

# **Judicial Retirement System of New Jersey**

GASB 67 Report as of June 30, 2021

**Produced by Cheiron** 

April 2022

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#### **SECTION I – BOARD SUMMARY**

The purpose of this report is to provide accounting and financial disclosure information under Governmental Accounting Standards Board Statement 67 for the Judicial Retirement System of New Jersey (JRS, Plan, or System). This information includes:

- Projection of the Total Pension Liability from the valuation date to the measurement date,
- Calculation of the Net Pension Liability at the discount rate as well as discount rates 1% higher and lower than the discount rate, and
- Changes in the Net Pension Liability.

#### **Highlights**

The reporting date for JRS is June 30, 2021. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2021 and the Total Pension Liability as of the valuation date, July 1, 2020, updated to June 30, 2021. There were two changes in the assumptions. The discount rate used to measure the Total Pension Liability was changed as of the measurement date. In addition, the mortality assumption was updated upon direction from the Division of Pensions and Benefits (DPB). We are not aware of any other significant events that are measurable at this time between the valuation date and the measurement date, so the update procedures only included the addition of service cost and interest cost offset by actual benefit payments, and an adjustment to reflect the changes in assumptions.

The following table provides a summary of the key results during this reporting period.

Table I-1 Summary of Results								
Measurement Date	J	une 30, 2021		June 30, 2020				
Total Pension Liability Plan Fiduciary Net Position	\$	879,178,447 182,559,755	\$	1,255,157,975 146,428,843				
Net Pension Liability	\$	696,618,692	\$	1,108,729,132				



#### **SECTION II - CERTIFICATION**

The purpose of this report is to provide accounting and financial reporting information under GASB 67 for the Judicial Retirement System of New Jersey (JRS). This report is for the use of JRS, the Division of Pensions and Benefits (DPB) and their auditors in preparing financial reports in accordance with applicable law and accounting requirements. This report is not appropriate for other purposes, including the measurement of funding requirements for JRS and estimating the price to settle JRS's obligations.

In preparing our report, we relied on information (some oral and some written) supplied by the Division of Pensions and Benefits. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements 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; and changes in plan provisions or applicable law.

For purposes of this report, the projection of the Plan's contributions and projected benefit payments as of June 30, 2021 was based on the recommended demographic assumptions of the July 1, 2014 – June 30, 2018 Experience Study, which was approved by the State House Commission on July 2, 2020. The calculation of the Total Pension Liability as of June 30, 2021 was based on the same demographic assumptions except for the mortality assumption, which was based on the SOA's MP-2021 mortality improvement scale upon direction from the DPB. While we do not find the use of the SOA's Scale MP-2021 unreasonable, it does not reflect the analysis of actual mortality experience from our Experience Study which was the basis for our recommended mortality assumptions, including the mortality improvement scale.

This report was prepared using census data as of the July 1, 2020 valuation date and financial information as of the June 30, 2021 measurement date. Given the uncertainty and lack of credible data regarding the impact that COVID-19 may have had on the System's demographic experience between the measurement date and reporting date, no specific adjustments have been made at this time. We will continue to monitor developments regarding the COVID-19 pandemic and the impact it may have on the System. Actual experience, both demographic and economic, will be reflected in subsequent GASB 67 reports as experience emerges.

Chapter 105, P.L. 2021 removes the age 70 mandatory retirement for a member of JRS who has been appointed by the Governor, with the advice and consent of the Senate, to the position of county prosecutor. This legislation did not impact the Total Pension Liability for this report. The impact of Chapter 105, P.L. 2021 will be recognized in subsequent years as experience emerges.

Based on the State Treasurer's recommendation the following investment return assumptions are used to determine the actuarially determined contributions:

- Effective with the July 1, 2019 valuation: 7.30% per annum,
- Effective with the July 1, 2021 valuation: 7.00% per annum.



#### **SECTION II - CERTIFICATION**

In accordance with Paragraph 40 of GASB Statement No. 67, the projection of the Plan's fiduciary net position is based on a long-term expected rate of return of 7.00% per annum. The discount rate used to measure the Total Pension Liability is 7.00% as of June 30, 2021 and is described in Section III of the report.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared for JRS for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Janet Cranna, FSA, FCA, MAAA, EA

Principal Consulting Actuary

Anu Patel, FSA, MAAA, EA Principal Consulting Actuary



#### SECTION III – DETERMINATION OF DISCOUNT RATE

The discount rate used to measure the Total Pension Liability was 3.10% as of June 30, 2020 and 7.00% as of June 30, 2021. As discussed with the Division of Pensions and Benefits, the projection of cash flows used to determine the discount rate as of June 30, 2021 assumed:

- In accordance with Paragraph 40 of GASB Statement No. 67, the projection of the Plan's fiduciary net position is based on a long-term expected rate of return of 7.00% per annum.
- In accordance with Paragraph 37 of GASB Statement No. 67, the projection of the Plan's contributions and projected benefit payments are based on the same assumptions used to determine the expected contributions for the System. The demographic assumptions are based on the recommendations of the July 1, 2014 June 30, 2018 Experience Study, approved by the State House Commission on July 2, 2020.

Based on the State Treasurer's recommendation the following investment return assumptions are used to determine the actuarially determined contributions:

- o Effective with the July 1, 2019 valuation: 7.30% per annum,
- o Effective with the July 1, 2021 valuation: 7.00% per annum.
- The State contributed 107.91% of the actuarially determined contribution for fiscal year ending June 30, 2022 at the beginning of the fiscal year. This contribution has been included in the projections. In subsequent years, it is assumed that the State will contribute 100% of the actuarially determined contribution and Non-Contributory Group Insurance Premium Fund (NCGIPF) contribution. The 100% contribution rate is the total State contribution rate expected to be paid in fiscal year ending June 30, 2023 with respect to the actuarially determined contribution for the fiscal year ending June 30, 2023 for all State administered retirement systems.
- Consistent with Chapter 83, P.L. 2016, it is assumed that the State will make pension contributions in equal amounts at the end of each quarter. This assumption does not apply to the fiscal year ending June 30, 2022 contribution that was paid in full at the beginning of the fiscal year.
- The NCGIPF contributions are assumed to be paid monthly.
- Annual administrative expenses are assumed to be 0.53% of expected pension benefit payments.

