0.00136	35	0.00087	35	0.00050
45	0.00268	45	0.00170	45	0.00097
55	0.00671	55	0.00427	55	0.00244

Prior Year

Sample rates are as follows:

<u>Police and Fire</u>		<u>Sheriff and Guards</u>		<u>Non-Uniform</u>	
<u>Age</u>	<u>Rate/Year</u>	<u>Age</u>	<u>Rate/Year</u>	<u>Age</u>	<u>Rate/Year</u>
25	0.00045	25	0.00015	25	0.00015
40	0.00225	40	0.00150	40	0.00150
55	0.00443	55	0.00295	55	0.00295

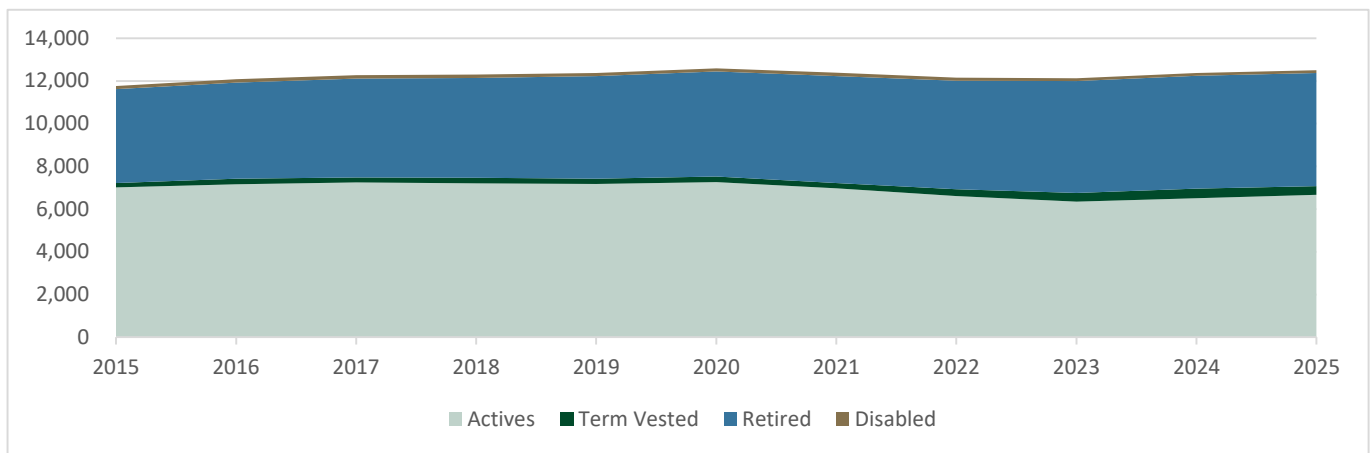


Charts of Historical Information and Trends

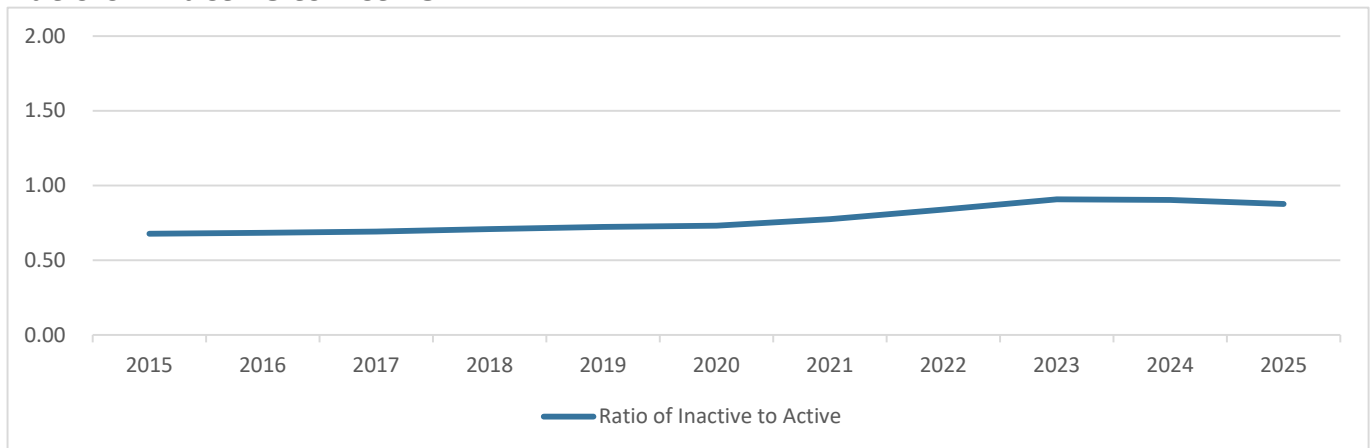
Historical Information

Counts

<u>Plan Year</u>	<u>Actives</u>	<u>Terminated Vesteds</u>	<u>Retirees and Beneficiaries</u>	<u>Disabled Retirees</u>	<u>Total</u>
2015	7,016	199	4,401	154	11,770
2016	7,168	255	4,500	154	12,077
2017	7,246	232	4,633	157	12,268
2018	7,200	268	4,674	156	12,298
2019	7,181	237	4,808	147	12,373
2020	7,269	260	4,911	150	12,590
2021	6,974	241	5,018	148	12,381
2022	6,610	318	5,088	137	12,153
2023	6,355	405	5,235	132	12,127
2024	6,501	451	5,294	131	12,377
2025	6,664	411	5,296	137	12,508



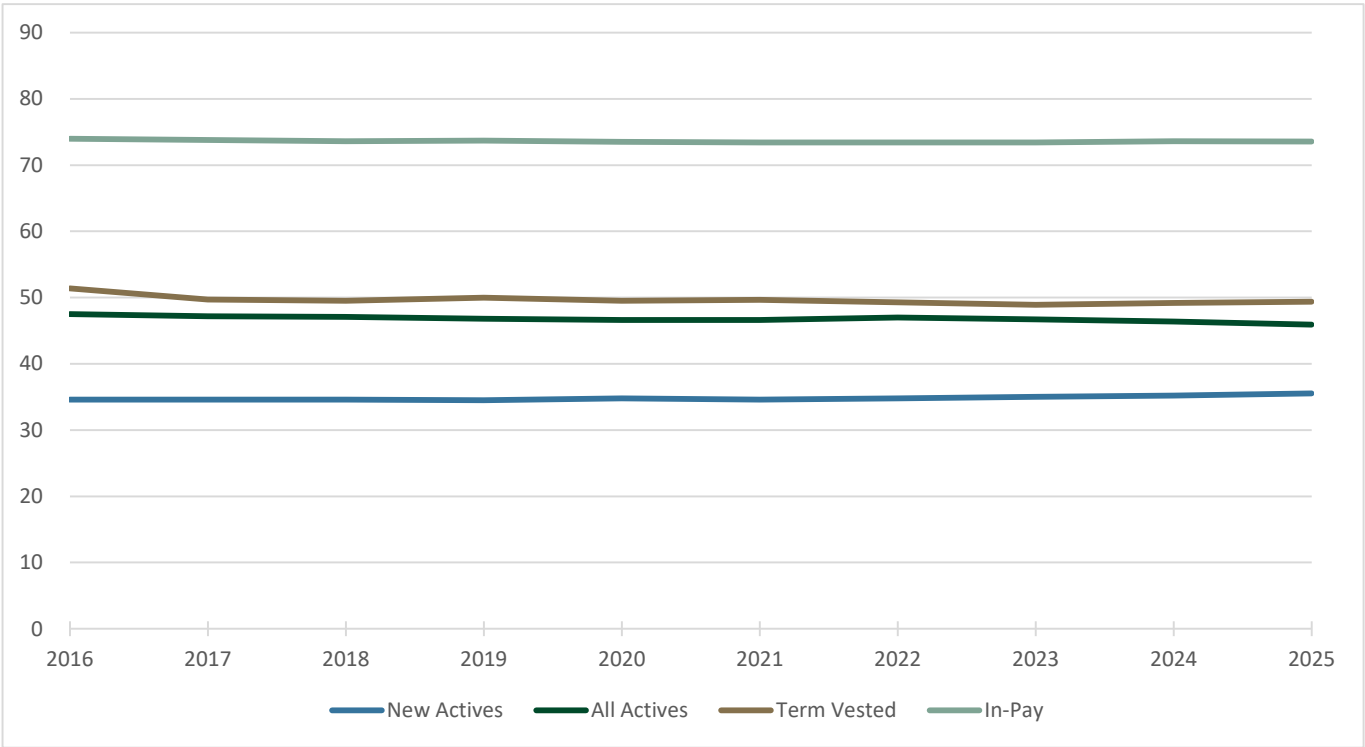
Ratio of Inactive to Active



Historical Information (continued)

Average Age

Plan Year	New Actives	All Actives	Terminated Vesteds	In-Pay Status
2016	34.6	47.5	51.4	74.0
2017	34.6	47.2	49.7	73.8
2018	34.6	47.1	49.5	73.6
2019	34.5	46.8	50.0	73.7
2020	34.8	46.6	49.5	73.5
2021	34.6	46.6	49.7	73.4
2022	34.8	47.0	49.3	73.4
2023	35.0	46.7	48.9	73.4
2024	35.2	46.4	49.2	73.6
2025	35.5	45.9	49.4	73.6



Historical Information (continued)

