



Corpus Christi RTA

RTA Employees Defined Benefit Plan and Trust

GASB 67 and GASB 68

Revised May 6, 2024

ACTUARIAL VALUATION REPORT

December 31, 2023

Contents

- Certification3
- Basis of Valuation.....6
 - Summary of Plan Provisions 6
 - Summary of Actuarial Assumptions and Methods 9
 - Summary of Participants 13
 - Participant Data Reconciliation 13
- GASB Statement No. 67 14**
 - Statement of Fiduciary Net Position (unaudited) 15
 - Statement of Changes in Fiduciary Net Position (unaudited) 16
 - Net Pension Liability (NPL)..... 17
 - Schedule of Changes in the NPL and Related Ratios 18
 - Schedule of Contributions 19
 - Schedule of Investment Returns 19
- GASB Statement No. 68 20**
 - Schedule of Changes in NPL..... 21
 - Pension Expense & Deferred Outflows/Inflows of Resources 22
 - Amortization of Difference between Expected and Actual Experience 23
 - Amortization of Difference between Projected and Actual Earnings 24
 - Amortization of Changes in Assumptions 25



Certification

Purpose and Use

This report has been prepared exclusively for Corpus Christi RTA. Actuarial computations under Statements No. 67 and No. 68 are for purposes of fulfilling employer and pension plan governmental accounting requirements, and may not be appropriate for other purposes. The calculations reported herein have been made on a basis consistent with our understanding of the statements. USI is not responsible for consequences resulting from the use of any part of this report without prior authorization or approval. This report provides actuarial advice and does not constitute legal, accounting, tax or investment advice. Determinations for other purposes, such as funding, bond ratings, or judging benefit security, may be significantly different from the results shown in this report.

Actuarial findings in this report are based on actuarial assumptions which reflect expected plan experience. Although the deviation of the actual future plan experience and the expected experience inherently creates some uncertainty with the results, in our opinion the actuarial assumptions reasonably reflect the expected future experience of the plan. That is, the assumptions selected are not expected to have a significant bias, and the results shown should not be overly optimistic or pessimistic. 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. All of these factors can result in the risk of volatility in the Net Pension Liability over time.

Data

The calculations shown in this report have been prepared using employee data and plan documentation furnished by Corpus Christi RTA as of January 1, 2024 and plan assets furnished by the trustee for the twelve month period ending December 31, 2023. While we have not audited the data, we have reviewed it for reasonableness and internal consistency, and to the best of our knowledge, there are no material limitations to the data provided. Summaries of the census data and plan provisions can be found in the Basis for Valuation section of this report.

Subsequent Events

We are unaware of any subsequent event after December 31, 2023 which would have a material effect on the results presented in this report.



Assumptions, Methods, and Procedures

The results presented in this report comply with the assumptions, methods, and procedures under the Statements No. 67 and No. 68. For Statement 67 the results are based on the January 1, 2024 actuarial valuation date with a measurement date and reporting date of December 31, 2023. For Statement 68 the results are based on the January 1, 2024 actuarial valuation with a measurement date of December 31, 2023 and reporting date of December 31, 2023. All actuarial assumptions are set by the plan sponsor. Statements No. 67 and No. 68 mandate the use of the Entry Age Normal actuarial funding method for the purposes of those statements.

Changes in plan provisions, actuarial assumptions, and actuarial methods

The following change was made to the actuarial assumptions and methods effective December 31, 2023.

Change: The investment rate of return and discount rate were changed from 7.0% to 6.75%.

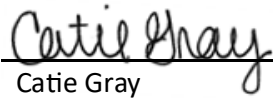
Rationale: To better reflect the Plan's expected long term rate of return.

Summaries of the plan provisions, actuarial assumptions and methods can be found in the Basis for Valuation section of this report.



Professional Qualifications

This report has been prepared under the supervision of Catie Gray, member of the American Academy of Actuary, Fellow of the Society of Actuary, and consulting actuary with USI, who has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions herein. To the best of my knowledge this report has been prepared in accordance with generally accepted actuarial standards and our understanding of Government Accounting Standards Board Statements No. 67 and No. 68, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. I am not aware of any direct or material indirect financial interest or relationship that could create, or appear to create, a conflict of interest that would impair the objectivity of my work. The undersigned is available to provide supplemental information or explanation.