Municipal bond rates of 2.21% as of June 30, 2020 and 2.16% as of June 30, 2021 were used in the development of the blended GASB discount rate after the Plan's fiduciary net position was no longer sufficient to make future benefit payments, when applicable. As selected by the State Treasurer, the rates are based on the Bond Buyer GO 20-Bond Municipal Bond Index. Based on the long-term rate of return of 7.00% and the municipal bond rate of 2.21%, the blended GASB discount rate was 3.10% as of June 30, 2020. As of June 30, 2021, based on the assumptions above, the pension Plan's fiduciary net position is expected to be sufficient to make all projected future benefit payments for current Plan members; therefore, the GASB discount rate as of June 30, 2021 is equal to the long-term rate of return of 7.00%. The assumed discount rates have been determined in accordance with the method prescribed by GASB Statement No. 67. See Appendix D for the determination of the discount rate.



#### SECTION IV - PROJECTION OF TOTAL PENSION LIABILITY

The Total Pension Liability (TPL) at the end of the measurement year, June 30, 2021, is measured as of a valuation date of July 1, 2020 and projected to June 30, 2021. The TPL and service cost were calculated using the Entry Age Normal Cost Method as prescribed by GASB 67. All TPL amounts shown in Table IV-1 below include liabilities attributable to the NCGIPF. In addition, employer transfer contributions and member transfer contributions with accumulated interest have been added to the June 30, 2021 TPL.

During the measurement year there was a change in assumptions. There were no other significant events during the projection period of which we are aware. Because the TPL shown in the prior report was measured as of July 1, 2019 and projected to June 30, 2020, it will not match the amounts measured as of July 1, 2020 that are shown in this exhibit.

The following table shows the projection of the TPL at discount rates equal to the rate used for disclosure and plus and minus one percent from the rate used for disclosure.

Table IV-1 Projection of Total Pension Liability from Valuation to Measurement Date									
Discount Rate		6.00%		7.00%		8.00%			
Total Pension Liability, 7/1/2020									
Actives	\$	314,253,746	\$	279,433,716	\$	249,852,916			
Deferred Vested		4,458,289		3,948,694		3,528,616			
Retirees		618,317,327		573,573,251		534,482,035			
Total	\$	937,029,362	\$	856,955,661	\$	787,863,567			
Service Cost		30,079,760		25,325,827		21,453,644			
Benefit Payments		(62,705,183)		(62,705,183)		(62,705,183)			
Transfer Contributions - Employer		0		0		0			
Transfer Contributions - Member		0		0		0			
Interest		56,172,793		59,602,142		62,285,422			
Total Pension Liability, 6/30/2021	\$	960,576,732	\$	879,178,447	\$	808,897,450			



#### SECTION V – NOTE DISCLOSURES

The following table shows the changes in the Total Pension Liability, the Plan Fiduciary Net Position (i.e., fair value of System assets), and the Net Pension Liability during the Measurement Year. There were changes in assumptions as the mortality improvement rates used for the TPL were updated from the MP-2020 to the MP-2021 mortality improvement scale as directed by the DPB. In addition, the discount rate increased from 3.10% as of June 30, 2020 to 7.00% as of June 30, 2021 in accordance with the method prescribed by GASB Statement No. 67. The impact of these changes is displayed in the following table.

Table V-1 Change in Net Pension Liability								
	Increase (Decrease)							
	Total Pension Liability (a)			Plan Fiduciary Net Position (b)		Net Pension Liability (a) - (b)		
Balances at 6/30/2020	\$	1,255,157,975	\$	146,428,843	\$	1,108,729,132		
Changes for the year:								
Service cost		51,347,166				51,347,166		
Interest		39,537,147				39,537,147		
Changes of benefits		0				0		
Differences between expected and actual experience		(1,657,542)				(1,657,542)		
Changes of assumptions		(402,501,116)				(402,501,116)		
Contributions - employer				52,508,011		(52,508,011)		
Contributions - member				9,426,354		(9,426,354)		
Transfers from other systems - employer		0		0		0		
Transfers from other systems - member		0		0		0		
Net investment income				37,225,810		(37,225,810)		
Benefit payments		(62,705,183)		(62,705,183)		0		
Administrative expense				(324,080)		324,080		
Net changes		(375,979,528)		36,130,912		(412,110,440)		
Balances at 6/30/2021	\$	879,178,447	\$	182,559,755	\$	696,618,692		



#### SECTION V – NOTE DISCLOSURES

Changes in the discount rate affect the measurement of the TPL. Lower discount rates produce a higher TPL and higher discount rates produce a lower TPL. Because the discount rate does not affect the measurement of assets, the percentage change in the NPL can be very significant for a relatively small change in the discount rate. The following table shows the sensitivity of the NPL to the discount rate.

Table V-2 Sensitivity of Net Pension Liability to Changes in Discount Rate								
		1% Decrease 6.00%		Discount Rate 7.00%		1% Increase 8.00%		
Total Pension Liability Plan Fiduciary Net Position	\$	960,576,732 182,559,755	\$	879,178,447 182,559,755	\$	808,897,450 182,559,755		
Net Pension Liability Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	\$	778,016,977	\$	696,618,692	\$	626,337,695		



#### SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

The schedule below shows the changes in NPL and related ratios required by GASB for the current and prior years.