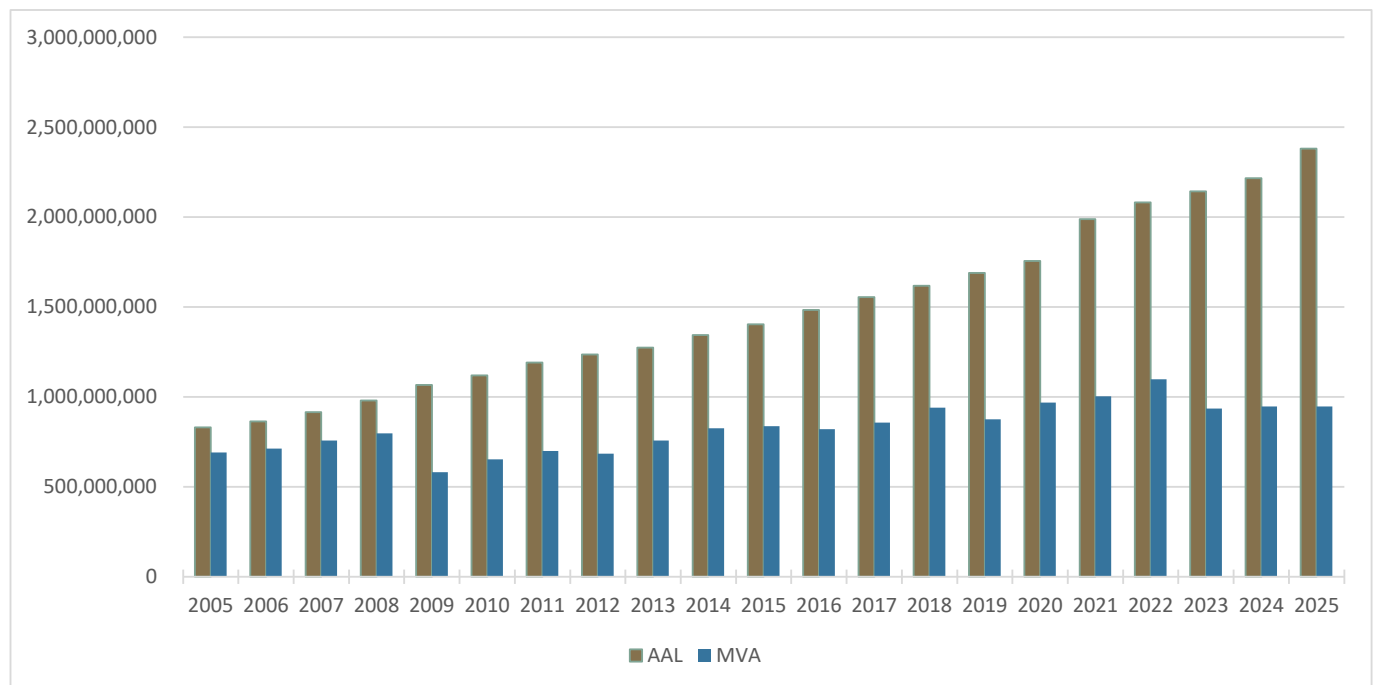
Participant Data

Plan Year	TVs		In-Pay Status		Actives			
	Avg Benefit	Median Benefit	Avg Benefit	Median Benefit	Average Service	Total Covered Payroll	Average Prior Year Payroll	% Change in Average Payroll
2016	\$ 1,344	\$ 1,068	\$ 1,561	\$ 1,282	12.9	\$ 361,963,695	\$ 48,761	1.0%
2017	1,013	798	1,626	1,339	12.7	378,411,951	50,421	3.4%
2018	1,222	908	1,693	1,402	12.5	392,349,773	52,609	4.3%
2019	1,226	952	1,761	1,459	12.3	403,588,022	54,250	3.1%
2020	1,262	994	1,846	1,529	11.9	411,655,142	54,661	0.8%
2021	1,271	994	1,926	1,611	12.0	412,421,396	57,079	4.4%
2022	1,484	1,128	2,029	1,708	12.2	418,432,622	61,103	7.0%
2023	1,584	1,277	2,108	1,784	11.7	426,349,142	64,364	5.3%
2024	1,667	1,383	2,161	1,834	11.3	443,411,252	65,582	1.9%
2025	1,997	1,676	2,256	1,922	10.3	459,181,661	66,144	0.9%

Historical Information (continued)

Market Value of Assets vs. Actuarial Accrued Liability

<u>Plan Year</u>	<u>Market Value of Assets</u>	<u>Actuarial Accrued Liability</u>
2005	\$ 691,452,180	\$ 831,067,000
2006	712,190,030	863,695,000
2007	757,476,127	915,208,000
2008	798,202,684	979,599,000
2009	582,099,323	1,067,015,000
2010	652,642,502	1,119,326,000
2011	699,301,548	1,191,101,757
2012	685,099,503	1,235,830,259
2013	758,446,475	1,273,872,327
2014	825,844,080	1,344,360,803
2015	837,083,113	1,404,493,380
2016	821,448,655	1,483,629,810
2017	857,770,016	1,555,335,235
2018	940,654,841	1,618,335,959
2019	875,513,862	1,689,189,738
2020	968,608,794	1,755,572,308
2021	1,002,938,411	1,988,161,240
2022	1,098,584,878	2,082,448,861
2023	936,268,909	2,143,935,988
2024	946,536,294	2,217,286,199
2025	947,560,409	2,381,574,963

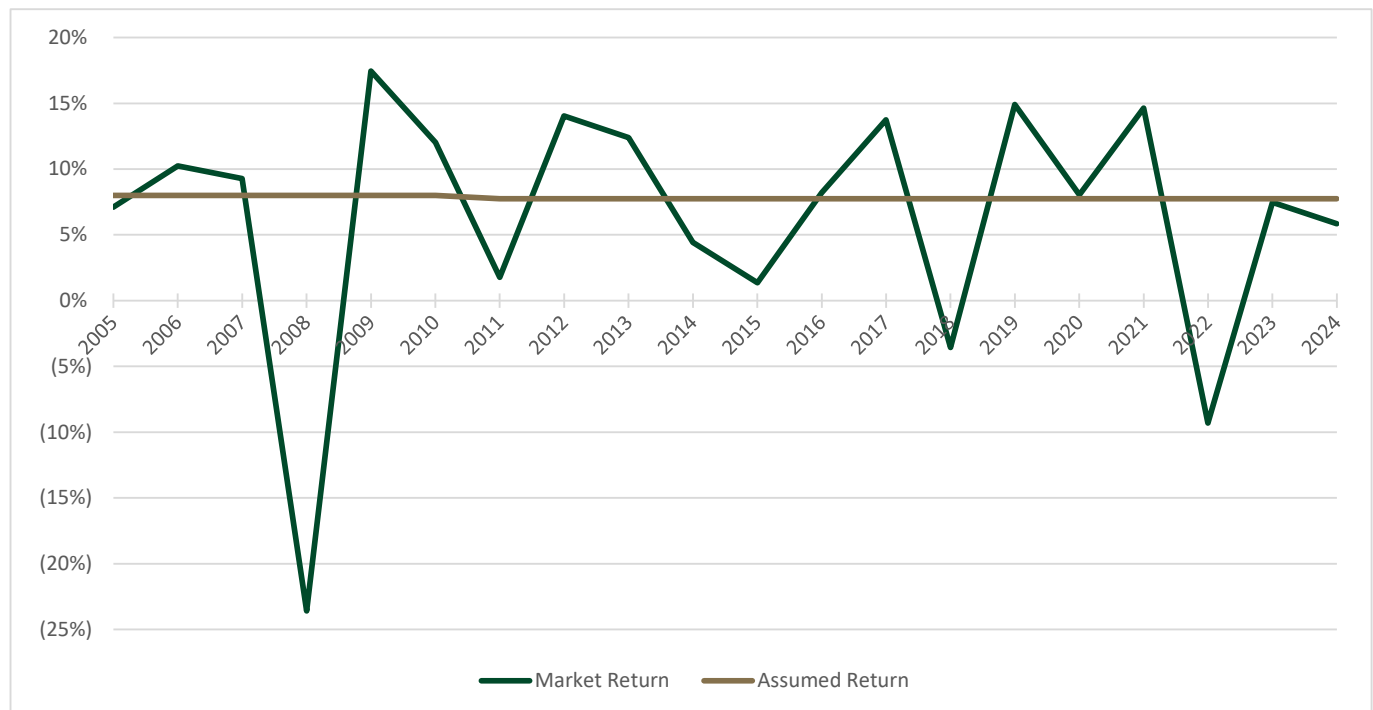


Liabilities shown on Entry Age Normal basis.

