



Municipal Pensions Oversight Board

City of Logan West Virginia Policemen's Pension and Relief Fund

GASB 67 Actuarial Information for the
Fiscal Year Ending June 30, 2024

GASB 68 Actuarial Information for the
Fiscal Year Ending June 30, 2024
(Measurement Period Ending June 30, 2024)

Bolton

Submitted by:

James Ritchie, ASA, EA, FCA, MAAA
President of Bolton Retirement
443.573.3924
jritchie@boltonusa.com

Jordan McClane, FSA, EA, FCA, MAAA
Consulting Actuary
667.218.6935
jmcclane@boltonusa.com



December 27, 2024

Mr. Jeff Vallet
City Treasurer
City of Logan
219 Dingess Street
Logan, WV 25601

Police Officer James Shepperd
Pension Board Secretary
City of Logan
Policemen's Pension and Relief Fund

Re: City of Logan Policemen's Pension and Relief Fund
GASB 67 and GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2024

Dear Jeff,

The following report contains the GASB 67 actuarial information to be included with the plan's financial statements for the plan year ending June 30, 2024 and the GASB 68 actuarial information to be included with the City's financial statements for the fiscal year ending June 30, 2024. The GASB 68 information has been provided as of the June 30, 2024 measurement date for FY 2024.

Methodology, Reliance and Certification

This report was prepared for the internal use of the City and its auditors in connection with our actuarial valuations of the pension plan as required by GASB 68. The purpose of this report is to provide the GASB 67 actuarial information for use in the plan's financial statements for the plan year ending June 30, 2024 and the GASB 68 information for use in the City's financial statements for the fiscal year ending June 30, 2024. It is neither intended nor necessarily suitable for other purposes. Bolton is not responsible for the consequences of any other use or the reliance upon this report by any other party.

These calculations are applicable for the valuation date only. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

The total pension liability is based on the July 1, 2023 actuarial valuation rolled forward to June 30, 2024. Our understanding is that there have been no substantial changes affecting the liabilities of the plan since July 1, 2023 that would cause our estimates of the June 30, 2024 liabilities to not reasonably reflect the condition of the plan. The methods, assumptions, and participant data used are detailed in the July 1, 2023 actuarial valuation report. These calculations are based on the Entry Age Normal cost method as required by GASB 67. The calculation of the actuarially determined contribution for the fiscal year ended June 30, 2024 is contained in the July 1, 2022 actuarial valuation report. The discount rate assumption may be different if a blended rate is used for GASB purposes.

The included calculations assume that the members and the City will continue to make all required contributions in accordance with the City's funding policy. The level of plan assets, the expected future employer and employee contributions, and the expected future investment earnings are expected to be sufficient to cover all expected future benefits and expenses. Thus, these GASB results were developed using the long-term investment return assumption as the discount rate.

The long-term nominal expected rate of return on pension plan investments was determined using a methodology approved by the Municipal Pensions Oversight Board (MPOB) and is based on the funded status (current and projected), equity exposure, and funding policy.

Methodology, Reliance and Certification (cont.)

This report is based on plan provisions, census data, and asset data submitted by the City. We have relied on this information for purposes of preparing this report. We have not audited the census data provided; however, based on our review, the data appears to be reasonable and consistent with previously provided information. Unless otherwise noted in our report, we believe the information provided is sufficiently complete and reliable for purposes of the results presented in this report. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The City is solely responsible for the validity and completeness of this information.

The City is responsible for selecting the plan's funding policy based on five methods allowed for under state law. The actuarial valuation methods are chosen by the actuary in accordance with actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries and as required by GASB 67 & 68. The MPOB selects the asset valuation methods and assumptions; these selections are reviewed by a qualified actuary no less than every five years. The actuary shall provide a report to the Board with recommendations on any changes to the actuarial process. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The City and MPOB are solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

Different assumptions or scenarios within the range of possibilities may also be reasonable and results based on those assumptions would be different. As a result of the uncertainty inherent in a forward-looking projection over a very long period of time, no one projection is uniquely "correct" and many alternative projections of the future could also be regarded as reasonable. Two different actuaries could, quite reasonably, arrive at different results based on the same data and different views of the future.

The City could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. That type of analysis would be a separate assignment.

In addition, decisions regarding benefit improvements, benefit changes, the trust's investment policy, and similar issues should not be based on this valuation. These issues are complex and other factors should be considered when making such decisions. Other factors might include the anticipated vitality of the local economy and future growth expectations, as well as other economic and financial factors.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the City or, in this case, a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense of the plan to change.



Methodology, Reliance and Certification (cont.)

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.