Catie Gray

Fellow, Society of Actuaries

Enrollment No. 23-08473

Phone 629.895.7806

May 6, 2024

Date



Basis of Valuation

Summary of Plan Provisions

Effective Date

The effective date of the plan is July 21, 1986.

Eligibility

Full-time employees of the Corpus Christi RTA. Full-time employee is defined as any employee receiving compensation from Corpus Christi RTA on the basis of an average of at least 40 hours of employment per week. Excludes independent contractors.

Year of Service

Plan Year in which an Employee completes 1,000 or more hours. If a Participant has fewer than 1,000 hours in his first and/or last Year of Service, his Years of Service shall be adjusted (to the nearest month) to reflect the number of months in his first and last Years of Service in which he completed at least 83 hours.

All Years of Service shall be aggregated for purposes of calculating a Participant's Accrued Benefit

Vesting Schedule

<u>Years of Service</u>	<u>Vested Percent</u>
Less than 3 years	0%
3 years	20%
4 years	40%
5 years	60%
6 years	80%
7 or more years	100%

Normal and Delayed Retirement

(a) Condition

The normal retirement date is the first day of the month coincident with or next following the later of the participant's attainment of age 62 or termination from employment.

(b) Benefit

The monthly benefit, payable for life and spouse's life, if applicable, is computed as 1/12 of the product of (1) and (2):

- (1) 2.0% of Final Average Compensation and
- (2) Years of Service.



"Final Average Compensation" is calculated by dividing the total Compensation received by a Participant during his final three consecutive calendar years by the number of pay periods for which he received Compensation in such period, multiplied by the number of pay periods in a complete calendar year.

Early Retirement

(a) Condition

A participant may retire after attainment of age 55 and completion of 10 years of service.

(b) Benefit

A participant who retires early may receive his pension benefit in one of two ways:

(1) A deferred monthly benefit commencing at age 62, computed in the manner set forth in the Normal Retirement section above.

(2) A reduced, immediate monthly income, the amount of which is determined as the deferred benefit in the preceding paragraph, multiplied by an early retirement factor of 5% for each year by which the annuity starting date precedes Normal Retirement Date.

Disability Retirement

(a) Condition

Employees determined to be disabled under terms of the Employer's long-term disability program as of June 1, 1999 shall be entitled to benefits under the Plan to the extent that Plan provisions in place on June 1, 1999 provided for such benefits. No employees becoming disabled after June 1, 1999 will be entitled to disability retirement benefits.

Death prior to Retirement

(a) Condition

If the death of a participant occurs, if vested, his surviving spouse is eligible to receive a benefit.

(b) Benefit

The surviving beneficiary will receive a monthly income determined as if the Participant had retired and elected a 50% Joint & Survivor Annuity on the Participant's date of death (or earliest retirement date if later) and then died.



Benefits upon Termination

(a) Condition

If a participant's service terminates on or after 3 years of vesting service but before normal or early retirement and prior to death or disability, the participant is eligible for a deferred vested benefit.

(b) Benefit

(1) The participant is entitled to a monthly benefit, payable at his normal retirement date, equal to his accrued benefit multiplied by the vesting percent.

(2) If the participant has completed 10 years of vesting service, such participant may choose to receive reduced monthly income payments on or after age 55.

Options

The following options are available:

- A. Straight Life Annuity (unmarried participants only)
- B. Joint and 50% Survivor
- C. Joint and 66 2/3% Survivor
- D. Joint and 75% Survivor
- E. Joint and 100% Survivor
- F. Lump Sums under \$5,000

Cost of Living Adjustment

As elected by the plan sponsor. The last cost of living adjustment was effective as of January 1, 2019; providing a 2.5% increase for participants receiving monthly benefits whose benefits began on or prior to January 1, 2015.

Employer Contributions

The Employer contributes each year an amount required to actuarially fund expected future obligations.