Historical Information (continued)

History of Investment Return

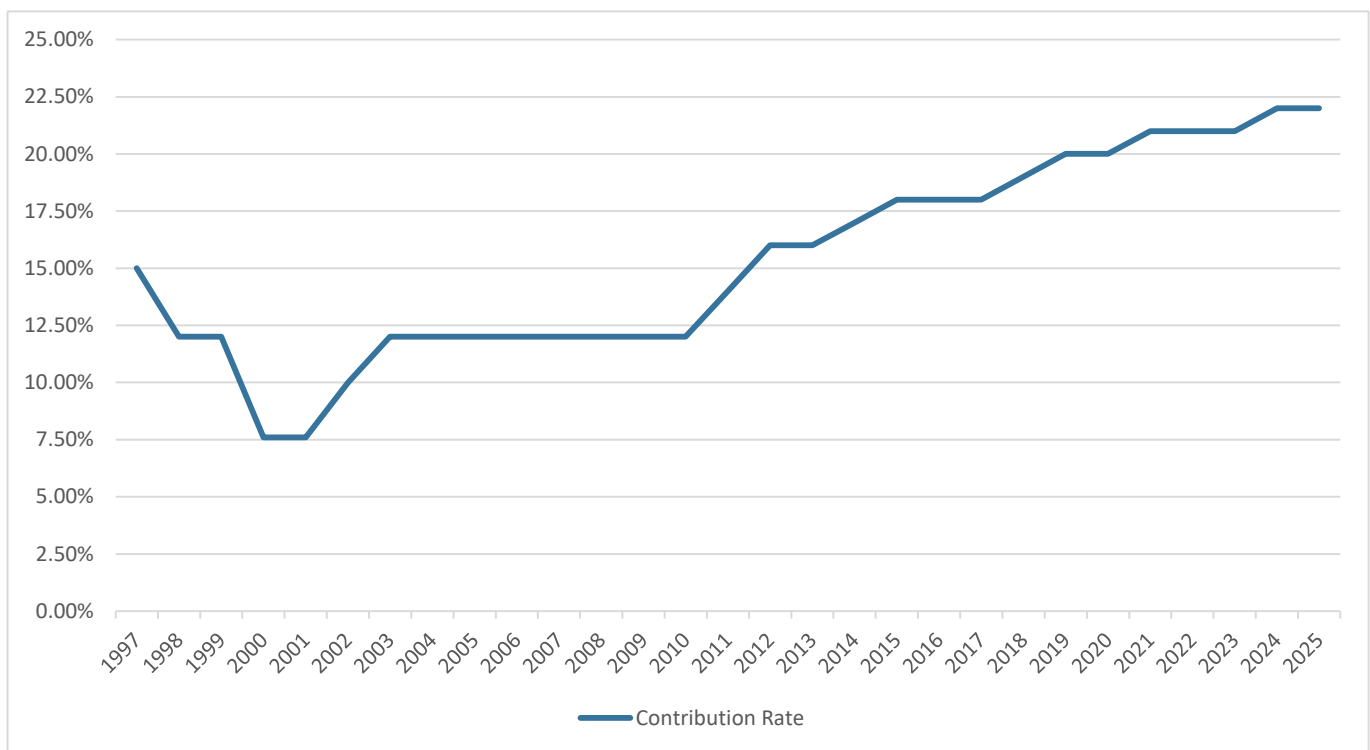
<u>Plan Year</u>	<u>Assumed Return</u>	<u>Market Value Return</u>
2005	8.00%	7.10%
2006	8.00%	10.24%
2007	8.00%	9.29%
2008	8.00%	-23.58%
2009	8.00%	17.45%
2010	8.00%	12.03%
2011	7.75%	1.77%
2012	7.75%	14.05%
2013	7.75%	12.39%
2014	7.75%	4.42%
2015	7.75%	1.35%
2016	7.75%	8.20%
2017	7.75%	13.74%
2018	7.75%	-3.57%
2019	7.75%	14.91%
2020	7.75%	8.05%
2021	7.75%	14.64%
2022	7.75%	-9.31%
2023	7.75%	7.46%
2024	7.75%	5.85%



Historical Information (continued)

Contribution Rates

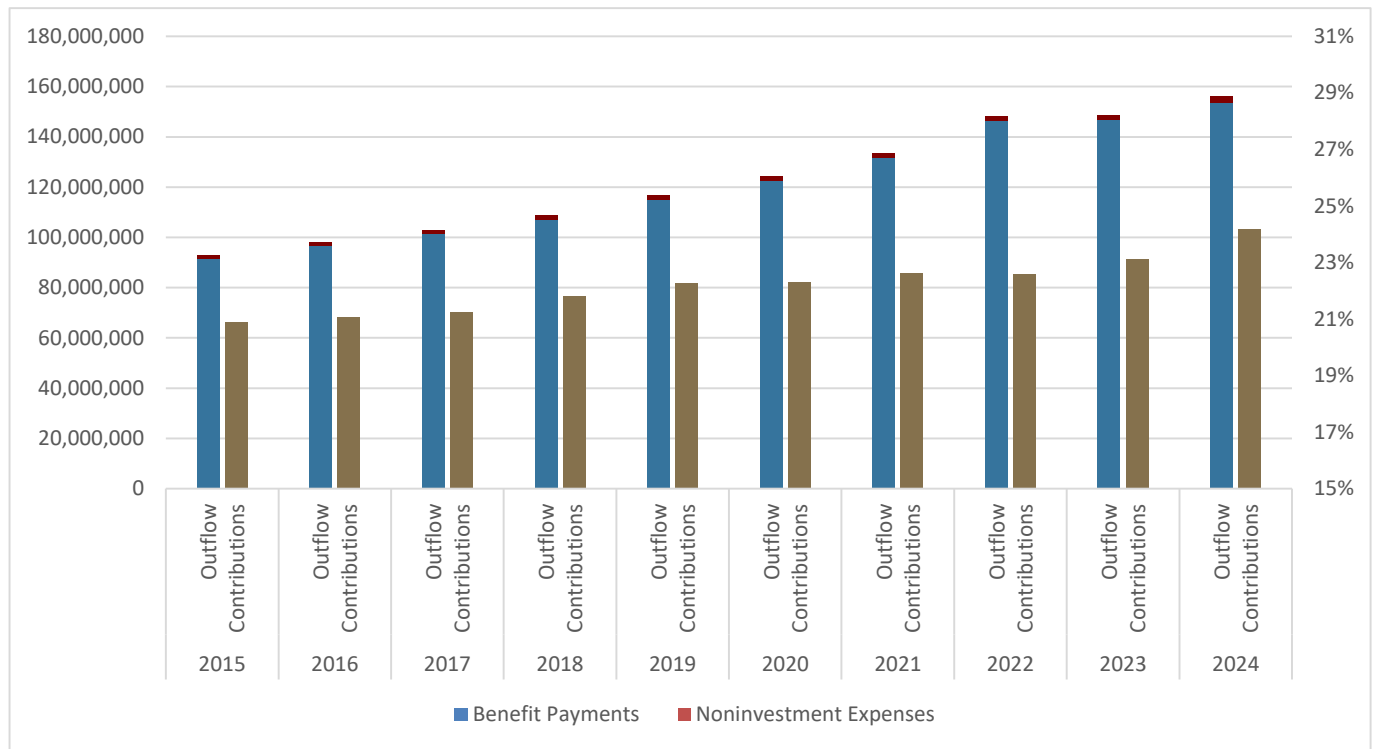
<u>Plan Year</u>	<u>Combined Contribution Rate</u>	<u>Plan Year</u>	<u>Combined Contribution Rate</u>
1997	15.0%	2012	16.0%
1998	12.0%	2013	16.0%
1999	12.0%	2014	17.0%
2000	7.6%	2015	18.0%
2001	7.6%	2016	18.0%
2002	10.0%	2017	18.0%
2003	12.0%	2018	19.0%
2004	12.0%	2019	20.0%
2005	12.0%	2020	20.0%
2006	12.0%	2021	21.0%
2007	12.0%	2022	21.0%
2008	12.0%	2023	21.0%
2009	12.0%	2024	22.0%
2010	12.0%	2025	22.0%
2011	14.0%		



Historical Information (continued)

Cash Flows

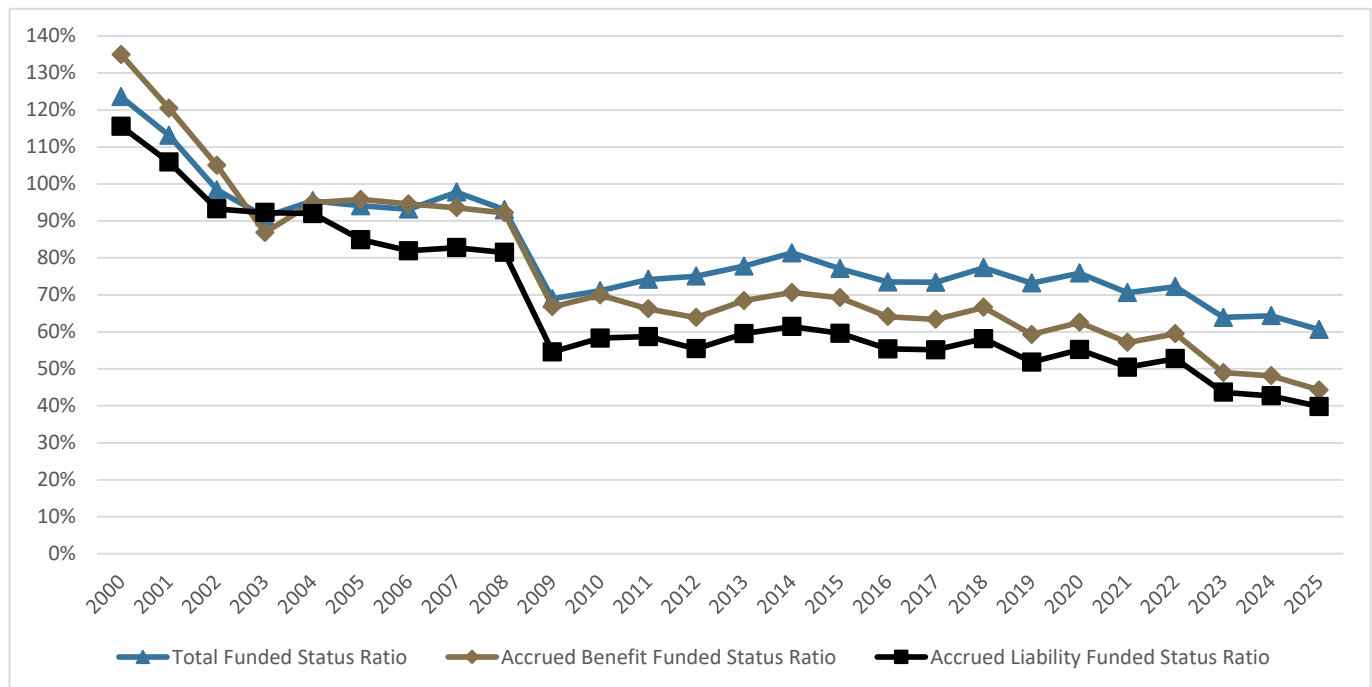
Plan Year	Contributions	Benefit Payments	Noninvestment Expenses	Net Cash Flows
2015	\$ 66,077,458	\$ 91,468,361	\$ 1,325,422	\$ (26,716,325)
2016	68,078,349	96,537,679	1,381,567	(29,840,897)
2017	70,307,562	101,578,731	1,454,127	(32,725,296)
2018	76,486,802	107,006,347	1,605,245	(32,124,790)
2019	81,706,321	114,944,892	1,573,002	(34,811,573)
2020	82,254,966	122,418,662	1,748,093	(41,911,789)
2021	85,638,399	131,719,898	1,599,019	(47,680,518)
2022	85,196,366	146,520,436	1,673,196	(62,997,266)
2023	91,329,852	147,038,648	1,746,776	(57,455,572)
2024	103,522,417	153,823,680	2,485,256	(52,786,519)