Table VI-1			
Schedule of Changes in Net Pension Liability	and	Related Ratios	
		FYE 2021	FYE 2020
<u>Total Pension Liability</u>			
Service cost	\$	51,347,166	\$ 43,552,248
Interest (includes interest on service cost)		39,537,147	45,751,351
Changes of benefit terms		0	0
Differences between expected and actual experience		(1,657,542)	2,816,229
Changes of assumptions		(402,501,116)	112,739,048
Transfers from other systems - employer		0	315,605
Transfers from other systems - member		0	710,197
Benefit payments, including refunds of member contributions		(62,705,183)	 (60,949,109)
Net change in total pension liability	\$	(375,979,528)	\$ 144,935,569
Total pension liability - beginning		1,255,157,975	 1,110,222,406
Total pension liability - ending	\$	879,178,447	\$ 1,255,157,975
Plan fiduciary net position			
Contributions - employer	\$	52,508,011	\$ 37,496,113
Contributions - member		9,426,354	9,239,505
Transfers from other systems - employer		0	315,605
Transfers from other systems - member		0	710,197
Net investment income		37,225,810	1,972,315
Benefit payments, including refunds of member contributions		(62,705,183)	(60,949,109)
Administrative expense		(324,080)	(219,976)
Net change in plan fiduciary net position	\$	36,130,912	\$ (11,435,350)
Plan fiduciary net position - beginning		146,428,843	 157,864,193
Plan fiduciary net position - ending	\$	182,559,755	\$ 146,428,843
Net pension liability - ending	\$	696,618,692	\$ 1,108,729,132
Plan fiduciary net position as a percentage of the total pension liability		20.76%	11.67%
Covered payroll	\$	76,970,450	\$ 76,627,036
Net pension liability as a percentage of covered payroll		905.05%	1,446.92%



#### SECTION VI – REQUIRED SUPPLEMENTARY INFORMATION

Since an Actuarially Determined Contribution (ADC) is calculated, the following schedule is required. An ADC is a contribution amount determined in accordance with Actuarial Standards of Practice. Amounts shown for the ADC and actual contributions in the table below include the Non-Contributory Group Insurance Premium Fund costs.

Table VI-2 Schedule of Employer Contributions							
		FYE 2021		FYE 2020			
Actuarially Determined Contribution  Contributions in Relation to the Actuarially Determined Contribution	\$	66,973,041 52,508,011	\$	53,213,618 37,496,113			
Contribution Deficiency/(Excess)	\$	14,465,030	\$	15,717,505			
Covered Payroll Contributions as a Percentage of Covered Payroll	\$	76,970,450 68.22%		76,627,036 48.93%			

The following summarizes key methods and assumptions used to determine the Actuarially Determined Contribution for FYE 2021.

Valuation Date: July 1, 2019

Timing: Actuarial determined contributions are calculated as of the July 1 preceding

the fiscal year in which contributions are made.

Actuarial cost method: Projected Unit Credit

Amortization method: Level dollar Remaining 30 years

amortization period:

Asset valuation 5-year smoothing of difference between market value and expected actuarial

method: value
Investment rate of 7.30%

return:

Salary increases: Salaries are assumed to increase 4.6% from FYE 2018 to FYE 2019, 4.4%

from FYE 2019 to FYE 2020, 2.0% per year for the following five years

(from FYE 2020 to FYE 2025), and 2.75% per year thereafter.

Mortality: Healthy Annuitants: The Pub-2010 Teachers Above-Median Income Healthy

Retiree mortality table [PubT-2010(A) Healthy Retiree] as published by the Society of Actuaries, unadjusted, and with future improvement from the base

year of 2010 on a generational basis using SOA's Scale MP-2018.

Disabled Annuitants: The Pub-2010 Non-Safety Disabled Retiree mortality table [PubNS-2010 Disabled Retiree] as published by the Society of Actuaries, unadjusted, and with future improvement from the base year of

2010 on a generational basis using SOA's Scale MP-2018.

*Pre-Retirement: The* Pub-2010 Teachers Above-Median Income Employee mortality table *[PubT-2010(A) Employee]*, unadjusted, and with future improvement from the base year of 2010 on a generational basis using

SOA's Scale MP-2018.



#### **APPENDIX A – MEMBERSHIP INFORMATION**

Plan Membership							
	July 1, 2020	<b>July 1, 2019</b>					
Contributing Actives	405	421					
Non-Contributing Actives	10	5					
Terminated Vested	6	6					
Inactive Receiving Benefits	640	633					
Total	1,061	1,065					
Annual Compensation for Contributing Actives Annual Retirement Allowances for Those	\$ 76,970,450	\$ 76,627,036					
Receiving Benefits	\$ 59,923,801	\$ 59,393,303					



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### A. Actuarial Assumptions

- 1. Investment Rate of Return for determining Actuarially **Determined Contributions**
- July 1, 2020 valuation: 7.30% per annum, compounded annually.
- July 1, 2021 and later valuations: 7.00% per annum, compounded annually.
- Rate of Return

**2.** Long-Term Expected 7.00% per annum, compounded annually.

3. Interest Crediting Rate on Accumulated **Deductions** 

7.30% per annum, compounded annually. Interest credits are assumed to end upon termination.

- 4. GASB 67 Effective **Discount Rate**
- June 30, 2020: 3.10% per annum, compounded annually.
- June 30, 2021: 7.00% per annum, compounded annually.
- 5. Price Inflation

2.75% per annum, compounded annually.

6. Wage Inflation

3.25% per annum, compounded annually.

7. Cost-of-Living Adjustments (COLAs) included in the data.

No future COLA is assumed. Previously granted COLAs are

8. Salary Increases

Salaries are assumed to increase 4.6% from fiscal year ending (FYE) 2018 to FYE 2019, 4.4% from FYE 2019 to FYE 2020, 2.0% per year for the following five years (from FYE 2020 to FYE 2025), and 2.75% per year thereafter.

Salary increases are assumed to occur on January 1.

9. 401(a)(17) Pay Limit

\$285,000 in 2020 increasing 2.75% per annum, compounded

annually.

10. Termination

None assumed.



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### 11. Disability

Representative disability rates are as follows:

Age	Rates
30	0.022%
35	0.026
40	0.033
45	0.064
50	0.114
55	0.197
60	0.326
65	0.473

#### 12. Mortality

Healthy Retiree Mortality: The Pub-2010 Teachers Above-Median Income Healthy Retiree mortality table [PubT-2010(A) Healthy Retiree] as published by the Society of Actuaries (SOA), unadjusted, and with future improvement from the base year of 2010 on a generational basis. For purposes of calculating projected cash flows used to determine the GASB discount rate, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2021.