Trust Fund

Assets were held in trust by Principal Trust Company as of December 31, 2023.



Summary of Actuarial Assumptions and Methods

Investment rate of return

6.75% per annum, compounded annually

The long-term expected rate of return on pension plan investments was determined considering historical performance and using a building-block method in which best-estimate ranges of expected future real rates of return are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return ¹
Domestic Equity – Large Cap	20.0%	5.55%
Domestic Equity – Mid Cap	10.0%	6.45%
Domestic Equity – Small Cap	10.0%	6.95%
International Equity	15.0%	5.85%
Fixed Income	38.0%	2.15%
Global Real Estate	2.5%	8.45%
Commodities	2.5%	4.75%
Cash	2.0%	1.35%

¹Principal Financial Group Capital Market Assumptions as of 2023

Inflation

2.25% per annum, compounded annually

Discount rate

6.75% per annum, compounded annually

Paragraph 43 of Statement No. 67 provides for an alternative method to be used other than the projection of the pension plan's fiduciary net position based on projected contributions, benefit payments and investment earnings. It is our understanding that RTA's Board of Directors has approved the funding policy shown below. The Board was also aware that these amounts may not fully fund the plan, but that additional funding may be necessary. RTA will make contributions as required to keep the plan solvent. RTA has historically made contributions based on the actuary's recommended contribution. Having a funding policy and making recommended contributions in the future supports the position that the plan's fiduciary net position will remain positive in the future.



Historical Contributions:

Fiscal Year End	Contribution Amount
2014	\$1,178,498
2015	\$985,175
2016	\$1,503,736
2017	\$1,383,969
2018	\$1,425,533
2019	\$3,691,087
2020	\$1,227,724
2021	\$1,382,108
2022	\$1,382,108
2023	\$1,952,572
Total contributions since 2014	\$16,112,510

Planned Contributions:

Fiscal Year End	Contribution Amount
2024+	Greater than or equal to amount calculated by actuary

Salary increases

3.5% per annum, compounded annually



Mortality Rates

RP-2014 Blue Collar Generational Mortality Table adjusted to 2006 and projected using scale MP-2021

Withdrawal Rates

SOA 2003 Small Plan Service Table

Disability Rates

None Assumed

Rates of Retirement

Age	Retirement Rates
5-61	20%
62	35%
63-64	15%
65	25%
66-67	20%
68-69	50%
70	100%

Commencement dates and forms of payment

All participants are assumed to elect the normal form of payment.

Percentage married

90% of participants are assumed to be married with participants assumed to be 3 years older than spouses.

Actuarial valuation method

Entry Age Normal

The actuarial liabilities shown in this report are determined using software purchased from an outside vendor which was developed for this purpose. Certain information is entered into this model in order to generate the liabilities. These inputs include economic and non-economic assumptions, plan provisions, and census information. We rely on the coding within the software to value the liabilities using the actuarial methods and assumptions selected. Both the input to and the output from the model is checked for accuracy and reviewed for reasonableness.



Asset valuation method

Fair Market Value for Statement No. 67 and Statement No. 68
Fair Market Value is based on quoted market prices.

Amortization method

Level Dollar

Amortization period

For Statement No. 68 as of December 31, 2023

Investment gains or losses are amortized over 5 years. Experience gains or losses are amortized over the average working lifetime of all participants which for the current period is 2 years. Plan amendments are recognized immediately. Changes in actuarial assumptions are amortized over the average working lifetime of all participants.

Additional assumptions

None

Selection of assumptions and valuation method

The actuary annually reviews the assumptions and methods for reasonableness. The Board of Directors approves the actuarial report and the assumptions and funding methods described in the report.