Historical Information (continued)

History of Funded Ratios

- A) Accrued Benefit Funded Status Ratio (ABFS): ratio of the present value of benefits earned to date (i.e., no future salary or service) compared to the market value of assets.
- B) Accrued Liability Funded Status Ratio (ALFS): ratio of the present value of benefits earned to date, including expected future salary increases, compared to the actuarial value of assets.
- C) Total Funded Status Ratio (TFSR): ratio of the present value of benefits earned to date and benefits that are expected to be earned in the future (including future salary increases) compared to the market value of assets and present value of contributions to be made in the future.



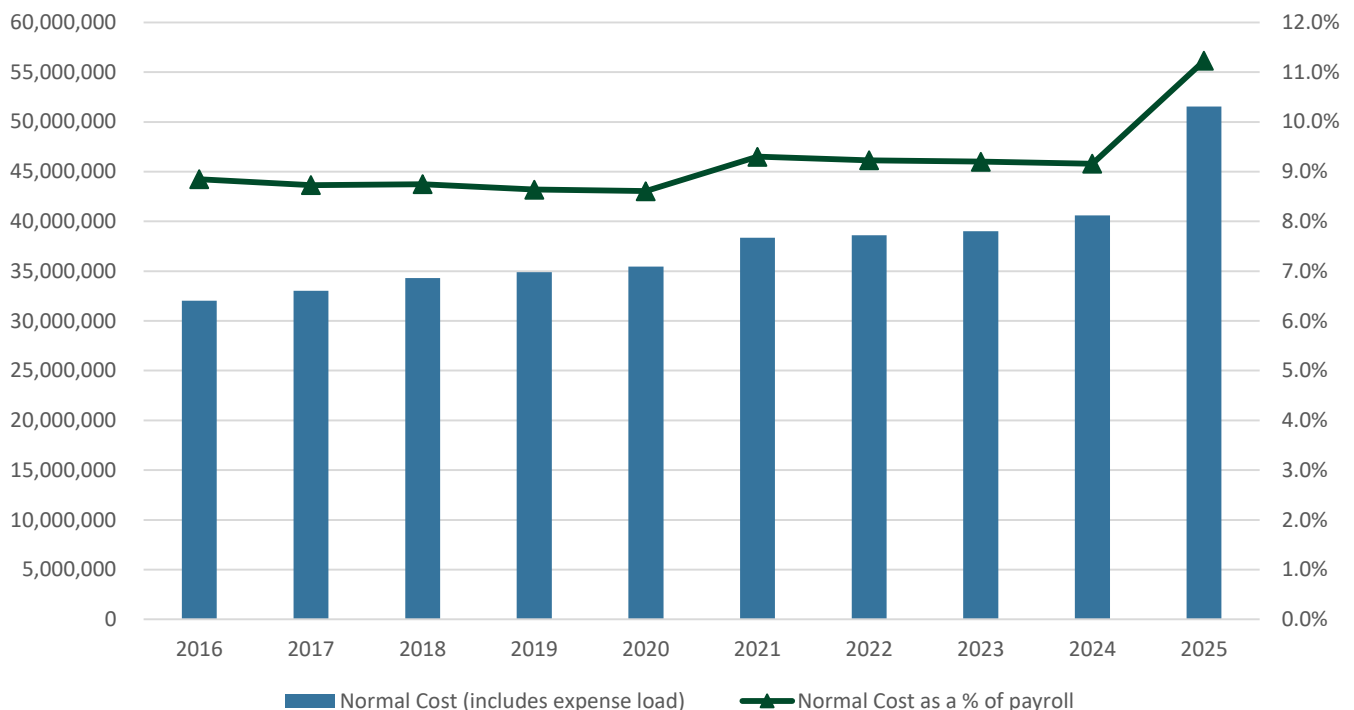
Historical Information (continued)

Normal Cost

The Normal Cost of a plan is determined by the adopted actuarial funding method – in this case, by the Entry Age Normal cost method. Under this method, the normal cost is defined as a level of contribution (% or \$) such that the present value of all the future normal costs at entry age is precisely equal to the present value of all future benefits (and expenses) at entry age. This is a most important figure because barring future actuarial gains/losses or benefit modifications, the plan's total cost will eventually reach this level. This occurs when the Unfunded Liability is exactly equal to \$0.

The normal cost also represents the pension cost associated with future employees (assuming the demographic profile of future employees is similar to that of the current group of participants). It is possible for a plan to adequately fund for its current participants at a fixed contribution level but realize, too late, that these contributions understate the cost that will be associated with future hires.

<u>Plan Year</u>	<u>Normal Cost (includes expense load)</u>	<u>Normal Cost as a % of payroll</u>
2016	\$ 32,032,647	8.85%
2017	33,039,572	8.73%
2018	34,312,994	8.75%
2019	34,889,792	8.64%
2020	35,447,780	8.61%
2021	38,356,173	9.30%
2022	38,605,577	9.23%
2023	39,012,132	9.20%
2024	40,617,718	9.16%
2025	51,547,777	11.23%



Actuarial Exhibits

Development of Actuarial Value of Assets

Reconciliation of Market Value of Assets

• Market Value at January 1, 2024		\$ 946,536,294
• Receipts		
○ Employee Contributions	51,864,397	
○ County Contributions	51,658,020	
○ Investment Income	<u>57,876,237</u>	
○ Total Receipts	161,398,654	
• Disbursements		
○ Benefit Payments	(153,823,680)	
○ Administrative Expenses	(2,485,256)	
○ Investment Expenses	<u>(4,065,603)</u>	
○ Total Disbursements	(160,374,539)	
• Market Value at December 31, 2024		\$ 947,560,409

Actuarial Value of Assets

The Board has intentionally chosen not to use a smoothing method on assets so as to have the most transparent presentation of the funding position of the plan. Therefore, the Actuarial Value of Assets is equal to the Market Value of Assets.

• Actuarial Value of Assets at January 1, 2025	\$ 947,560,409
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Actuarial Accrued Liabilities

	<u>Current Year</u>	<u>Prior Year</u>
Interest Rate	7.00%	7.75%
Actuarial Present Value of Future Benefits		
• Active		
○ Termination	\$ 91,040,828	\$ 80,149,471
○ Refund	43,201,014	28,318,159
○ Disablement	16,904,668	16,123,108
○ Death	5,535,604	6,776,661
○ Retirement	<u>1,128,963,931</u>	<u>1,014,684,483</u>
○ Total	\$ 1,285,646,045	\$ 1,146,051,882
• Benefit Recipients	1,407,718,763	1,295,034,351
• Terminated Vested	<u>68,137,189</u>	<u>58,064,752</u>
Total	\$ 2,761,501,997	\$ 2,499,150,985
 Projected Covered Payroll for Year	 \$ 459,181,661	 \$ 443,411,252
 Normal Cost		
• Benefits	\$ 49,062,521	\$ 38,870,942
• Expenses	<u>2,485,256</u>	<u>1,746,776</u>
Total	\$ 51,547,777	\$ 40,617,718
• As a Percentage of Payroll	11.23%	9.16%
 Actuarial Accrued Liability		
• Funding Method	Entry Age	Entry Age
• Active	\$ 905,719,011	\$ 864,187,095
• Benefit Recipients	1,407,718,763	1,295,034,351
• Terminated Vested	<u>68,137,189</u>	<u>58,064,752</u>
Total	\$ 2,381,574,963	\$ 2,217,286,198

Actuarial Accrued Liabilities – Analysis by Subgroup

	Age 50 NRA (Police/Fire)	Age 55 NRA (Sheriffs/Guards/POs)	Age 60 NRA (Non-Uniform)
Headcount			
Active	277	834	5,553
Average Age	43.4	42.7	46.5
Terminated Vested	7	34	370
Average Age	47.3	48.2	49.5
Benefit Recipients	354	629	4,450
Average Age	69.0	67.8	74.8
Average Inactive Benefits			
Terminated Vested	\$ 3,207	\$ 1,951	\$ 2,242
Benefit Recipients	\$ 3,881	\$ 3,752	\$ 1,916
Accrued Liability			
Active	\$ 77,332,658	\$ 193,348,689	\$ 635,037,664
Terminated Vested	1,698,756	5,746,859	60,691,574
Benefit Recipients	171,224,540	299,288,672	937,205,551
Total	250,255,954	498,384,220	1,632,934,789
Normal Cost			
Normal Cost (excluding expenses)	\$ 4,534,843	\$ 8,056,535	\$ 36,471,143
Projected Covered Payroll	32,340,697	74,428,875	352,412,089
As % of Payroll	14.0%	10.8%	10.3%