<u>Disabled Retiree Mortality</u>: The Pub-2010 Non-Safety Disabled Retiree mortality table [PubNS-2010 Disabled Retiree] as published by the SOA, unadjusted, and with future improvement from the base year of 2010 on a generational basis. For purposes of calculating projected cash flows used to determine the GASB discount rate, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2021.

Pre-Retirement (Non-Annuitants) Mortality: The Pub-2010 Teachers Above-Median Income Employee mortality table [PubT-2010(A) Employee] as published by the SOA, unadjusted, and with future improvement from the base year of 2010 on a generational basis. For purposes of calculating projected cash flows used to determine the GASB discount rate, mortality improvement is based on SOA's Scale MP-2018. Upon direction from the DPB, for purposes of calculating the Total Pension Liability, mortality improvement is based on SOA's Scale MP-2021.



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### 13. Retirement

Retirement rates are as follows:

Age	Less than 15 Years of Judicial Service	15-19 Years of Judicial Service	20 or more Years of Judicial Service
< 60	0.0%	0.0%	0.0%
60	2.0	5.0	20.0
61	2.0	5.0	20.0
62	2.0	5.0	20.0
63	2.0	5.0	20.0
64	2.0	5.0	20.0
65	5.0	40.0	30.0
66	2.0	50.0	20.0
67	2.0	60.0	20.0
68	2.0	60.0	20.0
69	2.0	60.0	20.0
70	100.0	100.0	100.0

# 14. Family Composition Assumptions

For members not currently in receipt, 90% of members are assumed married to spouses of the opposite sex. Males are assumed to be three years older than females.

For purposes of the optional form of payment death benefit for members currently in receipt, beneficiary status is based on the beneficiary allowance reported. If no beneficiary date of birth is provided, the beneficiary is assumed to be the member's spouse of the opposite sex with males assumed to be three years older than females.

For purposes of the statutory death benefit for members currently in receipt, 100% of participants are assumed married to spouses of the opposite sex, with the exception of those members who elected Optional Forms A, B, C or D and are currently in receipt of their maximum retirement allowance. The spouse is assumed to be the reported beneficiary. If no beneficiary date of birth is provided, males are assumed to be three years older than females.

No additional dependent children or parents are assumed.

Current dependents under age 21 are assumed to receive a benefit until age 21. Current dependents over age 21 are assumed to receive a benefit for the remainder of their lifetime.

#### 15. Form of Payment

Current actives are assumed to elect the Maximum Option.



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### 16. Data

Information provided by the prior actuary was relied upon for the purposes of valuing certain deferred vested members.

For current beneficiaries with missing data, reasonable assumptions were made based on the information available in prior years.

Inactives receiving benefits according to the 2019 data but omitted from the 2020 data are assumed to have died without a beneficiary.

# 17. Rationale for Assumptions

The demographic assumptions used in this report reflect the results of the July 1, 2014 – June 30, 2018 Experience Study, approved by the State House Commission on July 2, 2020. The investment return assumption was recommended by the State Treasurer. The MP-2021 mortality improvement scale was used to calculate the Total Pension Liability upon direction from the DPB.

#### 18. Projection Basis

This report includes projections of future assets, benefit payments and contributions for the purpose of determining the GASB 67 discount rate.

The projections are based on the census data as of July 1, 2020 and the financial information as of June 30, 2021. The projections assume continuation of the plan provisions and actuarial assumptions in effect as of July 1, 2020 and do not reflect the impact of any changes in benefits or actuarial assumptions that may be adopted after July 1, 2021 unless otherwise indicated. While the assumptions individually are reasonable for the underlying valuation that supports the projections, specifically for projection purposes, they are also considered reasonable in the aggregate.

The projections assume that all future assumptions are met except where indicated with respect to future investment returns and demographic assumptions.

# 19. Changes in Assumptions Since Last Valuation

The mortality improvement scale used to calculate the Total Pension Liability was updated from the MP-2020 scale to the MP-2021 scale upon direction from the DPB.

The GASB 67 effective discount rate was updated in accordance with the method prescribed by GASB Statement No. 67.



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### **B.** Actuarial Methods

The actuarial methods used for determining State contributions are described below.

#### 1. Actuarial Cost Method

The actuarial cost method for funding calculations is the Projected Unit Credit Cost Method.

The actuarial liability is calculated as the actuarial present value of the projected benefits linearly allocated to periods prior to the valuation year based on judicial service. Refunds are valued as the reported Accumulated Deductions as provided by the DPB. The unfunded actuarial liability is the actuarial liability on the valuation date less the actuarial value of assets.

In accordance with Chapter 78, P.L. 2011:

- Beginning with the July 1, 2010 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over an open 30 year period.
- Beginning with the July 1, 2019 actuarial valuation, the accrued liability contribution shall be computed so that if the contribution is paid annually in level dollars, it will amortize the unfunded accrued liability over a closed 30 year period (i.e., for each subsequent actuarial valuation the amortization period shall decrease by one year).
- Beginning with the July 1, 2029 actuarial valuation, when the remaining amortization period reaches 20 years, any increase or decrease in the unfunded accrued liability as a result of actuarial losses or gains for subsequent valuation years shall serve to increase or decrease, respectively, the amortization period for the unfunded accrued liability, unless an increase in the amortization period will cause it to exceed 20 years. If an increase in the amortization period as a result of actuarial losses for a valuation year would exceed 20 years, the accrued liability contribution shall be computed for the valuation year using a 20 year amortization period.

To the extent that the amortization period remains an open period in future years and depending upon the specific circumstances, it should be noted that in the absence of emerging actuarial gains or contributions made in excess of the actuarially determined contribution, any existing unfunded accrued liability may not be fully amortized in the future.



#### APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

#### 2. Asset Valuation Method

For the purposes of determining contribution rates, an actuarial value of assets is used that dampens the volatility in the market value of assets, resulting in a smoother pattern of contributions.

The actuarial value of assets is adjusted to reflect actual contributions, benefit payments and administrative expenses, and an assumed return on the previous year's assets and the current year's cash flow at the prior year's actuarial valuation interest rate, with a further adjustment to reflect 20% of the difference between the resulting value and the actual market value of Plan assets.