Summary of Participants

Inactive Plan Participants:	
Retirees and Beneficiaries Currently Receiving Benefits	241
Terminated Employees Entitled to Deferred Benefits	189
Total Inactive Participants	<u>430</u>
Active Plan Participants:	
Vested (Fully and Partially)	154
Nonvested	78
Total Active Participants	<u>232</u>
Total Membership	662
Current Payroll	13,534,620

Participant Data Reconciliation

	Active	Deferred Vested	Retired and Beneficiaries	Total
01/01/2023 Participants	218	195	226	639
New Participants	45			45
Vested Terminations	(10)	10		0
Nonvested Terminations	(16)			(16)
Retired	(5)	(12)	17	0
Disabled				
Rehired	1	(1)		0
Deceased	(1)		(2)	(3)
Beneficiaries				
Lump Sum Payments				
Transfers				
Data Corrections		(3)		(3)
01/01/2024 Participants	232	189	241	662
Averages				
Attained Age	48.74	53.57	70.85	
Past Service	8.66	N/A	N/A	
Salary	\$58,339	N/A	N/A	
Total Monthly Benefit Payments	N/A	\$63,927	\$218,730	



GASB Disclosure

GASB Statement No. 67

This section presents specific information required under Statement No. 67 which is not included in other sections of this report. The information in this report is to satisfy the reporting for the pension plan. This section contains the following:

- Statement of Fiduciary Net Position
- Statement of Change in Fiduciary Net Position
- Investment Information
- Net Pension Liability including discount rate sensitivity and reconciliation between years
- Schedule of Contributions
- Schedule of Investments

Fiduciary Net Position is the amount of assets available for benefits in the Pension Plan.

Total Pension Liability is the plan liability determined using assumptions listed in the Summary of Actuarial Assumptions.

Net Pension Liability is the difference in the Total Pension Liability and the Fiduciary Net Position.



Statement of Fiduciary Net Position (unaudited)

	<u>December 31, 2022</u>	<u>December 31, 2023</u>
Assets		
Cash and Cash Equivalents	\$ 850,231	\$ 677,676
Receivables:		
Contributions	0	0
Investment Income	0	2,670
Prepaid Expenses	0	0
Other Receivables	0	0
Total Receivables	<u>0</u>	<u>2,670</u>
Investments:		
Fixed Income	15,999,960	18,064,922
Domestic Equities	17,954,009	19,271,487
International Equities	5,619,113	7,205,373
Commodities	1,037,824	1,187,236
Real Estate	1,076,306	1,208,263
Total Investments	<u>41,687,212</u>	<u>46,937,281</u>
Other Assets	<u>0</u>	<u>0</u>
Total Assets	<u>42,537,443</u>	<u>47,617,627</u>
Liabilities		
Payables:		
Investment Management Fees	0	0
Accounts Payable and Accrued Liabilities	0	0
Deferred Inflow of Resources	0	0
Other Liabilities	0	0
Total Liabilities	<u>0</u>	<u>0</u>



Statement of Changes in Fiduciary Net Position (unaudited)

	<u>December 31, 2023</u>
Additions	
Contributions:	
Employer	\$ 1,952,572
Employee	0
Total Contributions	<u>1,952,572</u>
Investment Income:	
Total Investment Income	5,837,507
Less Investment Expense	0
Net Investment Income	<u>5,837,507</u>
Other	0
Total Additions	<u>7,790,079</u>
Deductions	
Benefit Payments / Refunds	2,581,633
Administrative Expenses	128,262
Other	0
Total Deductions	<u>2,709,895</u>
Net Increase in Fiduciary Net Position	<u>5,080,184</u>
Net Position Restricted for Pensions	
Beginning of Year	<u>42,537,443</u>
End of Year	<u>\$ 47,617,627</u>



Net Pension Liability (NPL)

Determination of Net Pension Liability

The components of the net pension liability at December 31, 2023 were as follows:

Total Pension Liability	\$ 59,043,802
Plan Fiduciary Net Position	<u>(47,617,627)</u>
Net Pension Liability	<u>\$ 11,426,175</u>

Plan Fiduciary Net Position as a Percentage of Total Pension Liability	80.64%
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Sensitivity of Net Pension Liability to Changes in the Discount Rate

The following represents the net pension liability calculated using the stated discount rate, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate:

	1% Decrease 5.75%	Current Rate 6.75%	1% Increase 7.75%
Net Pension Liability	<u>\$ 18,445,638</u>	<u>\$ 11,426,175</u>	<u>\$ 5,560,278</u>