Analysis of Change in Unfunded Accrued Liability

Plan Year January 1, 2024 to December 31, 2024

• Unfunded Amount at Beginning of the Year		\$ 1,270,749,904
○ Normal Cost	40,617,718	
○ Interest	101,630,991	
○ Contributions	103,522,417	
○ Interest on Contributions	<u>4,011,494</u>	
○ Subtotal		1,305,464,702
○ Additional Liability due to		
▪ Plan Amendments	0	
▪ Method Changes	0	
▪ Assumption Changes	<u>169,262,455</u>	
▪ Total		169,262,455
• Expected Unfunded Amount at End of the Year		\$ 1,474,727,157
• Actual Unfunded Amount at End of the Year		
○ Actuarial Accrued Liability		\$ 2,381,574,963
○ Actuarial Value of Assets		<u>947,560,409</u>
○ Actual Unfunded Amount		\$ 1,434,014,554
• Actuarial (Gain) or Loss		
○ (Gain)/Loss due to Assets		\$ 17,500,451
○ (Gain)/Loss due to Liabilities		<u>(58,213,054)</u>
○ (Gain)/Loss Total – <i>[difference between actual and expected unfunded amounts]</i>		\$ (40,712,603)

Accrued Liability Funded Status Ratio

	<u>Current Year</u>	<u>Prior Year</u>
Interest Rate	7.00%	7.75%
Assets		
• Market Value of Assets	\$ 947,560,409	\$ 946,536,294
Liabilities		
• Actuarial Accrued Liability		
○ Active	\$ 905,719,011	\$ 864,187,095
○ Benefit Recipients	1,407,718,763	1,295,034,351
○ Terminated Vested	<u>68,137,189</u>	<u>58,064,752</u>
○ Total	\$ 2,381,574,963	\$ 2,217,286,198
Accrued Liability Funded Status Ratio	39.8%	42.7%

Total Funded Status Ratio

The following develops the ratio of (A) to (B), where

(A) Assets, which is the sum of the Market Value of Assets plus the present value of future expected contributions from both the County and Employee

(B) Liabilities, which is the value of those already earned and the present value of those expected to be earned in the future

	<u>Current Year</u>	<u>Prior Year</u>
Interest Rate	7.00%	7.75%
Assets		
• Market Value of Assets	\$ 947,560,409	\$ 946,536,294
• Present Value of Future County Contributions	369,603,439	335,343,722
• Present Value of Future Employee Contributions	<u>369,603,439</u>	<u>335,343,722</u>
• Total Assets	\$ 1,686,767,287	\$ 1,617,223,738
Liabilities		
• Actuarial Present Value of Future Benefits		
◦ Active	\$ 1,285,646,045	\$ 1,146,051,882
◦ Benefit Recipients	1,407,718,763	1,295,034,351
◦ Terminated Vested	<u>68,137,189</u>	<u>58,064,752</u>
◦ Total	\$ 2,761,501,997	\$ 2,499,150,985
• Present Value of Future Administrative Expenses	<u>21,121,381</u>	<u>14,369,617</u>
• Total Liabilities	\$ 2,782,623,378	\$ 2,513,520,602
Total Funded Status Ratio	60.6%	64.3%

Accrued Benefit Funded Status Ratio

Plan Year January 1, 2024 to December 31, 2024

	Current Plan Year	Prior Plan Year
Interest Rate	7.00%	7.75%
Present Value of Accrued Plan Benefits		
• Vested Benefits		
o Benefit Recipients	\$ 1,407,718,763	\$ 1,295,034,351
o Terminated Vested	68,137,189	58,064,752
o Active	<u>664,075,040</u>	<u>614,260,033</u>
o Subtotal	\$ 2,139,930,992	\$ 1,967,359,136
• Nonvested Benefits	See Note 3	
• Total	\$ 2,139,930,992	\$ 1,967,359,136
• Market Value of Assets	\$ 947,560,409	\$ 946,536,294
• Accrued Benefit Funded Status Ratio	44.3%	48.1%

Change in Present Value of Accrued Plan Benefits

• Present Value at Beginning of the Year	\$ 1,967,359,136
• Increase (decrease) due to	
o Plan Amendments	0
o Changes in the Nature of the Plan	0
o Change in Actuarial Assumptions	143,801,435
o Benefits accumulated and plan experience	36,084,436
o Benefits Paid to Participants	(153,823,680)
o Decrease in discount period	<u>146,509,665</u>
o Subtotal	\$ 172,571,856
• Present Value at End of the Year	\$ 2,139,930,992

Notes:

- 1) The vested analysis considers only those benefits for which the Plan participants are vested on an earned-to-date and are based upon each participant's age and service as of the date indicated.
- 2) The present value amounts shown above do not include an allowance for administrative expenses.
- 3) Employees are always 100% vested in their own contributions and interest thereon. The value of the contributions with interest is almost always larger than the value of the total accrued benefits in the early years, therefore no attempt has been made to distinguish between non-vested and vested benefits.

Summary of Participant Activity

Plan Year January 1, 2024 to December 31, 2024

	<u>Active</u>	<u>Terminated Vested</u>	<u>Retired</u>	<u>Surviving Spouse</u>	<u>Disabled</u>	<u>Total</u>
Participants at the Beginning of the Year	6,501	451	4,654	640	131	12,377
New Participants	867	0	0	0	0	867
Return to Work	52	(9)	(3)	0	0	40
Nonvested Terminations	(175)	0	0	0	0	(175)
Vested Terminations	(45)	45	0	0	0	0
Disabilities	(3)	0	0	0	3	0
Retirements	(220)	(22)	242	0	0	0
Deaths	(15)	0	(209)	(65)	(8)	(297)
New Beneficiaries	0	0	0	41	0	41
Cashed Out	(298)	(73)	0	0	0	(371)
Adjustments	0	19	(8)	4	11	26
Participants at the End of the Year	6,664	411	4,676	620	137	12,508

Age/Service/Salary Distribution

Profile of Age, Service, and Salaries of Active Participants as of December 31, 2024 All Active Employees (Uniformed and Non-Uniformed)									
Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30+	Total	Avg. Pay
< 20	71 760,947	- -	- -	- -	- -	- -	- -	71 760,947	10,718
20-24	285 10,568,168	- -	- -	- -	- -	- -	- -	285 10,568,168	37,081
25-29	563 29,000,214	58 3,552,632	1 50,929	- -	- -	- -	- -	622 32,603,775	52,418
30-34	393 22,487,874	287 19,729,818	34 2,569,116	- -	- -	- -	- -	714 44,786,808	62,727
35-39	319 18,968,014	235 17,502,337	158 12,686,755	46 3,704,994	- -	- -	- -	758 52,862,100	69,739
40-44	259 15,357,951	179 12,444,827	141 11,357,933	168 14,077,822	32 2,372,123	- -	- -	779 55,610,657	71,387
45-49	193 12,673,768	131 9,051,230	91 7,251,283	120 10,826,358	134 11,339,568	37 3,275,694	- -	706 54,417,900	77,079
50-54	183 11,213,719	120 8,117,040	78 5,683,272	113 9,392,126	112 10,332,798	128 12,069,735	25 2,006,635	759 58,815,324	77,491
55-59	179 10,768,470	157 11,018,258	86 6,646,077	124 9,448,946	71 5,033,396	87 6,650,711	108 8,313,249	812 57,879,106	71,280
60-64	126 6,757,007	132 8,537,225	73 5,078,693	115 8,227,889	59 3,994,661	51 3,304,461	125 9,117,329	681 45,017,265	66,105
65+	104 3,984,807	95 5,303,588	54 3,159,249	56 3,741,234	52 3,106,371	34 2,268,073	82 5,896,503	477 27,459,826	57,568
Total Number	2,675	1,394	716	742	460	337	340	6,664	
Total Pay	142,540,939	95,256,956	54,483,306	59,419,369	36,178,916	27,568,675	25,333,716	440,781,876	
Average Pay	53,286	68,334	76,094	80,080	78,650	81,806	74,511	66,144	
Average Age	45.85								
Average Service	10.3								

Appendices

Plan Provisions

General	Plan Year:	January 1 – December 31
	Governing Statute:	P.L. 723, No 230 (Second Class County Code)
	Effective Date:	July 28, 1953
	Last Amended:	Act 125, signed December 23, 2013

The provisions of Act 125 are effective and applicable only to employees hired or re-hired on or after February 21, 2014.

Definitions

Final Average Salary	Monthly average of the highest twenty-four months of compensation in the last forty-eight preceding retirement. The <i>cap</i> on compensation was removed in 2000, provided the employee makes the required contributions. For employees hired or re-hired under Act 125, Final Average Salary is the monthly average of the highest forty-eight months of compensation of the last eight years of service. In addition, overtime Compensation is limited to 10% of base pay.
Early Retirement ¶ 1701, ¶ 1710(a)	Reduced retirement benefits at age 55 with at least 8 years of service. For employees hired or re-hired under Act 125, an employee must have at least 10 years of service.