The calculations in this report have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the Plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

We make every effort to ensure that our calculations are accurately performed. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Bolton does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which this report is based reflects Bolton's understanding as an actuarial firm. Bolton recommends that recipients of this report consult with legal counsel when making any decisions regarding compliance with ERISA, the Internal Revenue Code, or any other statute or regulation.

The City should notify Bolton promptly after receipt of this report if the City disagrees with anything contained in the report or is aware of any information that would affect the results of the report that has not been communicated to Bolton or incorporated herein. The report will be deemed final and acceptable to the City unless the City promptly provides such notice to Bolton.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2023 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,



James Ritchie, ASA, EA, FCA, MAAA



Jordan McClane, FSA, EA, FCA, MAAA



City of Logan, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2024, were as follows:

Total pension liability	\$ 2,810,999
Plan fiduciary net position	(1,873,353)
Employer's net pension liability	<u>\$ 937,646</u>
Plan fiduciary net position as a percentage of the total pension liability	66.64%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2023 rolled forward to June 30, 2024 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Salary increases	Rates vary by years of service
Single discount rate (BOY)	6.50%
Single discount rate (EOY)	6.50%
Investment rate of return (BOY)	6.50%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	6.50%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.86%
Long-term municipal bond rate (EOY)	3.97%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2021
Year Fund is projected to be fully funded	2033
Year assets are expected to be depleted for a closed plan	N/A

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2023 actuarial valuation report.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Employer's net pension liability	\$ 1,381,766	\$ 937,646	\$ 582,123

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/23	\$ 2,405,009	\$ 1,562,484	\$ 842,525
Changes for the year:			
Service cost	91,007		91,007
Interest	151,896		151,896
Changes of benefit terms	-		-
Differences between expected and actual experience	298,228		298,228
Changes of assumptions	1,166		1,166
Contributions - employer (including Premium Tax Allocation)		321,102	(321,102)
Contributions - member		25,641	(25,641)
Net investment income		100,433	(100,433)
Benefit payments, including refunds of member contributions	(136,307)	(136,307)	-
Administrative expense		-	-
Other		-	-
Net Changes	<u>405,990</u>	<u>310,869</u>	<u>95,121</u>
Balances at 6/30/24	<u>\$ 2,810,999</u>	<u>\$ 1,873,353</u>	<u>\$ 937,646</u>
Return on Investments		6.0%	

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2024

Note	Description	Amount
A	Service cost	\$ 91,007
B	Interest on the total pension liability	151,896
A	Changes of benefit terms	-
C	Differences between expected and actual experience	57,288
C	Changes of assumptions	(121,494)
A	Employee contributions	(25,641)
D	Projected earnings on pension plan investments	(108,400)
C	Differences between expected and actual earnings on plan investments	31,636
A	Pension plan administrative expense	-
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 76,292

Notes:

A Provided in the Changes in Net Pension Liability exhibit.

B Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Projected Earnings (a) x (b) x (c)
Beginning total pension liability	\$ 2,405,009	100%	6.50%	\$ 156,326
Service cost (end of year)	91,007	0%	6.50%	-
Benefit payments, including refunds of employee contributions	(136,307)	50%	6.50%	(4,430)
Total interest on the total pension liability				\$ 151,896

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning plan fiduciary net position	\$ 1,562,484	100%	6.50%	\$ 101,561
Employer contributions	321,102	50%	6.50%	10,436
Employee contributions	25,641	50%	6.50%	833
Benefit payments, including refunds of employee contributions	(136,307)	50%	6.50%	(4,430)
Administrative expense and other	-	50%	6.50%	-
Total Projected Earnings				\$ 108,400

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2024, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 390,884	\$ 96,656
Changes of assumptions	744,555	1,142,388
Net difference between projected and actual earnings on pension plan investments	60,376	-
Total	\$ 1,195,815	\$ 1,239,044

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year ended June 30:	
2025	\$ (79,849)
2026	(24,995)
2027	(36,263)
2028	47,979
2029	49,899
Thereafter	-

City of Logan, West Virginia Policemen's Pension and Relief Fund
Actuarial Information to Include in the Financial Statements
for the June 30, 2024 Measurement Date



Changes in the Employer's Net Pension Liability and Related Ratios
Last 10 Fiscal Years