Schedule of Changes in the NPL and Related Ratios

	Fiscal year ending December 31									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total Pension Liability										
Service cost	\$695,517	\$876,806	\$941,470	\$980,740	\$1,066,449	\$879,904	\$926,286	\$990,244	\$988,099	\$1,108,344
Interest	2,254,995	2,396,547	2,521,413	2,620,680	2,780,193	2,987,293	3,257,661	3,404,718	3,546,868	3,738,299
Changes of benefit terms	391,915	115,478	0	0	313,503	0	0	0	0	0
Cost Method Change	0	0	0	0	0	0	0	0	0	0
Differences between expected and actual experience	784,295	(260,046)	(465,534)	335,013	(241,238)	1,943,344	336,157	162,958	726,557	1,649,414
Changes of assumptions	0	0	0	0	1,189,575	373,385	361,060	601,314	563,863	1,564,460
Benefit Payments / Refunds	(1,248,266)	(1,493,324)	(1,561,905)	(1,833,510)	(1,808,898)	(1,927,249)	(2,218,914)	(2,292,357)	(2,415,094)	(2,581,633)
Net Change in Total Pension Liability	2,878,456	1,635,461	1,435,444	2,102,923	3,299,584	4,256,677	2,662,250	2,866,877	3,410,293	5,478,884
Total Pension Liability - beginning	29,016,953	31,895,409	33,530,870	34,966,314	37,069,237	40,368,821	44,625,498	47,287,748	50,154,625	53,564,918
Total Pension Liability - ending (a)	\$31,895,409	\$33,530,870	\$34,966,314	\$37,069,237	\$40,368,821	\$44,625,498	\$47,287,748	\$50,154,625	\$53,564,918	\$59,043,802
Plan Fiduciary Net Position										
Contributions - employer	\$1,178,498	\$985,175	\$1,503,736	\$1,383,969	\$1,425,533	\$3,691,087	\$1,227,724	\$1,382,108	\$1,382,108	\$1,952,572
Contributions - employee	0	0	0	0	0	0	0	0	0	0
Net investment income	1,706,547	(348,950)	2,523,595	4,409,016	(2,046,180)	6,617,918	5,498,173	5,597,623	(7,400,566)	5,837,507
Benefit Payments / Refunds	(1,248,266)	(1,493,324)	(1,561,905)	(1,833,510)	(1,808,898)	(1,927,249)	(2,218,914)	(2,292,357)	(2,415,094)	(2,581,633)
Administrative expenses	(91,465)	(94,874)	(92,810)	(102,228)	(110,600)	(111,886)	(122,875)	(145,369)	(125,177)	(128,262)
Other	0	0	0	0	0	0	0	0	0	0
Net Change in Plan Fiduciary Net Position	\$1,545,314	(\$951,973)	\$2,372,616	\$3,857,247	(\$2,540,145)	\$8,269,870	\$4,384,108	\$4,542,005	(\$8,558,719)	\$5,080,184
Plan Fiduciary Net Position - beginning	29,617,120	31,162,434	30,210,461	32,583,077	36,440,324	33,900,179	42,170,049	46,554,157	51,096,162	42,537,443
Plan Fiduciary Net Position - ending (b)	\$31,162,434	\$30,210,461	\$32,583,077	\$36,440,324	\$33,900,179	\$42,170,049	\$46,554,157	\$51,096,162	\$42,537,443	\$47,617,627
Net Pension Liability - ending (a) - (b)	\$732,975	\$3,320,409	\$2,383,237	\$628,913	\$6,468,642	\$2,455,449	\$733,591	(\$941,537)	\$11,027,475	\$11,426,175
Plan Fiduciary Net Position as a % of the Total Pension Liability	97.7%	90.1%	93.2%	98.3%	84.0%	94.5%	98.4%	101.9%	79.4%	80.6%
Covered-employee payroll	\$7,274,172	\$8,818,232	\$9,178,411	\$9,773,977	\$10,677,430	\$10,668,048	\$10,975,562	\$11,696,475	\$12,603,883	\$13,534,620
Net Pension Liability as a % of covered-employee payroll	10.1%	37.7%	26.0%	6.4%	60.6%	23.0%	6.7%	-8.0%	87.5%	84.4%

Notes to Schedule

See Summary of Plan Provisions for notes regarding benefit changes. See Summary of Actuarial Assumptions and Methods for notes regarding changes in assumptions.