Retirement Dates

Voluntary Normal Retirement ¶ 1710(b)	<u>Police and Firefighters</u> Age 50 with at least 20 years of service. For employees hired or re-hired under Act 125, an employee must have at least 25 years of service.
	<u>Sheriffs, Deputy Sheriffs, Prison Guards, and Probation Officers</u> Age 55 with at least 20 years of service. For employees hired or re-hired under Act 125, an employee must have at least 25 years of service.
	<u>All Other Employees</u> Age 60 with at least 20 years of service. For employees hired or re-hired under Act 125, an employee must have at least 25 years of service.
Involuntary Retirement ¶ 1710(b)	<u>Under Age 60</u> An employee with at least 20 years of service who is dismissed through no fault of their own may elect to receive, immediately upon retirement, a retirement allowance equal to 70% of the benefit they would have been entitled to receive had they been age 60 at the time of the dismissal and election. An employee who does not elect the reduced retirement benefit upon dismissal will receive an unreduced retirement allowance and service increment, if any, upon attainment of age 60. For employees hired or re-hired under Act 125, an employee must have at least 25 years of service.

Plan Provisions (continued)

**Involuntary
Retirement
¶ 1710(b)
(continued)**

Over Age 60

An employee with at least 20 years of service who is dismissed through no fault of their own is entitled, upon application to the Retirement Board, to an unreduced retirement allowance plus a service increment, if any, based on the employee's age and years of service upon separation and application. For employees hired or re-hired under Act 125, an employee must have at least 25 years of service.

**Early
Retirement
¶ 1710(b)
and defined in
¶ 1701**

Any County employee who has completed at least 8 but less than 20 years of service. Reduced benefits are available as early as age 55. For employees hired under Act 125, an employee must have at least 10 years of service.

**Disability
Retirement
¶ 1711**

Any County employee who has completed at least 12 years of service and who was employed (or re-employed) prior to attaining age 55 who becomes mentally incapacitated or totally and permanently disabled is eligible to receive a disability retirement benefit. There is no age requirement to receive this benefit.

**Deferred
Vested
Retirement
¶ 1713
(Options I &
II)**

Any County employee who terminated employment with at least 8 years of service is eligible for a deferred unreduced vested benefit beginning at age 60, or a benefit reduced by 0.5% per month prior to age 60 but not before age 55. For employees hired under Act 125, an employee must have at least 10 years of service.

Ancillary Benefit Eligibility

**Pre-
Retirement
Spouse's
Benefit
¶ 1712(e), (f)**

Any County employee may elect the spouse's benefit at any time prior to retirement. The election is irrevocable after attained age 50.

Class I

If a County employee shall die after electing this coverage, and prior to retirement after attaining age 50 but prior to attaining age 55, and after completing at least 8 years (10 years under Act 125) but less than 20 years (25 years under Act 125) of service, their surviving spouse shall be eligible to receive a surviving spouse's benefit when the deceased employee would have attained age 55.

Class II

If a County employee shall die after electing this coverage but prior to retirement and prior to age 50 and with 20 or more years (25 years under Act 125) of service, their surviving spouse shall be eligible to receive a surviving spouse's benefit immediately.

Plan Provisions (continued)

Postretirement Spouse's Benefit ¶ 1712(e)	If a County employee shall die after retiring and with a survivorship election in effect, their spouse shall be eligible to receive a surviving spouse's benefit.
Pop-Up Benefit ¶ 1712(f)	If the spouse of a County employee who retired with a survivorship election in effect shall predecease or be legally separated from the employee, the employee shall be eligible to receive the <i>pop-up</i> benefit.
Death Benefits (Lump Sum) ¶ 1714(a), (b)	<p><u>Pre-Retirement</u> Any County employee who dies prior to retirement, without making a survivorship election and is ineligible for any form of retirement benefit shall be eligible for a refund of their contributions with interest.</p> <p><u>Post-retirement</u> Any County employee who dies after retirement but prior to receiving retirement benefits (including spouse's benefits) equal to their total contributions shall be eligible for a refund of the difference between their total contributions and retirement benefits received.</p>

Benefit Amounts

Normal Retirement (Voluntary) ¶ 1712(a)	50% of Final Average Salary (FAS) plus 1% of FAS for each year of service between 20 and 40 (25 and 45 under Act 125).	
Normal Retirement (Involuntary) ¶ 1712(a)	50% of Final Average Salary (FAS) plus 1% of FAS for each year of service between 20 and 40 (25 and 45 under Act 125).	
Early Retirement	2.50% (2.00% under Act 125) of Final Average Salary (FAS) for each year of service up to 20 years (25 under Act 125), plus 1% of FAS for each year of service between 20 and 40 (25 and 45 under Act 125).	
Disability Retirement ¶ 1711	50% of Final Average Salary (FAS) plus 1% of FAS for each year of service between 20 and 40 (25 and 45 under Act 125).	
Deferred Vested Retirement ¶ 1713	An amount governed by years of service in the following schedule:	
	<u>Years of Service</u>	<u>Amount</u>
	8 to 19 (10 to 24 under Act 125)	Early Retirement Benefit Amount
	20+ (25+ under Act 125)	Normal Retirement Benefit Amount

Plan Provisions (continued)

Involuntary Retirement ¶ 1713	If not eligible for Normal Retirement but with 20 or more years of service, the benefit as provided under previous descriptions herein of ¶ 1710(b).	
Pre-Retirement Spouse's Benefit ¶ 1712(e), (f)	The benefit payable while a survivorship election is in effect is the normal or early retirement benefit reduced by a percentage based on the difference in age between an employee and their spouse. If the spouse is	
	Same age or Younger	10% plus 1% per year (in excess of five) for each year younger (on of maximum reduction of 30%) or
	Older	10% minus 0.5% per year for each year older (minimum reduction of 5%).
Postretirement Spouse's Benefit ¶1712(e)	50% of the monthly benefit being received while both were alive, to those employees who elected the survivorship option under the pre-retirement spouse benefit.	
Pop-Up Benefit ¶ 1712(f)	Reinstatement of the benefit prior to the decrease described above.	
Death Benefits (Lump Sum) ¶ 1714(b)	<u>Pre-retirement</u> Sum of contributions made during <ol style="list-style-type: none">The third and later years of employment accumulated at the designated rate of interest for each year andThe first two years of employment with no interest. <u>Postretirement</u> <ol style="list-style-type: none">The difference between the total employee contributions made andAll benefits paid.	
Payment of Benefits ¶ 1712 (e), (f)	Benefits are payable monthly on a life annuity basis unless a survivorship election is in effect. In this event benefits are payable for the life of the employee and reducing to 50% of the benefit amount if they predecease their spouse. If the spouse predeceases the employee, the <i>Pop-Up</i> benefit reinstates the life annuity.	
Contributions	<u>Employee Contributions</u> ¶ 1708 Employees contribute a percentage of pensionable compensation as specified annually by the Board. The current level is 11.00%. <u>County Contributions</u> ¶ 1709 Allegheny County contributes an amount equal to the sum of contributions of the employees	

Plan Provisions (continued)

Monthly Retirement Allowance Increases ¶ 1708(e)	Based solely on the annual actuarial valuation, the Board has the authority to increase the monthly retirement allowance for members who have been retired for at least one year. The Total Funded Status Ratio (TFSR) is calculated at an interest rate which is the arithmetic average of the current valuation interest rate and the interest rates used for the four preceding valuations. The increase is based on the table below:	
	<u>TFSR</u>	<u>Percentage Increase</u>
	< 110%	0% or more at discretion of the Board
	≥ 110%	2% or more at discretion of the Board. However, the resulting TFSR must be at least 110%
Notes	1) With the removal of the covered compensation “cap”, new retirees, in order to benefit from the cap’s removal, will be required to contribute (at the required contribution rate of not more than 6.0%) on their uncapped level of pay for a minimum of five years. This requirement can be met through either ongoing employment or by making a “buy-back” contribution. County contributions will match any buy-back contributions.	
Miscellaneous	Certain retired police and firefighters received a special postretirement adjustment (Act 64 of 2002) that was effective for pension payments after June 30, 2002. Discretionary COLA’s of \$20/month were granted effective January 1, 2007, January 1, 2009, and January 1, 2015. Discretionary COLA of \$30/month was granted effective January 1, 2022, for individuals in pay status for 1-year as of December 2020.	

Actuarial Methods and Assumptions

As of January 1, 2025

Interest Rates	7.00% per annum, net of investment-related expenses.
Mortality	<p>Healthy: <u>Non-Uniformed</u> – PubG-2016 Healthy Total Dataset for General Employees, with separate rates for pre and post-commencement. Pub-2016 Contingent Survivor Total Dataset table for spouses.</p> <p><u>Police/Fire</u> – PubS-2016(A) Healthy Amount-Weighted, Above Median for Public Safety Employees, with separate rates for pre and post-commencement. Pub-2016(A) Contingent Survivor Amount-Weighted, Above Median table for spouses.</p> <p><u>Sheriffs/Guards</u> – PubS-2016 Healthy Total Dataset for Public Safety Employees, with separate rates for pre and post-commencement. Pub-2016 Contingent Survivor Total Dataset table for spouses.</p> <p>Disabled: <u>Non-Uniformed</u> – PubG-2016 Disabled table for Non-Safety Employees.</p> <p><u>All Others</u> – PubS-2016 Disabled table for Public Safety Employees.</p> <p>Improvement Projection Scale: MP-2021.</p>
General Inflation	2.75% per annum.
Turnover	<p>Non-Uniformed: 125% of the 2003 SOA Pension Plan Termination and Retirement Study, unisex, select and ultimate.</p> <p>Police/Fire: 30% of the 2003 SOA Pension Plan Termination and Retirement Study, unisex, select and ultimate.</p> <p>Sheriff/Guards: 70% of the 2003 SOA Pension Plan Termination and Retirement Study, unisex, select and ultimate.</p> <p>Upon termination, 50% of the non-uniformed members are assumed to elect a refund of contributions in lieu of a deferred benefit at retirement and 25% of all other groups are assumed to do so.</p>

Actuarial Methods and Assumptions (continued)

Salary Scale Salaries are assumed to increase in accordance with the following table. This assumption includes GSA as well as merits, grade, and promotion-related adjustments.