Total pension liability	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Service cost	\$ 91,007	\$ 63,937	\$ 58,090	\$ 282,628	\$ 90,302	\$ 104,665	\$ 116,577	\$ 107,821	\$ 77,205	\$ 80,984
Interest	151,896	147,495	146,834	114,418	125,818	125,101	117,804	109,249	94,575	87,535
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	298,228	(21,085)	(92,122)	198,676	148,925	(170,901)	(18,503)	50,144	(37,017)	(69,300)
Changes of assumptions	1,166	-	-	(2,563,672)	1,970,937	(174,688)	-	164,641	43,296	(127,161)
Benefit payments, including refunds of member contributions	(136,307)	(108,990)	(96,272)	(117,829)	(80,121)	(43,414)	(43,414)	(49,600)	(22,329)	(13,181)
Net change in total pension liability	405,990	81,357	16,530	(2,085,779)	2,255,861	(159,237)	172,464	382,255	155,730	(41,123)
Total pension liability - beginning	2,405,009	2,323,652	2,307,122	4,392,901	2,137,040	2,296,277	2,123,813	1,741,558	1,585,828	1,626,951
Total pension liability - ending (a)	\$ 2,810,999	\$ 2,405,009	\$ 2,323,652	\$ 2,307,122	\$ 4,392,901	\$ 2,137,040	\$ 2,296,277	\$ 2,123,813	\$ 1,741,558	\$ 1,585,828
Plan fiduciary net position	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Contributions - employer (including Premium Tax Allocation)	\$ 321,102	\$ 262,569	\$ 270,659	\$ 201,132	\$ 51,110	\$ 94,484	\$ 77,722	\$ 86,919	\$ 63,957	\$ 14,655
Contributions - member	25,641	31,416	25,025	22,764	23,118	21,324	25,712	13,314	19,181	16,784
Net investment income	100,433	143,088	(276,788)	351,003	(78,876)	32,333	40,272	55,332	(3,308)	(14,333)
Benefit payments, including refunds of member contributions	(136,307)	(108,990)	(96,272)	(117,829)	(80,121)	(43,414)	(43,414)	(49,600)	(22,329)	(13,181)
Administrative expense	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Net change in plan fiduciary net position	\$ 310,869	\$ 328,083	\$ (77,376)	\$ 457,070	\$ (84,769)	\$ 104,727	\$ 100,292	\$ 105,965	\$ 57,501	\$ 3,925
Plan fiduciary net position - beginning	1,562,484	1,234,401	1,311,777	854,707	939,476	834,749	734,458	628,493	634,949	631,024
Plan fiduciary net position - ending (b)	\$ 1,873,353	\$ 1,562,484	\$ 1,234,401	\$ 1,311,777	\$ 854,707	\$ 939,476	\$ 834,749	\$ 734,458	\$ 692,450	\$ 634,949
Employer's net pension liability - ending (a)-(b)	\$ 937,646	\$ 842,525	\$ 1,089,251	\$ 995,345	\$ 3,538,194	\$ 1,197,564	\$ 1,461,528	\$ 1,389,355	\$ 1,049,108	\$ 950,879
Plan fiduciary net position as a percentage of the total pension liability	66.64%	64.97%	53.12%	56.86%	19.46%	43.96%	36.35%	34.58%	39.76%	40.04%
Covered payroll	\$ 406,902	\$ 273,240	\$ 241,496	\$ 315,373	\$ 232,400	\$ 277,925	\$ 272,738	\$ 279,330	\$ 229,274	\$ 217,343
Employer's net pension liability as a percentage of covered payroll	230.44%	308.35%	451.04%	315.61%	1522.46%	430.89%	535.87%	497.39%	457.58%	437.50%
Expected average remaining service years of all participants	6.00	6.00	5.00	7.00	8.00	8.00	8.37	8.22	7.85	7.88

Notes to Schedule:

Benefit changes: There were no changes for FY2024.

Changes of assumptions: Pursuant to the 2023 Experience Study Report, changes were made to cost-of-living increases, mortality improvement rates, retirement rates, termination rates, and disability rates.

*The Plan Fiduciary Net Position as of July 1, 2019 provided to Bolton by the City does not match the Plan Fiduciary Net Position as of June 30, 2019 as provided in the prior GASB report. The difference of -\$1,307 has been included as investment income for the measurement period ending June 30, 2020.

*The Plan Fiduciary Net Position as of June 30, 2016 includes a contribution receivable of \$63,957. This receivable is excluded from the July 1, 2017 Plan Fiduciary Net Position.

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 182,694	\$ 182,172	\$ 219,669	\$ 224,617	\$ 203,522	\$ 234,454	\$ 222,506	\$ 161,653	\$ 132,554	\$ 157,534
Contributions in relation to the actuarially determined contribution										
Employer provided	260,640	201,000	218,667	146,667	51,110	74,807	50,550	22,962	40,811	10,000
State provided	60,462	61,569	51,992	54,465	-	19,677	27,172	-	23,146	4,655
Contribution deficiency (excess)	<u>\$ (138,408)</u>	<u>\$ (80,397)</u>	<u>\$ (50,990)</u>	<u>\$ 23,485</u>	<u>\$ 152,412</u>	<u>\$ 139,970</u>	<u>\$ 144,784</u>	<u>\$ 138,691</u>	<u>\$ 68,597</u>	<u>\$ 142,879</u>
Covered payroll	\$ 406,902	\$ 273,240	\$ 241,496	\$ 315,373	\$ 232,400	\$ 277,925	\$ 272,738	\$ 279,330	\$ 229,274	\$ 217,343
Contributions as a percentage of covered employee payroll	78.91%	96.09%	112.08%	63.78%	21.99%	34.00%	28.50%	8.22%	27.90%	6.74%