Schedule of Contributions

	Fiscal year ending December 31									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Actuarially determined contribution	\$ 695,517	\$ 983,696	\$ 1,468,804	\$ 1,399,307	\$ 1,191,087	\$ 1,227,724	\$ 1,306,947	\$ 1,382,108	\$ 1,330,108	\$ 1,952,572
Contributions in relation to the actuarially determined contribution	1,178,498	985,175	1,503,736	1,383,969	1,425,533	3,691,087	1,227,724	1,382,108	1,382,108	1,952,572
Contribution deficiency (excess)	(482,981)	(1,479)	(34,932)	15,338	(234,446)	(2,463,363)	79,223	0	(52,000)	0
Covered-employee payroll	\$ 7,274,172	\$ 8,818,232	\$ 9,178,411	\$ 9,773,977	\$ 10,677,430	\$ 10,668,048	\$ 10,975,562	\$ 11,696,475	\$ 12,603,883	\$ 13,534,620
Contributions as a percentage of covered-employee payroll	16.2%	11.2%	16.4%	14.2%	13.4%	25.4%	11.2%	11.8%	11.0%	14.4%

Notes to Schedule

See Summary of Actuarial Assumptions and Methods for details regarding methods and assumptions used to determine contribution rates.

Schedule of Investment Returns

	Fiscal year ending December 31									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Annual money-weighted rate of return, net of investment expense	5.07%	-1.42%	8.01%	13.12%	-5.40%	18.98%	13.07%	12.02%	-14.51%	13.57%



GASB Statement No. 68

This section presents specific information required under Statement No. 68 which is not included in other sections of this report. The information in this report is to satisfy the reporting for the pension plan. This section contains the following:

Schedule of Changes in Net Pension Liability, Deferrals, and Pension Expense
Pension Expense and Deferred Outflows and Inflows of Resources

Schedule of Changes in NPL

	Increase (Decrease)		
	Total Pension Liability	Plan Net Position	Net Pension Liability
	(a)	(b)	(a) - (b)
Balances--at December 31, 2022	<u>\$ 53,564,918</u>	<u>\$ 42,537,443</u>	<u>\$ 11,027,475</u>
Changes for the Year:			
Service cost	1,108,344		1,108,344
Interest	3,738,299		3,738,299
Changes of benefit terms	0		0
Experience (Gains)/Losses	1,649,414		1,649,414
Changes of assumptions	1,564,460		1,564,460
Contributions--Employer		1,952,572	(1,952,572)
Contributions--Employees		0	0
Expected Investment Return		3,021,059	(3,021,059)
Difference between expected and actual returns		2,816,448	(2,816,448)
Benefits paid, including refunds of contributions	(2,581,633)	(2,581,633)	0
Recognition of Prior Post Measurement Contribution		0	0
Post-Measurement Contribution			
Plan administrative expenses		(128,262)	128,262
Other changes	0	0	0
Net Changes	<u>5,478,884</u>	<u>5,080,184</u>	<u>398,700</u>
Balances--at December 31, 2023	<u>\$ 59,043,802</u>	<u>\$ 47,617,627</u>	<u>\$ 11,426,175</u>

Pension Expense & Deferred Outflows/Inflows of Resources

	Fiscal Year Ending December 31, 2022	Fiscal Year Ending December 31, 2023
Service cost	\$ 988,099	\$ 1,108,344
Interest	3,546,868	3,738,299
Changes of benefit terms	0	0
Contributions--Employees	0	0
Expected investment return	(3,637,324)	(3,021,059)
Recognition for Current Year		
Economic/demographic gains or losses	363,279	824,707
Investment gains or losses	(446,489)	(563,289)
Assumption changes or inputs	281,932	782,230
Recognition of Deferred Inflows/Outflows of Resources		
Economic/demographic gains or losses	81,479	363,278
Investment gains or losses	1,905,789	496,213
Assumption changes or inputs	300,657	281,931
Plan administrative expenses	125,177	128,262
Other	0	0
Pension Expense	3,509,467	4,138,916