	<5 YOS	>= 5 YOS
<u>Age</u>	<u>Rate/Year</u>	<u>Rate/Year</u>
< 25	6.75%	5.75%
25 - 29	6.25%	5.25%
30 - 34	6.00%	4.25%
35 - 39	5.50%	3.75%
40+	5.00%	3.25%

Disability Social Security Administration's 2020 projections of disability incidence (ultimate rates only). Rates are unisex and have been uniformly reduced based on job class:

- Police/Fire = 55%
- Sheriff/Guards/POs = 35%
- Non-Uniform = 20%

Sample rates are as follows:

Police and Firefighters

<u>Age</u>	<u>Rate/Year</u>
25	0.00075
35	0.00136
45	0.00268
55	0.00671

Sheriff and Guards

<u>Age</u>	<u>Rate/Year</u>
25	0.00048
35	0.00087
45	0.00170
55	0.00427

Non-Uniform

<u>Age</u>	<u>Rate/Year</u>
25	0.00027
35	0.00050
45	0.00097
55	0.00244

For all groups, the disability rates are shut off once the employee reaches Normal Retirement Age since there is no difference, at that point, between Normal Retirement and Disability Retirement benefits.

Actuarial Methods and Assumptions (continued)

Retirement

Rates as follows for Pre-Act 125 Hires:

	Police and Fire			Sheriff, Probation Officers, Jail Guards			Non- Uniformed Employees
Age	<20 years	20 years	21+ years	<20 years	20 years	21+ years	8+ years
50	0%	50%	50%	N/A	N/A	N/A	N/A
51-54	0	25	25	N/A	N/A	N/A	N/A
55	10	25	25	10%	40%	40%	4%
56-59	10	25	10	5	30	25	4
60	10	40	40	10	30	30	10
61	10	25	10	10	25	20	10
62	10	25	10	10	25	20	20
63	10	25	10	10	25	20	15
64	10	25	10	10	25	20	15
65	10	25	10	10	40	30	25
66-69	10	25	10	10	40	30	25
70	100	100	100	100	100	100	100

Rates as follows for Post-Act 125 Hires:

	Police and Fire			Sheriff, Probation Officers, Jail Guards			Non- Uniformed Employees
Age	<25 years	25 years	26+ years	<25 years	25 years	26+ years	10+ years
50	0%	50%	50%	N/A	N/A	N/A	N/A
51-54	0	25	25	N/A	N/A	N/A	N/A
55	10	25	25	10%	40%	40%	4%
56-59	10	25	10	5	30	25	4
60	10	40	40	10	30	30	10
61	10	25	10	10	25	20	10
62	10	25	10	10	25	20	20
63	10	25	10	10	25	20	15
64	10	25	10	10	25	20	15
65	10	25	10	10	40	30	25
66-69	10	25	10	10	40	30	25
70	100	100	100	100	100	100	100

Spouse's Benefit

Males are assumed to be three years older than females and 70% of the active participants are assumed to be married.

Future Expenses

Investment Expenses are assumed to be a direct offset to the Investment Income of the Fund.

Annual non-investment expenses are assumed to be the same amount incurred in the prior plan year.

Actuarial Methods and Assumptions (continued)

Pop-Up Load	Current retirees who have elected a survivorship option are assumed to have their monthly benefit increase by 12% if they survive their spouse.
Active Participant Load	A 10% load is added, for purposes of the retirement decrement only, beginning two years prior to Normal Retirement Age (ignoring service requirements). This is to account for the difference between calculating Final Average Salary based on annual compensation for valuation purposes and the monthly formula used for calculating actual retirement benefits.
Asset Valuation	Market Value.
Actuarial Cost Method	<p>The actuarial accrued liability and normal cost are determined under the Entry Age Normal actuarial cost method. Under this method, normal cost percent is determined separately for each active participant as the level percent of expected career earnings required to fund expected plan benefits. A dollar normal cost is computed by applying this percent to the participant's expected earnings for the current plan year. The participant's actuarial accrued liability is the difference between the present value of all future plan benefits expected to be paid on his behalf and the present value of his future normal costs. This actuarial accrued liability represents the amount of assets that would theoretically be on hand at the valuation date if the current plan provisions and assumptions had always been in effect, historical experience conformed exactly to assumptions, and the participant's individual normal cost had been contributed each year.</p> <p>Actuarial Accrued liability for non-active participants is determined as the actuarial present value of the benefits expected to be paid; no normal cost is determined for these participants.</p> <p>The normal cost and actuarial accrued liability for the plan are the sum of the individual normal costs (plus non-investment-related expenses expected to be paid from the trust during the plan year) and accrued liabilities.</p>
Code Section 415 and 401(a)(17) Limits	The Federally mandated annual benefit limit (\$280,000 in 2025) and compensation limit (\$350,000 in 2025) were projected to increase at 3.0% per year.

Actuarial Methods and Assumptions (continued)

Models Used Acrisure uses valuation and projection software to model benefit cash flows, present values, and attribution to various periods based on deterministic or stochastic assumption sets and benefit parameters provided by the user. The software model also supports comparisons between periods to measure gains and losses and compile plan experience data to support or modify demographic and certain economic assumptions.

In the absence of adequate review, the model's complexity and flexibility could lead to unintentional results. However, the model contains robust tools to test and verify the reasonableness of results. Our internal technical review utilizes these tools.

We have reviewed the model's documentation and have relied on the expertise of the software vendor for underlying structure, methodology, and extensive supporting calculations. We have not performed a substantial audit of the model or its structure beyond typical use in preparing results as this is typically not done by plan actuaries. However, we expect that the very deep market of qualified users for this same model ensures that no materially significant issues can or will persist.

Justification for Significant Assumptions

Mortality – Base Table	The assumption was set by considering demographic experience studies published by the Society of Actuaries.
Mortality – Projection	The assumption was set by considering demographic experience studies published by the Society of Actuaries.
Retirement	The assumption was selected based upon a study of plan experience for the period 2019 to 2025.
Turnover	The assumption was selected based upon a study of plan experience for the period 2019 to 2025.
Disability	The assumption was selected based upon a study of plan experience for the period 2019 to 2025.
General Inflation Rate	The inflation rate was selected after a review of the long-term expectations contained in the most recent Medicare and OASDI Trustee reports as of the measurement date, the historical spread between the CPI and the GDP deflator, and spreads between long term government bonds with and without inflation protection, rounded to the nearest 25 basis points.
Funding Interest Rates	This assumption is set based upon expectations of the Fund manager for both the current and long-term expectations of return on plan investments, based upon the current asset allocation.
Administrative Expenses	The use of prior administrative expense experience (self-adjusts annually) and recognizes both annually recurring expenses as well as those items occurring less frequently. As such it was considered the best indicator of average future expenses.
Salary Scale	The assumption was selected based upon a study of plan experience for the period 2019 to 2025.

This list constitutes the significant assumptions used in the valuation of plan obligations.

Risk Disclosure and Low-Default Risk Obligation Measure

This section provides commentary on significant risks applicable to the County as plan sponsor, in accordance with Actuarial Standard of Practice (ASOP) No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Contributions. Related maturity measures specific to the Allegheny County Employees' Retirement System plan are included.

Assessment and Disclosure of Risk

Sponsors of defined benefit plans are exposed to various risks related to their plans. Most sponsors view risk as the potential for future outcomes to differ significantly from expected. Differences are inevitable and generate experience gains or losses at the next valuation date.

Risk management is typically focused on outcomes that are unfavorable. Because of this, our assessment focuses on the negative consequences that certain risks may present to you as plan sponsor. It is important to note that there is also the possibility that outcomes will be more positive than expected and may present opportunities for a sponsor to be in a better position to mitigate risk in the future.

We address the following in this section of the report:

- Identification and definition of significant risks applicable to you as plan sponsor
- An assessment of the risks most likely to trigger negative outcomes
- Identification of other less significant risks considered
- A discussion of plan maturity and how it may affect your view of risk

Please note that the risks discussed in this report are in the context of cash contribution requirements applicable to you as plan sponsor. Less than favorable outcomes may also have negative consequences for financial statements (GASB 68 disclosures), affecting your credit rating and ability to borrow money. We are available to discuss how these risks may affect your financial statements or any other disclosure requirements, or to provide additional analysis regarding any of the information discussed in this section of the report.

Identification and Definition of Significant Risks

Contribution Risk: Contribution risk is the possibility that actual future contributions will differ widely from expected contributions. The risk items described below affect contribution risk. Also of concern is the potential that a plan sponsor may not be able to make contributions when necessary due to adverse business conditions. We are available to provide projections of future contributions levels under varying scenarios, if there is a specific outcome that you must avoid.

Investment Risk: Investment risk is the chance that investment income will differ from expected. From the perspective of a plan sponsor, the significant risk is that actual return will be lower than expected, resulting in increased contributions to make up for shortfalls in investment returns. Generally, the higher the expected return that a sponsor seeks, the greater the volatility in returns will be, and thus the higher the risk to the sponsor that unfavorable experience may occur.