#### 3. State Contribution Payable Dates

Chapter 83, P.L. 2016 requires the State to make the required pension contributions on a quarterly basis in each fiscal year according to the following schedule: at least 25 percent by September 30, at least 50 percent by December 31, at least 75 percent by March 31, and at least 100 percent by June 30. As such, contributions are assumed to be made on a quarterly basis.

#### 4. Valuation Software

Cheiron utilizes ProVal, an actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this actuarial valuation.

#### 5. Changes in Methods Since the Last Valuation

None.



#### APPENDIX C – SUMMARY OF PLAN PROVISIONS

This summary of Plan provisions provides an overview of the major provisions of the JRS used in the actuarial valuation. It is not intended to replace the more precise language of the NJ State Statutes, Title 43, Chapter 6A, and if there is any difference between the description of the plan herein and the actual language in the NJ State Statutes, the NJ State Statutes will govern.

#### 1. Eligibility for Membership

Chief Justice and Associate Justices of the State Supreme Court, and judges of the Appellate Court, Superior Court and Tax Court of the State of New Jersey.

#### 2. Plan Year

The 12-month period beginning on July 1 and ending on June 30.

#### 3. Service Credit

A year is credited for each year of service as a public employee in the State of New Jersey. Any service, for which the member did not receive annual salary of at least \$500, shall be excluded. Judicial service credit is based on biweekly pay periods for which member contributions are made to JRS.

#### 4. Final Salary

Annual salary received by the member at the time of retirement or other termination of service. (Effective June 30, 1996, Chapter 113, P.L. 1997 provided that the amount of compensation used for employer and member contributions and benefits under the program cannot exceed the compensation limitation of Section 401(a)(17) of the Internal Revenue Code.)

#### 5. Accumulated Deductions

The sum of all amounts deducted from the compensation of a member or contributed by him or on his behalf.

#### 6. Interest Credits on Accumulated Deductions

Members receive interest credits while contributing and for the first two years of inactivity. Prior to July 1, 2018, members received interest credits for the entire period of inactivity until retirement or death.

#### 7. Employee Contributions

Any member enrolled prior to January 1, 1996 contributes 3% of the difference between current salary and salary for the position on January 18, 1982. Members enrolled on or after January 1, 1996 contribute 3% of their full salary.



#### APPENDIX C – SUMMARY OF PLAN PROVISIONS

Chapter 78, P.L. 2011 increases Member Contributions by 9% of salary phased in over a period of seven years beginning October 2011. (The additional 9% of salary was fully recognized in July 2017.)

#### a) For Members enrolled prior to January 1, 1996:

- (1) Member contributes 9% (phased in over a period of seven years beginning October 2011) of the salary for that position on January 18, 1982.
- (2) Member contributes 12% (9% of that phased in over a period of seven years beginning October 2011) of the difference between current salary and salary for that position on January 18, 1982.
- b) For members enrolled on or after January 1, 1996, Member contributes 12% (9% of that phased in over a period of seven years beginning October 2011) of full salary.

#### 8. Retirement Allowance

Benefit comprised of a member annuity plus an employer pension.

#### 9. Benefits

#### a) Service Retirements

Mandatory retirement at age 70. Voluntary retirement prior to that age.

Chapter 105, P.L. 2021 removed the mandatory retirement at age 70 for a member who has been appointed by the Governor, with the advice and consent of the Senate, to the position of county prosecutor.

(1) Age 70 and 10 years of judicial service; or

Age 65 and 15 years of judicial service; or

Age 60 and 20 years of judicial service.

Benefit is an annual retirement allowance equal to 75% of final salary.

(2) Age 65 while serving as a judge, 5 consecutive years of judicial service and 15 years in the aggregate of public service; or

Age 60 while serving as a judge, 5 consecutive years of judicial service and 20 years in the aggregate of public service.

Benefit is an annual retirement allowance equal to 50% of final salary.



#### **APPENDIX C – SUMMARY OF PLAN PROVISIONS**

(3) Age 60 while serving as a judge, 5 consecutive years of judicial service and 15 years in the aggregate of public service.

Benefit is an annual retirement allowance equal to 2% of final salary for each year of public service up to 25 years plus 1% of final salary for each year of public service in excess of 25 years.

(4) Age 60 while serving as a judge.

Benefit is an annual retirement allowance equal to 2% of final salary for each year of judicial service up to 25 years plus 1% for each year of public service in excess of 25 years.

#### b) Early Retirement

Prior to age 60 while serving as a judge, 5 consecutive years of judicial service and 25 or more years in the aggregate of public service.

Benefit is an annual retirement allowance equal to 2% of final salary for each year of public service up to 25 years plus 1% of final salary for each year of public service in excess of 25 years, actuarially reduced for commencement prior to age 60.

#### c) <u>Deferred Retirement</u>

Termination of service prior to age 60, with 5 consecutive years of judicial service and 10 years in the aggregate of public service.

Benefit is a refund of accumulated deductions, or a deferred life annuity beginning at age 60 equal to 2% of final salary for each year of public service up to 25 years, plus 1% of final salary for each year of public service in excess of 25 years.

#### d) Non-Vested Termination

Termination of service prior to age 60, with less than 5 years of judicial service or less than 10 years in the aggregate of public service.

Benefit is a refund of accumulated deductions.

#### e) Disability Retirement

Physically or otherwise incapacitated for the full and efficient service to State in his judicial capacity and such incapacity is likely to be permanent.

Benefit is an annual retirement allowance of 75% of final salary.