For the year ended December 31, 2023, the recognized pension expense will be \$4,138,916. The System reported deferred outflows of resources and deferred inflows of resources relation to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Difference between expected and actual experience	\$ 824,707	\$ 0
Net difference between projected and actual earnings	6,622,728	3,628,960
Changes of assumptions	782,230	0
Total	\$ 8,229,665	\$ 3,628,960

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 December 31:	Outflows	Inflows	Net
2024	\$ 3,814,513	\$ 1,492,600	\$ 2,321,913
2025	2,207,576	1,009,779	1,197,797
2026	2,207,576	563,289	1,644,287
2027	0	563,292	(563,292)
Thereafter	0	0	0

Amortization of Difference between Expected and Actual Experience

Measurement Year	2016	2017	2018	2019	2020	2021	2022	2023			
Amount Established	(465,534)	335,013	(241,238)	1,943,344	336,157	162,958	726,557	1,649,414			
Amortization Period	4	4	2	2	2	2	2	2			
Annual Recognition	(116,383)	83,753	(120,619)	971,672	168,078	81,479	363,279	824,707			
Amount Recognized									Total	Outflows	Inflows
2016	(116,383)								(116,383)	-	(116,383)
2017	(116,383)	83,753							(32,630)	83,753	(116,383)
2018	(116,383)	83,753	(120,619)						(153,249)	83,753	(237,002)
2019	(116,385)	83,753	(120,619)	971,672					818,421	1,055,425	(237,004)
2020	-	83,754	-	971,672	168,078				1,223,504	1,223,504	-
2021	-	-	-	-	168,079	81,479			249,558	249,558	-
2022	-	-	-	-	-	81,479	363,279		444,758	444,758	-
2023	-	-	-	-	-	-	363,278	824,707	1,187,985	1,187,985	-
2024	-	-	-	-	-	-	-	824,707	824,707	824,707	-
2025	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-
Deferred Balance											
2016	(349,151)								(349,151)	-	(349,151)
2017	(232,768)	251,260							18,492	251,260	(232,768)
2018	(116,385)	167,507	(120,619)						(69,497)	167,507	(237,004)
2019	-	83,754	-	971,672					1,055,426	1,055,426	-
2020	-	-	-	-	168,079				168,079	168,079	-
2021	-	-	-	-	-	81,479			81,479	81,479	-
2022	-	-	-	-	-	-	363,278		363,278	363,278	-
2023	-	-	-	-	-	-	-	824,707	824,707	824,707	-
2024	-	-	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-