Asset/Liability Mismatch Risk: Asset/liability mismatch occurs when plan liabilities and plan assets do not move in tandem with market changes. For example, a private-employer pension plan will have liabilities that are based loosely on the corporate bond market, but may have assets that are heavily weighted in equities. If equities experience little or no return, but corporate bond rates decline, the deficit in plan funding will increase. Public pension plan liabilities, on the other hand, are based on a long-term expected return on plan assets assumption, dependent only on asset allocation without adjustment for risk or changes in interest rates, and so will not likely move in tandem with plan assets in the short term.

Risk Disclosure and Low-Default Risk Obligation Measure (continued)

Interest Rate Risk: Potentially negative outcomes may occur if market interest rates differ from expected. Specifically, falling rates will reduce the plan's ability to achieve returns in the long run from fixed income assets. The significance of this risk is magnified in the short term if a public plan sponsor who is permitted to do so settles a significant portion of plan liabilities via lump sum payments or de-risks a portion of the liabilities through the purchase of non-participating annuities.

Risks Most Likely to Trigger Negative Outcomes

Investment Risk: The consequence of less than favorable returns over a long period is simply that those lost returns must instead be made up by future contributions. For plans that do not dedicate assets to liability and that have a more aggressive equity allocation (generally over 60%), the extra volatility in year-to-year contribution levels may negatively impact cash flow planning. Higher contribution requirements after unfavorable returns may coincide with other cash flow pressures on the sponsor.

Asset/Liability Mismatch Risk: When a plan's asset allocation is *not* dedicated to specific liabilities, there is a potential for asset/liability mismatch risk. Some asset/liability mismatch risk may be cyclical. For example, decreasing corporate bond yields with or without concurrent poor equity experience can reverse in the long run. The risk to you as a plan sponsor in the short term is the unfavorable circumstance of selling assets to pay current benefits to participants when those assets are at a low point. Because of the cyclical nature of this type of risk, the impact may not be as significant if you intend to maintain the plan for the long term.

Interest Rate Risk: Interest rate risk may decrease the long-term asset return profile for the plan, and may impact the future funded status of the plan.

Mortality Risk: In defined benefit plans, mortality risk is the risk that plan participants live longer or less long than expected. This risk can be substantial over the long term. In the short term, the impact is less significant than other risks mentioned above. The mortality risk can be mitigated by settling plan liabilities through payment of lump sums or the purchase of non-participating annuities, if economic conditions are favorable.

Other Less Significant Risks or Risks that Are Difficult to Quantify

Inflation Risk: Inflation risk occurs in final average pay (FAP) plans and in plans that provide automatic cost-of-living adjustments (COLA) to retirees when actual inflation is higher than expected. Since wages are generally tied to inflation, FAP plans will be paying out higher pensions when inflation is higher than expected. Similarly, COLAs may be higher than expected. All pension benefits in the Plan are based on a FAP formula. Retiree COLAs, when granted are not historically tied to inflation.

Demographic/Participant Risks other than Mortality: Demographic risks other than mortality are risks that participant behavior will differ widely from expected. This can include participants electing to commence benefits earlier *or later* than expected, or in a different form than expected. An employee that retires earlier than expected would cause an adverse impact to the Plan, since retirement benefits are generally unreduced for commencement after the earliest eligibility dates under the Plan.

Legislative Risk: Legislative risk is the chance that changes in law or regulatory guidance will force an unfavorable outcome for you as plan sponsor. The Plan is subject to "Act 230", as amended by "Act 125", minimum funding requirements for PA Second Class County pension plans.

Risk Disclosure and Low-Default Risk Obligation Measure (continued)

Plan Maturity Measures

Plan maturity refers to the composition of your plan by age. A recently-established plan with no retirees is considered to be an immature plan. A very mature plan is one whose liability is primarily on behalf of participants who are in pay status.

The risk to a plan sponsor increases as a plan becomes more mature. Simply put, a sponsor's revenue may or may not grow, but as a plan becomes more mature, its potential impact will grow without regard to the supporting revenue-generating activities. We generally consider a plan that has liabilities greater than 50% attributable to participants in pay status as a mature plan. The Plan has approximately 50% of its liability attributable to participants in pay status.

The number of participants in pay status has increased by 5% over the past four years. The number of active participants has decreased by 4% during the same period.

Participant information over the last five valuation dates is shown below.

	<u>1/1/2021</u>	<u>1/1/2022</u>	<u>1/1/2023</u>	<u>1/1/2024</u>	<u>1/1/2025</u>
Number of Participants					
Active, earning future benefits	6,974	6,610	6,355	6,501	6,664
Terminated vested	241	318	405	451	411
Retired, in payment status	<u>5,166</u>	<u>5,225</u>	<u>5,367</u>	<u>5,425</u>	<u>5,433</u>
Total	12,381	12,153	12,127	12,377	12,508
Active participant average age	46.6	47.0	46.7	46.4	45.9
Active participant average service	12.0	12.2	11.7	11.3	10.3
Percentage of Accrued Liability for Participants in Pay Status	56%	57%	59%	58%	59%

Risk Disclosure and Low-Default Risk Obligation Measure (continued)

Another risk is that benefit payouts can outpace contributions and investment earnings as a plan matures, with the worst outcome to be insolvency, where available assets cannot cover current benefit payments. Key asset transactions over the last five years are shown below.

	(\$ amounts in 000s)				
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Contributions	\$ 82,255	\$ 85,638	\$ 85,196	\$ 91,330	\$ 103,522
Benefit payments	\$ 122,419	\$ 131,720	\$ 146,520	\$ 147,039	\$ 153,824
Market value of assets at beginning of year	\$ 968,609	\$ 1,002,938	\$ 1,098,585	\$ 936,269	\$ 946,536
Benefit payments as a percentage of assets	13%	13%	13%	16%	16%

The funded percentage over the last five valuation dates is shown below. The funded percentage is the ratio of assets over the accrued liability.

	<u>1/1/2021</u>	<u>1/1/2022</u>	<u>1/1/2023</u>	<u>1/1/2024</u>	<u>1/1/2025</u>
Funded ratio for accrued liability	50.4%	52.8%	43.7%	42.7%	39.8%
Investment return assumption	7.75%	7.75%	7.75%	7.75%	7.00%

Risk Disclosure and Low-Default Risk Obligation Measure (continued)

Low-Default Risk Obligation Measure

We have calculated a low-default-risk obligation measure of the costs accrued for funding purposes. This measure reflects the present value of future cash flows expected from the plan under the assumption that a sponsor could invest against funding those cash flows using investments that have a low default risk. This lower default risk, in combination with the ability to match investment maturity with expected future cash flows, would allow a plan sponsor to fund a plan with a very stable funding deficit or surplus. A low risk of asset default is also assumed to improve benefit security for participants.

In general, plans do not follow this approach in the long term because while plan funding would be more predictable, the expected future contributions would be much higher to offset the lower expected return vs. a portfolio invested in assets with higher risk but higher expected returns.

A low-default-risk-obligation measure comparable to the plan’s accrued liability as currently valued for funding purposes is shown below.

	(amounts in 000s)	
	Accrued Liability for Funding Purposes	Low-Default- Risk Obligation Measure
Values as of January 1, 2025		
Discount rate	7.00%	4.28%
a. Accrued liability under entry age normal cost method	\$ 2,381,575	\$ 3,236,795
b. Actuarial value of assets	947,560	947,560
c. Funded ratio = (b) / (a)	39.8%	29.3%

Actuarial assumptions used to calculate the liability figures above are the same except for the discount rate. The low-default-risk obligation measure discount rate is the S&P Municipal Bond 20 Year High Grade Index rate as of December 31, 2024.

Glossary

Present Value of Future Benefits (PVFB)	Value at a point in time of all projected future benefit payments for current plan members (active, those who quit and will be entitled to a benefit sometime in the future, and those in pay status). The value is determined using actuarial assumptions regarding future events.
Actuarial Cost Method	A methodology that allocates the PVFB to past service and to expected future service.
Actuarial Accrued Liability (AAL)	The portion of PVFB allocated to past service by the Actuarial Cost Method. Note that the total PVFB for all non-active members is allocated to past service.
Present Value of Future Normal Costs (PVFNC)	The portion of PVFB allocated to expected future service by the Actuarial Cost Method. Note that a future service portion applies only to active members.
Normal Cost	The portion of PVFNC that is allocated to the current year.
Unfunded Accrued Liability	Portion of the AAL not covered by plan Assets.
Present Value of Accrued Benefits	Value at a point in time of all future benefit payments for current plan members (active, those who quit and will be entitled to a benefit sometime in the future, and those in pay status) based on pension salary and service to date. The value is determined using actuarial assumptions regarding future events, except that no provision is made for salary increases or additional service that may be earned.
Accrued Benefit Funded Status	The relationship between the Actuarial Value of Benefits that have been accrued through the end of the current plan year and the Market Value of Assets.
Accrued Liability Funded Status	Perhaps, historically, the oldest measurement of funding progress and solvency and is the relationship between the Actuarial Liability and the Actuarial Value of Assets. The Actuarial Liability is determined under the <i>Actuarial Method</i> used by the Fund's actuary and by the assumptions established by the actuary.
Total Funded Status	Reflects not only existing assets and liabilities, but considers the value of future contributions, future benefit accruals, and future expenses. The ratio formed between the Value of Total Assets (based on Market Value) and the Value of Total Liabilities represents the Fund's ability to meet the long-range funding commitment demanded by the plan's benefit structure. It is possible for a Fund to exhibit strong funding factors when limited to accrued benefits and assets and, at the same time, be in funding jeopardy going forward.