#### f) Death Benefits

(1) Before Retirement: Death of an active member of the plan. Benefit is equal to:



#### **APPENDIX C – SUMMARY OF PLAN PROVISIONS**

- a) Lump sum payment equal to 150% of final salary, also known as the non-contributory group life insurance benefit, plus
- b) Spousal life annuity of 25% of final salary payable until spouse's remarriage plus 10% (15%) to one (two or more) dependent child(ren). If there is no surviving spouse, or upon death or remarriage, a total of 15% (20%, 30%) of final salary payable to one (two, three or more) dependent child(ren). If there is no surviving spouse or dependent child(ren), 20% (30%) of final salary to one (two) dependent parent(s). If there is no surviving spouse, dependent child(ren) or parent(s), the benefit is a refund of accumulated deductions with credited interest. This is also known as the statutory death benefit.
- (2) After Retirement: Death of a retired member of the plan. The benefit is equal to:
  - a) Lump sum of 25% of final salary for a member retired under service or early retirement. For a member receiving a disability benefit, a lump sum of 150% of final salary if death occurred before the member attained age 60 and 25% of final salary if death occurred after age 60. This is also known as the non-contributory group life insurance benefit, plus
  - b) Spousal life annuity of 25% of final salary adjusted for any previously granted Cost-of-Living Adjustments, or the salary of an active judge in the member's final position at retirement, if larger, payable until spouse's remarriage plus 10% (15%) to one (two or more) dependent child(ren). If there is no surviving spouse, or upon death or remarriage, a total of 15% (20%, 30%) of final salary payable to one (two, three or more) dependent child(ren). This is also known as the statutory death benefit.

#### 10. Forms of Payment

In addition to the postretirement death benefits listed above, the member may elect the following forms of payment.

- a) Maximum Option: Single life annuity with a return of the balance of the member accumulated deductions with credited interest.
- b) Option 1: Single life annuity with a return of the balance of the initial reserve.
- c) Option 2: 100% joint and survivor annuity.
- d) Option 3: 50% joint and survivor annuity.
- e) Option 4: Other percentage joint and survivor annuity.
- f) Option A: 100% pop-up joint and survivor annuity.
- g) Option B: 75% pop-up joint and survivor annuity.
- h) Option C: 50% pop-up joint and survivor annuity.
- i) Option D: 25% pop-up joint and survivor annuity.



#### **APPENDIX C – SUMMARY OF PLAN PROVISIONS**

#### 11. Changes in Plan Provisions Since Last Valuation

Chapter 105, P.L. 2021 removed the mandatory retirement at age 70 for a member who has been appointed by the Governor, with the advice and consent of the Senate, to the position of county prosecutor.



#### APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 1 - Projection of the Pension Plan's Fiduciary Net Position

(In Thousands)

Projections Commence June 30, 2021

Year	Projected Beginning Fiduciary Net Position	Projected Member Contributions	Projected Employer Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	<b>(f)</b>	(g) = (a) + (b) + (c) -
1	\$ 182,560	\$ 8,487	\$ 73,174	\$ 65,347	\$ 340	\$ 15,905	(d) - (e) + (f) \$ 214,439
2	214,439	7,878	68,439	68,169	355	14,702	236,933
3	236,933	7,344	67,760	70,711	368	16,153	257,111
4	257,111	6,807	67,138	73,232	381	17,444	274,886
5	274,886	6,274	66,421	75,623	394	18,569	290,133
6	290,133	5,698	65,495	78,023	407	19,509	302,398
7	302,398	5,234	64,450	79,995	417	20,257	311,928
8	311,928	4,737	63,513	81,938	427	20,816	318,630
9	318,630	4,349	62,594	82,993	432	21,211	323,358
10	323,358	3,890	62,081	84,359	439	21,466	325,998
11	325,998	3,404	61,154	85,702	446	21,564	325,971
12	325,971	2,892	60,008	87,026	453	21,469	322,861
13	322,861	2,415	58,732	87,919	458	21,171	316,803
14	316,803	2,009	57,518	88,223	460	20,691	308,338
15	308,338	1,619	56,608	88,276	460	20,060	297,889
16	297,889	1,286	55,670	87,814	457	19,309	285,882
17	285,882	1,030	54,901	86,733	452	18,477	273,106
18	273,106	830	54,353	85,182	443	17,615	260,279
19	260,279	622	53,949	83,566	435	16,756	247,605
20	247,605	455	53,540	81,569	424	15,921	235,528
21	235,528	348	53,214	79,084	411	15,150	224,744
22	224,744	243	53,013	76,514	398	14,475	215,563
23	215,563	166	52,818	73,696	383	13,922	208,390
24	208,390	117	52,676	70,648	367	13,520	203,688
25	203,688	75	52,586	67,531	351	13,295	201,764
26	201,764	52	52,507	64,282	334	13,269	202,977
27	202,977	42	52,457	60,954	316	13,468	207,672
28	207,672	29	52,426	57,663	299	13,909	216,073
29	216,073	16	52,389	54,407	282	14,608	228,398
30	228,398	6	52,350	51,184	265	15,581	244,886
31	244,886	5	52,313	47,958	248	16,845	265,843
32	265,843	0	22,119	44,825	232	17,639	260,544
33	260,544	0	2,059	41,739	215	16,855	237,503
34	237,503	0	1,128	38,744	200	15,321	215,009
35	215,009	0	1,040	35,846	185	13,845	193,863
36	193,863	0	988	33,049	170	12,459	174,091
37	174,091	0	936	30,362	156	11,167	155,676
38	155,676	0	884	27,787	143	9,965	138,594
39	138,594	0	830	25,331	130	8,853	122,816
40	122,816	0	777	22,998	118	7,827	108,304
41	108,304	0	723	20,789	107	6,886	95,017
42	95,017	0	670	18,705	96	6,026	82,912
43	82,912	0	617	16,748	86	5,245	71,940
44	71,940	0	564	14,916	76	4,538	62,051
45	62,051	0	513	13,209	67	3,904	53,191
46	53,191	0	464	11,627	59	3,336	45,304
47	45,304	0	416	10,168	52	2,833	38,333
48	38,333	0	369	8,830	45	2,390	32,218
49	32,218	0	325	7,612	39	2,003	26,896
50	26,896	0	284	6,511	33	1,667	22,302
20	20,070	· ·	201	0,511	55	1,007	22,502



#### APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 1 - Projection of the Pension Plan's Fiduciary Net Position

(In Thousands)