Amortization of Difference between Projected and Actual Earnings

Measurement Year	2016	2017	2018	2019	2020	2021	2022	2023			
Amount Established	(247,480)	(1,947,640)	4,815,439	(3,910,265)	(2,414,106)	(2,232,446)	11,037,880	(2,816,448)			
Amortization Period	5	5	5	5	5	5	5	5			
Annual Recognition	(49,496)	(389,528)	963,088	(782,053)	(482,821)	(446,489)	2,207,576	(563,289)			
Amount Recognized									Total	Outflows	Inflows
2016	(49,496)								(49,496)	-	(49,496)
2017	(49,496)	(389,528)							(439,024)	-	(439,024)
2018	(49,496)	(389,528)	963,088						524,064	963,088	(439,024)
2019	(49,496)	(389,528)	963,088	(782,053)					(257,989)	963,088	(1,221,077)
2020	(49,496)	(389,528)	963,088	(782,053)	(482,821)				(740,810)	963,088	(1,703,898)
2021	-	(389,528)	963,088	(782,053)	(482,821)	(446,489)			(1,137,803)	963,088	(2,100,891)
2022	-	-	963,087	(782,053)	(482,821)	(446,489)	2,207,576		1,459,300	3,170,663	(1,711,363)
2023	-	-	-	(782,053)	(482,821)	(446,489)	2,207,576	(563,289)	(67,076)	2,207,576	(2,274,652)
2024	-	-	-	-	(482,822)	(446,489)	2,207,576	(563,289)	714,976	2,207,576	(1,492,600)
2025	-	-	-	-	-	(446,490)	2,207,576	(563,289)	1,197,797	2,207,576	(1,009,779)
2026	-	-	-	-	-	-	2,207,576	(563,289)	1,644,287	2,207,576	(563,289)
2027	-	-	-	-	-	-	-	(563,292)	(563,292)	-	(563,292)
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-
Deferred Balance											
2016	(197,984)								(197,984)	-	(197,984)
2017	(148,488)	(1,558,112)							(1,706,600)	-	(1,706,600)
2018	(98,992)	(1,168,584)	3,852,351						2,584,775	3,852,351	(1,267,576)
2019	(49,496)	(779,056)	2,889,263	(3,128,212)					(1,067,501)	2,889,263	(3,956,764)
2020	-	(389,528)	1,926,175	(2,346,159)	(1,931,285)				(2,740,797)	1,926,175	(4,666,972)
2021	-	-	963,087	(1,564,106)	(1,448,464)	(1,785,957)			(3,835,440)	963,087	(4,798,527)
2022	-	-	-	(782,053)	(965,643)	(1,339,468)	8,830,304		5,743,140	8,830,304	(3,087,164)
2023	-	-	-	-	(482,822)	(892,979)	6,622,728	(2,253,159)	2,993,768	6,622,728	(3,628,960)
2024	-	-	-	-	-	(446,490)	4,415,152	(1,689,870)	2,278,792	4,415,152	(2,136,360)
2025	-	-	-	-	-	-	2,207,576	(1,126,581)	1,080,995	2,207,576	(1,126,581)
2026	-	-	-	-	-	-	-	(563,292)	(563,292)	-	(563,292)
2027	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-



Amortization of Changes in Assumptions

Measurement Year	2016	2017	2018	2019	2020	2021	2022	2023			
Amount Established	-	-	1,189,575	373,385	361,060	601,314	563,863	1,564,460			
Amortization Period	3	3	2	2	2	2	2	2			
Annual Recognition	-	-	594,787	186,692	180,530	300,657	281,932	782,230			
Amount Recognized									Total	Outflows	Inflows
2016	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	594,787	-	-	-	-	-	594,787	594,787	-
2019	-	-	594,788	186,692	-	-	-	-	781,480	781,480	-
2020	-	-	-	186,693	180,530	-	-	-	367,223	367,223	-
2021	-	-	-	-	180,530	300,657	-	-	481,187	481,187	-
2022	-	-	-	-	-	300,657	281,932	-	582,589	582,589	-
2023	-	-	-	-	-	-	281,931	782,230	1,064,161	1,064,161	-
2024	-	-	-	-	-	-	-	782,230	782,230	782,230	-
2025	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-
Deferred Balance											
2016	-	-	-	-	-	-	-	-	-	-	-
2017	-	-	-	-	-	-	-	-	-	-	-
2018	-	-	594,788	-	-	-	-	-	594,788	594,788	-
2019	-	-	-	186,693	-	-	-	-	186,693	186,693	-
2020	-	-	-	-	180,530	-	-	-	180,530	180,530	-
2021	-	-	-	-	-	300,657	-	-	300,657	300,657	-
2022	-	-	-	-	-	-	281,931	-	281,931	281,931	-
2023	-	-	-	-	-	-	-	782,230	782,230	782,230	-
2024	-	-	-	-	-	-	-	-	-	-	-
2025	-	-	-	-	-	-	-	-	-	-	-
2026	-	-	-	-	-	-	-	-	-	-	-
2027	-	-	-	-	-	-	-	-	-	-	-
2028	-	-	-	-	-	-	-	-	-	-	-
2029	-	-	-	-	-	-	-	-	-	-	-
2030	-	-	-	-	-	-	-	-	-	-	-
2031	-	-	-	-	-	-	-	-	-	-	-