Notes to Schedule

Valuation date:

Actuarially determined contribution (ADC) amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. The assumptions shown below are those used in the 7/1/2022 actuarial valuation to calculate the FY2024 ADC. Assumptions used to determine all contributions in the past would not have been the same.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	8 to 15 years
Asset valuation method	4-year smoothed market
Inflation	2.50%
Salary increases	Rates vary by years of service
Investment rate of return	6.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019

City of Logan, West Virginia Policemen’s Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Plan Investments				
			2024	2025	2026	2027	2028
2020	\$ 135,068	5	27,012				
2021	(296,539)	5	(59,308)	(59,307)			
2022	368,534	5	73,707	73,707	73,706		
2023	(56,840)	5	(11,368)	(11,368)	(11,368)	(11,368)	
2024	7,967	5	\$ 1,593	1,593	1,593	1,593	1,595
Net increase (decrease) in pension expense			\$ 31,636	\$ 4,625	\$ 63,931	\$ (9,775)	\$ 1,595

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2024 (c)	Balances at June 30, 2024	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2020	\$ 135,068	\$ -	\$ 135,068	\$ -	\$ -
2021	-	296,539	237,232	-	59,307
2022	368,534	-	221,121	147,413	-
2023	-	56,840	22,736	-	34,104
2024	7,967	-	1,593	6,374	-
				\$ 153,787	\$ 93,411

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Experience							
			2024	2025	2026	2027	2028	2029	Thereafter	
2016	(37,017)	7.846481								
2017	50,144	8.223742	6,097	1,368						
2018	(18,503)	8.368152	(2,211)	(2,211)	(815)					
2019	(170,901)	8.000000	(21,363)	(21,363)	(21,360)					
2020	148,925	8.000000	18,616	18,616	18,616	18,613				
2021	198,676	7.000000	28,382	28,382	28,382	28,384				
2022	(92,122)	5.000000	(18,424)	(18,424)	(18,426)					
2023	(21,085)	6.000000	(3,514)	(3,514)	(3,514)	(3,514)	(3,515)			
2024	298,228	6.000000	\$ 49,705	49,705	49,705	49,705	49,705	49,703		
Net increase (decrease) in pension expense			\$ 57,288	\$ 52,559	\$ 52,588	\$ 93,188	\$ 46,190	\$ 49,703	\$ -	

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2024 (c)	Balances at June 30, 2024	
			Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)	
2016	-	37,017	37,017	-	-
2017	50,144	-	48,776	1,368	-
2018	-	18,503	15,477	-	3,026
2019	-	170,901	128,178	-	42,723
2020	148,925	-	93,080	55,845	-
2021	198,676	-	113,528	85,148	-
2022	-	92,122	55,272	-	36,850
2023	-	21,085	7,028	-	14,057
2024	298,228	-	49,705	248,523	-
			\$ 390,884	\$ 96,656	

City of Logan, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2024 Measurement Date



Schedule of Changes of Assumptions

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Year	Changes of Assumptions	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions						
			2024	2025	2026	2027	2028	2029	Thereafter
2016	43,296	7.846481							
2017	164,641	8.223742	20,020	4,481					
2018	-	8.368152							
2019	(174,688)	8.000000	(21,836)	(21,836)	(21,836)				
2020	1,970,937	8.000000	246,367	246,367	246,367	246,368			
2021	(2,563,672)	7.000000	(366,239)	(366,239)	(366,239)	(366,238)			
2022	-	5.000000							
2023	-	6.000000							
2024	1,166	6.000000	\$ 194	194	194	194	194	196	
Net increase (decrease) in pension expense			\$ (121,494)	\$ (137,033)	\$ (141,514)	\$ (119,676)	\$ 194	\$ 196	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts	Balances at June 30, 2024	
			Recognized in Pension Expense Through June 30, 2024 (c)	Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	43,296	-	43,296	-	-
2017	164,641	-	160,160	4,481	-
2018	-	-	-	-	-
2019	-	174,688	131,016	-	43,672
2020	1,970,937	-	1,231,835	739,102	-
2021	-	2,563,672	1,464,956	-	1,098,716
2022	-	-	-	-	-
2023	-	-	-	-	-
2024	1,166	-	194	972	-
			\$ 744,555	\$ 1,142,388	