Projections Commence June 30, 2021

Year	Projected Beginning Fiduciary Net Position	Projected Member Contributions	Projected Employer Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
	(a)	(b)	(c)	(d)	(e)	(f)	(g) = (a) + (b) + (c) -
	(a)	(D)	(6)	(u)	(6)	(1)	(d) - (e) + (f)
51	\$ 22,302	\$ 0	\$ 246	\$ 5,526	\$ 28	\$ 1,378	\$ 18,372
52	18,372	0	209	4,653	24	1,132	15,037
53	15,037	0	254	3,885	20	926	12,311
54	12,311	0	287	3,218	16	759	10,123
55	10,123	0	289	2,645	13	625	8,379
56	8,379	0	271	2,157	11	520	7,002
57	7,002	0	256	1,747	9	437	5,939
58	5,939	0	243	1,405	7	374	5,143
59	5,143	0	232	1,123	6	328	4,573
60	4,573	0	222	893	5	295	4,193
61	4,193	0	215	708	4	275	3,971
62	3,971	0	21	559	3	259	3,690
63	3,690	0	16	441	2	244	3,507
64	3,507	0	12	348	2	234	3,403
65	3,403	0	9	276	1	229	3,363
66	3,363	0	6	220	1	228	3,376
67	3,376	0	4	177	1	230	3,433
68	3,433	0	3	144	1	235	3,527
69	3,527	0	2	119	1	243	3,653
70	3,653	0	1	99	1	252	3,807
71	3,807	0	1	83	0	264	3,988
72	3,988	0	0	71	0	277	4,193
73	4,193	0	0	61	0	291	4,424
74	4,424	0	0	52	0	308	4,679
75	4,679	0	0	45	0	326	4,960
76	4,960	0	0	38	0	346	5,268
77	5,268	0	0	32	0	368	5,604
78	5,604	0	0	26	0	391	5,969
78 79	5,969	0	0	20 21	0	417	6,365
80	6,365	0	0	17	0	445	6,792
			0		0		
81	6,792	0		13		475	7,254
82	7,254	0	0	10	0	507	7,751
83	7,751	0	0	8	0	542	8,286
84	8,286	0	0	6	0	580	8,860
85	8,860	0	0	4	0	620	9,476
86	9,476	0	0	3	0	663	10,137
87	10,137	0	0	2	0	710	10,844
88	10,844	0	0	1	0	759	11,602
89	11,602	0	0	1	0	812	12,414
90	12,414	0	0	0	0	869	13,282
91	13,282	0	0	0	0	930	14,212
92	14,212	0	0	0	0	995	15,206
93	15,206	0	0	0	0	1,064	16,271
94	16,271	0	0	0	0	1,139	17,410
95	17,410	0	0	0	0	1,219	18,628
96	18,628	0	0	0	0	1,304	19,932
97	19,932	0	0	0	0	1,395	21,328
98	21,328	0	0	0	0	1,493	22,820
99	22,820	0	0	0	0	1,597	24,418
100	24,418	0	0	0	0	1,709	26,127
101	26,127	0	0	0	0	1,829	27,956
102	27,956	0	0	0	0	1,957	29,913



#### APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 2 - Actuarial Present Values of Projected Benefit Payments

(In Thousands)

Projections Commence June 30, 2021

\* From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

<sup>\*\*</sup> From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (d)

Year	Projected Projected Beginning Fiduciary Net Position*		Projected Benefit Payments for current Plan participants**	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
(a)		(b)	(c)	(d) = (c)  if  (b) >= (c)	(e) = (c) - (d)	$(f) = (d) / (1+7.00\%)^{(a)}5$	$(g) = (e) / (1+2.16\%)^{(a)}5$	$(h) = (c) / (1+7.00%)^{(a)}5]$
1	\$	182,560	\$ 65,347	\$ 65,347	\$ 0	\$ 63,173	\$ 0	\$ 63,173
2		214,439	68,169	68,169	0	61,591	0	61,591
3		236,933	70,711	70,711	0	59,707	0	59,707
4		257,111	73,232	73,232	0	57,791	0	57,791
5		274,886	75,623	75,623	0	55,773	0	55,773
6		290,133	78,031	78,031	0	53,784	0	53,784
7		302,398	79,995	79,995	0	51,531	0	51,531
8		311,928	81,938	81,938	0	49,329	0	49,329
9		318,630	82,993	82,993	0	46,696	0	46,696
10		323,358	84,359	84,359	0	44,359	0	44,359
11		325,998	85,702	85,702	0	42,117	0	42,117
12		325,971	87,026	87,026	0	39,970	0	39,970
13		322,861	87,919	87,919	0	37,739	0	37,739
14		316,803	88,223	88,223	0	35,392	0	35,392
15		308,338	88,276	88,276	0	33,096	0	33,096
16		297,889	87,814	87,814	0	30,769	0	30,769
17		285,882	86,733	86,733	0	28,402	0	28,402
18		273,106	85,182	85,182	0	26,069	0	26,069
19		260,279	83,566	83,566	0	23,902	0	23,902
20		247,605	81,569	81,569	0	21,804	0	21,804
21		235,528	79,084	79,084	0	19,757	0	19,757
22		224,744	76,514	76,514	0	17,864	0	17,864
23		215,563	73,696	73,696	0	16,081	0	16,081
24		208,390	70,648	70,648	0	14,407	0	14,407
25		203,688	67,531	67,531	0	12,871	0	12,871
26		201,764	64,282	64,282	0	11,450	0	11,450
27		202,977	60,954	60,954	0	10,147	0	10,147
28		207,672	57,663	57,663	0	8,971	0	8,971
29		216,073	54,407	54,407	0	7,911	0	7,911
30		228,398	51,184	51,184	0	6,955	0	6,955
31		244,886	47,958	47,958	0	6,090	0	6,090
32		265,843	44,825	44,825	0	5,320	0	5,320
33		260,544	41,739	41,739	0	4,630	0	4,630
34		237,503	38,744	38,744	0	4,017	0	4,017
35		215,009	35,846	35,846	0	3,473	0	3,473
36		193,863	33,049	33,049	0	2,993	0	2,993
37		174,091	30,362	30,362	0	2,569	0	2,569
38		155,676	27,787	27,787	0	2,198	0	2,198
39		138,594	25,331	25,331	0	1,872	0	1,872
40		122,816	22,998	22,998	0	1,589 1,342	0	1,589 1,342
41 42		108,304	20,789	20,789	0		0	
42		95,017	18,705	18,705	0	1,129 944	0	1,129 944
43 44		82,912 71,940	16,748 14,916	16,748 14,916	0	944 786	0	786
44		62,051	13,209	13,209	0	651	0	651
45 46		53,191	11,627	11,627	0	535	0	535
47		45,304	10,168	10,168	0	437	0	437
48		38,333	8,830	8,830	0	355	0	355
49		32,218	7,612	7,612	0	286	0	286
50		26,896	6,511	6,511	0	229	0	229
50		20,070	0,311	0,511	U	229	U	229



#### APPENDIX D – DETERMINATION OF DISCOUNT RATE

Table 2 - Actuarial Present Values of Projected Benefit Payments

(In Thousands)

Projections Commence June 30, 2021

\* From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (a)

<sup>\*\*</sup> From Table 1 - Projection of the Pension Plan's Fiduciary Net Position, column (d)

Year	Projected Beginning Fiduciary Net Position*		Projected Benefit Payments for current Plan participants**		"Funded" Portion of Benefit Payments		"Unfunded" Portion of Benefit Payments		Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
(a)		(b)		(c)	(d) =	(c) if (b) $>=$ (c)	(e) = (c)	) - (d)	$(f) = (d) / (1+7.00\%)^{(a)}5$	$(g) = (e) / (1+2.16\%)^{(a)}5$	(h) = (c) / (1+7.00%)^[(a)5]
51	\$	22,302	\$	5,526	\$	5,526	\$	0	\$ 181	\$ 0	\$ 181
52		18,372		4,653		4,653		0	143	0	143
53		15,037		3,885		3,885		0	111	0	111
54		12,311		3,218		3,218		0	86	0	86
55		10,123		2,645		2,645		0	66	0	66
56		8,379		2,157		2,157		0	50	0	50
57		7,002		1,747		1,747		0	38	0	38
58		5,939		1,405		1,405		0	29	0	29
59 60		5,143 4,573		1,123 893		1,123 893		0	21 16	0	21 16
61		4,373		708		708		0	12	0	12
62		3,971		559		559		0	9	0	9
63		3,690		441		441		0	6	0	6
64		3,507		348		348		0	5	0	5
65		3,403		276		276		0	4	0	4
66		3,363		220		220		0	3	0	3
67		3,376		177		177		0	2	0	2
68		3,433		144		144		0	1	0	1
69		3,527		119		119		0	1	0	1
70		3,653		99		99		0	1	0	1
71		3,807		83		83		0	1	0	1
72		3,988		71		71		0	1	0	1
73		4,193		61		61		0	0	0	0
74 75		4,424 4,679		52 45		52 45		0	0	0	0
76		4,679		38		38		0	0	0	0
77		5,268		32		32		0	0	0	0
78		5,604		26		26		0	0	0	0
79		5,969		21		21		0	0	0	0
80		6,365		17		17		0	0	0	0
81		6,792		13		13		0	0	0	0
82		7,254		10		10		0	0	0	0
83		7,751		8		8		0	0	0	0
84		8,286		6		6		0	0	0	0
85		8,860		4		4		0	0	0	0
86		9,476		3		3		0	0	0	0
87		10,137		2		2		0	0	0	0
88		10,844		1 1		1		0	0	0	0
89 90		11,602 12,414		0		0		0	0	0	0
91		13,282		0		0		0	0	0	0
92		14,212		0		0		0	0	0	0
93		15,206		0		0		0	0	0	0
94		16,271		0		0		0	0	0	0
95		17,410		0		0		0	0	0	0
96		18,628		0		0		0	0	0	0
97		19,932		0		0		0	0	0	0
98		21,328		0		0		0	0	0	0
99		22,820		0		0		0	0	0	0
100		24,418		0		0		0	0	0	0
101		26,127		0		0		0	0	0	0
102		27,956		0		0		0	0	0	0
									\$ 1,031,643	T 3 U	= \$ 1,031,643



#### APPENDIX E – GLOSSARY OF TERMS

#### 1. Actuarially Determined Contribution

A target or recommended contribution for the reporting period, determined in conformity with Actuarial Standards of Practice based on the most recent measurement available when the contribution for the reporting period was adopted.

#### 2. Actuarial Valuation Date

The date as of which an actuarial valuation is performed. This date may be up to 24 months prior to the measurement date and up to 30 months prior to the employer's reporting date.

#### 3. Entry Age Actuarial Cost Method

The actuarial cost method required for GASB 67 calculations. Under this method, the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the Service Cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future service costs is called the Total Pension Liability.

#### 4. Measurement Date

The date as of which the Total Pension Liability and Plan Fiduciary Net Position are measured. The Total Pension Liability may be projected from the Actuarial Valuation Date to the Measurement Date. The Measurement Date must be the same as the Reporting Date for the plan.

#### 5. Net Pension Liability

The liability of employers and nonemployer contributing entities for employees for benefits provided through a defined benefit pension plan. It is calculated as the Total Pension Liability less the Plan Fiduciary Net Position.

#### 6. Plan Fiduciary Net Position

The fair or market value of assets.

#### 7. Reporting Date

The last day of the plan or employer's fiscal year.



#### APPENDIX E – GLOSSARY OF TERMS

#### 8. Service Cost

The portion of the actuarial present value of projected benefit payments that is attributed to the current period of employee service in conformity with the requirements of GASB 67. The Service Cost is the normal cost calculated under the entry age actuarial cost method.

#### 9. Total Pension Liability

The portion of the actuarial present value of projected benefit payments that is attributed to past periods of employee service in conformity with the requirements of GASB 67. The Total Pension Liability is the actuarial liability calculated under the entry age actuarial cost method. This measurement generally is not appropriate for estimating the cost to settle the Plan's liabilities.

